AOR

Observation / Producers / Plugins

7.2

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033-00005 Area Permit Number: 2R 0330 | AP
Operator Name: Trio Petroleum
Operator's Well #: 1
Farm Name: Cunningham, J.B.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2751
Completion Zones: Fifth Sand Perforated Interval: unknown

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546368 Northing: 4352772.1
Elevation: 408
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☑

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☐ unknown
Cemented across injection zone?		No ☐	Yes ☐ Plugged
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Plugged Property

Reviewer Name: Laura Adkins Signature: Laura Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

AFFIDAVIT IN TRIPLICATE TO TIME AND MANNER OF PLUGGING AND FILLING WELL

(Required by Section 9, Chapter 22, Acts 1929)

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS SECTION

WELL AND LOCATION

District

County

AFFIDAVIT

STATE OF WEST VIRGINIA,

County of

being first duly sworn according to law, do ... and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by ... well operator and participated in the work of plugging and filling the above named well; that said work was commenced on the ... day of ... 19..., and that the well was plugged and filled in the following manner:

Manner in which sand was placed:

Manner in which coal was plugged:

Description of monument:

And that the work of plugging and filling ... was completed on the ... day of ... 19...

And further deponents ... not.

Sworn to and subscribed before me this ... day of ... 19...

Notary Public.

My commission expires ...

FORM G-8

Har 5

AFFIDAVIT IN TRIPLICATE TO TIME AND MANNER OF PLUGGING AND FILLING WELL

(REQUIRED BY SECTION 9, CHAPTER 86, ACTS 1929)

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS SECTION

Chiefton Coal Co.
COAL OPERATOR

Wilsonburg
ADDRESS

West Virginia
COAL OPERATOR

ADDRESS

COAL OPERATOR

ADDRESS

Conservative Gas Co.
NAME OF WELL OPERATOR

292 Goff Bldg. Clarksburg, W. Va.
COMPLETE ADDRESS

August 26, 1930

WELL AND LOCATION

Tenmile District

Harrison County

Well No. 1

Dice Mason et al Farm

AFFIDAVIT TO BE MADE IN TRIPLICATE, ONE COPY TO BE MAILED BY REGISTERED MAIL TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) TO BE MAILED TO EACH COAL OPERATOR ABOVE NAMED AT THEIR RESPECTIVE ADDRESSES.

AFFIDAVIT

STATE OF WEST VIRGINIA,
COUNTY OF Harrison } ss:

C. M. Lynn and G. W. Mason being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Conservative Gas Company, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 8th day of July, 19 30, and that the well was plugged and filled in the following manner: From 2751 ft. to 2715 filled up with clay and placed wood plug at 2715. (6 5/8 plug and cement.) 2715 to 2612 filled up and bridges hole at 2600 ft. Filled with sediment from 2715 to 2570, placed wood plug 6 5/8 at 2570. From 2570 to 2380 filled & 6 5/8 plug repeated. Filled to 1995 ft. (top of upper sand) and wood plug repeated. Filled again to 1712 ft, wood plug repeated. Pulled 6 5/8 in. casing. Filled to 1360 - plug (8 1/4 in) & cement. From 1360 to 1190 filled & 8 1/4 in plug repeated with cement. Filled up to 1093 ft. 8 1/4 plug & cement. Filled up to 875 ft 8 1/4 plug. Pulled 8 1/4 in pipe. Filled up to bottom of 10 in pipe at 438 ft. Shot off 10 in. casing at 361 ft. Ran in tubing, wood plug on end with opening entirely through for ventilation. Poured in cement around wood plug through 10 in. casing. Put in cement at 361 ft. Pulled 10 in. casing & filled hole to top.

Manner in which sand was plugged:

Manner in which coal was plugged:

Description of monument: 2 In. tubing protruding about 3 ft. from ground with 1-2 In. nipple and 2-2 in Ell's.

(THE ABOVE DESCRIPTIONS MUST BE IN DETAIL AND IN ACCORDANCE WITH THE PROVISIONS OF SECTION 10, OIL AND GAS ACT OF 1929.)

and that the work of plugging and filling said well was completed on the 22nd day of August, 19 30.

And further deponents saith not.

C. M. Lynn

G. W. Mason

Sworn to and subscribed before me this 22nd day of August, 19 30

Nancy Harrison
Notary Public.

My Commission expires:
January 25, 1940

AUG 27 1930
WEST VIRGINIA

1601 - 5

Conservation Gas Company
202 Goff Bldg. Address
Clarksburg, W. Va.

COMPLETION DATA SHEET
NO. 2
FORMATION RECORD

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Cable Rubard				778	798			
Big "				920	940			
Gas Sand				966	1078			
First Salt				1123	1185			
Sec. salt				1220	1278			
3rd salt				1302	1360			
Mason				1690	1746			
Pen. Cave				1746	1763			
Big Lime				1763	1825			
" Injun				1825	1905			
Squaw				1995	2095			
Gantz				2175	2210			
Fifty Ft.				2342	2360			
Thirty Ft.				2414	2425			
Stray				2450	2466			
Gordon (show)				2506	2619			gas 2538
Fourth				2643	2657			Oil pay 2607 - 2612
Fifth				2745	2751			

Well was shot / not shot at 2604 - 2611 feet; well was shot at 2745 - 2757 feet.

Salt Fresh water at None feet; salt fresh water at None feet.

Well was producing / hole.

December 28, 1974 Date Approved Conservation Gas Co. Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

13

Hor-5

Conservative Gas Company
202 Goff Bldg. Address
Clarksburg, W. Va.

COMPLETION DATA SHEET
NO. 2
FORMATION RECORD

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Soil	black					8	8	
Bluff	gray					23	31	
red rock	red					9	40	
shale	light					40	80	
sand	"					24	104	
shale	"					60	164	
red rock	red					25	189	
gravel bed	mixed					20	209	
Lime	white					68	277	
slate	blue					35	312	
Lime	gray					10	322	
Coal bloom	dark					2	324	
lime	white					34	358	
shale	dark					17	375	
lime	white					12	387	
shale	"					4	391	
Pgh. Coal	black				399	8	399	

Well was ~~not~~ shot at 2604 – 2611. feet; well was shot at 2745 – ~~2759~~ 2751 feet.

Fresh water at None feet; salt water at None feet.

Well was producing hole.

December 28, 1929 Date Approved Conservative Gas Co. Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

12

Hor-5

Conservative Gas Company
202 Goff Bldg Address
Clarksburg, W. Va.

COMPLETION DATA SHEET
NO. 2
FORMATION RECORD

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Lepth	Remarks
Soil	black					8	8	
Bluff	gray					23	31	
red rock	red					9	40	
shale	light					40	80	
sand	"					24	104	
shale	"					60	164	
red rock	red					25	189	
gravel bed	mixed					20	209	
Lime	white					68	277	
slate	blue					35	312	
Lime	gray					10	322	
Coal bloom	dark					2	324	
lime	white					34	358	
shale	dark					17	375	
lime	white					12	387	
slate	"					4	391	
Pgh. Coal	black				399	8	399	

Well was shot (not shot) at 2604 - 2611 feet; well was shot at 2745 - ~~2759~~ 2751 feet.

Fresh water (salt) at None feet; salt water at None feet.

Well was producing hole.

December 28, 1929 Approved Conservative Gas Co.
Date Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

12

Hor-5

Conservation Gas Company
202 Goff Bldg. Address
Clarksburg, W. Va.

COMPLETION DATA SHEET
NO. 2
FORMATION RECORD

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Little Dunkard				778	798			
Big "				920	940			
Gas Sand				966	1078			
First Salt				1123	1185	1		
Sec. Salt				1220	1278			
3rd Salt				1302	1360			
Mason				1690	1746			
Pen. Cave				1746	1763			
Big Lime				1763	1825			
" Injun				1825	1905			
Squaw				1995	2095			
Gantz				2175	2210			
Fifty Ft.				2342	2360			
Thirty Ft.				2414	2425			
Stray				2450	2466			
Gordon (show)				2506	2619	gas 2538		
Fourth				2643	2657	Oil pay 2607-2612		
Fifth				2745	2751			

Well was shot at 2604-2611 feet; well was shot at 2745-2757 feet.

Salt Fresh water: None feet; salt fresh water at None feet.

Well was ~~prong~~ shot hole.

December 28, 1924 Approved Conservation Gas Co.
Date Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

Conservation Gas Company
20 2 Goff Bldg Address
Clarksburg, W. Va.

COMPLETION DATA SHEET
NO. 2
FORMATION RECORD

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Little Limerock				778	798			
Big "				920	940			
Slate Sand				964	1078			
First Salt				1123	1185			
Sec. Salt				1220	1278			
3rd Salt				1302	1360			
Maxon				1690	1746			
Pen. Cave				1746	1763			
Big Lime				1763	1825			
" Injun				1825	1905			
Squaw				1995	2095			
Gantz				2175	2210			
Fifty Ft.				2342	2360			
Thirty Ft.				2414	2425			
Stray				2450	2466			
Gordon	(show)			2506	2619	gas	2538	
Fourth				2643	2657	Oil pay	2607 - 2612	
Fifth				2745	2751			

Well was not shot at 2604 - 2611 feet, well was shot at 2745 - 2751 feet.

Salt Fresh water at None feet; salt fresh water at None feet.

Well was producing hole.

December 28, 1924 Date Approved Conservation Gas Co. Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

Conservative Gas Company
202 Goff Bldg. Address
Clarksburg, W. Va.

COMPLETION DATA SHEET
NO. 2
FORMATION RECORD

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Soil	black					8	8	
Bluff	gray					23	31	
red rock	red					9	40	
shale	light					40	80	
sand	"					24	104	
shale	"					60	164	
red rock	red					25	189	
gravel bed	mixed					20	209	
Lime	white					68	277	
slate	blue					35	312	
Lime	gray					10	322	
Coal bloom	dark					2	324	
lime	white					34	358	
shale	dark					17	375	
lime	white					12	387	
slate	"					4	391	
Pgh. Coal	black			391		8	399	

Well was shot at 2604-2611 feet, well was not shot at 2745-2751 feet.

Salt Fresh water at None feet; salt fresh water at None feet.

Well was producing hole.

December 28, 1929 Approved Conservative Gas Co.
Date Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

12

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 00012 Area Permit Number: 2R03301 AP
Operator Name: Central Gas Co.
Operator's Well #: 2 / 11059
Farm Name: Corbel Run
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3177
Completion Zones: 4th, 5th, Speechly Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 556813.2 Northing: 4349507
Elevation: 1065
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
No Cement Record

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Record of DELAWARE GAS COMPANY Company

Well No. 2 1059 District

Located on Warren W. Reynolds Et Al Crooked Run Farm

District Coal County Harrison State West Virginia

Location Made — First Work Done —

Rig Commenced — Rig Completed —

Drilling Commenced October 13 1930 Drilling Completed July 7 1931

Rig Contractor — Drilling Contractor —

Drillers J.W.Drummond - G.E.Samples

Tool Dressers Carl Robinson - Harry Scott

FORMATION	Color or Class Hard or Soft	TOP	BOTTOM	Sand Line Measurements	Water Found Depth	Oil Found Depth	Gas Found Depth	REMARKS
Native Coal								Surface Elevation 1065'
Pittsburgh Coal								
Little Dunkard		364	385				366	
Big Dunkard		412	450					
Gas Sand		572	695					
First Salt		757	830		770		760	
Second Salt		835	910		885			
Maxon		1225	1265					
Little Lime		1327	1341					
Pencil Cave		1350	1367					
Big Lime		1367	1433					
Big Injun		1433	1537				1505	4/10 M in ½" Ori.
Squaw								
Berea								
Gantz		1880	1905				1897	(show of gas)
Fifty Feet								
Thirty Feet		1962	2037					
Gordon Stray		2090	2106					
Gordon		2185	2193					
Fourth		2252	2287				2256-68	8/10 M in 1"Ori.
Fifth		2393	2416				2396	16/10 M in 1" Ori.
Bayard								
Speechly		3074	3083				3075	26/10 M in 1" Ori.
Total Depth			3177					

SIZE	Casing in Well Feet	Casing in Well In.	Put in Well Feet	Put in Well In.	Pulled Out Feet	Pulled Out In.	Left in Well Feet	Left in Well In.	Tubing Left in Well Before Completing Feet	Tubing Left in Well Before Completing In.	Tubing Left in Well Not in Use Feet	Tubing Left in Well Not in Use In.
13 in. Csg.												
10 " "	203	8										
8¼" "	912											
6⅝ " "	1387											
5 3/16" "	2277											
Tbg. "												

If more than two strings of casing are left in hole, give reasons for leaving additional strings

8¼"x 10" S.Casing Shoe
6-5/8"x 8¼" S. C. Shoe
5-3/16"x 6-5/8" S.C.Sh

PACKER RECORD

SIZE	KIND	Amount Above Anchor	Amount Below Anchor	REMARKS

SHOOTING RECORD (If shot before or upon completion of well)

DATE	Quarts	Top of Shell	Bottom of Shell	Diameter	Sand	TEST BEFORE SHOT Reading	TEST BEFORE SHOT Liquid	TEST BEFORE SHOT Opening	TEST AFTER SHOT Reading	TEST AFTER SHOT Liquid	TEST AFTER SHOT Opening	Test Taken After Shot No. Hours	By Whom Shot

CEMENTING RECORD

Date Cemented — Size Hole Cemented — Size Casing Cemented

Top Pittsburgh Coal — Top Cementing — Amount Cement Used

Bottom Pittsburgh Coal — Bottom Cementing — Amount Sand Used

Mr. — of — Coal Company on ground when coal was cemented

Remarks: — Signature of persons who cemented well

The final test of 26/10 mercury in 1" orifice was made of the fourth, fifth and speechly gas all together in the 5-3/16" casing.

To date 12-23,37 Approved by C.C.Davisson Foreman

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 00763 Area Permit Number: 2R03301 AP
Operator Name: General Gas
Operator's Well #: 11630
Farm Name: B. Wilson
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4797' Perforated Interval: 4607-4615, 3490-3512, 2576-2586, 2165-2252
Completion Zones: Benson & Balltown & 5th & 50'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541268.8 Northing: 4350731.8
Elevation: 1158
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion — No ☑ Yes ☐
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☑
Cemented across injection zone? — No ☑ Yes ☐
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature: _____
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

RECEIVED
APR 30 1974
OIL & GAS DIVISION
DEPT. OF MINES

39-30 (D) 7-23

Clarksburg-W

Quadrangle (WOLF SUMMIT - 7½)

Permit No. HAR-763

Rotary XX Oil ____
Cable ____ Gas XX (Coal)
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ ____ (Kind)

Company Consolidated Gas Supply Corporation
Address Clarksburg, W. Va.
Farm Benjamin Wilson Acres 505
Location (waters) New Ck/10 Mile ck/West Fork
Well No. 11630 Elev. 1158'
District Ten Mile County Harrison
The surface of tract is owned in fee by
Address
Mineral rights are owned by
Address
Drilling Commenced 11-26-73
Drilling Completed 12-7-73
Initial open flow Show cu. ft. 20 bbls.
Final production 179 M cu. ft. per day 20 bbls.
Well open 14 days hrs. before test 1180# RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size XXXX-16" Cond.	20'	20'	To surface
XXXX-11"	419'	419'	To surface
9 5/8			
8 5/8	2001'	2001'	100 bags
7			
5 1/2			
4 1/2	4708'	4708'	335 bags
3			
2			
Liners Used			

Well treatment details: Attach copy of cementing record.

Well fractured in Benson with 795 bbl water, 50,000# sand and 500 gal acid
Perforations: 4607-4615' 24 holes

Well fractured in Balltown with 896 bbl water, 58,000# sand and 500 gal acid
Perforations: 3490-3512' with 20 holes

Coal was encountered at 223' & 1100' Feet 60" & 36" Inches
Fresh water 105' Feet ____ Salt Water None Feet ____
Producing Sand Benson & Balltown Depth See perfs

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand & Shale			0	223	Water 105'	Fresh
Coal			223	228		
Sand & Shale			228	1100		
Coal			1100	1103		
Sand & Shale			1103	2200		
Big Lime			2200	2250		
Big Injun			2250	2380		
Sand & Shale			2380	2960		
Gordon			2960	2980		
Sand & Shale			2980	3455		
Balltown			3455'	3585	Gas 3490-3512'	20 bbl oil per day
Shale			3585	4604		
Benson			4604	4616	Gas 4607-4615'	
Total Depth				4797'		

Consolidated Gas Supply Corporation
445 West Main Street
Clarksburg, W. Va.

K.B. Measurement 11' above G.L.

(over)

* Indicates Electric Log tops in the remarks section.

WR-35
Rev (5-01)

DATE: 06/29/2004
API # : 47 033 00763F

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Dixon, Charles & Mary Operator Well No.: DTI 11630

LOCATION: Elevation: 1,157' Quadrangle: Wolf Summit 7.5'

District: Tenmile County: Harrison
Latitude: 10,460 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 9,955 Feet West of 80 Deg. 25 Min. 00 Sec.

Company: Dominion Transmission, Inc

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 445 W Main Street				
Clarksburg, WV 26301				
Agent: James D. Blasingame				
Inspector: Tim Bennett				
Date Permit Issued: 03/17/2004				
Date Well Work Commenced				
Date Well Work Completed: 05/13/2004				
Verbal Plugging: N/A		See	Previous	WR-35 for
Date Permission granted on: N/A		existing	Casing prog.	
Rotary X Cable Rig				
Total Depth (feet):				
Fresh Water Depth (ft.): N/A				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? N				
Coal Depths ft.): N/A				

RECEIVED
Office of Oil & Gas
JUL 12 2004
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation 5th Sand Pay zone depth (ft) 2576-2586'
Gas: Initial open flow - MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 421 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure 40 psig (surface pressure) after 12 Hours

***Commingled with previous formations**

Second producing formation 50 Foot Pay zone depth (ft) 2165-2252'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: James D. Blasingame
By: James D. Blasingame
Date:

05/13/2004 WELL # DTI 11630 PERFED AND FRACED AS FOLLOWS:
5TH SAND, 2576 - 2586', 20 HOLES, BD 2250#, AVG RATE 20 BPM, AVG PRESS 1205#, 258 BBLS,
TOT SAND 15,000#, ISIP 1420#
50', 2165 - 2252', 20 HOLES, BD 2100#, AVG RATE 18 BPM, AVG PRES 2597#, 271 BBLS,
TOT SAND 12,000#, ISIP 2240#

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 00978 Area Permit Number: 2R03301 AP
Operator Name: Dominion Transmission
Operator's Well #: 32
Farm Name: George Albright et al.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 3109
Completion Zones: Fifth Sand & Gordon Sand Perforated Interval: ?

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541304.6 Northing: 4346179.2
Elevation: 2373'
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?	?	No ☐	Yes ☐
Cemented across injection zone?	?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒ ?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Vent for mine flush

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 8/31/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

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OIL & GAS DIVISION
DEPT. OF MINES

Rotary____ Oil____
Cable xxx Gas xx
Recycling____ Comb.____
Water Flood____ Storage____
Disposal____ ____ (Kind)

Quadrangle CENTERPOINT

Permit No. - - Rev-978

Company Consolidated Gas Supply Corporation
Address 445 West Main Street, Clarksburg, WV
Farm George W. Albright Acres 51
Location (waters) Licking Run
Well No. 32 Elev. 1373'
District Ten Mile County Harrison
The surface of tract is owned in fee by
Address
Mineral rights are owned by
Address
Drilling Commenced 7-01-01
Drilling Completed 8-22-01
Initial open flow Exhausted cu. ft. ____ bbls.
Final production do cu. ft. per day ____ bbls.
Well open ____ hrs. before test ____ RP.
Well treatment details:
Not treated - Recondition only

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10"	263	263	
9 5/8			
8 5/8	1325	1325	
7	2202	2202	
5 1/2	2238	2238	
4 1/2			
3	3118	3118	
2			
Liners Used			

Attach copy of cementing record.

Coal was encountered at 790' Feet 72" Inches
Fresh water N. R. Feet ____ Salt Water N. R. Feet ____
Producing Sand Gas exhausted (Gord. & 5th) Depth ____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Pittsburgh Coal			790	796		
Dunkard Sand			1310	1335		
Salt Sand			1652	1712		
Maxton Sand			1990	2044		
Injun			2196	2275		
50' Sand			2664	2680		
Stray Sand			2752	2808		
Gordon Sand			2820	2861	Gas	Gordon
Fifth Sand			3083	3088	Gas	5th
Total Depth				3109'		

Consolidated Gas Supply Corporation
445 West Main Street
Clarksburg, W. Va.

(over)

* Indicates Electric Log tops in the remarks section.

RECEIVED

DEC 21 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

M.E.D.

FORM OG-8

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

No Operations
COAL OPERATOR OR OWNER

ADDRESS

No Declaration
COAL OPERATOR OR OWNER

ADDRESS

George W. Albright et al
LEASE OR PROPERTY OWNER

815 E. Wilkinson St., Orlando, Fla.
ADDRESS

Consolidated Gas Supply Corp.
NAME OF WELL OPERATOR

445 W. Main St., Clarksburg, WV
COMPLETE ADDRESS

19
WELL AND LOCATION

Ten Mile District

Harrison County

Well No. 32

George W. Albright Farm

STATE INSPECTOR SUPERVISING PLUGGING Stephen Casey, Rt. 2, Box 232-D, Jane Lew, WV

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Frank Carson and John B. Davis being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Consolidated Gas Supply Corp., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 21st day of September, 1982, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING	
FORMATION		SIZE & KIND	CSG PULLED	CSG LEFT IN
	2184' to 2084' Cement		25'-3-1/2" tubing	
	2084' to 831' 6% Gel		2240'-5" csg.	18'-5"csg. Abd.
	Cut and Plugged 795' of 6-5/8" casing.		790'-7" csg.	1412'-7"csg. Abd.
	Used-831 feet of 2" tubing (junk) for vent due to coal mines.			1325'8"csg Abd.
	831' to 631' Cement		8'-10" csg.	255'-10" csg.Abd.
	631' to 333' 6% Gel			831'-2" Tubing for vent.
	333' to surface Cement			

COAL SEAMS	DESCRIPTION OF MONUMENT
(NAME)	Monument set and marked.
(NAME)	
(NAME)	
(NAME)	

and that the work of plugging and filling said well was completed on the 21st day of September, 1982

And further deponents saith not.

F. Carson
J. B. Davis

Sworn to and subscribed before me this 18th day of October, 1982

Frances J. Whitehead
Notary Public

My commission expires:
02/18/89

Permit No. 47-033-0978-R-P

HARR-0978 P-P

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01098
Area Permit Number: 2R03301 AP
Operator Name: Benson Oil & Gas Corp
Operator's Well #: #1 (K-29)
Farm Name: John Fuchar
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4902
Completion Zones: Benson
Perforated Interval: 4798-4810'

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☒
Easting: 542765.3
Northing: 4346079
Elevation: 1149
Inside Field Boundary? ☒
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:	No ☒	Yes ☐
Date of Last MIT: N/A Passed?	No ☐	Yes ☐
Open Hole Completion	No ☒	Yes ☐
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☒	Yes ☐
Cemented across injection zone?	No ☐	Yes ☒
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 9 / 14 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. 7-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

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OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Quadrangle CENTERPOINT

Permit No. HAR-1098
47-033

Company DALE ADKINS
Address P.O. BX. 5557, HTGN., W.VA.
Farm O.M. MYERS Acres ____
Location (waters) LICK RUN
Well No. #1 (K-29) Elev. 1149
District TENMILE County HARRISON
The surface of tract is owned in fee by O.M. MYERS
Address WOLF SUMMIT, W. VA.
Mineral rights are owned by JOHN FURNOR HEIRS Address CLARKSBURG, W.VA.
Drilling Commenced 7/20/77
Drilling Completed 7/29/77
Initial open flow 80 MCF cu. ft. ____ bbls.
Final production 200MCF cu. ft. per day ____ bbls.
Well open ____ hrs. before test ____ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	850	850	250 sks.
7			
5 1/2			
4 1/2	4885	4885	400 sks.
3			
2			
Liners Used			

Well treatment details:
Attach copy of cementing record.

HOWCO FRACTURED 8/20/77 OBJECTIVE: BENSON 4798-4810 42 holes
BRKDN:2300 AVERAGE: 2900 AVERAGE BPM: 42.2
1205 BARRELS SANDLADEN FLUID 63,000# 20/40 SAND

Coal was encountered at ____ Feet ____ Inches
Fresh water ____ Feet ____ Salt Water ____ Feet ____
Producing Sand BENSON Depth 4798-4810

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
SURFACE			0	10		
SAND AND SHALE			10	65	WATER AT 40'	
SAND			65	200		
COAL			200	205		
SAND AND SHALE			205	220		
RED ROCK			220	240		
SAND AND SHALE			240	465		
COAL			465	475		
SAND AND SHALE			475	535		
COAL			535	540		
SAND AND SHALE			540	1855		
BIG LIME			1855	2000		
INJUN			2000	2010		
SAND AND SHALE			2010	2285		
SAND AND SHALE			2285	4185		
SAND (SPEECHLEY)			4185	4230		
SHALE			4230	4530		
SAND (BENSON SECTION)			4530	4545		
SHALE			4545	4690		
SAND (BENSON SECTION)			4690	4700		
SHALE			4700	4798		
SAND (BENSON SECTION)			4798	4810	GAS SHOW	

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
SHALE			4810	4902		T.D. 4902

CEMENT RECORD:

8 5/8 — 125 sks. St. Buld
125 sks. Poz A

4½ — 400 sks. 50/50 Poz

Date 9/30, 19 11

APPROVED J. M. Dee Cobb, Owner

By _____

(Title)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01156 Area Permit Number: 2R03301 AP
Operator Name: XTO Energy
Operator's Well #: 2
Farm Name: Ernest Duncan
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4665
Completion Zones: Speechley Balltown Perforated Interval: 3517-3577 3326-3322

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546666 Northing: 4350505
Elevation: 1164
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

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OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Quadrangle Wolf Summit 7 1/2
Permit No. HAR-1156

Company Doran & Associates, Inc.
Address 733 Washington Rd., Pgh., PA 15228
Farm Ernest Duncan Acres 81.5
Location (waters) New Creek Right Prong
Well No. 2 Elev. 1164'
District Ten Mile County Harrison
The surface of tract is owned in fee by
Sam Alaquat
Address 455 Rosebud Avenue, Clarksburg
Mineral rights are owned by E. R. Duncan, et al
Address 103 Migs Avenue, Clarksburg
Drilling Commenced 12-14-77
Drilling Completed 12-20-77
Initial open flow Not taken cu. ft. ____ bbls
Final production 211 cu. ft. per day 5 bbls
Well open 8 hrs. before test 1100# RP
Well treatment details:
Perforation Record:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
~~13-10"~~ 11 3/4	20'	20'	
9 5/8			
8 5/8	1197'	1197'	300 sks.
7			
5 1/2			
4 1/2	3845'	3845'	230 sks.
3			
~~2~~ 1 1/2"	3535'	3535'	
Liners Used			

Attach copy of cementing record.

Date	Interval Perforated:	From	To	Amt. Fluid	Amt. Sand	Avg. Rate
1-3-78		3517	3577	755 BBLS.	40,000#	36.0 BPM
1-3-78		3326	3322	525 BBLS.	26,000#	36.8 BPM

Coal was encountered at 298-302 Feet ____ Inches
Fresh water 185 Feet ____ Salt Water None Feet ____
Producing Sand Speechley, Balltown Depth 3517-3577, 3326-3332

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Clay			0	5		From Drillers' Log
Sand & Shale			5	75		"
White Sand			75	150	damp @ 125	"
Shale			150	183		"
Sand			183	200	1 1/2" Stream @ 185	"
Shale			200	275		"
Sand & Shale			275	298		"
Coal			298	302		"
Sand & Shale			302	315		"
Sand			315	345		"
Sandy Shale			345	385		"
Red Rock & Shale			385	470		"
Sandy Shale			470	490		"
Red Rock & Shale			490	510		"
Sandy Shale			510	667		"
Sand			667	745		"
Sand & Shale			745	785		"
Sand			785	870		"
Sand & Shale			870	900		"
White Sand			900	950		"
Sand & Shale			950	995		"

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand			995	1145		From Drillers' Log
Sand & Shale			1145	1208		"
Sand			1208	1235		"
Sand & Shale			1235	1670		"
Big Lime			1670	1785		"
Sand			1785	1830		"
Sand & Shale			1830	1915		"
Sand			1915	1955		"
Sand & Shale			1955	3090		"
Sand			3090	3115		"
Shale			3115	3525		"
Sand			3525	3695	gas @ 3627	"
Sand & Shale			3695	4510	gas @ 4175, 4430	"
Benson			4510	4530		"
Sand & Shale			4530	4652	gas @ 4588	"
Drillers' T. D.			4652			
Big Injun			1745	1810		Service Co. Log
Gantz			2180	2195		"
50 Ft.			2244	2260		"
30 Ft.			2320	2336		"
Gordon Stray			2360	2390		"
Gordon			2442	2510		"
4th Sd.			2544	2552		"
Warren			3014	3053		"
Speechley			3220	3354	gas @ 3535	"
Balltown			3534	3598		"
Benson			4520	4529		"
Loggers' T. D.			4665			

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks

Date February 21, 19 78

APPROVED Thomas Flaherty, III, Owner.

By Thomas Flaherty, III, Geologist

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01211 Area Permit Number: 2R03301 AP
Operator Name: Petroleum Service Partners
Operator's Well #: 4, KH-010
Farm Name: 55 Strother #4
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4870
Completion Zones: Balltown & Benson Perforated Interval: ~4700-4750' ~3550-3620' no specific intervals were listed

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547458 Northing: 4351377.3
Elevation: 1199
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 7

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OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ ____ (Kind)

Quadrangle Clarksburg SW 32

Permit No. HAR-1211

Company Doran & Associates, Inc.
Address 728 Washington Rd., Pittsburgh, PA 15228
Farm J. J. Strother #4 Acres 108
Location (waters) Katy Lick Run
Well No. K-H-10 Elev. 1199'
District Ten Mile County Harrison
The surface of tract is owned in fee by
Irene A. Snider, Et al
Address Box 73, Wilsonburg, WVA 26461
Mineral rights are owned by Same As Above
____ Address ____
Drilling Commenced 4/13/78
Drilling Completed 4/22/78
Initial open flow 168 M cu. ft. ____ bbls.
Final production 720 M cu. ft. per day 1 bbls.
Well open four (4) hrs. before test 1360# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10" 11 3/4	384'	384'	175
9 5/8			
8 5/8	1211'	1211'	435
7			
5 1/2			
4 1/2	4804'	4804'	335
3			
2			
Liners Used			

Attach copy of cementing record.

5/12/78 Fractured the Balltown & Benson Sands using 100,000# sand.

Coal was encountered at 10, 305, 430 Feet ____ Inches
Fresh water 310 Feet ____ Salt Water ____ Feet ____
Producing Sand Balltown, Benson Depth 3550, 4700

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Substructure			0	10		
Coal			10	12		
Sandy Shale			12	40		
Red Rock			40	50		
Sandy Shale			50	135		
Sand			135	170		
Sandy Shale			170	305		
Coal			305	308		
Sand			308	370	F.W. @ 310'	
Sandy Shale			370	430		
Coal			430	435		
Sandy Shale & Red Rock			435	730		
Shale			730	760		
Sand			760	850		
Sandy Shale			850	900		
Sand			900	925		
Sandy Shale			925	1030		
Sand			1030	1120		
Sandy Shale			1120	1240		
Sand			1240	1450		
Sandy Shale			1450	1550		
Sand			1550	1650		
Lime (Little)			1650	1660		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Shale			1660	1675		
Lime (Big)			1675	1820		
Sandy Shale			1820	1930		
Sand			1930	2020		
Sandy Shale			2020	2060		
Sand			2060	2100	Gas @ 2070'	
Sandy Shale			2100	2415		
Sand			2415	2565		
Sandy Shale			2565	3000		
Sand			3000	3095		
Sandy Shale			3095	4270	Gas @ 4150'	
Sand			4270	4300		
Sandy Shale			4300	4725	Gas @ 4500', 4704'	
Benson Sand			4725	4740		
Sandy Shale			4740	4827	Gas @ 4827'	
Driller's T.D				4827		
*Big Lime			1660	1760		
*Big Injun			1770	1820		
*Gantz Sand			2190	2200		
* 50' Sand			2260	2270		
* 30' Sand			2340	2354		
* Stray Sand			2400	2410		
* Gordon Sand			2460	[illegible]		
*4th Sand			2500	[illegible]		
*5th Sand			2674	2700		
*Warren Sand			3050	3076		
*Speechley Sand			3240	3290		
*Balltown Sand			3550	3620		
* Benson Sand			4700	4750		
* Logger's T.D.				4820		

Date November 2nd 19 78

APPROVED Donald R. Laughlin Owner

By Donald R. Laughlin, Manager - Prod. & Eng.
(Title)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- ~~Harr~~ 1231 Area Permit Number: 2R 3301 AP
Operator Name: Consol
Operator's Well #: 12469
Farm Name: A6 SWIGER
Field Name: ~~[illegible]~~ Wolf Summit Field Injection Zone: 5th

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 3400
Completion Zones: Balltown Perforated Interval: 3200-3280

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 551664 Northing: 4358090.5
Elevation: 1166
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Gene Smith Signature: Gene Smith
Date Reviewed: 8/24/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Date Drilled 1-29-01
Lease Number 23871
Last Well 740
Book Number 7
Page Number 46
Map Squares D 10 E9

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE. ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

No Coal operator. — COAL OPERATOR OR OWNER
A. M. Snider — NAME OF WELL OPERATOR
12-11-47
Hundred, W. Va. — COMPLETE ADDRESS
ADDRESS
COAL OPERATOR OR OWNER
ADDRESS
LEASE OR PROPERTY OWNER
ADDRESS

August 16 19 48 — WELL AND LOCATION
Ten Mile District
Harrison County
Well No. 3
John Flaherty Farm

RECEIVED Oil & Gas Division MAY 15 1996 WV Division of Environmental Protection

STATE INSPECTOR SUPERVISING PLUGGING Inspector Desist was present.

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison } ss:

Fred Finch and Lester Clark being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by A. M. Snider, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 16th day of August, 19 48, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL			PLUGS USED	CASING	
FORMATION	CONTENT	FROM	TO	SIZE & KIND	CSG PULLED	CSG LEFT IN
Set a plug in top of liner - Permanent bridge		Approx. 2542'	2090			
	Cement	2090	2080			
	Stone	2080	2075			
	Clay	2075	1950			
	Cement	1950	1940			
	Stone	1940	1935			
Big Lime	Clay	1935	1885			
	Cement	1885	1875			
Permanent bridge		1550	1550			
	Cement	1550	1540			
	Stone	1540	1535			
	Clay	1535	1300			
	Cement	1300	1290			
	Stone	1290	1285			
Permanent bridge		1110	1110			
	Cement	1110	1100			
	Stone	1100	1095			
Little Dunkard	Clay	1095	1000			
	Cement	1000	990			
	Stone	990	985			

COAL SEAMS			
(NAME)			
(NAME)			
(NAME) Pittsburgh	Cement (Coal)	583	525
(NAME)			

DESCRIPTION OF MONUMENT

Cement-Size 33x33x10" thick with a cement post in center of 6-5/8" pipe, extended above cement base 2' with inscription A. M. SNIDER August, 1948.

and that the work of plugging and filling said well was completed on the 24th day of August, 19 48.

And further deponents saith not.

Fred Finch
Lester Clark

Sworn to and subscribed before me this 29th day of September, 19 48.

Notary Public.

My commission expires:
February 4, 19 54.

Permit No. HAR-1231

JARRETT PRINTING COMPANY, CHARLESTON, W. VA.

OVER

Left in

Permanent Bridge 585 8-5/8" 1340'

Clay 525 to the surface.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- ~~039~~ 01233 - P Area Permit Number: 2R 03301 AP
Operator Name: PDC
Operator's Well #: 2
Farm Name: M Reed
Field Name: ~~Wetzel~~ Volt Summit Field Injection Zone: 5th Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 4574
Completion Zones: _____ Perforated Interval: _____

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 568011.8 Northing: 4341167.2
Elevation: 1215
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

OK

Reviewer Name: Gene Smith Signature: Gene Smith
Date Reviewed: 8/24/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

HAR1233

Obelisnok

Date Drilled 10-[illegible]-1900
Lease Number 3595
Last Well 7/6
Book Number 2
Page Number 83
Map Squares A10 89

FORM OG-6

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

~~No Coal Operator~~ (COAL OPERATOR OR OWNER)
(ADDRESS)

(COAL OPERATOR OR OWNER)
(ADDRESS)

(LEASE OR PROPERTY OWNER)
(ADDRESS)

A. M. Snider (NAME OF WELL OPERATOR) Assigned 12/16/49
Hundred, W. Va. (COMPLETE ADDRESS)

August 16 19 48

WELL AND LOCATION

Ten Mile District
Harrison County
Well No. 3
D. B. Haggerty Farm

STATE INSPECTOR SUPERVISING PLUGGING D. F. Desist

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison } ss:

Fred Finch and Lester Clark being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by A. M. Snidar, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 14th day of August, 19 48 and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD		FILLING MATERIAL		PLUGS USED	CASING	
FORMATION	CONTENT	FROM	TO	SIZE & KIND	CSG PULLED	CSG LEFT IN
Drove plug in top of liner - 2472', & permanent bridge on top.						
Permanent bridge			2000			
	Cement	2000	1990			
	Stone	1990	1985			
Big Lime	Clay	1985	1870			
	Cement	1870	1860			
	Stone	1860	1855			
Permanent bridge			1550			
	Cement	1550	1540			
	Stone	1540	1535			
Salt Sand	Clay	1535	1350			
	Cement	1350	1340			
	Stone	1340	1335			
Permanent bridge			1105			
	Cement	1105	1095			
	Stone	1095	1090			
Dunkard Sand	Clay	1090	1000			
COAL SEAMS	Cement	1000	990	DESCRIPTION OF MONUMENT		
(NAME)	Stone	990	985	Cement-Size 33x33x10" thick with		
(NAME)	OVER			cement post in center of 6-5/8"		
(NAME) Pittsburgh	Cement over	565	510	pipe, extended above cement base		
(NAME)				3' with inscription A. M. SNIDER August, 1948.		

and that the work of plugging and filling said well was completed on the 26th day of August, 19 48

And further deponents saith not.

Fred Finch
Lester Clark

Sworn to and subscribed before me this 29th day of September 19 48.

[signature]
Notary Public.

My commission expires:
February 4, 1954.

Permit No. HAR-1233

JEZEBETT PRINTING COMPANY, CHARLESTON, W. VA.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01279 Area Permit Number: 2R03301 AP
Operator Name: Consol Gas Company
Operator's Well #: 1076
Farm Name: B. Wilson
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2480
Completion Zones: Gordon Stray Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541659.6 Northing: 4349746.2
Elevation: 1310
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☑ Yes ☐
Well perforated in injection zone? No ☑ Yes ☐
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

H 124

WELL RECORD.

Bru. Nilson Farm 505 Acres

Fan Hills District Harrison County W. Va. State

Well No. 1076

Rig Commenced June 30 1908

Rig Completed July 14 1908

Drilling Commenced July 27 1908

Drilling Completed Sept 11 1908

Contractor.

P. & A. Co.

Contractor.

ROCK FORMATION.	TOP	BOTTOM.
Conductor	16	
Coal	390	394
Coal Measures	880	884
Big Do	920	990
Gas Sand	1150	1205
2nd Gas Sand	1240	1260
1st Salt Sand	1440	1495
Maxon "	1735	1745
Little Lime	1765	1780
Pencil Cave	1780	1800
Big Lime	1800	1878
" Injun Sand	1878	1940
Squaw Sand	1990	2120
Shale "	2140	2150
Berea "	2190	2205
Fifty Foot "	2240	2269
[illegible]	2415	2435
Gordon Stray "	2455	2476
Gas	2460	
Total Depth	2480	

Mic Maxon was 5 3/16" from Stray Sand

1990
2120
2140

CASING RECORD.

	Charged to Well.		Put in Well.		Pulled Out.		Left in Well.		Transferred before Completion.		Left in Well, Not in Use.	
Size.	Feet.	In.	Feet.	In.	Feet.	In.	Feet.	In.	Feet.	In.	Feet.	In.
16	505		400				400		22		84	
8 1/4	1507		920		300		620		871			
6 5/8	2138		2000				2000		106			
8 5/16	2625		2455				2455				175	

Approved by

Production First 24 hours

Supt.

Form. Sum of Three left hand columns equals First of "Charged to Well."
Use as many sheets as necessary to make a complete record.
In making out this record please use copying ink or an indelible pencil.

033-1279

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01405 Area Permit Number: 2R03301 AP
Operator Name: Big Sandy Drilling
Operator's Well #: 1
Farm Name: Shalong, Sehu
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☒ Plugged ☐
TD of well: 2539
Completion Zones: Gordon / 50 ft Perforated Interval: ?

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543964.4 Northing: 4350986.3
Elevation: 1060
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☑	Yes ☐
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9 / 13 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

1405

Well No. 1 John Shahan Farm.
Lease No. Tidquile District Harrison County.
Rig built by Geo Rossy Co
Well drilled by Carnahan & Ice Contractor.
Began drilling June 15 1906 Completed July 24 1906

ROCK FORMATION.	TOP.	BOTTOM.	REMARKS.
Conductor	0	16	
Ogh Coal	430	440	
Big Dunkard	910	940	
Gas Sand "	1210	1259	
Salt "	1305	1345	
Mason "	1620	1730	
Big Lime	1738	1830	
" Injun	1830	1900	
Squaw	1970	2100	
50 foot	2350	2370	Little Gas
30 "	2430	2455	
Gordon Sand	2509		
Oil	2531		
Gordon "		2537	
Total depth		2539	

ABANDONED SEP 23 1914

CASING RECORD.

	CHARGED TO WELL.		PUT IN WELL.		PULLED OUT.		LEFT IN WELL.		Transferred before Completion.		Left at Well Not in Use.	
Size.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.
10			260		260							
8¼			950		406							
6⅝			1990		982							
3½					2024							

Production First 24 Hours } 5 Bbls. Signed H. L. Bliss Supt.

47-033-1405

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01426 Area Permit Number: 2R03301 AP
Operator Name: Ross & Wharton Gas Co.
Operator's Well #: L1942
Farm Name: J. Barnett
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3036
Completion Zones: 4th & 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541833.4 Northing: 4345529.1
Elevation: 1355
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')? NA		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 8/31/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Form 116

Record of Hope Natural Gas Company

Well No. 4942 District Union

Located on Lease No. 8814 - 70 acres Tract Barrett Farm Geo

District Elk Hill County Harrison State W. Va.

Location Made 7-2-17 First Work Done 7-9-17

Rig Commenced 8-2-17 Rig Completed 8-10-17

Drilling Commenced 11-16-17 Drilling Completed 4-5-18

Rig Contractor Hope Nat. Gas Co. Drilling Contractor Williams Bros Reynolds & Bros

Drillers Sam Stanton Chas Reynolds

Tool Dresser Earl Smith Chas O'Neil

FORMATION	TOP	BOTTOM	Steel Line Measurements	Water Found Depth	Oil Found Depth	Gas Found Depth	REMARKS
Native Coal	438	444	347				
Pittsburg Coal	—	—	976				Top Pittsburg Coal Limestone Rock
Little Dunkard	1187	1195					
Big Dunkard	1270	1310					
Gas Sand	1323	1340					
First Salt	1440	1500					
Second Salt	1860	1910	—				
Maxon	1938	1982					
Little Lime	1990	1997				1996	Small Show Gas - Showed No Test
Pencil Cave	1997	2008					
Big Lime	2008	2095	2015				
Big Injun	2095	2203		2192-2195			Core Bailer Salt Water Just Above
Squaw	2271	2291					
Berea	2291	2366	—	2336			Record does not show salt water
Gantz	2475	2505					
Fifty Foot	2603	2630					
Thirty Foot	2672	2732	2710			2710-2713	3/10 Water 1" Opening
Gordon Stray	2738	2769	2718				
Gordon	2774	2812	2784			2784-2778	3 4/10 Water 2" Opening
Fourth	2822	2855	2794			2838	9/10 Water 2" Opening from Gordon & Fourth
Fifth	2987	2990	2838				
Bayard							
Total Depth		3036	3036				

SIZE	Charged to Well Feet	In.	Put in Well Feet	In.	Pulled Out Feet	In.	Left in Well Feet	In.	Abandoned Before Completing Feet	In.	Left in Well Not in Use Feet	In.	If more than two strings of casing are left in hole, give reasons for leaving additional strings
13" Cag	—	—	—	—	—	—	—	—	—	—	—	—	Tried to Pull 8 1/4"
10" "	388	10	347	—	—	—	347	—	—	—	41	10	10" Casing cut & Pulled
8 1/4" "	1067	7	985	10	—	—	985	10	65	5	36	4	not Pulled either String
6 5/8" "	2344	2	2032	5	—	—	2032	5	205	8	6	1	
5 3/16" "	2877	2	2785	8	—	—	2785	8	—	—	91	6	
Tbg. "													

PACKER RECORD

SIZE	KIND	Amount Anchor	Amount Above Anchor	REMARKS
1-10"	Well Drillers Steel Co.			10" Casing Set at 347 & Left
1-8 1/4"	" "	"	6	8 1/4" " " at 976 & Left
1-6 5/8"	" "	"	"	6 5/8" " " at 2015 & Left
1-5 3/16"	" "	"	"	5 3/16" " " at 2744 & Left

SHOOTING RECORD (If shot before or upon completion of well)

DATE	Quality	Top of Shot	Bottom of Shot	Dynamite	Feet	Test Before Shot: Reading	Liquid	Opening	Test After Shot: Reading	Liquid	Opening	Test Taken After Shot Hrs. Mins.	Other Shots
4/6/18	Well To 65	1st	To-day	Fill	Well	Record	4th	Hard	Record	Cut			

CEMENTING RECORD

Date Cemented ..... Size Hole Cemented ..... Size Casing Cemented .....

Top Pittsburg Coal ..... Top Cementing ..... Amount Cement Used .....

Bottom Pittsburg Coal ..... Bottom Cementing ..... Amount Sand Used .....

Air ..... Coal Company on ground when coal was cemented

Remarks: Well Cemented ..... Signature of persons who cemented well

.....

.....

MAY 1 1918 A. J. D.

Issued APR 29 1918 H.H.S. Approved by ..... Foreman

D. D. Div

Hope Natural Gas Company

Well No. 4942 Joseph E. Barnett Farm January 83, 1925

District Salem Commenced December 8, 1922

N S 14 E 6 W REPAIRS Completed January 9, 1923

CASING AND TUBING RECORD

Size	Before Repairs	Pulled	Put in Well	After Repairs	Disposition of Amount Pulled
10"	347-0/12	None	None	347-0/12	
8¼"	985-10/12	None	None	985-10/12	(3" Tubing used for jacket on
5¼"	2785-8/12	None	None	2785-8/12	2" tubing through shot hole)
3" Tbg.	256-1/12	256-1/12	126-8/12	126-8/12	Re-run and brought to Salem Stock
2" Tbg.	3043-5/12	3043-5/12	2887-6/12	2887-6/12	Do Do

SHOOTING RECORD

Date	Quarts	Top of Shell	Bottom of Shell	Diameter	Sand	TEST BEFORE SHOT Reading	Liquid	Opening	TEST AFTER SHOT Reading	Liquid	Opening	Test Taken After Shot No. Hours	By Whom Shot
12-22-22	20	2834	2844	3½"	Fourth	8/10	W	2"	16/10	W	2"	96	Mariotta Torpedo Company

RECORD OF ANY DEEPER DRILLING

Formation	Top	Bottom
Pgh. Coal	438	
Commenced drilling at depth of		
Hole filled up from original total depth of 3035 to 2888		
Present Total Depth		2888

Names of Drillers — Time (Days)

Thos. P. Sturm — 28

Names of Tool Dressers — Time (Days)

Thomas A. Stutler — 29

PACKER RECORD
(ALSO NOTE BELOW IF ANY PACKERS ARE PULLED)

Size	Kind	Anchor	Amount Above Anchor
5¼x2"	Anchor Packer	2"-111 ft. 3"-126-8/12	2775-5/

OIL AND GAS DISCOVERIES IN DEEPER DRILLING

Oil at Not drilled deeper Sand

Gas at Ft. in Sand

VOLUME AND PRESSURE REPORT

BEFORE REPAIRS

Reading	Liquid	Opening	Rock or Minute Pressure	Sands Gas From
0/10	Water	1/2"	30#	Gordon & Fourth

AFTER REPAIRS

VOLUME TEST

Date of Test	Opening	PITOT TUBE Reading	PITOT TUBE Liquid Used	OPEN FLOW Lbs.	Sands Gas From	Tested by
Jan. 6, 1923	Casing					
Time Blown	2" Tubing	18/10	Water	201.600	Gordon & Fourth	Sturm

PRESSURE TEST

Date of Test	Opening	1 Min.	2 Min.	3 Min.	4 Min.	5 Min.	6 Min.	7 Min.	8 Min.	9 Min.	10 Min.	30 Min.	60 Min.	Hrs.
1-5-23	Casing													
Time Blown	2-Tubing	20	30	40	50	60	70	80	85	90	100	145	160	24

Oil: From Sand Moved in drilling machine, cleaned out to bottom,

Estimated Production None Bbl. per Day filled up lower hole solid from 3036 to 2888 ft.

Remarks: and shot Fourth Sand Gas. Cleaned out thoroughly after shot and retubed with 2" tubing, using 3" anchor for jacket as above noted.

FOREMAN

API -033-1426

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033-01482 Area Permit Number: 2R 03301 AP
Operator Name: CNG
Operator's Well #: 7507
Farm Name: Fisher, Daniel & Cathy
Field Name: ~~[illegible]~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well:
Completion Zones: Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☐	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☑	Yes ☐
Well perforated in injection zone?		No ☐	Yes ☐
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Well only drilled to Keener at 1588'. Doesn't penetrate 5th Sand
OK

Reviewer Name: Gene Smith Signature: Gene Smith
Date Reviewed: 8/24/16

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
15-Feb-90

RECEIVED
Division of Energy
AUG 08 90

API # 47- 33-01482-P

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVSION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVITE SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: FISHER, DANIEL & CATHY Operator Well No.:7507

LOCATION: Elevation: 981.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 900 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 8800 Feet West of 80 Deg. 25 Min. 0 Sec.

Well Type: OIL ____ GAS X

Company: CNG Transmission
P.O. Box 2450
Clarksburg, WV 26301

Coal Operator or Owner: Dan & Lee Fisher
Rt. 1, Box 162A
Wallace, WV 26448

Agent: Glenn A. Knepper
Inspector: Stephen Casey
Permit Issued: 02/12/90

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

R. L. Wharton and Larry Helmick being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by R. L. Wharton LTD., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 30th day of July, 1990, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	1455	1300	1300' of 5½	110'
Gel	1300	0		
Cement	1300	1200	250' of 8¼"	Left 1084 8¼"
Cement	250	0		
				191' CST

Description of monument: 7" mounument extending above ground 30" 8/17/90

and that the work of plugging and filling said well was completed on the 3rd day of August, 1990.

And furthur deponents saith not.

R L Wharton

Larry Helmick

Sworn and subscribed before me this 6th day of August, 1990

My commission expires: November 3, 1993

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Commissioned as Irene Cutright
33 Eagle Street, Buckhannon WV 26201
My commission expires Nov. 3, 1993

Notary Public

HARR 1482-P

IR-26-P
15-Feb-90

1482

API # 47- 33-01482-P

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

RECEIVED
OCT 2 2 90
Division of Energy
Oil and Gas Section

INSPECTOR'S PERMIT SUMMARY FORM

Farm name: FISHER, DANIEL & CATHY Operator Well No.: 7507

LOCATION: Elevation: 981.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 900 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 8800 Feet West of 80 Deg. 25 Min. 0 Sec.

EXISTING WELL INFORMATION:

Company: CNG TRANSMISSION CORP.
445 WEST MAIN ST
CLARKSBURG, WV

Agent: GLENN A. KNEPPER

Inspector: STEVE CASEY
Permit Issued: 02/12/90
Plugging Commenced: 9-2-90
Plugging Completed: 9-3-90
Verbal Plugging
Permission granted on: _____
Rotary _____ Cable _____ Rig
Total Depth (feet) _____
Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? _____
Coal Depths (ft): _____

Wharton

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 5½	1410	110	
8 5/8	1334	1084	

PLUGGING WORK

TYPE	FROM	TO	PIPE REMOVED
Cement	1455	1300	1300' 5½
gel	1300	Surface	
Cement	1200	1200	250' 8¼
"	250	0	

AFFIDAVIT RECEIVED ✓ RECLAMATION SCORE _____
DATE RELEASED 10-16-90 ✓

Steve Casey
INSPECTOR'S SIGNATURE

----------RECORD ALL VISITS TO THIS WELL ON BACK----------

Well No. 7017 Lease No. ..... Name ..... Farm .....

District Fox Hills County Harrison State West Va.

Location Made ..... First Work Done .....

Rig Commenced ..... Rig Completed .....

Drilling Commenced 6-7-24 Drilling Completed 6-7-24

Rig Contractor ..... Drilling Contractor (S.H.C. Co. Tools, String No.) .....

Drillers PURCHASED Tool Dressers WELL

Formation	Open or Close Hard or Soft	Top	Bottom	Steel Line Measurement	Water Found Depth	Oil Found Depth	Gas Found Depth	Remarks
Coal		85	90		70' Hole full			
Pittsburgh Coal		116	124					
Sand	Soft	238	258					
Sand	Hard	368	385					
Coal		417	421					
Little Dunkard		534	580		1/8 Bailer per hr.		531½ show	
Big Dunkard	Green	608	640					
Sand		620	638					
Sand		740	758					
Sand		834	858					
Sand		859	883					
Coal		883	886					
Sand		886	909					
Sand		1005	1025					
Hard Drilling		1025	1320					
Blue Sand	Solid	1328	1351	1334				
Red Rock		1351	1368½					
Sand		1368½	1371½					
Black Slate		1371	1388					
Maxon Sand		1388					1401-1418 3/10 W. in 3/4 pipe	
							2nd pay 1417-1421 Total 3/10 W. in 1½	
							3rd pay 1434-1440 Mercury test .80 in	
							2 inch pipe	
							Set drilled through sand	
							Finished drilling 72 ft	
							in Maxon sand	
			PURCHASED FROM MARSH & WOODELL August 14, 1930.					
Total Depth			1456½					

Size	Charged to Well Feet	in.	Put in Well Feet	in.	Pulled Out Feet	in.	Left in Well Feet	in.	Transferred Before Completing Feet	in.	Left of Well Not in Use Feet	in.	Steel Line Measurement Feet	in.	If more than two strings of casing are left in hole, give reasons for leaving additional strings
13" Cog.			191	-			191	-							
10" "			1334	-			1334	-							
8¼" "															
6⅝" "					Conductor 17.80.										
5⅛" "															
Tbg. "															

PACKER RECORD

Size	Kind	Amount Above Packer	Remarks
	Tubing below packer (3 joints) 97 ft. 07 inches.		
	Nipple above packer (right hand thread) 1 ft. 07 inches.		
	Tubing above (65 joints up to swedge nipple.)		

SHOOTING RECORD (If shot before or upon completion of well)

Date	Quarts	Top of Shot	Bottom of Shot	Diameter	Sand	Test Before Shot: Reading	Liquid	Opening	Test After Shot: Reading	Liquid	Opening	Time Taken After Shot Hr. Hours	By Whom Shot

CEMENTING RECORD

Date Cemented ..... Size Hole Cemented ..... Size Casing Cemented .....

Top Pittsburgh Coal ..... Top Cementing ..... Amount Cement Used .....

Bottom Pittsburgh Coal ..... Bottom Cementing ..... Amount Sand Used .....

Mr. ..... of ..... Coal Company on ground when coal was cemented

Remarks ..... Signature of persons who cemented well

.....

Approved ..... District Superintendent

POOR COPY

Form H 120-25 Rev. 1-46

Hope Natural Gas Company

REPAIR RECORD

Well No. 7507 — Buffalo — District

Farm Name J. W. Groves — N — S — 9 E — 9 W

Date First Work Done June 23, 1949

Nature of Work Repair Road

Commenced:
- Cleaning Out July 15, 1949
- Drilling Deeper
- Abandoning

Completed:
- Cleaning Out August 24, 1949
- Drilling Deeper
- Abandoning

CASING AND TUBING RECORD

Size	Before Repairs: Tally	Before Repairs: Steel Line	Pulled: Tally	Pulled: Steel Line	Put in Well: Tally	Put in Well: Steel Line	After Repairs: Tally	After Repairs: Steel Line	Size
10-3/4"	187'						187'		10-3/4"
8-5/8"	1331'						1331'		8-5/8"
5-1/2"					1419'	1410'	1419'	1410'	5-1/2"
3-1/2"	1453'		1453'						3-1/2"

SHOOTING RECORD (Show if Open Shot or Tamped Shot)

Date	Quarts	Top of Shell	Bottom of Shell	Diameter	Sand	TEST BEFORE SHOT: Reading	Liquid	Opening	TEST AFTER SHOT: Reading	Liquid	Opening	Test Taken After Shot No. Hours	By Whom Shot
					NOT	SHOT							

RECORD OF ANY DEEPER DRILLING

Formation	Top	Bottom	Oil at	Gas at
Commenced drilling at depth of				
Drilled Pocket from 1453 to 1545'				
Total Depth Now 1545 Steel Line				

PACKER RECORD

Size	Kind	Set At (Steel Line)
	None	

PACKER PULLED: Size 8¼ x 3" Kind Anchor

OIL PRODUCTION: Estimated ____ bbl. per day ____ Sand

CLARKSBURG OFFICE ENTRIES

Repair Card

Well Card

Memo Book

Well Map RHS SEP 13 1949

Map Sheets SEP 14 1949

VOLUME AND PRESSURE REPORT

BEFORE CLEANING OUT (Take Test When Ready to Clean Out)

VOLUME TEST

Date of Test	Flow Meter or Open Flow	PITOT TUBE: Reading	Liquid Used	Opening	CUBIC FEET	Sands Gas From	Time Blown
July 15, 1949	Drowned Out					Maxon	

AFTER CLEANING OUT

VOLUME TEST

Date of Test	Flow Meter or Open Flow	PITOT TUBE: Reading	Liquid Used	Opening	CUBIC FEET	Sands Gas From	Time Blown
Aug. 23, 1949	F.M.	7 3/10	Water		30,128	Maxon	4 Hrs

AFTER DRILLING DEEPER

VOLUME TEST

Date of Test	Flow Meter or Open Flow	PITOT TUBE: Reading	Liquid Used	Opening	CUBIC FEET	Sands Gas From	Time Blown

PRESSURE TEST

Date of Test		Opening	1 Min.	2 Min.	3 Min.	4 Min.	5 Min.	6 Min.	7 Min.	8 Min.	9 Min.	10 Min.	30 Min.	60 Min.	Hrs.	Hours
8-23-49	Casing	5½	1	2	3	3	4	4½	5	5	5	6	7	8	24	8½
	Tubing															

Remarks: Well Shut in on 5½" Casing

ORIGINAL—For Land Dept. Only

OVER

George G. Hooly

District Superintendent

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01626 Area Permit Number: 2R03301 AP
Operator Name: Ross & Wharton
Operator's Well #: 11081
Farm Name: S. Stonestreet
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2606
Completion Zones: Injun, Gordon, Stray, 4th Sand Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544713 Northing: 4346704.7
Elevation: 1203
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☑

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')? NA		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9 / 01 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

033-1626

11084

FRICK-REID

Service of Value

S.C. STONESTREET NO. 3904 (HOPE)

NATURE OF STRATA FORMATION	COLOR TOP	HARD OR SOFT BOTTOM
Pittsburgh Coal	235	241
Dunkard	760	805
Salt Sand	1205	1300
Little Lime	1563	1578
Big Lime	1600	1674
Injun	1674	1760
Gas -		1713
Squaw	1814	1860
Gantz	2060	2085
50 Foot	2163	2177
30 Foot	2245	2254
Stray Sand	2354	2400
Gas -	2355	2373
Gordon	2405	2430
Gas	2408	2415
Fourth	2519	?
Gas	2519	
Fifth	2569	2576
Total Depth		2445
Deeper		2606
CASING RECORD		
7"	1655	Left in Well
5¼"	2369	"
8" x 6" Bottom Hole Packer set at 1647'		
6" x 5" Bottom Hole Packer set at 2360'		

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01663 Area Permit Number: 2R03301 AP
Operator Name: Enervest Resources
Operator's Well #: BH Brown #4
Farm Name: Rogers, Aubrey
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2788
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546021.5 Northing: 4351497.5
Elevation: 1192
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
04-Apr-95

RECEIVED
WV Division of Environmental Protection
JUN 21 1995
Permitting Office of Oil & Gas

API # 47- 33-01663-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey Operator Well No.:B.H. Brown #4

LOCATION: Elevation: 1,192.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 7950 Feet South of 39 Deg. 20 Min. Sec.
Longitude 2050 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: ____

Permit Issued: 04/05/95

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richard A. Crews and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 30th day of May, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
170 sks. cement	2738'	2400'	No liners pulled in	1956'
20 sks. cement	1950'	1850'	6-5/8" csg.	1010'
40 sks. cement	1050'	950'	8-1/4" csg.	440'
50 sks. cement	450'	350'		
50 sks. cement	75'	Surface		

WR-6 6/21/95

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 9th day of June, 1995

And furthur deponents saith not.

Richard A. Crews
Kenneth Dotson

Sworn and subscribe before me this 15th day of June, 1995
My commission expires: October 24, 1999

Joyce M. Board
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JOYCE M. BOARD
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 24, 1999

Oil and Gas Inspector: ____

HAR 1663-P

ARM B. H. Brown WELL 4 ACRES 207 LEASE NO. 3726

WNSHIP OR STRICT Ton Mile COUNTY Harrison STATE West Va. N. S. 10 E. 9 W.

G COMMENCED 19 COMPLETED 19 CONTRACTOR

G COMMENCED April 10, 19 00 COMPLETED June 11, 19 00 CONTRACTOR

D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
onductor		16		
gh Coal	390	398		
unkard Sand	900	960		
ig Lime	1740	1820		
ig Injun	1820	1900		
ifty Foot	2380	2480		
ordon Sand	2475	2585		
ifth Sand	2765	2775		
otal Depth		2788		

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 137 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABND.
8¼"		950		
6⅝"		1900		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
11/1,1900.	24				
7/21,1902.	24		2765		
12/23,1920.	40				
4-9-1956	40	2-4½"x7	2768	2775	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	PLUG DEPTH

REMARKS

6 Jts of Liner Top 2375' X5
on Larkin Packer.
2nd Section 420' Liner in Gordon second
Section on top of First.
6¼" Casing Parted and set back 120'
Liner pulled after last and
left in the hole.

APPROVED BY

B.J. Brown — 4

COMMENCED April 10, 19 00 — COMPLETED June 11, 19 00 — CONTRACTOR

COMMENCED — 19 — COMPLETED — 19 — CONTRACTOR

COMMENCED — 19 — COMPLETED — 19 — CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Sand	500	900		
Red Rock	900	960		
Lime	4740	1060		
Big Injun	1020	1900		
Gravel	1901	2470		
Slate	2470	2800		
Lime	2800	2900		
Slate	2900	3000		
Pencil Cave	3000	3010		
Lime	3010	3100		
Slate	3100	3110		
Lime	3110	3170		
Slate	3170	3180		
Lime	3180	3200		
Slate	3200	3210		
Lime	3210	3230		
Slate	3230	3240		
Lime	3240

WR-38
04-Apr-95

RECEIVED
OFFICE OF OIL AND GAS
JUN 29 1995

API # 47- 33-01663-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey Operator Well No.:B.H. Brown #4

LOCATION: Elevation: 1,192.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 7950 Feet South of 39 Deg. 20 Min. Sec.
Longitude 2050 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner ____

Permit Issued: 04/05/95

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richard A. Crews and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 30th day of May, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
170 sks. cement	2788'	2400'	No liners pulled in	1956'
20 sks. cement	1950'	1850'	6-5/8" csg.	1010' 890'
40 sks. cement	1050'	950'	8-1/4" csg.	440' 310'
50 sks. cement	450'	350'		
50 sks. cement	75'	Surface		

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 9th day of June, 1995

And furthur deponents saith not.

Richard A. Crews
Kenneth Dotson

Sworn and subscribe before me this 15th day of June, 1995
My commission expires: October 24, 1999

Joyce M. Board
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JOYCE M. BOARD
P.O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 24, 1999

Oil and Gas Inspector: Tim Bennett

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01695 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: BH Bowen #2
Farm Name: Rogers, Aubrey & James
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2590
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546394.26 Northing: 4351601.24
Elevation: 1021
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

No monument per landowners request
Approved by Inspector

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
WR-38 OFFICE OF OIL AND GAS
04-Apr-95
AUG 30 1995
WV Division of Environmental Protection

API # 47- 33-01685-P.

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey & James A. Operator Well No.:B.H. Brown #2

LOCATION: Elevation: 1,021.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 7600 Feet South of 39 Deg. 20 Min. Sec.
Longitude 1000 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: _____

Permit Issued: 04/05/95

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 31st day of July, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
130 sks. cement	2578'	2150'	6"x5½" liner 0'	337'
20 sks. cement	1700'	1600'	6-3/16" csg. 1685'	0'
20 sks. cement	800'	700'	6-5/8" csg 245'	1216'
25 sks. cement	350'	300'		
50 sks. cement	245'	145'		
80 sks. cement	60'	Surface		

Description of monument: no monument erected (see back)
and that the work of plugging and filling said well was completed on the 9th day of August, 1995.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 18th day of August, 1995
My commission expires: July 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

no monument erected on this plugged well, per landowners request - okéd by Tim Bennett oil+gas inspector.

-38
-Apr-95

API # 47- 33-01685-P.

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey & James A. Operator Well No.:B.H. Brown #2

LOCATION: Elevation: 1,021.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 7600 Feet South of 39 Deg. 20 Min. Sec.
Longitude 1000 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: _____

Permit Issued: 04/05/95

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Aubrey A. Rogers and _____ being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 31st day of July, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
130 sks. cement	2578'	2150'	6"x5½" liner 0'	337'
20 sks. cement	1700'	1600'	6-3/16" csg. 1685'	0'
20 sks. cement	800'	700'	6-5/8" csg. 245'	1216'
25 sks cement	350'	300'		
50 sks. cement	245'	145'		
80 sks. cement	60'	Surface		

8/22/95

Description of monument: no monument erected (see back)
and that the work of plugging and filling said well was completed on the 9th day of August, 1995.

And furthur deponents saith not.

Aubrey A. Rogers

Sworn and subscribe before me this 18th day of August, 1995
My commission expires June 10, 1997

Melissa K. Bailey
Notary Public

Oil and Gas Inspector: _____

HARR. 1685-P

FARM B. H. Brown, WELL 2 ACRES 207 LEASE NO. 32716.

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S.10 E. 9 W.

RIG COMMENCED April 1, 19 00. COMPLETED April 6, 19 00. CONTRACTOR W. E. McBride,

DR'G COMMENCED April 17, 19 00. COMPLETED May 29, 19 00. CONTRACTOR J. B. Barnes,

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	200	205		
Dunkard Sand	705	750		
Big Lime	1570	1655		
Big Injun	1655	1710		
FiftyFoot	2327	2366		
Gordon Sand	2369	2436		
Fifth Sand	2566	2578		
Total Depth		2590		

033-1685

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		1661		
5⅜"		1685		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
1/15 1901.	24				
2/26,1902.	24				
2/ 5,1904.	60	30 Qts.	4½" Shells.		
		60 "	Dumped.		
12/23/1931.	30				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

B.H.Brown # 2

Comenced Cleaning Out Nov 29, 1931

Production before Cleaning Out Nothing

Production after Cleaning Out 12 Bbls per week without Pumping off, Quite a Increase in Gas,

Completed Cleaning Out Jan 27.1932

REMARKS

2327' 16 Qts. 5x 5½ G. J. Casing.
1st Shot 2368 190#
2nd Shot 2421 140#
2560' 10 Qts. 5" Casing.

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 50 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY W. E. McBride SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01684 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: B.H. Brown #1
Farm Name: Aubrey Rogers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2692
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546279.7 Northing: 4351386.3
Elevation: 1119
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☐ Yes ☑
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☐ Yes ☑
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature: _____
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
WR-38 WV Division of
04-Apr-95 Environmental Protection

JUL 0 6 1995

Permitting
Office of Oil & Gas

API # 47- 33-01684-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey Operator Well No.:B.H. Brown #1

LOCATION: Elevation: 1,119.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 8250 Feet South of 39 Deg. 20 Min. Sec.
Longitude 1450 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 04/05/95

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Ricky A. Crews and _____ being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 19th day of June, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
			No liner present		
120 sks. cement	2678'	2270'	5-3/16"	1813'	0'
20 sks. cement	1800'	1700'	6-5/8"	408'	1350'
20 sks. cement	900'	800'			
50 sks. cement	400'	300'			
68 sks. cement	50'	Surface			

7/6/95

Description of monument: 7" CSG 30" Above ground level
and that the work of plugging and filling said well was completed on the 23rd day of June, 1995.

And furthur deponents saith not.

Ricky A. Crews

_____

Sworn and subscribe before me this 3rd day of July, 1995
My commission expires June 10, 1997

_____
Notary Public

Oil and Gas Inspector: _____

HAR 1684-P

WR-38
04-Apr-95

RECEIVED
OFFICE OF OIL AND GAS
JUL 18 1995
WV Division of Environmental Protection

API # 47- 33-01684-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey Operator Well No.:B.H. Brown #1

LOCATION: Elevation: 1,119.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 8250 Feet South of 39 Deg. 20 Min. Sec.
Longitude 1450 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 04/05/95

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 19th day of June, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
			No liner present		
120 sks. cement	2678'	2270'	5-3/16"	1813'	0'
20 sks. cement	1800'	1700'	6-5/8"	408'	1350'
20 sks. cement	900'	800'			
50 sks. cement	400'	300'			
68 sks. cement	50'	Surface			

Description of monument: 7" csg 30" Above ground level
and that the work of plugging and filling said well was completed on the 23rd day of June, 1995.

And furthur deponents saith not.

[signature]
[signature]

Sworn and subscribe before me this 3rd day of July, 1995
My commission expires: June 16, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

FARM B. E. Brown, WELL 1 ACRES 207 LEASE NO. 32716

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S. 10 E. 9 W.

RIG COMMENCED Jan. 25, 19 00 COMPLETED Jan. 31, 19 00 CONTRACTOR W. E. McBride,

DR'G COMMENCED Feb. 6, 19 00 COMPLETED April 13, 19 00 CONTRACTOR J. B. Barnes,

D. F. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	318	324		
Dunkard Sand	835	870		
Maxon Sand	1670	1710		
Big Lime	1720	1770		
Big Injun	1770	1815		
Fifty Foot	2320	2360		
Gordon Sand	2470	2523		
Fifth Sand	2672	2679		
Total Depth		2692		

1684

033

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
10"		200		
8 1/4"		840		
6 5/8"		1758		
5 3/16"		1813		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Parmaco H.Well.	5 3/16"X6 5/8"X10"	1813	9/23,27.

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
12/19,1900,	24				
3/ 8,1902,	24				
11/25,1902,	30				
10/26,1920,	60				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record..

233' -- 11 Jts. 5X5 3/16" F. J. Casing.

175' -- 9 " 5X5 1/2" F. J. "

Sept. 23,1927.

1813' -- 82' Jts. 5 3/16" Casing on Packer.

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 42 BBLS.

24 HOURS AFTER SHOT S. ID BBLS.

GAS TEST

APPROVED BY [signature] SUPT.

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO _____ FARM S. H. Brown WELL NO 1

ELEVATION _____ R. _____ S. 10 E. 9 W.

LEASE NO. 32716 ACRES 207 MAP NO _____

WATERS OF New Creek

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Feb.6,1900. COMPLETED April 15,1900. DEPTH 2692

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pen. Coal or Big Lime					
Pgh Coal	518	524		10	200
Big Lime	1720	1770		8¼	840
Big Injun	1770	1815		6¼	1758
Gordon	2470	2523			
Fifth	2672	2679		PACKERS AND DEPTH SET	

INITIAL PROD. 42 Bbls BAND Fifth DEPTH 2672

GAS TEST _____

SHOT Dec.19,1900. QUARTS 24 Qts.

REMARKS _____

Owner.

REPORTED BY A. P. Dean ABANDONED _____

47-033-1684

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01686 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: BH Brown #3
Farm Name: Rogers, Aubrey
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2580
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546582.9 Northing: 4351806.9
Elevation: 1013
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38 RECEIVED
04-Apr-95 OFFICE OF OIL AND GAS

AUG 30 1995

WV Division of Environmental Protection

API # 47- 33-01686-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, or copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey Operator Well No.:B.H. Brown #3

LOCATION: Elevation: 1,013.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 7100 Feet South of 39 Deg. 20 Min. Sec.
Longitude 500 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 04/05/95

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richard A. Crews and _____ being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 27th day of June, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
50 sks. cement	2520'	2200'	8-1/2" tbg. 1725'	855'
40 sks. cement	1825'	1600'	6-5/8" csg. 250'	1407'
25 sks. cement	800'	700'		
50 sks. cement	260'	160'		
85 sks. cement	50'	Surface		
			6% gel between all	cement plugs

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 27th day of July, 1995

And furthur deponents saith not.

Richard A. Crews

_____

Sworn and subscribe before me this 7th day of August, 1995
My commission expires: June 10, 1997

_____
Notary Public

Oil and Gas Inspector: _____

B. L. Brown 3

Brown, WELL 3 ACRES 207 LEASE NO. 3271

TOWNSHIP OR DISTRICT Jon Lile COUNTY Harrison STATE West Va. N. S. 10 E. 9 W.

RIG COMMENCED April 1, 1900. COMPLETED April 6, 1900. CONTRACTOR

DR'G COMMENCED April 12, 1900. COMPLETED May 17, 1900. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal.	186	190		
Dunkard Sand	695	740		
Big Limo	1560	1645		
Big Injun	1645	1700		
Fifty Foot	2217	2240		
Gordon Sand	2350	2410		
Fifth Sand	2554	2569		
Oil	2560			
Total Depth		2580		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	L WH
6 5/16"		1657		
3" Tub.	2562	2580'		

PACKERS

KIND	SIZE	DEPTH SET	C
Special Gas Anchor	3"x 7"O.D.x 16"	2346'	12

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	F
5/19,1900.	40				
7/20, 1901.	40		2560		
2/7, 1921.	60				
12-3-1956	60	3-3½"x10'	2554	2564	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	C

REMARKS

Liner Record. No Data. As to
413' -- 20 Jts. 5 X 5½" F. J. Casing
set on Packer Depth 2360'.
Top of Liner. 2123'.
Pressure put on Well. July 13, th 1
236

Note: September 1956 all Liner pulled and out except one joint (unable to fish. botton laying over in hole.). A. A. Gloeckner

APPROVED BY

PRODUCTION RECORD

24 HOURS BEFORE SHOT 1170 SAND 625 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

B1 B.L. Brown 3

WELL ACRES LEASE NO.

OWNERSHIP OR DISTRICT ... COUNTY ... STATE ... N. / S. ... E. / W.

NO COMMENCED April 1, 19 00. COMPLETED April 6, 19 00. CONTRACTOR —

DR'G COMMENCED April 12, 1900. COMPLETED May 17, 19 00. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	186	190		
Sunbeard Sand	695	740		
Big Lime	1560	1645		
Big Injun	1645	1700		
Fifty Foot	2217	2240		
Gordon Sand	2350	2410		
Fifth Sand	2554	2569		
Oil	2560			
Total Depth		2580		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	WT
6 5/8"		1657		
3" Tub.	2562	2580'		

PACKERS

KIND	SIZE	DEPTH SET	Q
Special Gas Anchor	3"x 7"O.D.x 16"	2346'	12

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM
5/19,1900	40			
7/20, 1901	40		2560	
2/7, 1921	60			
12-3-1956	60	3-3½"x10'	2554	2564

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND

REMARKS

Liner Record. No Data. As t
413' -- 20 Jts. 5 x 6½" F. J. Casing
set on Packer Depth 2360'.
Top of Liner. 2133'.
Prossure put on Well. July 13, th' 1

Note: September 1956 all Liner pulled and out except one joint (unable to fish bottom laying over in hole.) A. A. Gloeckner

APPROVED BY

PRODUCTION RECORD

1st Production ... Bbls.
24 Hours After Shot ... Bbls.
Gas ... MCF

Sand ... Bbls.
Sand ... Bbls.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01724 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: BH Brown #5
Farm Name: Rogers, Aubrey
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2960
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545844.8 Northing: 4351448.2
Elevation: 1338
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38 RECEIVED
04-Apr-95 OFFICE OF OIL AND GAS

JUN 13 1995

WV Division of Environmental Protection

API # 47- 33-01724-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Rogers, Aubrey Operator Well No.:B.H. Brown #5

LOCATION: Elevation: 1,338.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 8050 Feet South of 39 Deg. 20 Min. Sec.
Longitude 2800 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 04/05/95

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: _____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 11th day of May, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
120 sks. cement	2948'	2340'	No liners in place	
30 sks. cement	2100'	1950'	6-5/8" csg. 572'	1476'
25 sks. cement	1026'	926'		
45 sks. cement	630'	530'		
50 sks. cement	300'	200'		
67 sks. cement	50'	Surface		

Description of monument: 7" csg. 30" above ground with API No.
and that the work of plugging and filling said well was completed on the 17th day of May, 1995.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 2nd day of June, 1995
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

WR-38
04-Apr-95

RECEIVED
WV Division of Environmental Protection
JUN 07 1995
Permitting
Office of Oil & Gas

API # 47- 33-01724-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

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6/14/95

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[signature]

[signature]

Sworn and subscribe before me this 2nd day of June, 1995
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: ____

HARR 1724-P

Fax Transmittal Memo

To Jack S. | From Michelle

Company | Company

Location | Location

Fax # 480-2239 | Fax # 782-3563

Comments

(1) No. of Pages 1 | Today's Date 3-23-95 | Time

Dept. Charge | Telephone #

Original Disposition: ☐ Destroy ☐ Return ☐ Call to pick up

033-1724

FARM B. H. Brown, | WELL 2 | ACRES 207 | LEASE No. 32716.

TOWNSHIP OR DISTRICT Jun Mile | COUNTY Harrison | STATE West V. | N. | S.20 E. 9 W.

RIG COMMENCED April 1, 19 30. COMPLETED April 8, 19 30. CONTRACTOR W. E. McBride,

DR'G COMMENCED April 17, 19 30. COMPLETED Nov 29, 19 30. CONTRACTOR J. J. Barnes.

C. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	REMARKS
Conductor		16	
Pgh Coal	200	205	
Dunkard Sand	705	750	
Big Lime	1570	1635	
Big Injun	1635	1710	
Fifty-Foot	2327	2366	
Gordon Sand	2360	2439	
Fifth Sand	2366	2378	
Total Depth		2390	

CASING RECORD

SIZE	PUT IN WELL (FEET)	PULLED (FEET)	LEFT IN (FEET)
6 5/8	1691		
537.	1685		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
1/15,1901.	24				
8/20,1902.	24				
2/ 5,1904.	60	50 qts.	4½" Shells.		
		50 "	Dumped.		
12/22/31.	30				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG SET (KIND)	DEPTH

B.H.Brown # 2

Concased Cleaning Out Nov 29, 1931

Production before Cleaning Out Nothing

Production after Cleaning Out 18 Bbls per week without Pumping off, Quite a Increase in Gas,

Completed Cleaning Out Jan 27,1932

637' 1691 6 5/8 O.D. Casing
1st tube 2366 1900
Vinyl tube 2378 1911

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 60 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY R. O. Blair

FARM B. H. Brown, WELL 5743 ACRES 207 LEASE NO. 32716.

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. [illegible] S. 10 E. 9 W.

RIG COMMENCED May 2, 19 00. COMPLETED May 11, 19 00. CONTRACTOR [illegible]

DR'G COMMENCED May 15, 19 000 COMPLETED June 25, 19 00. CONTRACTOR [illegible]

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pch Coal	575	582		
Dunkard Sand	1100	1140		
Big Lime	1925	1985		
Big Injun	1985	2045		
Gordon Sand	2714	2774		
Fifth Sand	2934	2944		
Total Depth		2960		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8		2048		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
6/-- 1900.	No Record.				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 25 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

REMARKS

Nov. 3, 1901. 6 Jts. 4½" F. J. Casing put in on Larkin Packer, Nipple and Shoe, Top Liner 2550'

412' 5X6¼" Casing Oct 28, 1909.

19 Jts set in Gordon Pad Top

APPROVED BY [illegible]

BUFFALO DISTRICT

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM B.H. Brown WELL NO. 5

ELEVATION _____ TRACT 10 LOT 9

LEASE NO. 32716 ACRES 207 MAP NO. _____

WATERS OF New Creek

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED May 16,1900 COMPLETED June 25,1900 DEPTH 2960

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	575	582		6⅝	2048
Big Lime	1925	1985			
Big Injun	1985	2045			
Gordon	2714	2724			
Fifth	2934	2944		PACKERS AND DEPTH SET	

INITIAL PROD. 25 Bbls SAND Fifth DEPTH 2934

GAS TEST _____

SHOT June - 1900 QUARTS No Record.

REMARKS _____

REPORTED BY [signature] ABANDONED _____

47-033-1724

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01725 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 8
Farm Name: BH Brown
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2766
Completion Zones: 5th Perforated Interval: Slot 2743-2752

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546646.4 Northing: 4351952.3
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☐	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		? No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Wastbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

B. S. Brown 8

DISTRICT [illegible] COUNTY [illegible] STATE [illegible] N. S. T. E. W.

DRILLING COMMENCED June 14, 1900. COMPLETED [illegible] 1900. CONTRACTOR

DRILLING COMMENCED June 28, 1900. COMPLETED Sept. 25, 1900. CONTRACTOR

R. R. COMMENCED 1900 COMPLETED 1900 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
[illegible]		16		
[illegible]	476	582		
[illegible]	675	916		
[illegible]	1378	1379		
[illegible]	1560	1740		
[illegible]	1740	1800		
[illegible]	1807	1896		
[illegible]	1911	1975		
[illegible]	1967	2030		
[illegible]	2039	2610		
[illegible]	2746	2760		
[illegible]		2796		

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT [illegible] BBLS. WATER [illegible] BBLS. SAND [illegible] BBLS.

24 HOURS AFTER SHOT [illegible] BBLS. WATER [illegible] BBLS. SAND [illegible] BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT WHEN
6"		1896		
6 5/8"		1843		

PACKERS

KIND	SIZE	DEPTH SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	REMARKS
[illegible] 1901.	40		40		
[illegible] 1902	40				
[illegible] 1903	60	4			
[illegible] 1910.	60				
9-17-55	60	4"x7	2743	2752	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	PLUG SET

REMARKS

[illegible] 16. [illegible] Bottom Liner.
1st Section. 30 Jts.
2nd " 196 " "
[illegible] Liner 60'
104 [illegible] 05 Jts. 6 5/8" Casing on Rock Well
Packer 6 5/8" x 6"
Large Flow of Oil.
Lee

APPROVED BY [illegible]

47-033-1725

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01727 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: B H Brown #12
Farm Name: Rogers, Aubrey
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2790
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546292.2 Northing: 4351982.4
Elevation: 1186
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
16-Dec-96

RECEIVED
FEB 04 1997
Permitting
Office of Oil & Gas

API # 47- 33-01727-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

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Farm name: ROGERS, AUBRY Operator Well No.:B.H.BROWN #12

LOCATION: Elevation: 1,186.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 6350 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 1550 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State St.
Bridgeport, WV 26330

Agent: P. S. Ondrusek

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

Permit Issued: 12/16/96

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. G. Allen and Leroy Snodgrass being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 26th day of December, 1996, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
160 sks. cement	2770'	2280'		
30 sks. cement	1930'	1830'		
35 sks. cement	1000'	900'		
60 sks. cement	500'	360'		
40 sks. cement	300'	200'		
40 sks. cement	60'	Surface		

Description of monument: 1;T of 7" casing extending 30" above grade
and that the work of plugging and filling said well was completed on the 13th day of January, 1997.

And furthur deponents saith not.

R. G. Allen

Leroy Snodgrass

Sworn and subscribe before me this 29th day of January, 1997
My commission expires: August 7, 2006

Diane E. Bosley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOSLEY
PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519
My Commission Expires August 7, 2006

Oil and Gas Inspector: ____

DIVISION OF ENVIRONMENTAL PROTECTION

CECIL H. UNDERWOOD
GOVERNOR

10 McJunkin Road
Nitro, WV 25143-2506

LAIDLEY ELI MCCOY, PH.D.
DIRECTOR

MEMORANDUM

TO: Pennzoil Products Co.
Attn.: Roger Heldman
FROM: Michael Lewis

SUBJECT: PERMIT NO. 047- 033-01727-P
"Affidavit of Plugging" Form WR-38

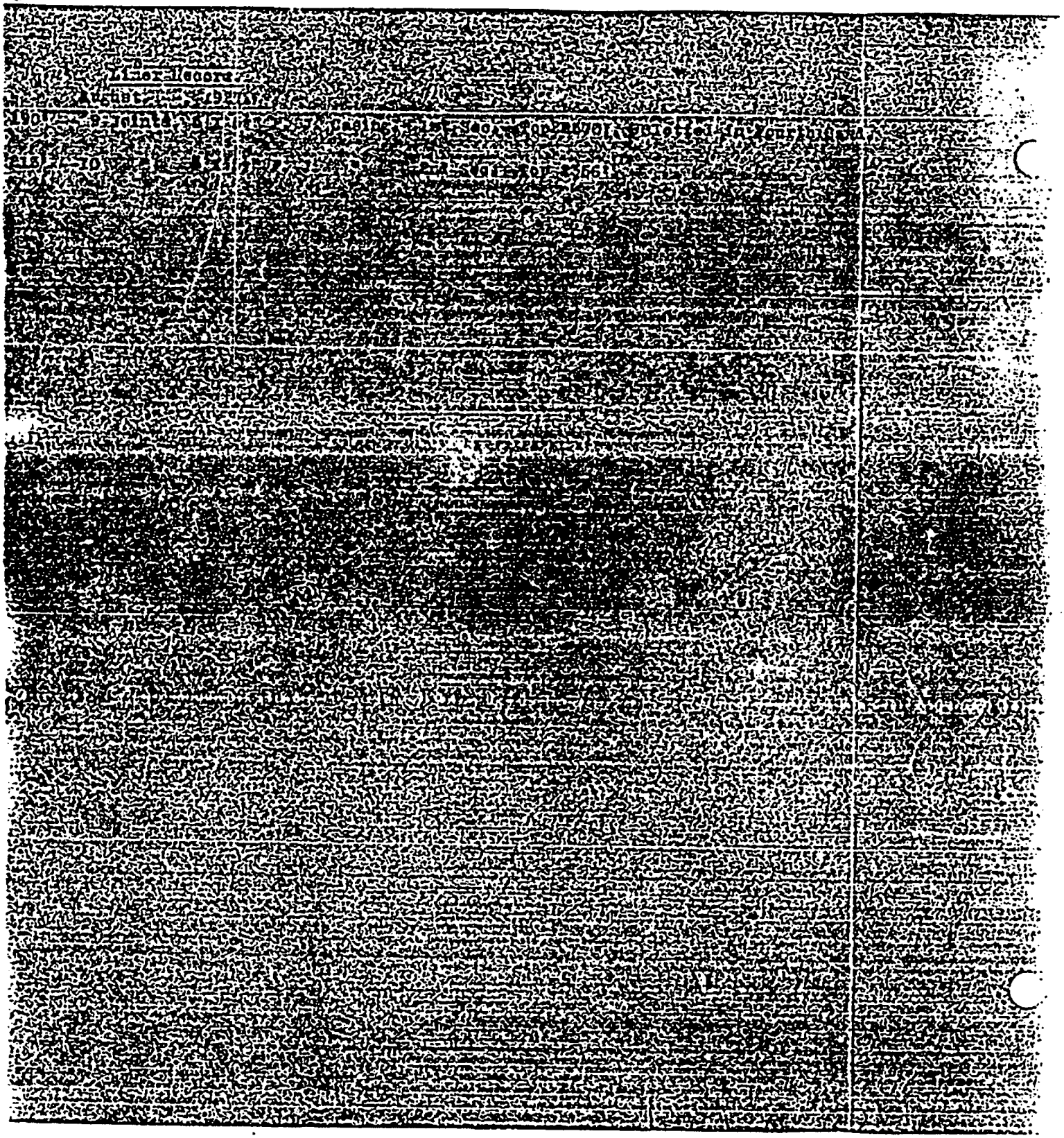
DATE: 2\5\97

Please be advised that the attached "Affidavit of Plugging" appears to be incomplete or that plugging operations were not conducted in accordance with the permit and/or regulations. The Affidavit is therefore being returned to you for the corrections as noted below. The corrections should be made and the affidavit resubmitted. Should there be technical problems with the manner in which the well was plugged, the district oil and gas inspector should be contacted.

_____ Location of bottom-hole plug not indicated.
__✓__ Non-porous material used between plugs not indicated.
__✓__ All casing strings pulled and/or left in the well are not indicated.
_____ Details on perforation intervals and squeezing of uncemented casing across fresh water zones not indicated.
_____ Cement plugs across coal seams are not indicated.
_____ Details of coal seam perforations on uncemented casing which was not pulled are not indicated.
_____ Cement plugs set at casing cuts are not indicated.
_____ Cement plugs do not meet the 100 foot minimum size requirement.
_____ Affidavit is not signed and/or notarized.
_____ _____
_____
_____
_____

170' 9 5/8 5 x 5 1/8" F J Casing Top 0570'. Slotted in 4" Sand
013' 10 Top 0356'.

B. H. Brown # 12



033-17227-2

FARM: J.B. Brown. WELL: 12. ACRES: 207.1 LEASE NO.: 32/16.

TOWNSHIP OR DISTRICT: Fon Win. COUNTY: Harrison. STATE: Texas. N. S.10 E. 9 W.

RIG COMMENCED: Nov. 1, 00 COMPLETED: Nov. 00 CONTRACTOR:

DR'G COMMENCED: Dec. 2, 00 COMPLETED: Jan. 26, 01 CONTRACTOR:

O. D. COMMENCED: COMPLETED: CONTRACTOR:

FORMATION

KIND	TOP	BOTTOM	OIL, GAS OR WATER STRATA	REMARKS
Conductor		16		
Pgh Coal	400	408		
Dunkard Sand	920	1040		
Salt Sand	1320	1400		
Waxon Sand	1680	1760		
Big Lime	1770	1830		
Big Lain	1830	1920		
Pt Pleasant	2350	2370		
Utica	2400	2476		
Gordon Sand	2516	2576		
		2610		
Third Fourth		2790		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WELL
10"		250		
8 1/4"		919		
6 5/8"		1884 4		
5 3/16		1864		

PACKERS

KIND	SIZE	DEPTH SET	DATE

TORPEDO RECORD

DATE SHOT	FROM	TO	SHELL USED	TOP SHOT	QUALITY	REMARKS
3/ 1903	2340					
3/7 1903	2340	2416	4	3 Shells		
2/23 1903	2340					
5/25 1904	70					
6/14 1904	46					
8/60 A 1905	2390					
1/ 1905	2390					
3/14 1907	60					

ABANDONMENT RECORD

FILLED WITH	FROM	TO	CASING LEFT	KIND	DATE

PRODUCTION RECORD

HOURS BEFORE SHOT: Fourth SAND: 25 BBLS

HOURS AFTER SHOT: SAND: BBLS

GAS TEST

REMARKS

Shot In Fourth Sand Wax 7 1900 80 Bbls
for Hour
Dec. 23 1904 Shot 4th Sand 60 Bbls
First 6 Hours
May 25 1904 50 Bbls
90 Bbls 2nd 24 Hrs
June 14 1904 Shot 5th Sand
(Liner Record Over)

APPROVED BY: [illegible]

WR-38
16-Dec-96

RECEIVED
Office of Oil & Gas
FEB 04 1997
Permitting
Office of Oil & Gas

CORRECTED (3/18/97)

API # 47- 33-01727-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

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Longitude 1550 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: P. S. Ondrusek

Permit Issued: 12/16/96

Coal Operator or Owner: The Endres Company
110 State St.
Bridgeport, WV 26330

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

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County of Wood ss:

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160 sks. cement	2770'	2280'	5x5½" liner 0'	403'
30 sks. cement	1930'	1830'		
35 sks. cement	1000'	900'	5-1/2" csg. 1864'	0'
60 sks. cement	500'	360'	6-5/8" csg. 1000'	884'
40 sks. cement	300'	200'	8" 500'	419'
40 sks. cement	60'	Surface		
			Perforated liner @	2580-2582',
			2545-2547' & 2515-2517'	

Description of monument: 1jt of 7" casing extending 30" above grade
and that the work of plugging and filling said well was completed on the 13th day of January, 1997.

And furthur deponents saith not.

R. C. Andrew

Leroy Snodgrass

Sworn and subscribe before me this 29th day of January, 1997

My commission expires: August 7, 2006

Diane E. Bosley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOSLEY
PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519
My Commission Expires August 7, 2006

Oil and Gas Inspector: Tim Bennett

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM R. H. Brown WELL No. 12

ELEVATION _____ N. 10 E. 9 W.

LEASE No. 32716 ACRES 207

WATERS OF New Creek

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Dec. 2, 1900. COMPLETED Jan. 26, 1901. DEPTH 2790

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	400	408		10	250
Big Lime	1770	1830		8¼	919
Big Injun	1830	1920		6⅝	1884 - 4
Gordon	2515	2575			
Fifth	2771	2778		PACKERS AND DEPTH SET	

INITIAL PROD. 325 Bbls. SAND Fifth DEPTH 2610

GAS TEST _____

SHOT Sept. 1902. QUARTS 24 Qts

REMARKS _____

Dear.

REPORTED BY H. C. Dennis ABANDONED _____

47-033-1727

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01729 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: B
Farm Name: W.B. Carpenter
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 3023
Completion Zones: 5th Sand Perforated Interval: Slot 3003

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 542415 Northing: 4347677
Elevation: 1308
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9/16/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
Rev. 5/08

API# 47- 033 - 1729

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Department, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm Name: W. B. Carpenter
Operator Well No.: No. 8
Location: Elevation: 1308'
Quadrangle: Salem 7.5
District: Ten Mile
County: Harrison
Latitude: _____ Feet South of: _____ Deg. _____ Min. _____ Sec.
Longitude: _____ Feet West of: _____ Deg. _____ Min. _____ Sec.

Well Type: Oil X Gas _____ WIW _____

Company: HG Energy LLC
5260 Dupont Rd
Parkersburg, WV 26101
Agent: Michael Kirsch

Coal Operator or Owner: Wolf Run Mining Company
2708 Cranberry Square
Morgantown, WV 26505

Coal Operator or Owner: NA

Permit Issued: 7/26/13

AFFIDAVIT

State of West Virginia, County of Wood ss:

Pat Taylor and Jim Lamp being first duly sworn according to law, depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 6th day of August, 20 13 and the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2924'	2439' Tag	10"	190'	582'
Cement	2116'	1932'	6 5/8"	210'	2005'
Cement	1520'	1400'	5 3/16"	1002'	1170'
Cement	756'	390' Tag			
Cement	306'	190' Tag			
Cement	100'	0'			
Ripped 5 3/16" CSG from 2092'-2068' & 2045', 2019' & 1997' & from 1365' - 1100'.					
Perforated 5 3/16" Casing 1 shot/20' from 1300' - 1200'. Perforated 7" Casing 1 shot/20'					
from 750' - 650' & 1 shot/1' from 695' - 685'.					
6% Gel Between Cement Plugs					

Description of monument: 7" x 5' and that the work of plugging and filling said well was completed on the 22 day of August, 20 13

And further deponents saith not. Marvin Rollins
Kenneth Oliver

RECEIVED
Office of Oil and Gas
OCT 24 2013
WV Department of Environmental Protection

Sworn and subscribed before me this 22 day of October, 20 13

My commission expires: Nov. 12. 2018

Notary Public Tina L Pethtel

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
HG Energy, LLC
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Nov. 12, 2018

Affidavit reviewed by the Office of Oil and Gas:

Title: Oil & Gas Inspector

3301729 P

SM-3-28

FARM [illegible] Acres [illegible] Lease No. [illegible]

Township or District [illegible] County [illegible] State [illegible] N. S. E. W.

Commenced Nov. 1, 19 [illegible] Completed Nov. 8, 19 07 Contractor [illegible]

Commenced Nov. 6, 19 [illegible] Completed Dec. [illegible] 19 07 Contractor [illegible]

Commenced 19 Completed 19 Contractor

Formation

Elev. 1808-DA

Kind	Top	Bottom	Steel Line Measurement	Remarks
Conductor		16		
Pgh. Coal	690	696		
Conoquenessing	1900	1909		
Big Lime	2070	2170		
Big Injun	2178	2240		
Berea Post	2800	2817		
Gordon Sand	2978	2988		
Fifth Sand	3008	3010		
Total Depth		3033		

Casing Record

Size	Bottom Casing (Steel Line)	Put in Well (Tally Meas.)	Pulled (Tally Meas.)	Left in When Aband.
16		772		
[illegible]		2066		
[illegible]		2215		
5 3/16		2172		

Packers

Kind	Size	Depth Set	Date Set
Open	5 3/16 x 6 1/8 x 16	2157	July 12-19

Torpedo Record

Date Shot	No. Qts.	Size Shell	Top Shot	Bottom	Result
6/27, 1902	24		3003		
12/2, 1919	80		3003		
3/2-1937	40		3003		

Abandonment Record

Filled With	From	To	Size	Plug Kind	Depth

Received

Dec 18 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

Remarks

[illegible] Opening on Berea [illegible] Packer.

Total Depth

Production Record

24 Hours Before Shot [illegible] Sand 73 Bbls.

24 Hours After Shot Sand Bbls.

Gas Test

Approved By [illegible] Supt.

3301729P

No 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO _____ FARM W. B. Carpenter WELL NO. 8

ELEVATION 1308 N. _____ S. 12 E. 6 W. _____

LEASE NO. 23886 ACRES 154

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Nov. 6, 1900. COMPLETED Dec. 27, 1900. DEPTH 3023

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	690	696		10	772
Big Lime	2070	2170		6⅝	2066
Big Injun	2170	2240		5 3/16	2215
Gordon	2772	2830			
Fifth	3003	3010		PACKERS AND DEPTH SET	

INITIAL PROD. 75 Bbls. SAND Fifth DEPTH 3003

GAS TEST _____

SHOT June 27, 1902 QUARTS 24 lbs.

REM Dec. 2, 1919. 30 "

REPORTED BY H. F. Bens ABANDONED _____

Oil

3301729P

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 033 - 1729 **WELL NO:** No.8

FARM NAME: W.B. Carpenter

RESPONSIBLE PARTY NAME: HG Energy, LLC

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Salem 7.5'

SURFACE OWNER: Earl & Belva Junkins

ROYALTY OWNER: HG Energy LLC et al.

UTM GPS NORTHING: 4,347,677

UTM GPS EASTING: 542,415 **GPS ELEVATION:** 398 m. 1308'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	__	Post Processed Differential	____
		Real-Time Differential	____
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	____

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

July 3, 2013

Date

Received
JUL 18 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01730 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 9
Farm Name: WB Carpenter
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 3090
Completion Zones: Gordon 5th Perforated Interval: Slot 2818 2963 3065

Well Location (UTM NAD83)
Easting: Coordinates Match?: No ☐ Yes ☐
Elevation: 1374 Northing:
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion — No ☐ Yes ☑
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☑ Slot
Cemented across injection zone? — No ☑ Yes ☐
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Westfall Signature:
Date Reviewed: 7/10/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-1730

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: W.B. Carpenter
LOCATION: Elevation: 1.374'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: #9
Quadrangle: Salem 7.5'
County: Harrison
Deg. ____ Min. ____ Sec. ____
Deg. ____ Min. ____ Sec. ____

Well Type: Oil X Gas ____ WIW ____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 1/17/2007

Coal Operator or Owner: NA
Coal Operator or Owner: NA

RECEIVED
Office of Oil & Gas
NOV 14 2007
WV Department of Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Ken Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 10th day of October, 2007, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2440'	2300'	10"	295'	490'
Cement	2209'	2100'	8 5/8"	850'	700'
Cement	2110'	2000'	6 5/8"	1290'	806'
Cement	1320'	1200'	5"	2060'	88'
Cement	848'	700'			
Cement	100'	0'			
		Ripped 10" Casing @ 764', 744' & 721'			
6% Gel Between Cement Plugs					

Description of monument: 8" x 5'
and that the work of plugging and filling said well was completed on the 22nd day of October, 2007
And further deponents saith not.

Kenneth Dotson

Sworn and subscribe before me this 13th day of November, 2007.

My commission expires: Oct. 13, 2017

S. Dianne Dulaney
Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: EKPM I

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

M-3-22

M W. B. Carpenter. WELL 9 ACR 154 LEASE NO. 23836.

SHIP OR CT Ten Mile COUNTY Harrison STATE West Va. N. S. 12 E. 6 W.

OMMENCED Nov. 2, 19 00. COMPLETED Nov. 5, 19 00. CONTRACTOR C. H. Ross & Co.

COMMENCED Nov. 6, 19 00. COMPLETED Jan. 5, 19 00. CONTRACTOR H. J. Parker,

OMMENCED Dec. 10, 19 25. COMPLETED Jan. 5, 19 26. CONTRACTOR Clng. Out Tools Acc't.

FORMATION Elev Floor 1374-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
Coal	755	761		
Hard	1255	1355		
Lime	2135	2235		
Injun	2235	2290		
ty Foot	2655	2676		
rdon	2820	2870		Oil. 2826.
tal Depth		2914		
mmenced to Drill Deeper.		2914		
f Sand	3062	3070		
l & Gas	3063	3064		
tal Depth		3090		

AL DEPTH

PRODUCTION RECORD

IOURS BEFORE SHOT Gordon SAND 35 BBLS.

IOURS AFTER SHOT Fifth SAND 2 BBLS.

S TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN
10"		785		
8¼"		1280		
6⅝"		2096		
5⅜"		2148		

47033017

#33

PACKERS

KIND	SIZE	DEPTH SET	DATE S

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESUL
5/ 7,1903.	10				
5/15,1906.	30				
8/10,1909.	30	11'6"	2818		
1/12,1926.	20	6'9½"	2963		
12-31-1941	40	3-4½x	3065		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	DEPTH

REMARKS

Jan. 12, 1926.
Well Shot with 20 Qts. in Fifth Sand.
10 Qts. Dumped.
Jan. 14, 1926.
315' -- 14 Jts. 4 X 4½" F. J. Liner
Top. 2656', Bottom 2971'

Fifth Sand

APPROVED BY E. O. Shaw SU

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01731 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 12
Farm Name: W.B. Carpenter
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2881
Completion Zones: 5th Perforated Interval: Shot - 2836'

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☒
Easting: 542656 Northing: 4347632
Elevation: 1162
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9/16/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
Rev. 5/08

API# 47- 033 - 1731

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Department, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm Name: W. B. Carpenter
Location: Elevation: 1162'
District: Tenmile
Latitude: _____ Feet South of: _____ Deg. _____ Min. _____ Sec.
Longitude: _____ Feet West of: _____ Deg. _____ Min. _____ Sec.

Operator Well No.: No. 12
Quadrangle: Salem 7.5'
County: Harrison

Well Type: Oil X Gas _____ WIW _____

Company: HG Energy LLC
5260 Dupont Road
Parkersburg, WV
Agent: Philip S. Ondrusek

Coal Operator or Owner: Wolf Run Mining Co.
2708 Cranberry Square
Morgantown, WV 26505

Coal Operator or Owner: NA

Permit Issued: 7/26/13

AFFIDAVIT

State of West Virginia, County of Wood ss:

Pat Taylor and Jim Lamp being first duly sworn according to law, depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 29th day of July, 20 12 and the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	1790'	1605' Tag	10"	10'	182'
Cement	1200'	1080' Tag	8 1/4"	303'	812'
Cement	600'	458' Tag	6 5/8"	1120'	1857'
Cement	300'	148' Tag			
Cement	130'	0'			
	Perforated 10" Casing 1 Shot/20' From 1200'-1100' & 600'-500' & 1 Shot/1'				
	from 530'-520'.				
	Shot 10" Casing Free @ 113' - Would Not Pull Free.				
6% Gel Between Cement Plugs					

Description of monument: 8" x 5' and that the work of plugging and filling said well was completed on the 5th day of August, 20 13

And further deponents saith not. Marvin Rollins
Kenneth Pattison

RECEIVED
Office of Oil and Gas
OCT 24 2013
WV Department of Environmental Protection

Sworn and subscribed before me this 22 day of October, 20 13

My commission expires: Nov. 12. 2018

Notary Public Tina L Pethtel

Affidavit reviewed by the Office of Oil and Gas: S L Ondrusek

Title: Oil & Gas Inspector

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
HG Energy, LLC
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Nov. 12, 2018

3301731P

5M-3-22

FARM C. B. Lippincott WELL 1 ACRES 154 LEASE NO. 8886

TOWNSHIP OR DISTRICT Van Elle COUNTY Lincoln STATE W. Va. N. S. 11, E. 6, W.

DRILLING COMMENCED Oct. 6, 19 29, COMPLETED Oct. 24, 19 29, CONTRACTOR G. P. Loss, & Co.

REDRILLING COMMENCED Oct. 25, 19 00, COMPLETED Nov. 30, 19 00, CONTRACTOR Mill Boss,

OLD WELL COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev 1162-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	526	532		
Maxon Sand	1727	1778		
Big Lime	1864	1948		
Big Injun	1948	1990		
Fifty Foot	2440	2445		
Gordon Sand	2670	2680		
Fifth Sand	2830	2856		
Total Depth		2861		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
10"		102		
6¼"		1350		
6¾"		1977		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
5/24, 1921	24				
2nd 9-9-1931	2nd	5"x24"	1520		
8-11-44	40	5"x6'	2830	2836	
10-9-62	60	3-4½"x6'	2830	2836	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEPTH

REMARKS

Received
JUL 18 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 55 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY E. G. Stivers SUP

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 033 - 1731 **WELL NO:** No.12

FARM NAME: W.B. Carpenter

RESPONSIBLE PARTY NAME: HG Energy, LLC

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Salem 7.5'

SURFACE OWNER: Earl & Belva Junkins

ROYALTY OWNER: HG Energy LLC et al.

UTM GPS NORTHING: 4,347,632

UTM GPS EASTING: 542,656 **GPS ELEVATION:** 354 m. 1162'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

July 3, 2013

Date

Received
JUL 18 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01737 Area Permit Number: 2R03301 AP
Operator Name: First Resources
Operator's Well #: 1
Farm Name: J.W. Denison
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☒ conversion failed Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2618
Completion Zones: 5th Sand Perforated Interval: 3 slots

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 541539 Northing: 4349270
Elevation: 1082
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Well was plugged after conversion to injector was unsuccessful

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
WV Division of Environmental Protection
JAN 16 1996
Permitting
Office of Oil & Gas

29-Nov-94
API # 47- 33-01737 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: WEBB, DENNIS Operator Well No.: J.W.DENNISON #1

LOCATION: Elevation: 1,082.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 250 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 4300 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P O BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 11/28/94
Well work Commenced: 11/17/94
Well work Completed: 12/22/95
Verbal Plugging
Permission granted on:
Rotary ____ Cable X Rig
Total Depth (feet) 2618
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N
Coal Depths (ft): NA

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
10"	274'	274'	EXISTING
8 1/4"	783'	~474'	"
6 5/8"	1645'	~1085'	"
5 3/16"	1684'	-0-	"

* WATER INJECTION CONVERSION WAS UNSUCCESSFUL. WELL WAS PLUGGED ON VERBAL AUTHORITY OF INSPECTOR.

OPEN FLOW DATA

Producing formation ____ Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final oper flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

Second producing formation ____ Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By:
Date: 1/12/96

HAR 1737 F

WR-38
09-Apr-96

API # 47- 33-01737-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: WEBB, DENNIS Operator Well No.:J.W.DENNISON #1

LOCATION: Elevation: 1,082.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 250 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 4300 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: P. S. Ondrusek

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

Permit Issued: 04/09/96

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 21st day of December, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
	Verbal	permission to	plug.	
			6-5/8" csg. 560'	1085'
			5-3/16" csg. 1684'	0'
25 sks. cement	1740'	1640'	5-1/2" liner 0'	400'
30 sks. cement	500'	500'		
30 sks. cement	310'	210'		
20 sks. cement	50'	Surface		
6% gel between all cement plugs.				

5/28/96

Description of monument: 7" 4' tall csg.
and that the work of plugging and filling said well was completed on the 22nd day of December, 1995.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 17th day of May, 1996

My commission expires: 10/3/2005

[signature]
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIRK F. ANDERSON
601 Grand Central Avenue
Vienna, West Virginia 26105
My Commission Expires Oct. 3, 2005

Oil and Gas Inspector: ____

1737-P

FARM J. M. Donaldson WELL 1 ACRES 173 LEASE NO. 27301.

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S. 11 E. O. W.

RIG COMMENCED June 17, 1899 COMPLETED June 24, 1899 CONTRACTOR

D.C COMMENCED June 26, 1899 COMPLETED Aug. 15, 1899 CONTRACTOR

D. D COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	OIL, GAS OR WATER	REMARKS
Conductor.		16		
Pgh Coal	231	238		
Dunkard	771	866		
Salt Sand	1231	1360		
Big Lime	1585	1665		
Big Injun	1665	1745		
Fifty Foot	2152	2210		
Stray Sand	2322	2347		
Gordon Sand	2352	2360		
Fourth Sand	2450	2460		
Fifth Sand	2594	2600		
Total Depth		618		

PRODUCTION RECORD

Fifth Sand

Fourth Sand Gas

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN AB
10"		274		
8¼"		783		
6¾"		1645		
5⅜"		1684		

PACKERS

KIND	SIZE	DEPTH SET	DATE
Parraco Diec.	5⅜x6¾x10"	1684	3/3

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RES.
11/--/1900	24				
5/ 7/1910	80	4" Shell.			
6/21/1922	60				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPT

REMARKS

June 29, 1922. 5x5½". F. J. Casing.
1st Section Top 2362'
2nd " 9 Jts. " 2154'
Bit left in hole at 2608'
March 30, 1927.
1684' - 78 Jts. 5½" Casing on Diec Pac
in Big Injun Sand.

APPROVED BY

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01738 Area Permit Number: 2R03301 AP
Operator Name: Best Resources
Operator's Well #: 3
Farm Name: S.W. Dennison
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 3010
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 545628.8 Northing: 4349952.3
Elevation: 1465
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☑	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

Received
Office of Oil & Gas
JUN 16 94
Permitting
Office of Oil & Gas

API # 47- 33-01738-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: ROACH, GLENNA Operator Well No.:J.W.DENNISON #3

LOCATION: Elevation: 1,465.00 Quadrangle: WOLF SUMMIT
District: TENNILE County: HARRISON
Latitude: 13300 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 3300 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner N/A

Agent: James A. Crews

Coal Operator or Owner ____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of ____ ss:

Victor Stinespring and Ken Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 4th day of February, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2940'	2400'		
Gel	2400'	2110'	2016' 5-3/16"	None
Cement	2110'	2010'	665' 6-5/8"	1372'
Gel	2010'	670'		
Cement	670'	570'		
Gel	570'	300'	Shot Liner	41' 5½"
Cement	300'	200'	2816'-2826'	Liner
Gel	200'	100'		
Cement	100'	Surface		5/17/94

Description of monument: 1 jt. of 6-5/8" extending 30" above surface
and that the work of plugging and filling said well was completed on the 6th day of April, 1994.

And furthur deponents saith not.

Victor Stinespring
Ken Dotson

Sworn and subscribe before me this 13th day of May, 1994
My commission expires: June 10, 1994

Notary Public

Oil and Gas Inspector: ____

HAR 1738-P

SM-3-22

FARM J. W. Dennison, WELL 3 ACRES [illegible] LEASE NO. [illegible].

TOWNSHIP OR DISTRICT [illegible] COUNTY [illegible] STATE [illegible] N. S. 11. E. E. W.

RIG COMMENCED Mar. 4, 1900. COMPLETED Mar. 10, 1900. CONTRACTOR

DR'G COMMENCED Mar. 19, 1900. COMPLETED May 6, 1900. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pitt Coal	618	624		
Big Lime	1928	2030		
Big Injun	2030	2100		
Fifty Foot	2538	2588		
Gordon Sand	2721	2821		
Fifth Sand	2987	2995		
Total Depth		3016		

Pennzoil Plugging API Well No. 47-033-1738-P

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		2038		
5 3/16"		2061		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Parmaco Disc.	-5" X 6⅝"	2977	7/28,27.
" "	5" X 6⅝"	2757	7/28,27.
Parmaco Disc Wall	5 3/16" X 6⅝"	2061	8/ 2,27.

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
12/--,1900.	24				Dumped.
4/ 2,1904.	50	20 Qts in 4½" Shell			36
7/25,1927.	60	3-4'11"	2988'		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

August 2,nd 1927.
2061' -- 95 Jts. 5 3/16" Casing on Disc Packer.
July 28,th 1927.
220' -- 11 Jts. 5X5½" F. J. Casing 1st Sec.
191' -- 9 Jts. " F. J. " 2nd Sec.

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 110 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY [signature] SUPT.

No. 1

SOUTH PENN Oil COMPANY—COMPLETION

SERIAL No. _____ FARM J. J. Dennison WELL No. 5

ELEVATION _____ N. _____ E. 11 W. 8

LEASE No. 27301 ACRES 175

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Mar 19, 1900. COMPLETED May 6, 1900. DEPTH 3010

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	618	624		6⅝	2038
Big Lime	1928	2030			
Big Injun	2030	2100			
Gordon	2721	2821		PACKERS AND DEPTH SET	
Fifth	2987	2993			

INITIAL PROD. 140 Bbls. SAND Fifth DEPTH 2987

GAS TEST _____

SHOT Dec. — 1900 QUARTS 24 Qts.

REMA April 2, 1904 50 "

REPORTED BY W. O. Reese ABANDONED _____

Oil Well

47-033-1738

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01739 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 5
Farm Name: JW Dennison
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2819
Completion Zones: 5th Perforated Interval: Shot 2723-2800'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545453.5 Northing: 4349545.2
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☐	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Shot
Cemented across injection zone?		No ☐	Yes ☐ ? No record
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Whitlock Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

J. L. Dennis Oil. WELL 8 ACRES 7 LEASE NO. 7801

HIP OR ... Ten Mile COUNTY Harrison STATE West Va. N. S. 11. E. 8. W.

OMMENCED June 5, 19 00. COMPLETED June 23, 19 00. CONTRACTOR

OMMENCED June 25, 19 00. COMPLETED Aug. 5, 19 00. CONTRACTOR

OMMENCED 19 COMPLETED 19 CONTRACTOR

0139

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal.	424	430		
nkard	950	1050		
ter	1744	1844		
g Injun	1844	1900		
ty Foot	2340	2360		
ray Sand	2471	2515		
rson Sand	2615	2650		
fth Sand	2785	2800		
tal Depth		2019		

AL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY METAL)	PULLED (TALLY METAL)	LEFT IN (TALLY METAL)
8"		1481		
6¼"		1801		

PACKERS

KIND	SIZE	DEPTH SET	DATE S

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	REMARKS
5/--/1900.	40				
4/--/1901.	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 15. BBLS.

HOURS AFTER SHOT SAND BBLS.

TEST

REMARKS

Liner Record.

1st Caution. 2261' 11 Jts. Top 2337'

2nd " 818' 10 Jts. " 1443'

4½ 2 3 1 8 3½

APPROVED BY E. W. Lewis

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01740 Area Permit Number: 2R03301 AP
Operator Name: Ent Resources
Operator's Well #: 5
Farm Name: EA Duncan
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2860
Completion Zones: 5th Perforated Interval: Open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546898.9 Northing: 4350681.3
Elevation: 1383
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑?
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
21-Feb-95

API # 47- 33-01740-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: WERNER, EDWARD C. Operator Well No.:E.A. DUNCAN #5

LOCATION: Elevation: 1,383.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 10700 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 11500 Feet West of 80 Deg. 25 Min. 0 Sec.

Well Type: OIL X GAS X

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: Philip Ondrusek

Permit Issued: 02/15/95

Coal Operator Anker Energy Corporation
2708 Cranberry Square
Morgantown, WV 26505

Coal Owner The Endres Company
110 State Street
Bridgeport, WV 26330

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and Leroy Snodgrass being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 10th day of August, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Verbal permission granted to plug from this depth due to junk left in hole.				
25 sks.	2638'	2508'	6-5/8" csg. 700'	1270'
25 sks.	2455'	2330'	5x5½" liner Had already been	
25 sks.	2050'	1980'	pulled	
45 sks.	720'	600'		
40 sks.	250'	150'		
70 sks.	50'	Surface		

11/8/95

Description of monument: 7" Casing 36" High
and that the work of plugging and filling said well was completed on the 12th day of October, 1995.

And furthur deponents saith not.

[signature]
Leroy Snodgrass

Sworn and subscribe before me this 31st day of October, 1995
My commission expires: June 1, 1997

[signature]
Notary Public

Oil and Gas Inspector: _____

HAR 1740-P

Form 226 0465 1907

S. 133

WELL RECORD.

E. G. Duncan Farm, ... Acres

Fen Mile District Harrison County W Va State

Well No. 5

Rig Commenced April 15 1900 } John M Crawford Contractor.

Rig Completed " 24 " "

Drilling Commenced May 3 " " } Schaffner Bros Contractor.

Drilling Completed June 31 " "

033-1740

FORMATION.	TOP.	REMARKS.	BOTTOM
Conder	14 ft.		
10" Casg	285		
8 1/4 "	964		
6 5/8 "	1970		
Pgh Coal	485		491
Big Dunkard	910		1020
" Lime	1872		1945
" Injun	1950		2025
50 ft Sand	2375		2430
Gordon "	2570		2682
5th "	2840		2856
Total Depth			2860

Pennzoil Producers

Old Well No

47-033-01740 P.

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01748 Area Permit Number: 2R03301 AP
Operator Name: AG Energy
Operator's Well #: 3
Farm Name: Arthur Goff
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2632
Completion Zones: 5th Sand Perforated Interval: open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542012.5 Northing: 4388924
Elevation: 1001
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 10 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Well No. 3 Nathan Goff Farm 7711 Acres

Lease No. 7711 District Clarksburg County W. Va. State

Est. for — Goff Est. Contractor Contractor

Drilling Commenced — 192 Drilling Completed Jan 11 1900

N. S. E. W.

ROCK FORMATION	TOP	BOTTOM	REMARKS
Pittsburgh Coal	776		El. 1001.58
Fifth Sand	2601		
Total Depth		2637	Production — 6 bbls. per week

Production Sand
Fifth Sand

CASING RECORD AS TALLIED. NOT STEEL LINE MEASUREMENT

SIZE	PUT IN WELL FEET	PUT IN WELL IN.	PULLED OUT FEET	PULLED OUT IN.	LEFT IN WELL FEET	LEFT IN WELL IN.
6 5/8"	167	—				

Shot Date
Amount
Sand
Result

Packer Size

Depth Set

Production First 24 Hours Bbls. Gas Test

Answered by Superintendent

42-033-1748

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01749
Operator Name: East Resources
Operator's Well #: ~~Nathan Goff~~ 5
Farm Name: Nathan Goff
Field Name: Wolf Summit
Area Permit Number: 2R03301 AP
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2802
Completion Zones: 5th Sand
Perforated Interval: Shot

Well Location (UTM NAD83)
Easting: 544426.8
Elevation: 1197
Inside Field Boundary? ☒
Coordinates Match?: No ☐ Yes ☑
Northing: 4349038.9
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: N/A Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10/ 4 /2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
03-Nov-94

API # 47- 33-01749-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

RECEIVED
Division of Environmental Protection
MAY 09 1995
Permitting
Office of Oil & Gas

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: MYERS, ROXANNA M. Operator Well No.:NATHAN GOFF #5

LOCATION: Elevation: 1,196.00 Quadrangle: SUMMIT
District: TENMILE County: HARRISON
Latitude: 850 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 7550 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: ____

Permit Issued: 11/03/94

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 17th day of November, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 200 sks	2740'	2000'	6 5/8" csg. 520'	1355'
Cement 40 sks	2000'	1800'		
Cement 20 sks	800'	700'	Liner had been pulled	
Cement 60 sks	550'	425'		
Cement 40 sks	50'	Surface		

Description of monument: 7" csg - 30" Above ground level
and that the work of plugging and filling said well was completed on the 1st day of December, 1994.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 8th day of December, 1994
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

FARM Nathan Goff, WELL 5. ACRES 924. LEASE NO. 74512.

OWNER OF DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S.11-1E. 7.W.

RIG COMMENCED ---- 19 COMPLETED Jan. 2, 19 00. CONTRACTOR

RIG COMMENCED 19 COMPLETED 19 CONTRACTOR

D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev Floor 1197.00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	456	---		
Fifth Sand	2782	----		
Total Depth		2802		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHICH ABV'D.
6⅝"		1875		

Please note - Blue Casing was Lowered 2ft see Feby 12-1942

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Pennzoil Plugging			

Abd Well No. 47-033-01749.

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
1/2,1900.	40				
11/19,1903.	100		2780	2790	
5/ 1,1913	30		2785		
5/25,1922.	60				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

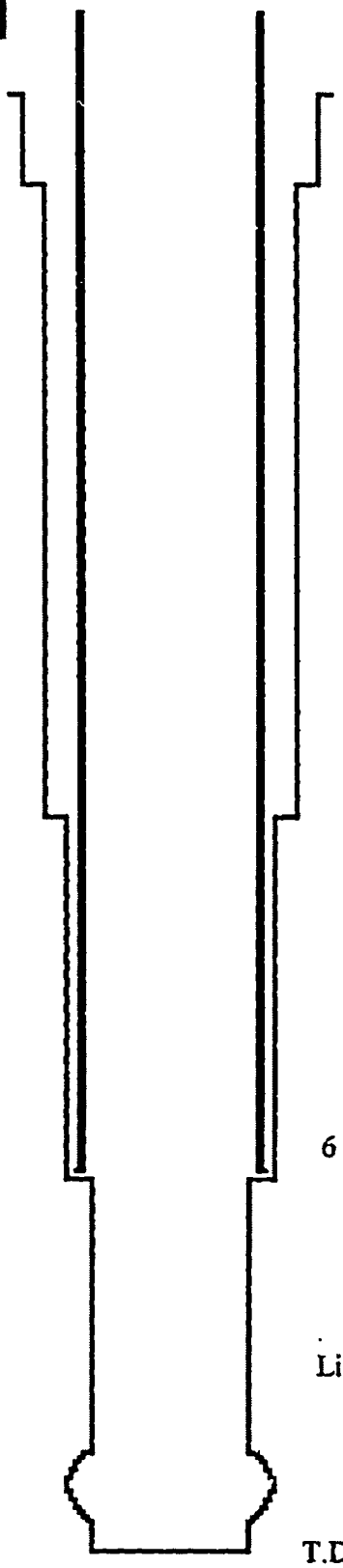
REMARKS

Purchased from Nathan Goff Nov. 29,1921.
Liner Record June 7,1922.
1st, Section 8 Jts. Top 2364
2nd, " 12 " " 2[illegible]
Note: Feb 12,1942 all Liner [illegible] left out - hole cemented.

APPROVED BY [signature]

NATHAN GOFF #5
47-033-1749P
P & A

T.D.: 2802'
6 5/8" Csg: 1875'
Liners were pulled.



Pittsburg Coal
456'

6 5/8" CSG. 1875'

Liners were pulled.

Fifth Sand
2782 - ?'

T.D. - 2802'

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01750 Area Permit Number: 2R03301 AP
Operator Name: Enst Resources
Operator's Well #: 6
Farm Name: Nellie Goff
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (Non Waterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2640
Completion Zones: 5th Sand Perforated Interval: 2 Shots

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541376.1 Northing: 4349389.6
Elevation: 1008
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WV-38
20-Jan-98

RECEIVED
Oil & Gas
MAY 29 1998
WV Division of Environmental Protection

API # 47- 33-01750-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: MYERS, ROXANNA M. Operator Well No.:NATHAN GOFF #6

LOCATION: Elevation: 1,008.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 14850 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 7750 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: P. S. Ondrusek

Permit Issued: 01/20/98

Coal Operator or Owner: The Endres Company
P. O. Drawer 1280
Bridgeport, WV 26330

Coal Operator or Owner: Anker Energy Corporation
2708 Cranberry Square
Morgantown, WV 26505

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Leroy Sanderson and Dale Workman being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 16th day of April, 1998, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE	REMOVED	LEFT
55 sks. cement	2610'	2510'	4"	944'	0'
40 sks. cement	1770'	1600'	5-3/16"	1660'	111'
40 sks. cement	550'	450'	6-5/8"	500'	1221'
50 sks. cement	350'	250'			
100 sks. cement	100'	Surface			
6% gel between cement plugs					

6/3/98

Description of monument: 7" x 20' casing
and that the work of plugging and filling said well was completed on the 29th day of April, 1998.

And furthur deponents saith not.

Leroy Sanderson

Dale Workman

Sworn and subscribe before me this 22nd day of May, 1998
My commission expires: August 7, 2006

Diane E. Bogley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOGLEY
PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519

Oil and Gas Inspector: _____

HAR 1750-P

M... Nathan Goff, WELL 6. ACRES 924. LEASE NO. 74512.

SHIP OR CT. Ten Mile COUNTY Harrison STATE West Va. N. 31-12E 27½ W

COMMENCED ... 19 ... COMPLETED ... 19 ... CONTRACTOR ...

COMMENCED ------ 19 ... COMPLETED Feb. 7, 19 00. CONTRACTOR ...

COMMENCED ... 19 ... COMPLETED ... 19 ... CONTRACTOR ...

FORMATION Elev Flood Plain

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal	300	---		
fth Sand	2615	----		
tal Depth		2640		

AL DEPTH

Removed Plugging
Affidavit
41-033-01750

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/11"		1721.		
5 3/16		1738	8 1/6	
The 1738' of 5-3/16" was pulled October 17, 1958.				Feb 7-1956
5-3/16"		1771 (82 jts.)		

Sec other side.

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
2/2,1900.	40				
12/23,1922.	60				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Purchased from Nathan Goff Nov. 29,1921.
Liner in Well probably 5 3/16" Casing.

PRODUCTION RECORD

HOURS BEFORE SHOT ... SAND ... BBLS.

HOURS AFTER SHOT ... SAND ... BBLS.

S TEST

APPROVED BY [redacted]

October 17, 1958, the 5½" O.D. casing was pulled (1738'). We run back 1771' (82 jts. on a 7" O.D. X 5½" O.D. X 16" Parmaco Hook Wall Packer.
Hole was cemented solid from 1733' to 1779' and the packer was set in cement at 1771', and 5" hole drilled through cement.

Eward Allen, Foreman

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01751 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 8
Farm Name: Nuth Coff
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2654
Completion Zones: 5th Sand Perforated Interval: Open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 544117.2 Northing: 4349569.8
Elevation: 986
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒ 7
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Well No. 8 Nathan Goff Farm ??? Acres
Lease No. District Harrison County H. Va. State
Drilling Commenced 192 Drilling Completed Jan. 25 1900
Contractor Contractor
N. S. E. W.

ROCK FORMATION	TOP	BOTTOM	Steel Line Measurement	REMARKS
Pittsburgh Coal	300			
Fifth Sand	2628'			
Total depth		2654'		Production - 4 bbl per week

Fifth Sand

CASING RECORD AS TALLIED. NOT STEEL LINE MEASUREMENT

	PUT IN WELL		PULLED OUT		LEFT IN WELL		
SIZE	FEET	IN.	FEET	IN.	FEET	IN.	
6⅝	17	5					Shot Date
5x4½	176						Amount
							Sand
							Result
							Packer Size
							Depth Set

Production First 24 Hours Bbls. Gas T

Approved by Superintendent

47-033-1751

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01752 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 13
Farm Name: Roxanna Myers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: [redacted] 2787
Completion Zones: 5th Perforated Interval: Shot (3)

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544293.4 Northing: 4349736.8
Elevation: 1113
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Mapping Symbol?

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
23-Aug-94

API # 47- 33-01752-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

Corrected

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: MYERS, ROXANNA M. Operator Well No.:NATHAN GOFF #13

LOCATION: Elevation: 1,113.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 13550 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 8000 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL _____ GAS X

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: _____

Permit Issued: 08/24/94

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 3rd day of January, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 120 sks.	2765'	2480'	5x5½" liner 0'	152'
Cement 25 sks.	1875'	1740'	(Liner was more than 5' above	
Cement 20 sks.	1000'	900'	5th Sand & didn't	require
Cement 65 sks.	450'	350'	perforating.)	
Cement 55 sks.	50'	Surface	5-3/16" 1768'	0'
			6-5/8" 450'	1333'

4/13/95

Description of monument: 7" casing 30" above ground
and that the work of plugging and filling said well was completed on the 17th day of March, 1995

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 27th day of March, 1995
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: _____

HAR 1752-P

Nathan Goff, WELL 13. ACRES 924, LEASE NO. 74612.

SHIP OR DIST. Ten Mile, COUNTY Harrison, STATE West Va. N. 81-15 W. 7.

D. COMMENCED 19 C. COMPLETED 19 CONTRACTOR

D COMMENCED 19 C COMPLETED Jan. 29, 19 00 CONTRACTOR

D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	FEET UNDERREAMED	REMARKS
Conductor		16.		
Pgh Coal	400.	---		
Fifth Sand	2728	2763		
Total Depth		2787		
Total Depth		2755		
		2751		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHICH ABN'D.
6⅝"		1785.		
5¼"		1768.		
5"X 5"		161 11"		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
1/29,1900.	40				
8/23,1916.	20		2741	2749	
8/ 1,1927.	80		2729	2736	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT ___ BBLS. SAND ___ BBLS.

24 HOURS AFTER SHOT ___ BBLS. SAND ___ BBLS.

GAS TEST Gas Well.

REMARKS

Purchased from Nathan Goff, Nov. 29, 192

Gas Well.

Feb. 28, 1927.

Level run on Sand. Top, 2729'.

Mar. 15th 1927.

5"x5½" P. J. Casing, 7 lts, 161 11"

Top of Liner, 2550'.

APPROVED BY W. O. Shira

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01753 Area Permit Number: 2R03301 AP

Operator Name: East Resources

Operator's Well #: 14

Farm Name: Nathan Goff

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐

Well Status: Active ☐ Abandoned ☐ Plugged ☒

TD of well: 2795

Completion Zones: 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83)

Easting: 541184.1 Coordinates Match?: No ☐ Yes ☑

Elevation: 1152 Northing: 4349133.9

Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐

Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:

Date Reviewed: 10/ 4 /2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
03-Nov-94

API # 47- 33-01753-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: MYERS, ROXANNA M. Operator Well No.:NATHAN GOFF #14

LOCATION: Elevation: 1,153.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 500 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 8300 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: _____

Permit Issued: 11/03/94

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 2nd day of December, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
Cement	130 sks.	2755'	2200'	5-3/16" liner 0'	127'
Cement	20 sks.	1900'	1800'	5-3/16" csg. 1853'	0'
Cement	30 sks.	760'	660'	and packer	
Cement	40 sks.	550'	450'	6-5/8" csg. 710'	1140'
Cement	40 sks.	250'	150'		
Cement	75 sks.	50'	Surface		

1/4/95

Description of monument: 7' CASING - 30' Above ground level
and that the work of plugging and filling said well was completed on the 14th day of December, 1994.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 28th day of December, 1994
My commission expires: June 10, 1995

[signature]
Notary Public

Oil and Gas Inspector: _____

HAR 1753-P

FARM Nathan Goff WELL 14. ACRES 924. LEASE No. 74612.

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S1-12E. 7 W.

RIG COMMENCED ---- 19 COMPLETED ---- 19 CONTRACTOR ----

DR'G COMMENCED ---- 19 COMPLETED Jan. 10, 19 00. CONTRACTOR ----

D. D. COMMENCED ---- 19 COMPLETED ---- 19 CONTRACTOR ----

FORMATION Elev. Floor 1453-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	430	----		
	2757	2765		
Fifth Sand	~~2759~~	----		
Total Depth		2795		

Please Note:- Casing Recap Covered Next

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1850		
5 3/16		1853		

Pd Well No. 47-033-01753P.

Pennzoil Gauging

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Cleaning Out	5 3/16 x 6 5/8 x 16	1842	2-15-1939

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
1/10.1900	No Data.				
9-6-1939	30	4 1/2 x 9	2757		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

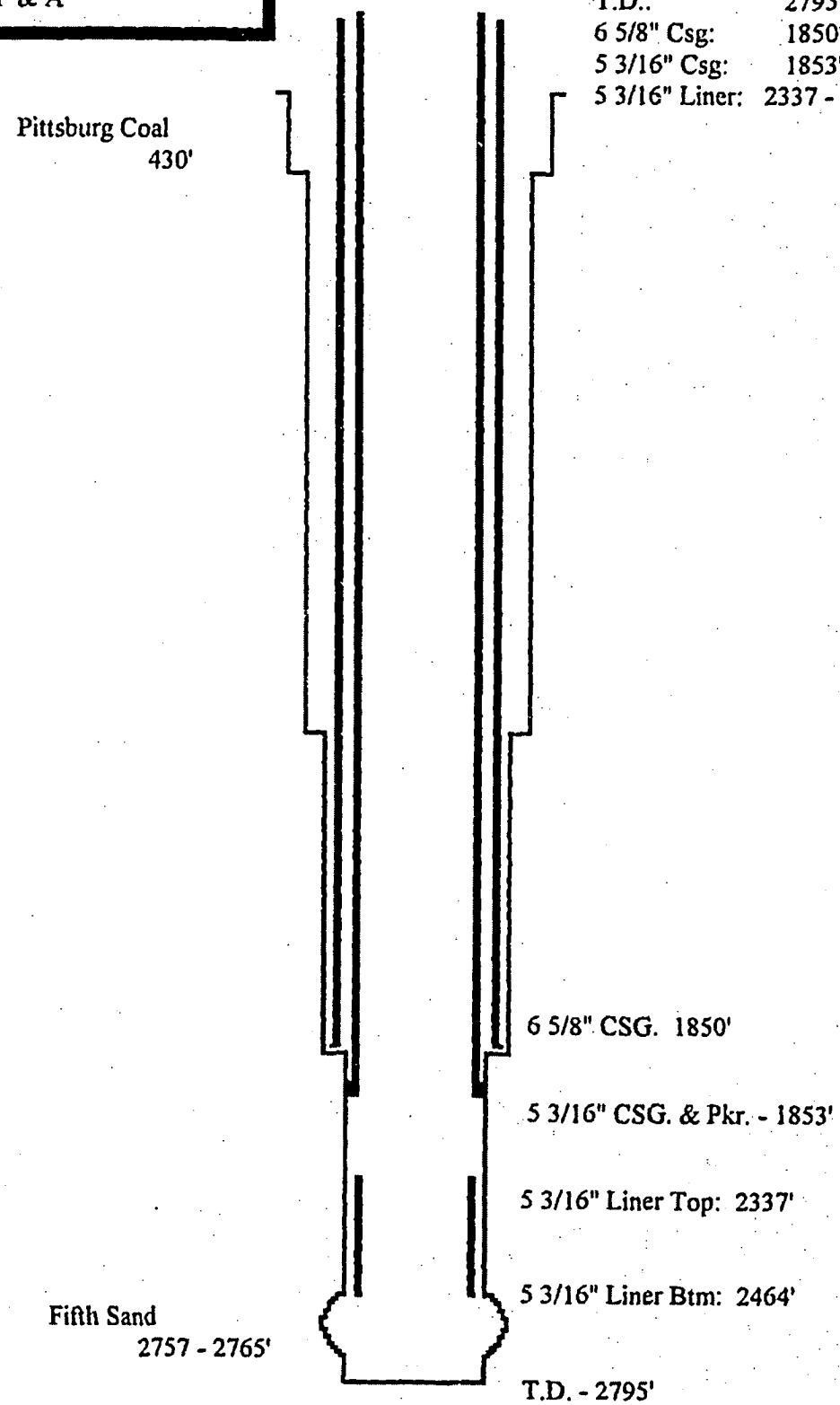
REMARKS

Purchased from Nathan Goff, Nov. 29, 1921.

Liner Top 2237' --127' P. J. Casing.

APPROVED BY: W. O. Shaw

NATHAN GOFF #14
47-033-1753-P
P & A



WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01754 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 15
Farm Name: Nellie Goff
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2674
Completion Zones: 5th Sand Perforated Interval: Shot 30 Qty

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543989.7 Northing: 4349375
Elevation: 1501
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:	No ☒	Yes ☐
Date of Last MIT: / Passed?	No ☐	Yes ☐
Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Well No. 15 Nathan Goff Farm 9 1/4 Acres
Lease No. District Harrison County W. Va. State
Pch. from Goff Est. Contractor Contractor
Drilling Commenced 192 Drilling Completed 192
N. S. E. W.

ROCK FORMATION	TOP	BOTTOM	Steel Line Measurement	REMARKS
Pittsburgh Coal	900			
Fifth Sand	1639			
Total depth		1671		Production:— 3 bbl. per week

Elev- 1001.13

033-1754

CASING RECORD AS TALLIED. NOT STEEL LINE MEASUREMENT

PUT IN WELL			PULLED OUT			LEFT IN WELL		
SIZE	FEET	IN.	FEET	IN.	FEET	IN.		
6 5/8"	1671	—						

Shot Date 11-5-26
Amount 30 qts
Sand 3 ft
Result

Packer Size

Depth Set

Production First 24 Hours ..... Bbls. Gas Test .....

Approved by ..... Superintendent

17-Dec-96

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS
CHARLESTON 25311
FINAL INSPECTION REPORT

Dear PHILIP S. ONDRUSEK:

The FINAL INSPECTION REPORT for the CANCELLED permit listed below has been received in this office. The permit has been cancelled as of 12/17/96.

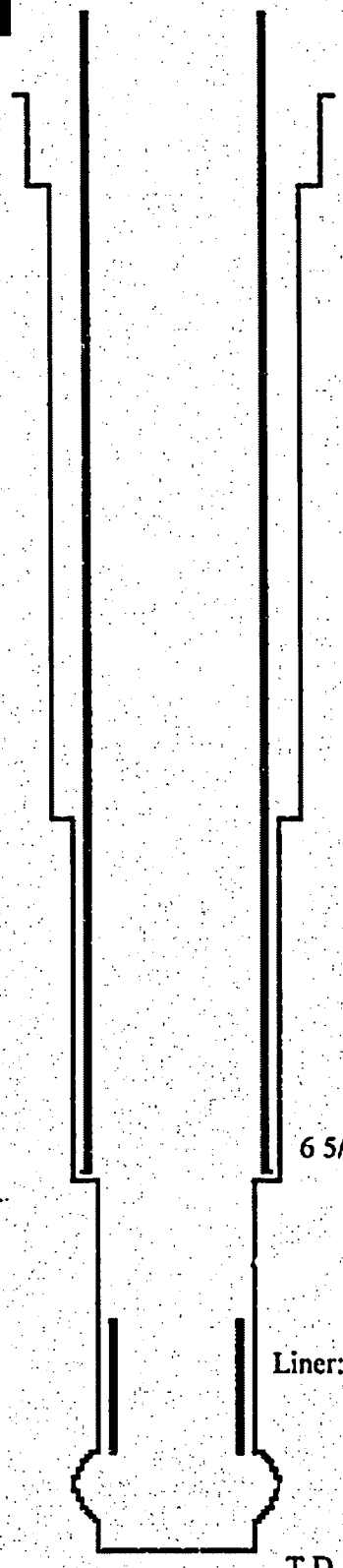
Company: PENNZOIL PRODUCTS COMPANY
Permit No. 47- 33-01754 P — Issued On: 12/01/94
Farm: JOHNSON, W. R. — Well: NATHAN GOFF 15
County: HARRISON — District: TENMILE

Theodore M. Streit
Chief
OFFICE OF OIL AND GAS

NATHAN GOFF #15
47-033-1754-P
P & A

T.D.: 2674'
6 5/8" Csg: 1672'
5 x 5 1/2" Liner: No Record.

Pittsburg Coal
300 - 307'



6 5/8" Csg: 1672'

Liner: Length & Depth - Unknown.

Fifth Sand:
2639 - 2647'

T.D. - 2674'

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01755
Operator Name: East Resources
Operator's Well #: 17
Farm Name: Nathan Goff
Field Name: Wolf Summit
Area Permit Number: 2R03301 AP
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2890
Completion Zones: 5th
Perforated Interval: Slot

Well Location (UTM NAD83)
Easting: 543417.4
Elevation: 1204
Inside Field Boundary? ☒
Coordinates Match?: No ☐ Yes ☒
Northing: 4348735.4
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Office of Oil & Gas

WWR-38 NOV 18 2009

WV Department of Environmental Protection

API# 47-033-1755

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Nathan Goff
LOCATION: Elevation: 1,204'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 17
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. _____ Min. _____ Sec. _____
Deg. _____ Min. _____ Sec. _____

Well Type: Oil X Gas _____ WIW _____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 8/6/09'

Coal Operator or Owner: NA

Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Mike Lamp being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 30th day of October, 2009', and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2515'	2000'	6 5/8" 280'	1650'
Cement	1750'	1600'	5 3/16" 1977'	0'
Cement	1400'	1300'		
Cement	600'	500'		
Cement	350'	250'		
Cement	100'	0'		
		Ripped 6 5/8" casing every collar from 1750' - 1650',		
		1400' - 1300', 600' - 500' & thru coal 565' - 545'		
6% Gel Between Cement Plugs				

Description of monument: 6 5/8" x 5'
and that the work of plugging and filling said well was completed on the 10th day of November 2009'
And further deponents saith not.

Larry M. Lamp

Sworn and subscribe before me this 17th day of November, 2009

My commission expires: Oct. 4, 2016

Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

SM-3-22

FARM Nathan Coff, WELL 17. ACRES 924. LEASE NO. 74512.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S11-1E. 7. W.

RIG COMMENCED ---- 19 COMPLETED 19 CONTRACTOR

DR'G COMMENCED ---- 19 COMPLETED May --, 1904. CONTRACTOR

O. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev Flood 1210-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	555	---		
Gordon Sand	2635	----		
Fifth Sand	2860	----		
Total Depth		2890		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT I/ WHEN AB
6 5/8"		1930		
5-3/16"		1977		

PACKERS

KIND	SIZE	DEPTH SET	DATE
Kisc Wall	5-3/16"x 6-5/8"	1955'	4-8-

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESU
5/--,1904.	80				
5/8-1953	40	2-4"x8'	2863	2871	Shot

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEPT

Tools in hole c10 to 2589

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT SAND BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

REMARKS

Purchased from Nathan Coff, Nov. 29,1

Liner Record.
1st. Section 10 Jts. 199 Ft. Top. 2
2nd. " 10 " 213 Ft. " 6

Note: All Liner pulled and left out /
April 1953 - A. A. Gloeckner
April 1953 - Run 1977' of 5-3/16" cas
on 5-3/16" x 6-5/8" Oil Well Dis. Wal
Packer to shut off Fresh Water.
A.A.Gloeckner, For

APPROVED BY

RECEIVED
Office of Oil & Gas
JUL 17 2009
WV Department of
Environmental Protection

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01756 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 23
Farm Name: Nathan Goff
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2920
Completion Zones: 5th Sand Perforated Interval: Open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541322.1 Northing: 4348597
Elevation: 1222
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Well No. 43 Nathan Goff Farm 774 Acres
Lease No. District Harrison County W. Va. State
Pet from Goff Bro Contractor Contractor
Drilling Commenced 1924 Drilling Completed 192
N. S. E. W.

ROCK FORMATION	TOP	BOTTOM	Coal Line Measurement	REMARKS
Pittsburgh Coal	585			
Gordon Sand	2760			
Fifth Sand	2890			
Total Depth		2920		

Production — 5 Bbl per week

CASING RECORD AS TALLIED. NOT STEEL LINE MEASUREMENT

SIZE	"WELL" FEET	IN.	"PUMP BOY" FEET	IN.	"RETAINING WELL" FEET	IN.
6⅝	1950	—				
5⅝	400					

Shot Date
Amount
Sand
Remk

Packer Size

Depth Set

Production First 24 Hours Bbls. Gas Test

Approved by Superintendent

47-033-1756

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01757
Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 27
Farm Name: Nathan Goff
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2968
Completion Zones: 5th
Perforated Interval: Shot

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☑
Easting: 541283.7
Northing: 4348606.5
Elevation: 1270
Inside Field Boundary? ☒
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: N/A Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	If No: Provide Depth: No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10 / 4 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-01757

RECEIVED
Office of Oil & Gas
DEC 27 2010
WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Nathan Goff
LOCATION: Elevation: 1,270'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 27
Quadrangle: Salem 7.5'
County: Harrison
Deg. _____ Min. _____ Sec. _____
Deg. _____ Min. _____ Sec. _____

Well Type: Oil X Gas _____ WIW _____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: David Scrange
Permit Issued: 4/8/2009'

Coal Operator or Owner: NA

Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Philip Ondrusek and James Lamp being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 6th day of October, 2009', and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2620'	2390'	6 5/8" 117'	1,909
Cement	2011'	1900'		
Cement	1,568'	1,460'		
Cement	682'	580'		
Cement	443'	330'		
Cement	100'	0'		
		Ripped 6 5/8" Casing every collar from 1,560'-1,460',		
		& 700'-600' & through coal 650'-640' & every collar from		
		450'-350'		
6% Gel Between Cement Plugs				

Description of monument: 6 5/8" x 5'
and that the work of plugging and filling said well was completed on the 28th day of October, 2009'
And further deponents saith not.

P S Ondrusek
Larry M Lamp

Sworn and subscribe before me this 21 day of December 2010

My commission expires: Nov. 12, 2018

Tina L Pethtel
Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
East Resources, Inc
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Nov. 12, 2018

ARM Nathan Goff, WELL 27. ACRES 924. LEASE NO. 74912

WNSHIP OR STRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S1-12E. 7. W.

G COMMENCED 19 COMPLETED 19 CONTRACTOR

G COMMENCED ---- 19 COMPLETED July 25, 19 00. CONTRACTOR

D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	640	---		
Gordon Sand	2720	2738		
Fifth Sand	2946	----		
Total Depth		2968		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LE WHE
6 5/8"		2025		

PACKERS

KIND	SIZE	DEPTH SET	D

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	R
7/25,1900.	No Date.				
9/5,1922.	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	D

REMARKS

Purchased from Nathan Goff, Nov.29,1

Liner Record.
1st.Section. 10 Jts. 207 Ft. Top. 2
2nd.Section. 10 Jts. 213 Ft. Top. 2

PRODUCTION RECORD

24 HOURS BEFORE SHOT SAND BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY E. O. Shira

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01778
Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 3
Farm Name: Hiram Lynch
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2570
Completion Zones: 5th
Perforated Interval: Slot

Well Location (UTM NAD83)
Easting: 544631
Coordinates Match?: No ☐ Yes ☑
Northing: 4348419
Elevation: 1012
Inside Field Boundary? ☑
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? If No: Provide Depth: No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
Rev. 5/08

API# 47- 033 - 1778

REVISED

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Department, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm Name: Hiram Lynch — Operator Well No.: No.3

Location: Elevation: 309' — Quadrangle: Wolf Summit 7.5'

District: Tenmile — County: Harrison

Latitude: 2900 Feet South of: 39 Deg. 17 Min. 30 Sec.

Longitude: 6850 Feet West of: 80 Deg. 27 Min. 30 Sec.

Well Type: Oil X Gas ____ WIW ____

Company: HG Energy LLC
5260 Dupont Rd
Parkersburg, WV 26105

Agent: Diane White

Coal Operator or Owner: NA

Coal Operator or Owner: ____

Permit Issued: 7/26/13

AFFIDAVIT

State of West Virginia, County of Wood ss:

Pat Taylor and Roger Heldman being first duly sworn according to law, depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 23 day of June, 20 14 and the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2565'	2225' (Tag)			
Cement	2160'	1774' (Tag)	6 5/8"	29'	1559'
Cement	1600'	1500'	5 3/16"	450'	1297'
Cement	1040'	900'			
Cement	500'	400'			
Cement	300'	175' (Tag)			
Cement	175'	0'			
Milled Monument (5 3/16" csng) out, Drilled out cement to 300'- cut 6 5/8" csng at 300', 200', & 80'					
unable to pull casing - milled out 6 5/8" csng 150'-179'- perforated 6 5/8 " casing					
230'-170' (1 shot / 10'), 170'-150' (1 shot/ 1'), 150'-80' (1 shot/10')					
cement 230' - surface w/ 136 sks					

Description of monument: 6 5/8" csng 12" below ground level and that the work of plugging and filling said well was completed on the 23 day of July, 20 14

RECEIVED
Office of Oil and Gas
SEP 18 2014
WV Department of Environmental Protection

And further deponents saith not.

Pat Taylor
Roger Heldman

Sworn and subscribed before me this 17 day of September, 20 14

My commission expires: Nov. 12 2018

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
HG Energy, LLC
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Nov. 12, 2018

Notary Public Tina L. Pethtel

Affidavit reviewed by the Office of Oil and Gas: 9/15/14

Title: ____

Form 228 (1445) 1307

874 / 1

WELL RECORD.

Herman Lynch Farm, ... Acres

Two mile District Hanson County W. Va. State

Well No. 3

Rig Commenced June 11 1899 } E. Smyers Contractor.

Rig Completed " 16 1899 }

Drilling Commenced " 16 1899 } L. J. Parker Contractor.

Drilling Completed July 27 1899 }

FORMATION.	TOP.	REMARKS.	BOTTOM
Wood Conductor			16
10" casing			295
8¼" "			795
6⅝" "			1588
Pittsburg Coal	214		222
Big Dunkard Sand	774		834
Salt Sand	1139		1240
Big Injun Sand	1639	Gas at 1709.	1719
Stray Sand	2270		2320
Gordon	2324		2360
5th Sand "Oil	2547		2553
Total Depth			2570

033 - 1778

NOTE:

A good record must show the formation from top to bottom of well.

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM Hiram Lynch WELL NO. 3

ELEVATION 1013' N. _____ S. 12 E. 7 & 8 W.

LEASE NO. 31378 ACRES 568

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED June 16,1899. COMPLETED July 27,1899. DEPTH 2570

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	214	222		10	275
Big Injun	1639	1719		8¼	795
Gordon	2324	2360		6⅝	1588
Fifth	2547	2553			
				PACKERS AND DEPTH SET	

INITIAL PROD. 125 Bbls SAND (Fifth) DEPTH 2547

GAS TEST _____

SHOT May 10,1901 QUARTS 24 Qts.

REMARKS April 30,1902. 24 "

REPORTED BY _____ ABANDONED _____

47-033-1778

3301778 P

SM-3-22

FARM Hiram Lynch, WELL 3. ACRES 568. LEASE NO. 31378

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.12. E.7-8.W.

RIG COMMENCED June 11, 1899. COMPLETED June 16, 1899. CONTRACTOR

DR'G COMMENCED June 16, 1899. COMPLETED July 27, 1899. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev 1013-00 Flood

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16.		
Pgh Coal	214	222		
Dunkard Sand	774	834		
Salt Sand	1139	1240		
Big Injun	1639	1719		
Gas	1709			
Gordon Sand	2324	2360		
Fifth Sand	2547	2553		This Well measured 9 Ft. deeper than Record.
Total Depth		2570		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LE WHE
10"		275		
8 1/4"		795		
6 5/8"		1588		
5 3/16"		753	753'	Sep
5-3/16"	2500' 9"			

PACKERS

KIND	SIZE	DEPTH SET	D

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	R
5/10,01.	24				
4/30,02.	24				
3-30-45	20	4¼x7	2555	2555	Oil
6-20-51	30	4¼x10'	2543	2553	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	D

Received

JUL 18 2012

Office of Oil and Gas
WV Dept. of Environmental Protection

REMARKS

422' 20 Jts. 5" F. J. Casing.1 Sect
July 1923.
All pulled except one Joint in bott

1957 Sand Fracture Sand from to 2480-2500

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 125. BBLS.

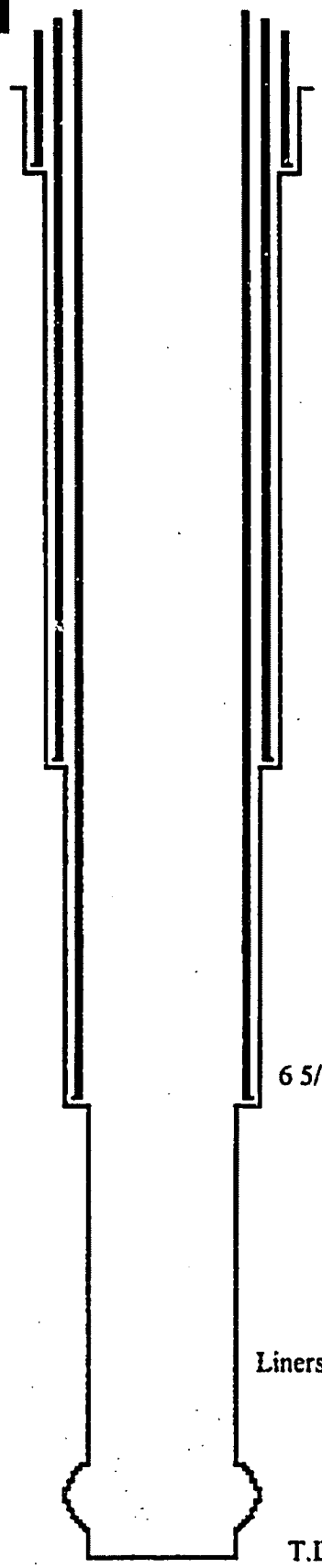
24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY W. O. Shaw

HIRAM LYNCH #3
47-033-1778-P
P & A

T.D.: 2570'
10" Csg: 295'
8 1/4" Csg: 795'
6 5/8" Csg: 1558'



Pittsburg Coal
214 - 222'

10" Csg: 295'

8 1/4" Csg: 795'

Salt Sand: 1139 - 1240'

Big Injun 1639 - 1719'

6 5/8" Csg: 1558'

Fifty-foot: 2270 - 2320'

Liners were pulled.

Gordon: 2324 - 2360'

Fifth Sand:
2547- 2553'

T.D. - 2570'

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01779 Area Permit Number: 2R03301 AP

Operator Name: East Resources

Operator's Well #: 4

Farm Name: Hiram Lynch

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐

Well Status: Active ☐ Abandoned ☐ Plugged ☑

TD of well: 2727

Completion Zones: 5th Sand Perforated Interval: Open

Well Location (UTM NAD83)

Easting: 544989.35 Coordinates Match?: No ☐ Yes ☑

Elevation: Northing: 4348435.09

Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐

Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? If No: Provide Depth: No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:

Date Reviewed: 10/4 /2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

API # 47-033-1779

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Anna Farr Operator Well No.: Hiram Lynch #4

LOCATION: Elevation: 1194' Quadrangle: Wolf Summit 7.5'
District: Ten Mile County: Harrison
Latitude: 2,850 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 5,700 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner ____

Permit Issued:

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 29th day of March, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
125 sks. cement	2710'	2238'	5x5¼" Liner 0'	265'
25 sks. cement	1800'	1700'	Perforated 02560'	2515' &
30 sks. cement	900'	800'	2470'	
46 sks. cement	400'	300'	(Bottom, middle &	top of Gordon)
30 sks. cement	200'	150'		
78 sks. cement	50'	Surface	6-5/8" csg 900'	847'
			8-1/4" csg. 267'	632'
			10" csg. had been pulled	

Description of monument: 7" CASING AT LEAST 30" Above ground level
and that the work of plugging and filling said well was completed on the 31st day of March, 1995

And furthur deponents saith not.

[signature]
[signature]

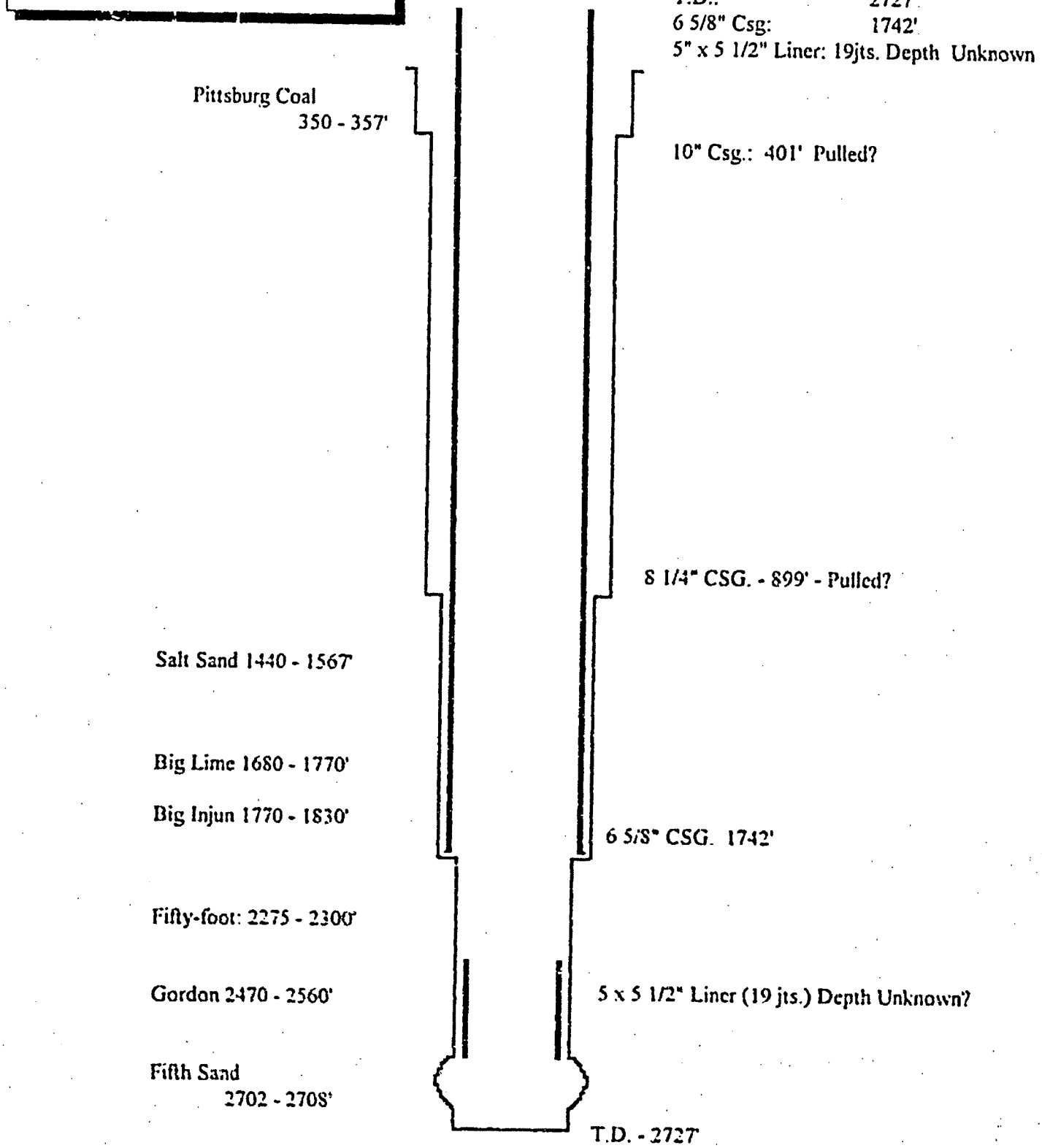
Sworn and subscribe before me this 7th day of March, 1995
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: ____

HAR 1779

Hiram Lynch #4
47-033-1779-P
P & A



Form 228 0443 1207

B74 / 995

WELL RECORD.

Hiram Lynch Farm, ... Acres

Ten Mile District Harrison County W. Va. State

Well No. 1

Rig Commenced Oct. 13 1899 } E. Myers. Contractor.

Rig Completed " 18 1899

Drilling Commenced " 31 1899 } H. J. Parker. Contractor.

Drilling Completed Dec 9 1899

033-1779

FORMATION.	TOP.	REMARKS.	BOTTOM
Cond.	16 ft.		
10" Casg	401		
8¼ "	899		
6⅝ "	1742		
Pgh. Coal	350		357
Big Dunkard Sand.	856		1000
Salt "	1440		1567
Big Lime	1680		1770
" Injun	1770		1830
50 ft Sand.	2275		2300
Stray "	2397		2467
Gordon "	2470		2560
5th "	2702		2708
Total Depth			2727

Pennsboro Plugging

Old Well No.

47-033-01779-P

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01780 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 6
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2751
Completion Zones: 5th Perforated Interval: ?

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544718.5 Northing: 4348589.3
Elevation:
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion ? No ☐ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? ? No ☐ Yes ☐
Cemented across injection zone? ? No ☐ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Wentz
Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

01780

Form 226 00445 12907

B74

WELL RECORD.

995

Hiram Lynch Farm, ... Acres

Fox Mike District Harrison County W. Va. State

#42

Well No. 6.

Rig Commenced Oct 1st 1899 } E. Myers Contractor.

Rig Completed " 5 1899 }

Drilling Commenced " 6 1899 } N. J. Parker Contractor.

Drilling Completed Nov. 17 1899 }

FORMATION.	TOP.	REMARKS.	BOTTOM
Cond.	16 ft.		
10" Casg	484		
8¼ "	867		
6⅝ "	1805		
Pgh Coal	373		380
Big Dunkard Sand	880		1000
Salt "	1490		1600
Big Lime	1693		1793
" Injun "	1793		1853
50 ft "	2300		2320
Slbray "	2415		2475
Gordon "	2475		2550
5th "	2726		2731
Total Depth			2751

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01781 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 17
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2611
Completion Zones: 5th Sand Perforated Interval: Open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 514270 Northing: 4348168
Elevation: 1022
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

33-1781-P

Form 228 (8945) 12507

WELL RECORD. #996

Hiram Lynch ..... Farm, ... Acres

Ten Mile ..... District Harrison ..... County West Va. State

Well No. 11

Rig Commenced Aug. 15-99 189 ..... } E. Myers. ..... Contractor.

Rig Completed Aug? 19-99 189 ..... }

Drilling Commenced Aug. 22-99 189 ..... } H. J. Parker. ..... Contractor.

Drilling Completed Sep. 30-99 189 ..... }

FORMATION.	TOP.	REMARKS.	BOTTOM
Wood Conductor			16
P'gh Coal	247		253
Big Dunkard Sand.	750		840
Salt Sand.	1247		1397
Big Lime.	1577		1647
Big Injun	1647		1707
Fifty foot.	2157		2200
Thirty Foot.	2270		2300
Stray.	2310		2320
Gordon.	2330		2390
Fifth sand & oil.	2584		2590
Total depth.			2611

10" 310
8¼ 755
6⅝ 1620

NOTE:

A good record must show the formation from top to bottom of well.

RECEIVED
Office of Oil & Gas
JAN 09 2009
WV Department of
Environmental Protection

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01782 Area Permit Number: 2R03301 AP

Operator Name: East Resources

Operator's Well #: [redacted] 12

Farm Name: Hiram Lynch

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐

Well Status: Active ☐ Abandoned ☐ Plugged ☒

TD of well: 2626

Completion Zones: 5TH Perforated Interval: Open

Well Location (UTM NAD83)

Easting: 543542.8 Coordinates Match?: No ☐ Yes ☑

Elevation: 1207 Northing: 4348647.1

Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐

Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion — No ☐ Yes ☑

Well penetrates injection zone? — No ☐ Yes ☑

Well perforated in injection zone? — No ☐ Yes ☒ ?

Cemented across injection zone? — No ☒ Yes ☐

Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐

If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature: [signature]

Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

33-01782
API# 47-03-1782

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1046'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 12
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. _____ Min. _____ Sec. _____
Deg. _____ Min. _____ Sec. _____

Well Type: Oil X Gas _____ WIW _____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 5/20/2009'

Coal Operator or Owner: NA

Coal Operator or Owner: NA

RECEIVED
Office of Oil & Gas
JUL 22 2009
WV Department of
Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 6th day of July, 2009, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2590'	2470'	6 5/8"	285'	1384'
Cement	1850'	1750'	5 1/2"	1800'	599'
Cement	1222'	1100'			
Cement	545'	440'			
Cement	305'	200'			
Cement	100'	0'			
6% Gel Between Cement Plugs					

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 15th day of July, 2009'
And further deponents saith not.

Sworn and subscribe before me this 21 day of July 2009

My commission expires: Nov. 12, 2018

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
East Resources, Inc
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Nov. 12, 2018

Working Copy

Form 226 06170 11081

37th

WELL RECORD. 7995

Horan Lynch Farm, ... Acres.

Fourmile District Hanson County West Va State.

Well No. 12

Rig Commenced Aug. 1, 1899 } E. Myers Contractor.
Rig Completed " 6 1899 }

Drilling Commenced " 7 1899 } H. J. Parker Contractor.
Drilling Completed Sep. 13 1899 }

FORMATION.	TOP.	REMARKS.	BOTTOM.
Wood sand rock			16
Big coal	265		293
Big Dunkard sand	765		845
Salt "	1240		1350
Big Lime	1615		1695
Big Injun "	1695		1770
Fifty foot "	2167	Gas at 2184	2225
Gantz " "	2285		2305
Fifty " "	2358		2378
Gordon "	2383		2425
Fifth sand rock	2606		2612
Total depth			2626

10" 309' pulled

8¼" 780' pulled

6⅝" 1699' (caliper shows 1680')

NOTE:

A good record must show the formation from top to bottom of well.

RECEIVED
Office of Oil & Gas
JUN 09 2009
WV Department of
Environmental Protection

FORM NO. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM Hiram Lynch WELL NO. 12

ELEVATION 1044 N. _____ S. 12 W. 7 E. 8 W.

LEASE NO. 31378 ACRES 568

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Aug. 7, 1899. COMPLETED Sept. 13, 1899. DEPTH 2626

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	265	273		6⅝	1699
Big Lime	1615	1695			
Big Injun	1695	1770			
Gordon	2383	2425			
Fifth	2606	2612		PACKERS AND DEPTH SET	

INITIAL PROD. 70 Bbls. SAND Fifth DEPTH 2606

GAS TEST _____

SHOT Nov. -1900. QUARTS 24 Qts.

REMA Mar. 26, 1902. 24 "

Aug. 27, 1920. 60 "

REPORTED BY _____ ABANDONED _____

Well Record

47-033-1782

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01783 Area Permit Number: 2R03301 AP

Operator Name: East Resources

Operator's Well #: 13

Farm Name: Hiram Lynch

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐

Well Status: Active ☐ Abandoned ☐ Plugged ☒

TD of well: 2669

Completion Zones: 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83)

Easting: 541573.8 Coordinates Match?: No ☐ Yes ☑

Elevation: WSS Northing: 4348669.5

Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐

Date of Last MIT: N/A Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:

Date Reviewed: 10/4 /2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Nov-95

RECEIVED
OFFICE OF OIL AND GAS
DEC 06 1995
WV Division of
Environmental Protection

API # 47- 33-01783-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: POST, CLARA ETAL. Operator Well No.:HIRAM LYNCH #13

LOCATION: Elevation: 1,086.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 2000 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 7100 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: Philip S. Ondrusek

Coal Operator or Owner: Anker Energy
2708 Cranberry Square
Morgantown, WV 26505

Permit Issued: 11/01/95

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. G. Miller and Terry Snodgrass being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 11th day of October, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Permission was granted to plug from this depth due to lack of progress & junk left in hole from previous operations				
190 sks	2319'	1766'	10" 315'	0'
25 sks.	1765'	1566'	6-5/8" 317'	1385'
25 sks.	989'	800'	5x5½" liner 0'	380'
25 sks.	340'	240'		
45 sks	60'	Surface		

Description of monument: 10" monument 30" Above ground level
and that the work of plugging and filling said well was completed on the 11th day of October, 1995

And furthur deponents saith not.

R. G. Miller

Terry Snodgrass

Sworn and subscribe before me this 20th day of November, 1995

My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: Tim Bennett

WR-35

14-Dec-94
API # 47- 33-01783 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: POST, CLARA ETAL. Operator Well No.: HIRAM LYNCH #13

LOCATION: Elevation: 1,086.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 2000 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 7100 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P O BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 12/14/94
Well work Commenced: 04/03/95
Well work Completed: 10/11/95
Verbal Plugging
Permission granted on: 10/09/95
Rotary ____ Cable X Rig
Total Depth (feet) 2665
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N
Coal Depths (ft): NA

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
10"	328'	328'	Existing Casing
6-5/8"	1702	1702	Existing Casing
5x5½" liner	2226-2606	2226-2606	Existing Casing

OPEN FLOW DATA *Sidetrack operation was unsuccessful and permission to plug was granted by inspector.

Producing formation Fifth Sand Pay zone depth (ft) 2644-2650
Gas: Initial open flow NA MCF/d Oil: Initial open flow NA Bbl/d
Final open flow NA MCF/d Final open flow NA Bbl/d
Time of open flow between initial and final tests NA Hours
Static rock Pressure NA psig (surface pressure) after NA Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: [signature]
Date: 11/2/95

033 - 1783

RECEIVED
Office of Oil & Gas
WV Dept. Section
DEC 06 1994
WV Division of
Environmental Protection

FARM Hiram Lynch, WELL 13. ACRES 568. LEASE NO. 31378.
DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12.E.7-8.W.
RIG COMMENCED Oct. 18, 1899. COMPLETED Oct. 23, 1899. CONTRACTOR
COMMENCED Oct. 31, 1899. COMPLETED Dec. 12, 1899. CONTRACTOR
D. D COMMENCED COMPLETED CONTRACTOR

FORMATION Elev. 1055-GR

KIND	TOP	BOTTOM	FINAL LINE DISCOVERED	REMARKS
Conductor		16		
Pgh Coal	306	315		
Dunkard Sand	815	975		
Salt Sand	1420	1520		
Big Lime	1629	1730		
Big Injun	1730	1790		
Fifty Foot	2240	2260		
Stray Sand	2365	2395		
Gordon Sand	2395	2484		
Fifth Sand	2644	2650		
Total Depth		2669		

CASING RECORD

SIZE	BOTTOM CASING (CUT OFF LINE)	PUT IN WELL (TALLY METER)	PULLED (TALLY METER)	LEFT IN WELL (TALLY METER)
10"		328		
6⅝"		1702		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SHELL	TOP SHOT	BOTTOM	RESULT
8/21,1900	40		2644		
9/6,1901	70	6"	2646		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	KIND	CAPACITY

PRODUCTION RECORD

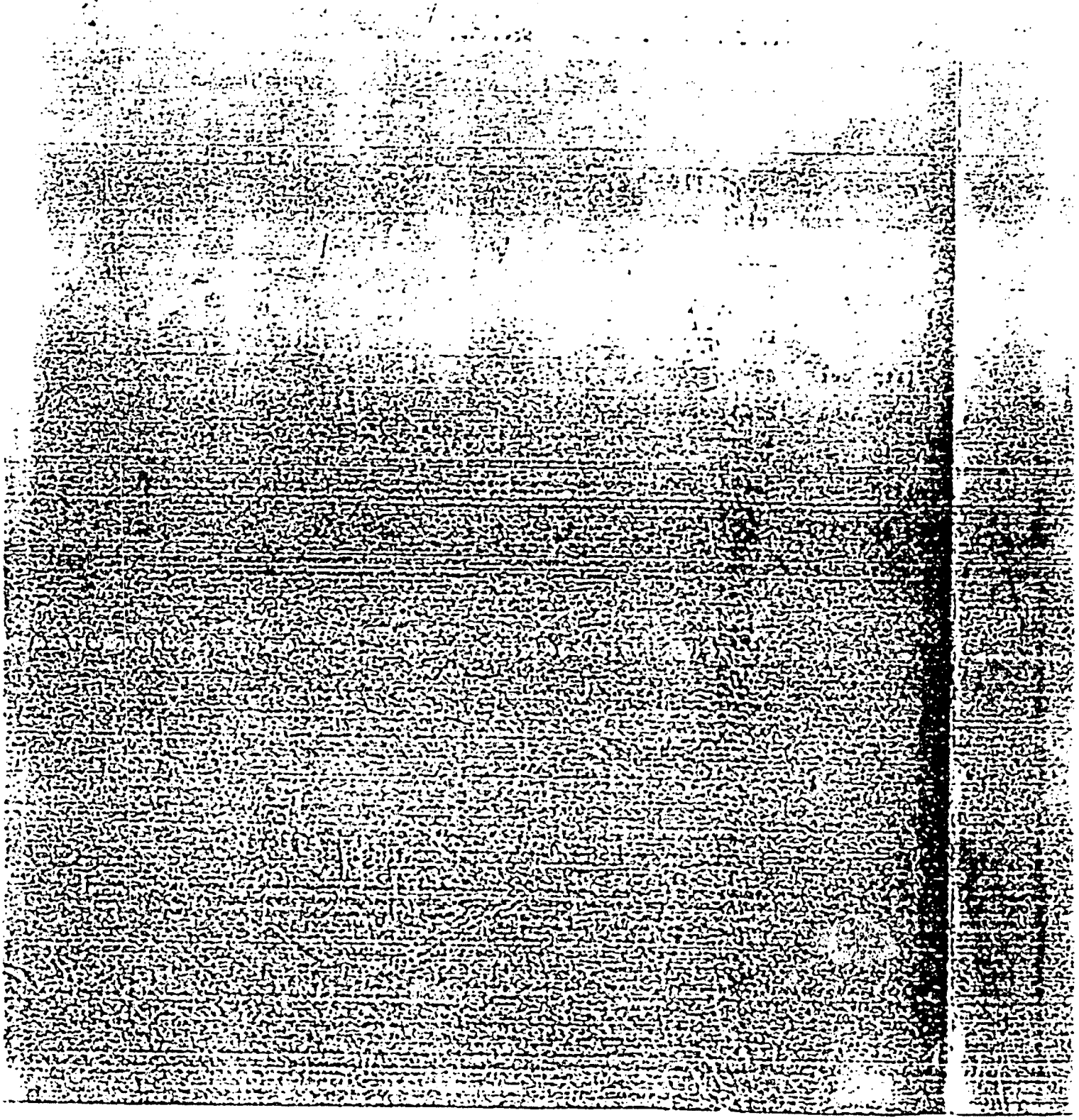
24 HOURS BEFORE SHOT Fifth 95 bbls.
24 HOURS AFTER SHOT
GAS TEST

REMARKS

Line Record
500' 1285' 1702' Casing In two sections.
Date Section 10 Qts.
Cut 6 3/4 inch casing 5/8 inch hole
slotted packer set at 1713 feet
taken from cleaning out bailer

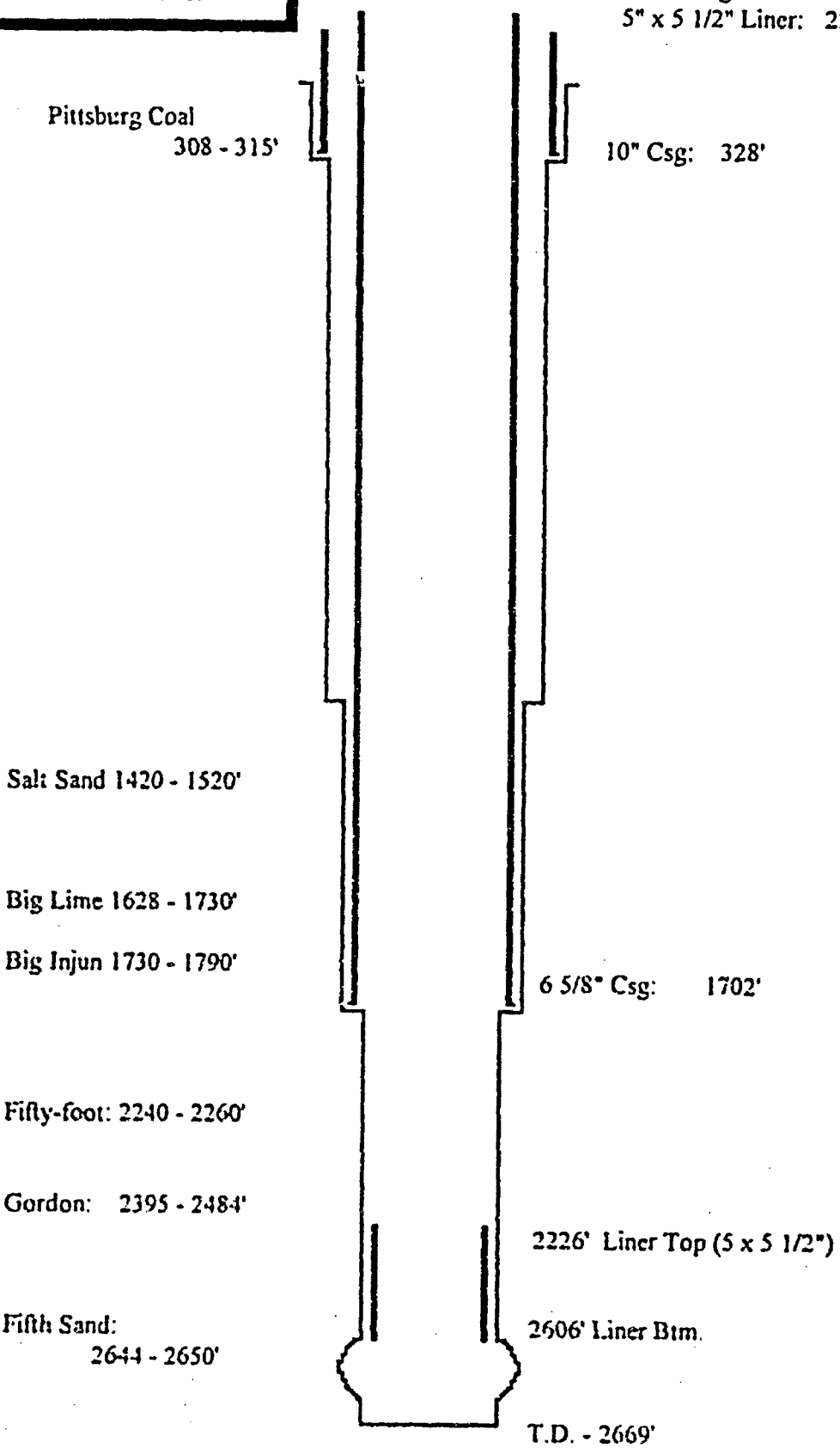
Hilyard #13

10-22-59 - Run 2" X 7" OD X 16" 8 rd. thd. Hook wall packer, set at 1736', with 931' of anchor below packer



HIRAM LYNCH #13
47-033-1783
Sidetrack - WIW Conversion

T.D.: 2669'
10" Csg: 328'
6 5/8" Csg: 1702'
5" x 5 1/2" Liner: 2226'-2606'



WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01784 Area Permit Number: 2R03301 AP
Operator Name: Pennzoil Products Company
Operator's Well #: 14
Farm Name: Post, Clara et al
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2922
Completion Zones: 5th Perforated Interval: Shot 2890-2895

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1353
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Need WR-38 ok

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Hiram Lynch, WELL 14. ACRES 568. LEASE NO. 31378.

DIST. OR TWP. Ten Mile, COUNTY Harrison, STATE West Va. N. S12. E7-8. W.

#37

G COMMENCED	19	COMPLETED	19	CONTRACTOR	
DR'G COMMENCED	Oct. 4, 1899.	COMPLETED	Nov. 19, 1899.	CONTRACTOR	
D. D. COMMENCED	19	COMPLETED	19	CONTRACTOR	

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	550	557		
Dunkard Sand	1060	1190		
Salt Sand	1620	1735		
Big Lime	1870	1940		
Big Injun	1940	2000		
Fifty Foot	2470	2490		
Stray Sand	2585	2625		
Gordon Sand	2630	2690		
Fifth Sand	2890	2895		
Total Depth		2922		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
8¼"		1069		
6⅝"		1985		

Please Note: The Casing was lowered by me on April 14-1942

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
7/19,1901.	24		2890		
3-31-1959	60	3-5"x 5'	2890	2895	Open Flow

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 110. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

REMARKS

Liner Record.
19 Jts. 5" F. J. Casing in Two Sections.
Total 417' Set in Gordon Sand.
Feb. 9, 1959, Pulled all the above liner. Did not rerun liner, ~~[illegible]~~ cement caves.

APPROVED BY E. W. Shinn SUPT.

WR-38
03-Nov-94

Corrected

Division of Environmental Protection

MAY 09 1995

Permitting
Office of Oil & Gas

API # 47- 33-01784-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULDs BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: POST, CLARA ETAL. Operator Well No.:HIRAM LYNCH #14

LOCATION: Elevation: 1,353.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 1750 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 6200 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: _____

Permit Issued: 11/03/94

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 31st day of October, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
Cement	180 sks.	2896'	2400'	5x5½" liner 0'	127'
Cement	20 sks.	2025'	1925'	6 5/8" csg. 546'	1286'
Cement	30 sks.	1100'	1000'		
Cement	44 sks.	611'	500'		
Cement	45 sks.	250'	150'		
Cement	55 sks.	50'	Surface		

Description of monument: 7" csg. - 30" above ground level
and that the work of plugging and filling said well was completed on the 9th day of November, 1994.

And furthur deponents saith not.

[signature]
[signature]

Sworn and subscribe before me this 5th day of December, 1994
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01785
Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 22
Farm Name: Hiram Lynch
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2776
Completion Zones: 5th
Perforated Interval: ? shot

Well Location (UTM NAD83)
Easting: 544011.7
Coordinates Match?: No ☐ Yes ☑
Northing: 4348295.4
Elevation: 1164
Inside Field Boundary? ☒
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: N/A Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑?
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-1785

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1,164'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 22
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. _____ Min. _____ Sec. _____
Deg. _____ Min. _____ Sec. _____

Well Type: Oil X Gas _____ WIW _____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 2/2/08

Coal Operator or Owner: NA

Coal Operator or Owner: NA

RECEIVED
Office of Oil & Gas
MAR 12 2008
WV Department of Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 25th day of January, 2008, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	1876'	1690'	6 5/8" 370'	1409'
Cement	1050'	950'	5 1/2" 1700'	
Cement	465'	350'		
Cement	100'	0'		
		Ripped 7" Csg @ 470', 450', 430', 410', 370', 340'		
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 14th day of February, 2008
And further deponents saith not.

Kenneth Dotson

Sworn and subscribe before me this 14th day of March, 2008

My commission expires: Oct. 4, 2016

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

Verbal

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

33-01785-P

Form 226 (8-45) 12-57

WELL RECORD.

995

Biot

Hiram Lynch Farm, ... Acres

Tom Mile District Harrison County W Va State

Well No. 22

Rig Commenced Nov. 5 1899 } Empire. Contractor.

Rig Completed " 11 1899 }

Drilling Commenced " 16 1899 } J. M. Lemon. Contractor.

Drilling Completed Dec 28 1899 }

FORMATION.	TOP.	REMARKS.	BOTTOM
Condr.	16 fr.		
10" Casg	420		
8 1/4 "	983		
6 5/8 "	1779		
Pgh Coal	410		417
Big Dunkard	922		952
Gas Sand.	1065	1175	1115
Mason "	1695		1780
Big Lime	1770		1860
" Injun Sand	1865		1945
50 fr "	2300		2320
Alexy "	2450		2470
Gordon "	2500		2555
5th "	2750		2756
Total Depth			2776

RECEIVED
Office of Oil & Gas
FEB 01 2008
WV Department of
Environmental Protectio

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01786 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 24
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2880
Completion Zones: 5th Perforated Interval: Open Hole

Well Location (UTM NAD83)
Easting: 543666 Coordinates Match?: No ☐ Yes ☒
Elevation: 1256 Northing: 4347756
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9/16/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-1786

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1,256'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: No. 24
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. ____ Min. ____ Sec. ____
Deg. ____ Min. ____ Sec. ____

Well Type: Oil ____ Gas ____ WIW X

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 02/17/2008

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Philip Ondrusek and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 27th day of February, 2008, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2850'	2620'	6 5/8" 600'	1336'
Cement	2560'	2460'	5 3/16" 1908'	40'
Cement	2020'	1920'		
Cement	1350'	1250'		
Cement	620'	520'		
Cement	100'	0'		
		Ripped 6 5/8" Casing Every Collar 1350' - 1250'		
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 7th day of March, 2008
And further deponents saith not.

Sworn and subscribe before me this 17 day of December 2010

My commission expires: Nov. 12, 2018

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

RECEIVED
Office of Oil & Gas
DEC 21 2010
WV Department of Environmental Protection

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
[illegible] BETHTEL
East Resources, Inc
P.O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Nov. 12, 2018

33-01786-P

Form 226 06445 12997

B109

WELL RECORD.

Hiram Lynch Farm, Acres

Fox Mile District Harrison County W. Va. State

Well No. 24

Rig Commenced Nov. 27 1899 } E. Smyre. Contractor.
Rig Completed Dec 3 1899 }

Drilling Commenced " 7 1899 } J. M. Grover Contractor.
Drilling Completed Jany 20 ~~189~~ 1900 }

FORMATION.	TOP.	REMARKS.	BOTTOM
Cond.	16 ft.		
10" Casg	540		
8 1/4 "	1077		
6 5/8 "	1936		
Pgh. Coal	535		540
Big Dunkard	1020		1070
Salt Sand.	1390		1430
Big Lime	1905		1960
" Injun	1965		2015
50 ft Sand.	2435		2465
Gordon "	2667		2692
5th "	2862		2868
Total Dapth			2889

NOTE:

A good record must show the formation from top to bottom of well.

RECEIVED
Office of Oil & Gas
FEB 27 2008
WV Department of
Environmental Protection

WW-7
5-02

33-01786

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47-033-1786 P **WELL NO:** 24

FARM NAME: Hiram Lynch

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Wolf Summit 7.5'

SURFACE OWNER: Kenneth & Deborah Gaskins

ROYALTY OWNER: East Resources, Inc. et al.

UTM GPS NORTHING: 4,347,756 (NAD 27)

UTM GPS EASTING: 543,666 (NAD 27) **GPS ELEVATION:** 383 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___

RECEIVED
Office of Oil & Gas
FEB 27 2008
WV Department of Environmental Protection

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

February 26, 2008

Date

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01787 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 27
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2781
Completion Zones: 5th Sand Perforated Interval: Slot 2759-2769' 40 Qts

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☒
Easting: 543237 Northing: 4347705
Elevation: 1131
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☐

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9/16/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

RECEIVED
Office of Oil & Gas
MAY 0 9 2008
WV Department of
Environmental Protection

API# 47-033-1787

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1,131'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: No. 27
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. ____ Min. ____ Sec. ____
Deg. ____ Min. ____ Sec. ____

Well Type: Oil X Gas ____ WIW ____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 04/15/2008

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 7th day of April, 2008, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2747'	2640'	6 5/8" 460'	1350'
Cement	2580'	2480'		
Cement	1879'	1780'		
Cement	1350'	1250'		
Cement	1050'	950'		
Cement	500'	400'		
Cement	100'	0'		
		Ripped 6 5/8" Casing Every 10' From		
		1800' - 1700', 1350' to 1050', & 1050' - 950'		
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 16th day of April, 2008
And further deponents saith not.

Ken Dotson

Sworn and subscribe before me this 8th day of May, 2008

My commission expires: Oct. 4, 2016

S. Dianne Dulaney
Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: ERPM I

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

33-01787-P

FARM Hiram Lynch. WELL NO. 27. ACRES 568. LEASE NO. 31378.

OWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12, E. 7-8W.

D. COMMENCED Dec. 15, 1899. COMPLETED Dec. 18, 1899. CONTRACTOR

G COMMENCED Dec. 20, 1899. COMPLETED Feb. 23, 1900 CONTRACTOR

D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev. Floor 1131-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
onductor		16		
gh Coal	445	451		
ig Lime	1810	1850		
ig Injun	1850	1970		
ordon Sand	2600	2640		
ifth Sand	2759	2765		
otal Depth		2781		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT WHEN A
6 5/8"		1810		

PACKERS

KIND	SIZE	DEPTH SET	DATE

TORPEDO RECORD

DATE SHOT	No. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RES
10/25,1901.	24.				
7-8-1952	40	3½"x 10'	2759	2769	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEP

RECEIVED
Office of Oil & Gas
MAR 20 2008
WV Department of
Environmental Protection

REMARKS

Liner Record.
19 Jts. F. J. Casing in Two Sections
1st. Section 7 Jts. Top 2608'
2nd. " 12 " " 2359'
Note: All Liner pulled and left out
July 1952 - A.A.Gloeckner

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 60. BBLS.
24 HOURS AFTER SHOT SAND BBLS.
GAS TEST

APPROVED BY E. B. Shira

33-01787-P

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas

WELL LOCATION FORM: GPS

API: 47-033-1787 **WELL NO:** 27

FARM NAME: Hiram Lynch

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Wolf Summit 7.5'

SURFACE OWNER: David & Sandra Turner

ROYALTY OWNER: East Resources, Inc. et al.

UTM GPS NORTHING: 4,347,705 (NAD 27)

UTM GPS EASTING: 543,237 (NAD 27) **GPS ELEVATION:** 345 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___

RECEIVED
Office of Oil & Gas
MAR 20 2008
WV Department of
Environmental Protection

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

March 18, 2008

Date

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01788 Area Permit Number: 2R03301 AP
Operator Name: Eqt Reserves
Operator's Well #: 28
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2845
Completion Zones: 5th Perforated Interval: ? 5th

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1220
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☐	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		?No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		?No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
RBDMS shows as plugged, map symbol shows plugged
Need WR-38 OK

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Form 226 06445 12997

01788

B109

WELL RECORD.

995

Hiram Lynch Farm, Acres

Ten Mile District Harrison County W. Va. State

Well No. 38

Rig Commenced Jany 17 ~~189~~ 1900 } G.W. Ross & Co. Contractor.

Rig Completed " 22 ~~189~~ " }

Drilling Commenced " 30 ~~189~~ " } J.M. Gruver Contractor.

Drilling Completed Mch 30 ~~189~~ " }

#38

FORMATION.	TOP.	REMARKS.	BOTTOM
Condr.	16 ft.		
10" Casg	535		
8¼ "	1027		
6⅝ "	1896		
9th Coal	495		500
Big Dunkard Sand.	1010		1070
Gas "	1205		1285
Salt "	1490		1540
Big Lime	1836		1930
" Injun	1930		2000
50 ft Sand.	2405		2425
Strat "	2500		2590
Gordon "	2595		2645
5th "	2827		2832
Total Depth			2845

NOTE:

A good record must show the formation from top to bottom of well.

WWR-38

API# 47-033-1788

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1220'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: # 28
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. Min. Sec.
Deg. Min. Sec.

Well Type: Oil X Gas WIW

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 1/17/2007

Coal Operator NA
or Owner
Coal Operator NA
or Owner

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Ken Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 23rd day of October, 2007, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2090'	1890'	6 5/8" 450'	1446'
Cement	1050'	850'	5 1/2" 1890'	0'
Cement	550'	400'		
Cement	100'	0		
	Ripped 6 5/8" CSG Every Collar 1050' - 950' & 550' - 450'			
6% Gel Between Cement Plugs				

Description of monument: 7" x 7'
and that the work of plugging and filling said well was completed on the 11th day of November, 2007
And further deponents saith not.

RECEIVED
Office of Oil & Gas
NOV 28 2007
WV Department of Environmental Protection

Sworn and subscribe before me this 19th day of November, 2007

My commission expires: Oct. 4, 2016

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01789 Area Permit Number: 2R03301 AP

Operator Name: East Resources

Operator's Well #: 29

Farm Name: Hiram Lynch

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐

Well Status: Active ☐ Abandoned ☐ Plugged ☒

TD of well: 2772

Completion Zones: 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83)

Coordinates Match?: No ☐ Yes ☒

Easting: 543593.7 Northing: 4348406.5

Elevation: 1129

Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐

Date of Last MIT: N/A Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:

Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

26

WWR-38

API# 47-033-1789

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1,129'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: No. 29
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. Min. Sec.
Deg. Min. Sec.

Well Type: Oil X Gas WIW

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 03/25/08

Coal Operator or Owner: NA

Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 25th day of March, 2008, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2087'	1900'	6 5/8" 435'	1361'
Cement	1850'	1750'	5 1/2" 1813'	0'
Cement	1350'	1250'		
Cement	1050'	950'		
Cement	450'	350'		
Cement	100'	0'		
		Ripped 6 5/8" Csg Every 8' from 1350'-1250' &		
		1050'-950'		
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 2nd day of April, 2008
And further deponents saith not.

Kenneth Dotson

Sworn and subscribe before me this 11th day of April, 2008

My commission expires: Oct. 4, 2016

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

RECEIVED
Office of Oil & Gas
APR 14 2008
WV Department of
Environmental Protection

FARM Hiram Lynch, WELL 29. ACRES 568. LEASE NO. 3137(

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12, E7-8, W.

RIG COMMENCED Dec. 23, 1899. COMPLETED Dec. 28, 1899. CONTRACTOR

DR'G COMMENCED Jan. 3, 19 00. COMPLETED Mar. 1, 19 00. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev Flood 1129-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	419	421		
SALT SAND	1300			
Big Injun	1870	1935		
Gordon Sand	2500	2535		
Fifth Sand	2749	2754		
Total Depth		2772		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WELL
6 5/8"		1796		
All 8 1/4" & 10" Casing pulled out of 1				
5 3/16"		1813		

PACKERS

KIND	SIZE	DEPTH SET	DATE

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	REMARKS
3/ 2,1900.	40				
12/12,1905.	20.				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DATE

RECEIVED
Office of Oil & Gas
MAR 20 2008
WV Department of
Environmental Protection

REMARKS

Liner Record.
21 Jts. F. J. Casing in Two Section
1st. Section. Top 2580'
2nd. " " 2272'
1813' -- 85 Jts. 5 3/16" Casing. With H.W. Packer. Nov. 11,1926.

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 55. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY E.O. Shira

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM Hiram Lynch WELL No. 29

ELEVATION 1129 N. _____ E. 12 E. 7-8 W. _____

LEASE No. 31378 ACRES 568

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Jan. 3,1900. COMPLETED Mar. 1,1900. DEPTH 2772

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pitch Coal or Big Lime					
Pitch Coal	419	421		6⅝	1796
Big Injun	1870	1935			
Gordon	2500	2535			
Fifth	2749	2754			
				PACKERS AND DEPTH SET	

INITIAL PROD. 55 Bbls. BAND Fifth DEPTH 2749

GAS TEST _____

SHOT Mar. 2,1900 QUARTS 40 Qts.

REMARKS Dec. 12,1905. 20 "

REPORTED BY [illegible] ABANDONED _____

47-033-1789

33-01789-P

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47-033-1789P **WELL NO:** 29

FARM NAME: Hiram Lynch

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Wolf Summit 7.5'

SURFACE OWNER: Kenneth & Deborah Gaskins

ROYALTY OWNER: East Resources, Inc. et al.

UTM GPS NORTHING: 4,378,651 (NAD 27)

UTM GPS EASTING: 543,573 (NAD 27) **GPS ELEVATION:** 344 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___

RECEIVED
Office of Oil & Gas
MAR 20 2008
WV Department of
Environmental Protection

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

March 18, 2008

Date

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01791 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 31
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2661
Completion Zones: 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 545010.9 Northing: 4348440.3
Elevation: 1062
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Listed as Fluid Injection well in RBDMS, the Secondary Recovery well permit was canceled on 6/24/2005

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

BUREAU DISTRICT.

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM Hiram Lynch WELL No. 31

ELEVATION 1061 N. _____ S. 12 E. 7 - 8 W.

LEASE No. 31378 ACRES 568

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED May 12, 1900. COMPLETED June 17, 1900. DEPTH 2661

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	350	355		6⅝	1736
Big Lime	1670	1730		5 3/16	779
Big Injun	1730	1800			
Gordon	2405	2465			
Fifth	2641	2661		PACKERS AND DEPTH SET	

INITIAL PROD. 80 Bbls SAND Fifth DEPTH 2641

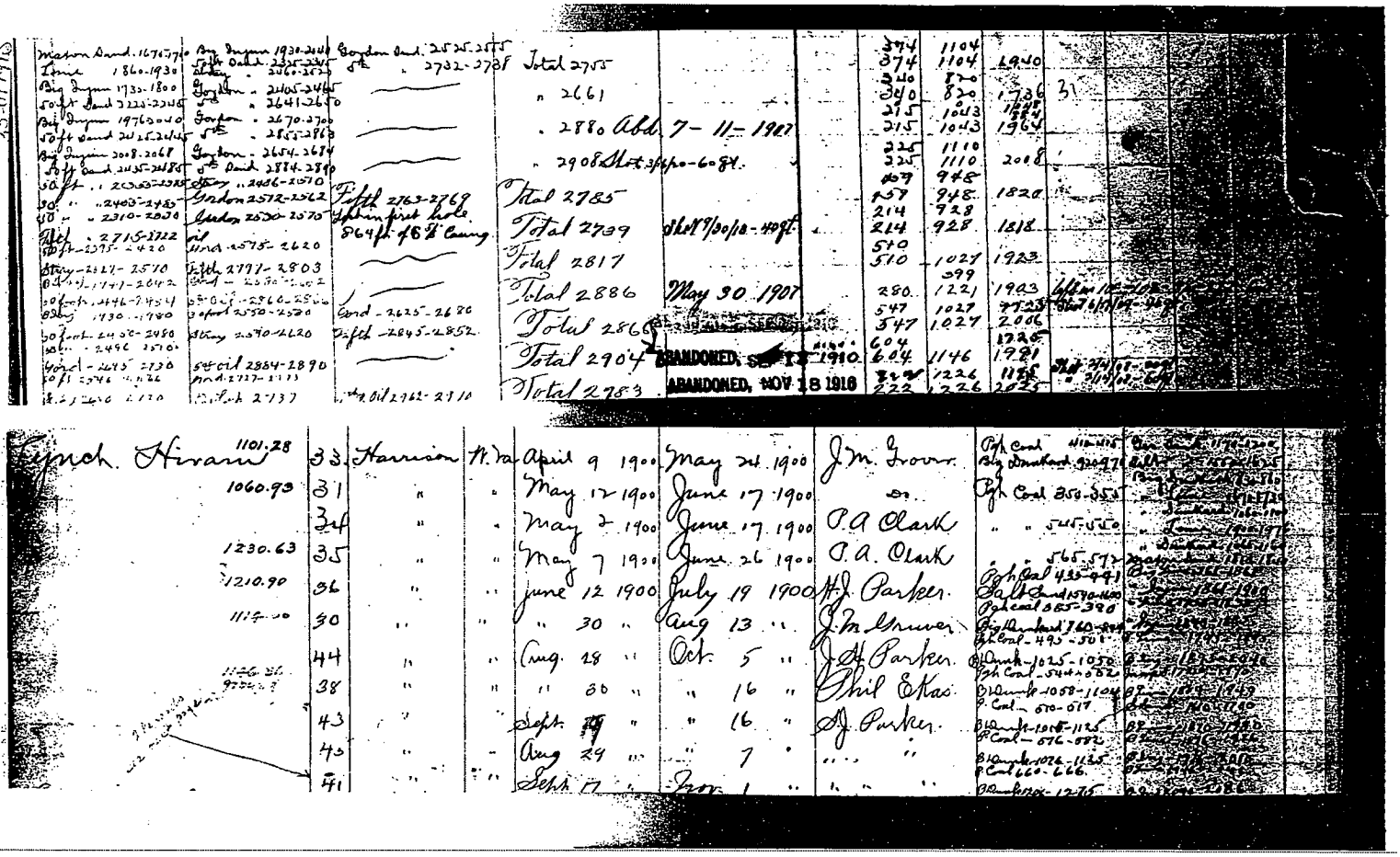
GAS TEST _____

SHOT Dec. - 1900 QUARTS 40 Qts.

REMARKS _____

REPORTED BY A. F. Reno ABANDONED _____

47-033-1791


Total 2755
Total 2785
Total 2739
Total 2817
Total 2886
Total 2866
Total 2904
Total 2783
ABANDONED, SEP 12 1910
ABANDONED, NOV 18 1910
Eyrich Hiram 1101.28
1060.93
1230.63
1210.90
1114.00
Harrison W. Va
April 9 1900
May 12 1900
May 2 1900
May 7 1900
June 12 1900
" 30 "
Aug. 28 "
Sept. 19 "
Aug 29 "
Sept 17 "
May 24 1900
June 17 1900
June 17 1900
June 26 1900
July 19 1900
Aug 13 "
Oct. 5 "
" 16 "
" 16 "
" 7 "
" 1 "
J.M. Grover
P.A. Clark
P.A. Clark
H.J. Parker
J.M. Grover
J.H. Parker
Phil Eyrich
H.J. Parker

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01790
Operator Name: ~~East Resources~~ HG Energy
Operator's Well #: 30
Farm Name: Hiram Lynch
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand
Area Permit Number: 2R03301 AP

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2729
Completion Zones: 5th Sand
Perforated Interval: Slot

Well Location (UTM NAD83)
Easting: 543786.6
Elevation: 1114
Inside Field Boundary? ☒
Coordinates Match?: No ☐ Yes ☒
Northing: 4348439.8
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	If No: Provide Depth: No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10/ 4 /2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
Rev. 5/08

API# 47- 033 - 1790

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS

RECEIVED
Office of Oil & Gas
JUL 16 2012
WV Department of
Environmental Protection

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Department, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm Name: Hiram Lynch
Operator Well No.: No.30
Location: Elevation: 1114'
Quadrangle: Wolf Summit 7.5'
District: Tenmile
County: Harrison
Latitude: _____ Feet South of: _____ Deg. _____ Min. _____ Sec.
Longitude: _____ Feet West of: _____ Deg. _____ Min. _____ Sec.

Well Type: Oil X Gas _____ WIW _____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek

Coal Operator or Owner: NA

Coal Operator or Owner: _____

Permit Issued: 4/3/12

AFFIDAVIT

State of West Virginia, County of Wood ss:

Steven Taylor and Jim Lamp being first duly sworn according to law, depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 18th day of May, 20 10 and the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2700'	2380'	6 5/8"	80'	1738'
Cement	1900'	1800'	5 3/16"	1866'	0'
Cement	950'	850'			
Cement	440'	322'			
Cement	260'	160'			
Cement	100'	0'			
	Perforated6 5/8" casing 1 shot/20' from 950' - 850', 440' - 340' & 260' - 160'.				
	One continuous rip from 370' - 400'				
6% Gel Between Cement Plugs					

Description of monument: 7" x 5" and that the work of plugging and filling said well was completed on the 4th day of June, 20 12

And further deponents saith not. Steven Taylor
James D. Lamp

Sworn and subscribed before me this 28 day of June, 20 12

My commission expires: Nov. 12, 2018

Notary Public _____

Affidavit reviewed by the Office of Oil and Gas: _____

Title: Oil & Gas Inspector

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
East Resources, Inc
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Nov. 12, 2018

5M-3-22

FARM Hiram Lynch, WELL 30. ACRES 568. LEASE NO. 31378.

TOWNSHIP OR DISTRICT Ten Mile. COUNTY Harrison. STATE West Va. N. S.12. E.7-8. W.

RIG COMMENCED Dec. 27, 1899. COMPLETED Jan. 5, 19 00. CONTRACTOR

DR'G COMMENCED June 30, 19 00. COMPLETED Aug. 13, 19 00. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

33-01790

FORMATION Elev Flood 1114-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Big Injun	1840	1885		
Gordon Sand	2530	2575		
Fifth Sand	2715	2722		
Total Depth		2729		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1818		
All 8 1/4" & 10" Casing pulled out of Well.				
5 3/16		1866		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
	5 3/16	1856	May 6, 1

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
1/ --,1901.	24				
1/23, 1902.	24				
9/30,1913,	40		2724		Pigs.

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEPTH

RECEIVED
Office of Oil & Gas
FEB 07 2012
WV Department of
Environmental Protection

REMARKS

Liner Record.
Two Sections of Liner 399'
1st. Section. 8 Jts. 176' Top. 2538'
2nd. " 11 " 223' " 2315'

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 30. BBLS.
24 HOURS AFTER SHOT SAND BBLS.
GAS TEST

APPROVED BY E W Shiras SUPT.

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM Hiram Lynch WELL No. 30

ELEVATION 1114 N. _____ E. 12 E. 7 S. 8 W.

LEASE No. 81378 ACRES 568

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED June 30, 1900 COMPLETED Aug. 13, 1900 DEPTH 2729

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	385	390		6⅝	1818
Big Injun	1840	1885			
Gordon	2530	2575			
Fifth	2715	2722			
				PACKERS AND DEPTH SET	

INITIAL PROD. 30 Bbls. SAND Fifth DEPTH 2715

GAS TEST _____

SHOT Jan. — 1901 QUARTS 24 Qts.

REMARKS _____

Over.

REPORTED BY _____ ABANDONED _____

47033-1790

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01792
Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 33
Farm Name: Hiram Lynch
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2755
Completion Zones: 5th
Perforated Interval: Shot

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☐
Easting:
Northing:
Elevation: 1101
Inside Field Boundary? ☑
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑ Shot
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
	No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

RB Does not show shot as plugged
OK
Need WR-38

Reviewer Name: Josh Whittle
Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

4-3-22

1 Hiram Lynch, WELL 33, ACRES 568, LEASE NO. 6137

SHIP OR CT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12 E. 7-8 W.

OMMENCED April 1, 1900. COMPLETED April 5, 1900. CONTRACTOR

COMMENCED April 9, 1900. COMPLETED May 24, 1900. CONTRACTOR

ON ACED 19 COMPLETED 19 CONTRACTOR

47-033-0192

FORMATION Elev Floor 1101-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
ductor		16		
Coal	410	415		
Lime	1860	1930		
Injun	1930	2040		
don Sand	2525	2555		
th Send	2732	2738		
al Depth		2755		

AL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1940		

#36

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
5/24,1900.	40				
4/12,1906.	60	Pigs.			

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record.

1st. Section. 10 Jts. 213' Top 2665'

2nd. " 10 " 216' " 2449'

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 28. BBLS.

HOURS AFTER SHOT SAND BBLS.

S TEST

APPROVED BY E. W. Shira SUPT

WWR-38 API# 47-033-1792

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1,101'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: No. 33
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. Min. Sec.
Deg. Min. Sec.

Well Type: Oil ____ Gas ____ WIW X

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 1/17/07

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 7th day of November, 2007, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	1970'	1870'	6 5/8" - 350'	1590'
Cement	1050'	950'		
Cement	450'	300'		
Cement	100'	0'		
	Ripped 6 5/8" CSG Every Collar 1050' - 950' & 450', 430', 410', 390', 370' & 350'			
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 16th day of November, 2007
And further deponents saith not.

RECEIVED
Office of Oil & Gas
DEC 05 2007
WV Department of Environmental Protection

Sworn and subscribe before me this 3rd day of December, 2007

My commission expires: Oct. 4, 2016

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01793 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 35
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2908
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541037.8 Northing: 4357204.7
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion — No ☐ Yes ☑
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☑
Cemented across injection zone? — No ☑ Yes ☐
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Lynch WELL 35. ACRES 668. LEASE NO. 31378.

Mile COUNTY Harrison. STATE West Va. N. S. 12. E. 7-8 W.

ED April 25, 19 00. COMPLETED May 1, 19 00. CONTRACTOR

NCED May 7. 19 00. COMPLETED June 26, 19 00. CONTRACTOR

MMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

Elev Floor 1231-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
uctor		16		
Coal	565	572		
Injun	2008	2068		
on Sand	2654	2684		
h Sand	2884	2890		
l Depth		2908		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		2008		
Feb. 1930 - 5316		2053		

#39

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
6/26,1900.	40				
3/16,1920.	60	Pigs.			

H Lynch 35

01793

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record.
10 Jts..213' Two sections.
1st Section. Top 2665'
2nd. " " 2449'

DEPTH

PRODUCTION RECORD

JRS BEFORE SHOT Fifth SAND 40. BBLS.

JRS AFTER SHOT SAND BBLS.

EST

APPROVED BY E. O. Shira SUPT.

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01794 Area Permit Number: 2R03301 AP

Operator Name: East Resources

Operator's Well #: 36

Farm Name: Hiram Lynch

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐

Well Status: Active ☐ Abandoned ☐ Plugged ☒

TD of well: 2785

Completion Zones: 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83)

Coordinates Match?: No ☐ Yes ☑

Easting: 544617.9 Northing: 4348799.1

Elevation: 1211

Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐

Date of Last MIT: N/A Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☐	Yes ☑
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:

Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

VR-38

API # 47-033-01794

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Post, Clara etal Operator Well No.: Hiram Lynch #36

LOCATION: Elevation: 1211.00 Quadrangle: Wolf Summit 7.5
District: Ten Mile County: Harrison
Latitude: 1550 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 6650 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL x GAS ____

Company: PennzEnergy Exploration & Prod. Co.
P.O. Box 5519
Vienna, WV 26105

Coal Operator or Owner: The Endres Co.
P.O. Drawer 1280
Bridgeport, WV 26330

Agent: Mike McCown
Inspector: Tim Bennett
Permit Issued:

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

RECEIVED
Office of Oil & Gas
Permitting
DEC 10 2001
WV Department of
Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Rick Green and Victor Stinespring being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by PennzEnergy Expl. & Prod. Company, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 19th day of July, 1999, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
Cement	110 SKS	2770'	2450'	5 1/2" - 1880'	20' Estimate
Cement	25 SKS	1890'	1740'	6 5/8" - 440'	1380'
Cement	30 SKS	1120'	960'		
Cement	55 SKS	550'	380'		
Cement	50 SKS	250'	150'		
Cement	55 SKS	50'	Surface		
6% Gel Between Cement plugs					

12/12/01

Description of monument: 6 5/8" x 20'

and that the work of plugging and filling said well was completed on the 30th day of July, 1999.

And furthur deponents saith not.

Sworn and subscribe before me this 6th day of DECEMBER, 2001
My commission expires: 5/2/10

Notary Public

47-033-01794P

5-94 TUE 11:58 PENNZOIL PRODUCTS — P. 01

SM-5-88

FARM Hiram Lynch, WELL 36, ACRES 668. LEASE NO. 51378.

OWNERSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12, E. 7-85

D COMMENCED June 4, 19 00. COMPLETED June 10, 19 00. CONTRACTOR

R'G COMMENCED June 21, 19 00. COMPLETED July 19, 19 00. CONTRACTOR

D COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev Rotary 1216-00

KIND	TOP	BOTTOM	SEA LEVEL MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	435	441		
Salt Sand	1540	1600		
Big Lime	1761	1861		
Big Injun	1861	1900		
Fifty Foot	2355	2375		
Thirty Foot	2455	2485		
Stray Sand	2488	2510		
Gordon Sand	2512	2552		
Fifth Sand	2763	2769		
Total Depth		2785		

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 2

To Jack S.	From Michelle
Co.	Co.
Dept.	Phone #
Fax #	Fax #

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 25. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1820		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
8/1,1900.	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record.
409' 5" I.F. Casing In Two Sections.
1st Section, 11 Jts. Top 2583'
2nd " 8 " " 2362'

APPROVED BY [signature] SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01795 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 42
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2936
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541037.9 Northing: 4357204.7
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: John Whitlock Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

M-22

W. Kram Lynch, WELL 42. ACR 568. LEASE NO. 3137-8.

SHIP OR ICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12, E. 7-8W.

COMMENCED Aug. 27, 19 00 COMPLETED Sept. 6, 19 00 CONTRACTOR

CO[illegible]NCED Sept. 7, 19 00 COMPLETED Dec. 26, 19 00 CONTRACTOR

COMMENCED 19 COMPLETED 19 CONTRACTOR

47-033-01792

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal	610	617		
1s	2530	2550		Figures from plat and estimate
g Injun	1965	2045		
er Sand	2430	2560		
Tag	2461	2475		
rdon Sand	2675	2695		
fth Sand	2919	2925		
tal Depth		2936		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
10"		232		
8 1/4"		1153	#41	
~~6 5/8"~~		~~1960~~		
5 3/16"		1960'		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
4/--,1901.	30				
1/--,1907.	24.				
11/13,1908.	36.		2782		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	PLUG DEPTH

~~DUPLICATE~~

REMARKS

See C.O. card 1942

AL DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 40. BBLS.

OURS AFTER SHOT SAND BBLS.

TEST

APPROVED BY E.O. Shira SUPT.

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01796
Area Permit Number: 2R03301 AP
Operator Name: Trust Resources
Operator's Well #: 43
Farm Name: Hiram Lynch
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2904
Completion Zones: [redacted] 5th
Perforated Interval: shot

Well Location (UTM NAD83)
Easting: 542944.9
Coordinates Match?: No ☐ Yes ☑
Northing: 4348435.1
Elevation: 1203
Inside Field Boundary? ☑
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	If No: Provide Depth: No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10/4 /2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-1796

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Hiram Lynch
LOCATION: Elevation: 1,203'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 43
Quadrangle: Salem 7.5'
County: Harrison
Deg. _____ Min. _____ Sec. _____
Deg. _____ Min. _____ Sec. _____

Well Type: Oil X Gas _____ WIW _____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 1/7/08

Coal Operator or Owner: NA

Coal Operator or Owner: NA

RECEIVED
Office of Oil & Gas
MAR 1 8 2008
WV Department of
Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 1st day of January, 2008, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2770'	2595'	8 1/4"	250'	896'
Cement	2500'	2400'	6 5/8"	850'	1141'
Cement	1950'	1850'	5 1/2"	2016'	0'
Cement	950'	850'			
Cement	650'	550'			
Cement	100'	0'			
		Ripped 8 1/4" Csg 625' - 525' & 425'			
6% Gel Between Cement Plugs					

Description of monument: 5' x 8'
and that the work of plugging and filling said well was completed on the 18th day of January, 2008
And further deponents saith not.

Kenneth Dotson

Victor Stinespring

Sworn and subscribe before me this 18th day of March, 2008

My commission expires: Oct. 4, 2016

S. Dianne Dulaney
Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

Verbal

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

33-01796-P

Form 226 (6-45) 12997

B. 109. 945.

WELL RECORD.

Hiram Lynch Farm, ... Acres

Fen Mill District Hannis County WVa State

Well No. 43

Rig Commenced Aug 27 189~~9~~ 1900

Rig Completed Sept 2 189~~9~~ 1900 G.H. Ross Co Contractor.

Drilling Commenced " 5 189~~9~~ 1900

Drilling Completed Oct 16 189~~9~~ 1900 A.J. Parker Contractor.

FORMATION.	TOP.	REMARKS.	BOTTOM
Wood Coal			16
10" Casing			604
8¼" "			1146
6⅝" "			1991
Pittsburg Coal	576		582
Big Dunkard	1076		1125
" Lime	1876		1976
" Sand	1976		2010
Fifty Foot	2496		2510
Gordon "	2695		2730
Fifth Sand	2884		2890
Total Depth			2904

All 10" Casing pulled out

Casing in well: 8¼" 1146 ft, 6⅝" 1991 "

Casing not in well: 10" — 711½ ft; 8¼" — 247½ "; 6⅝" — 271½ "

Well shot 40 qts Glyc and pro-ducing about 30 bbls per day

5" on Pkr @

RECEIVED
Office of Oil & Gas
NOV 04 2008
WV Department of
Environmental Protection

WV Department of
Environmental Protection

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01797 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 44
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2817
Completion Zones: 5th Sand Perforated Interval: Open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 513157.3 Northing: 4348483.9
Elevation: 1137
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM Hiram Lynch WELL No. 44

ELEVATION _____ N. _____ S. 12 E. 7 - 8 W. _____

LEASE No. 31378 ACRES 568

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Aug. 28, 1900 COMPLETED Oct. 5, 1900 DEPTH 2817

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pch. Coal or Big Lime					
Pch Coal	495	501		8¼	1027
Big Injun	1895	2040		6⅝	1923
Gordon	2575	2620			
Fifth	2797	2805			
				PACKERS AND DEPTH SET	

INITIAL PROD. 110 Bbls SAND Fifth DEPTH 2797

GAS TEST _____

SHOT Nov. 13, 1901 QUARTS 24 Qts. 40 "

REMARKS June 25, 1902.

REPORTED BY W. H. Reese ABANDONED _____

47-033-1797

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01799 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 3
Farm Name: E.L. Maxwell
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2005
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544706.3 Northing: 4350716.7
Elevation: 977
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Well No. 3 Eli Maxwell Farm Acres
Lease No. Lewis Mile District Hampton County W. Va. State
T. L. Lewis 1911 et al (?) Contractor Contractor
Drilling Commenced 192 Drilling Completed 192
N. S. 10-11 E. 7-8 W.

ROCK FORMATION	TOP	BOTTOM	Steel Line Measurement	REMARKS
Pittsburgh Coal	371			
Gideon Sand	411			
Fifth Sand	1659			
Total depth	1697			Productions:- 3 bbl. per hour

CASING RECORD AS TALLIED, NOT STEEL LINE MEASUREMENT

PUT IN WELL			PULLED OUT			LEFT IN WELL		
SIZE	FEET	IN.	FEET	IN.	FEET	IN.		
6⅝	1690							

Shot Date June 1916
Amount 10 qts
Sand Fifth Sand
Remk

Packer Size

Depth Set

Production First 24 Hours ..... Bbls. Gas Test .....

Approved by ..... Superintendent

47-033-1799

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01830 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: CW Smith #1
Farm Name: Stutters, Ray Mrs.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2698
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 521628 2.5 Northing: 4350903.1
Elevation: 1153
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
OFFICE OF OIL AND GAS
APR 30 1997
WV Division of Environmental Protection

WR-30
27-Jan-97

API # 47- 33-01830-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: STROTHER, ROY, MRS. Operator Well No.:C.W. SMITH #1

LOCATION: Elevation: 1,153.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 9850 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 1300 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: P. S. Ondrusek

Permit Issued: 01/27/97

Coal Operator or Owner: The Endres Company
P. O. Drawer 1280
Bridgeport, WV 26330

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Leroy Snodgrass and Dale Workman being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 26th day of February, 1997, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
160 sks. cement	2670'	1990'	7" csg. 378'	1327'
30 sks. cement	1780'	1630'		
20 sks. cement	860'	760'	Ripped 7" csg. 800'	-860'
50 sks. cement	360'	250'		
40 sks. cement	210'	120'		
40 sks. cement	50'	Surface		
6% gel between cement plugs				

5/2/97

Description of monument: 7" casing 3' above ground
and that the work of plugging and filling said well was completed on the 14th day of March, 1997.

And furthur deponents saith not.

Leroy Snodgrass

Dale Workman

Sworn and subscribe before me this 15th day of April, 1997

My commission expires: August 7, 2006

Diane E. Bosley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOSLEY
PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519
My Commission Expires August 7, 2006

Oil and Gas Inspector: Tim Bennett

FARM C. W. Smith, WELL 1, ACRES 76, LEASE NO. 32719

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S10-10E. 9 W.

RIG COMMENCED Dec. 15, 1899. COMPLETED Dec. 20, 1899. CONTRACTOR E. Myers

DR'G COMMENCED Dec. 24, 1899. COMPLETED Feb. 7, 1899. CONTRACTOR Schaffner Bros.

D. COMMENCED 19 . COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	300	306		
Dunkard Sand	815	940		
Salt Sand	1565	1625		
Big Lime	1700	1790		
Big Injun	1790	1895		
Fifty Foot	2245	2285		
Gordon Sand	2315	2505		Gas 2497
Fifth Sand	2674	2688		
Total Depth		2698		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABAND.
6⅝"		1508		

Pennzoil Pluggers
API Well No 47-033-1830-H

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
9/ 4,1900.	40				
6/ 5,1902.	40				
4/11,1903.	100	Set 40 Qts-Dumped 60 Qts.			
12/ 8,1920.	60	Pigs.			

ABANDONMENT RECORD

FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

033-1830

July 20. 1932,

C.W.Smith # 1

Cleaning Out 10 Days

Well making 7 Bbls before Cleaning Out

Well Making 14 Bbls after Cleaning Out.

Liner Record.
434' 20 Jts. 5 X 5½" F.J. Casing.
--1st Section. 10 Jts. In [illegible] Top [illegible]
--2nd " 10 " Top. 2208' [illegible]

TOTAL DEPTH 2227
2207

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 125. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY: [illegible]

NO. 1

SOUTH PENN OIL COMPANY,—COMPLETION

SERIAL NO. _____ FARM C. W. Smith WELL NO. 1

ELEVATION _____ N. _____ S. 10 – 11 E. _____ W. _____

LEASE NO. 32719 ACRES 76

WATERS OF New Creek

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Dec. 24, 1899 COMPLETED Feb. 7, 1900 DEPTH 2698

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pcil. Coal or Big Lime					
Pgh Coal	300	306		6⅝	1705
Big Lime	1700	1790			
Big Injun	1790	1895			
Gordon	2345	2505			
Fifth	2674	2688		PACKERS AND DEPTH SET	

INITIAL PROD. 125 Bbls. SAND Fifth DEPTH 2674

GAS TEST _____

SHOT Sept. 4, 1900 QUARTS 40

REMARKS _____ Over.

REPORTED BY H. P. Dering ABANDONED _____

47-033-1830

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01831 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: CW Smith 4
Farm Name: Christina Moffett
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2778'
Completion Zones: _____ Perforated Interval: _____

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 546170.6 Northing: 4350773.6
Elevation: 1218
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑ Plugged
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Plugged Property

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

API # 47-033-1831-P

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Christine Moffett Operator Well No.: C. W. Smith #4

LOCATION: Elevation: 1218' Quadrangle: Wolf Summit
District: Tenmile County: Harrison
Latitude: 10,250 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 1,600 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: ____

Permit Issued: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 7th day of November, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 120 sks.	2758'	2450'	6 5/8" csg. ripped	holes @ 870,
Cement 40 sks.	2411'	2200'	700, 600, 400, 380	360, 340
Cement 20 sks.	1908'	1808'	6 5/8" csg. 170'	1678'
Cement 20 sks.	870'	770'	8 ¼" csg. 529'	341'
Cement 30 sks.	380'	280'	10" csg. No sign of	casing,
Cement 40 sks.	240'	140'	pulled earlier.	
Cement 61 sks.	50'	Surface		
				DEC 19 94

Description of monument: 7" Casing - 30" Above ground level
and that the work of plugging and filling said well was completed on the 25th day of November, 19 94

And furthur deponents saith not.

[signature]

Sworn and subscribe before me this 5th day of December, 19 94
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: ____

HAR
1831-P

WR-38
24-Sept-91

RECEIVED
WV Division of Environmental Protection
MAY 09 1995
Permitting
Office of Oil & Gas

API # 47-033-1831

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Christine Moffett Operator Well No.: C. W. Smith #4

LOCATION: Elevation: 1218' Quadrangle: Wolf Summit
District: Tenmile County: Harrison
Latitude: 10,250 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 1,600 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner ____

Permit Issued:

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Ripley A. Nelson and ____ being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 7th day of November, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 120 sks.	2759'	2450'	6 5/8" csg ripped	holes @ 870,
Cement 40 sks.	2411'	2200'	700, 600, 400, 380,	360, 340
Cement 20 sks.	1908'	1808'	6 5/8" csg. 170'	1678'
Cement 20 sks.	870'	770'	8 ¼" csg. 529'	341'
Cement 30 sks.	380'	280'	10" csg. No sign of	casing,
Cement 40 sks.	240'	140'	pulled earlier.	
Cement 61 sks.	50'	Surface		

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 25th day of November, 1994

And further deponents saith not.

Ripley A. Nelson

Sworn and subscribe before me this 5th day of December, 1994
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: ____

FARM C. W. Smith, WELL 4, ACRES 76, LEASE NO. 32719,

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S10 1E 10 W.

RIG COMMENCED Jan. 3, 1900, COMPLETED Jan. 10, 1900, CONTRACTOR E. Myers,

DR'G COMMENCED Jan. 15, 1900, COMPLETED Mar. 13, 1900, CONTRACTOR J. Schaffner Bros.

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	365	369		
Dunkard Sand	850	1050		
Big Lime	1738	1800		
Big Injun	1820	1880		
Fifty Foot	2200	2260		
Gordon Sand	2405	2575		
Fifth Sand	2752	2762		
Total Depth		2778		

033-1831

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
10"		200		
8¼"		870	529'5"	340'7"
6¼"		1848		

Pennzoil Pickens

API well No. 47-033-1831-P

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	REPULT
8/--.1901.	40				
8-13-1956	60	3-4½x 7'	2755	2762'	Pay

El 1150 Topo

C.W.Smith # 4

Commenced Cleaning Out July 16.1932

Completed " " " 30.1932

Cleaning Out 12 Days

Production before Cleaning Out 7 Bbls Week,

" After " " 14 " "

ABANDONMENT RECORD

FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 68 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

Liner Record.
7 Jts. 5 X 5½" F. J. Casing. Top 2450'
Pulled 8-5-56 put 7" Packer
No liner in well now.

APPROVED BY

Form 226 0445 1907

33-114

WELL RECORD.

O. N. Smith Farm, Acres

Fox Mile District Harrison County W. Va. State

Well No. 4

Rig Commenced Jany 3 1900 } G. M. Ross & Co. Contractor.

Rig Completed " 10 " "

Drilling Commenced " 15 " "

Drilling Completed Mch 13 " " } Schaffner Bros Contractor.

FORMATION.	TOP.	REMARKS.	BOTTOM
Conder.	16 ft.		
10" Casing	200		
8 1/4 "	870		
6 5/8 "	1858		
Pgh. Coal	365		369
Big Dunkard.	850		1050
" Lime	1738		1800
" Injun Sand.	1820		1880
50 ft "	2200		2260
Gordon "	2505		2575
5th "	2752		2760
	Total Depth		2778

033-1831

NOTE:

A geological record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01832 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: CW Smith 5
Farm Name: Frederick Lee Fletcher
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (Non Waterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2976'
Completion Zones: Fifth Sand Perforated Interval: Shot 2956 - 2964

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 545977.5 Northing: 4350772.4
Elevation: 1403
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion — No ☐ Yes ☐
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☐ Shot Plugged
Cemented across injection zone? — No ☐ Yes ☐
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☐

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Plugged Properly

Reviewer Name: Laura Adkins Signature: Laura L Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RM C. W. Smith, WELL 6. ACRES 76. LEASE NO. 32719.

NSHIP OR RICT Ten Mile, COUNTY Harrison, STATE West Va. N. S10-1E. 9. W.

COMMENCED Mar. 14, 19 00. COMPLETED Mar. 20, 19 00. CONTRACTOR E. Myers,

2 COMMENCED Mar 27, 19 00. COMPLETED May 12, 19 00. CONTRACTOR Schaffener Bros.

. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE STEMMED BY	REMARKS
onductor		16		
gh Coal	590	594		
unkard Sand	1080	1250		
ig Lime	1920	1980		
ig Injun	1980	2107		
ifty Foot	2500	2536		
ordon Sand	2680	2830		
ifth Sand	2956	2966		
otal Depth		2976		

Pennsaul Plugged
API No. 47-033-01832-P
6-- Log
Tally Log
Log

OTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABAND.
6⅝"		1980' 8"		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
2/--,1901	12				
8/ 2,1901	24				
8-12-59	60	2-4¼ 1-3½	2956	2966	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUGS SIZE	PLUGS KIND	PLUGS DEPTH

REMARKS

Liner Record. Nov. 20,1908.
498' 5 X 5½" F. J. Casing two sections.
1st. Section 10 Jts. in Gordon Sand.
2nd. " 13 " Setting on top of
First section with Bell Collar on Top.
Liner pulled 7-2-59
Allen

PRODUCTION RECORD

4 HOURS BEFORE SHOT Fifth SAND 50. BBLS.

4 HOURS AFTER SHOT SAND BBLS.

AS TEST

APPROVED BY [signature] SUPT.

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM J. J. Smith WELL NO. 5

ELEVATION _____ N. _____ E. 10 - 11 S. _____ W. _____

LEASE No. 32719 ACRES 76

WATERS OF New Creek

DISTRICT Ten Mile COUNTY Harrison. STATE West Va.

DRILLING COMMENCED Mar. 27,1900. COMPLETED May 12,1900. DEPTH 2976

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	590	594		6⅝	1980 - 6"
Big Lime	1920	1980			
Big Injun	1980	2102			
Gordon	2680	2830			
Fifth	2956	2966		PACKERS AND DEPTH SET	

INITIAL PROD. 50 Bbls. SAND Fifth DEPTH 2956

GAS TEST _____

SHOT Feb. 1901 QUARTS 12

REMARKS Aug. 2,1901. 24

REPORTED BY W. H. Glenn ABANDONED _____

47-033-1832

WR-38
01-Sep-93

API # 47- 33-01832-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: FLETCHER, FREDERICK LEE Operator Well No.:C.W. SMITH #5

LOCATION: Elevation: 1,403.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 10300 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 2400 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner N/A

Agent: James A. Crews

Coal Operator or Owner ____

Permit Issued: 09/01/93

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AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richey A. Green and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 31st day of May, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 110 sks	2900'	2500'	6-5/8" 270'	1710'
Cement 20 sks	2075'	1975'	5-3/16" liner 0'	496'
Cement 22 sks	635'	535'		
Cement 46 sks	275'	175'	6-5/8" csg. ripped from	
Cement 50 sks	50'	Surface	635' to 530'	

Description of monument: 7" casing - 30" above ground level
and that the work of plugging and filling said well was completed on the 10th day of June, 1994.

And further deponents saith not.

Richey A. Green
Kenneth Dotson

Sworn and subscribed before me this 8th day of August, 1994.
My commission expires: June 10, 1997

Notary Public

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AUG 05 1994
Environmental Protection
Permitting
Office of Oil & Gas

Oil and Gas Inspector: ____

HARR 1832-P

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033-01833 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: CW Smith 6
Farm Name: Roy F Strother
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2925'
Completion Zones: Fifth Sand Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 546137.4 Northing: 4350906
Elevation: 1366'
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Shot
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

[redacted]	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Plugged Property

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
03-Nov-94

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MAY 09 1995
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API # 47- 33-01833-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: STROTHER, ROY F. Operator Well No.:C.W. SMITH #6

LOCATION: Elevation: 1,366.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 9700 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 1900 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 11/03/94

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: _____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 17th day of November, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 120 sks.	2752'	2450'	5-3/16" csg. 1980'	48'
Cement 20 sks.	2450'	2350'	& packer	
Cement 20 sks.	2014'	1914'	6-5/8" csg. 405'	1597'
Cement 20 sks.	1043'	943'		
Cement 61 sks	600'	350'		
Cement 50 sks.	300'	200'		
Cement 60 sks.	50'	Surface		

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 9th day of December, 1994.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 28th day of December, 1994
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

FARM C. F. Smith WELL 6. ACRES 76. LEASE NO. 22719

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. 510 ft. W. [illegible]

RIG COMMENCED Mar. 25, 1900. COMPLETED April 2, 1900 CONTRACTOR W. E. McBride

DR'G COMMENCED April 6, 1900. COMPLETED May 25, 1900 CONTRACTOR Schaffner Bros.

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	535	540		
Dunkard Sand	1005	1100		
Big Lime	1910	1960		
Big Injun	1985	2060		
Fifty Foot	2375	2435		
Gordon Sand	2600	2750		
Fifth Sand	2899	2906		
Total Depth		2925		
Commenced				
Completed				
Produci				
Do				
Liner o				
TOTAL DEPTH				

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		2002		
5⅜/16		2878	Cumb Run Jun 5-1939	

Penn Gas Pluggers

API well No. 47-033-01833-P

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
3/—.1901.	24				
1/26,1904.	50	20 Qts	in Shell	30	Qts Dum
10/19,1922.	30				
10/27,1922.	60		2900'		
5/27,1964	60	qt	2899'	2909'	Hole Bri

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record

439' 5 X [illegible] Casing in two Section

Top of Liner [illegible]

[illegible] Pulled out [illegible] 1939

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AOR - Well Review Checklist

API Number: 47-033-01836 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 2
Farm Name: Alexander Stonestreet
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (Non Waterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2649
Completion Zones: 5th Perforated Interval: Open / Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 544148 Northing: 4347773
Elevation: 1080
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒?	Yes ☐
Packer immediately above injection zone (<100')?	NA	No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9/16/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-1836

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

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Office of Oil & Gas
DEC 27 2010
WV Department of
Environmental Protection

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Alexander Stonestreet
LOCATION: Elevation: 1,080'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 2
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. ____ Min. ____ Sec. ____
Deg. ____ Min. ____ Sec. ____

Well Type: Oil X Gas ____ WIW ____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennet
Permit Issued: 7/23/09'

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Phil Ondrusek and Mike Lamp being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 28th day of May, 2010, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	1909'	1736'	8 1/4" 200'	595'
Cement	1705'	1600'	6 5/8" 782'	923'
Cement	1295'	1190'	5 3/16" 1680'	82'
Cement	750'	650'		
Cement	353'	220'		
Cement	203'	0'		
		Peforated 5 3/16" & 6 5/8" casings 1 shot/20' from 1700'-1600'.		
		Perforated 6 5/8" casing 1 shot/20' from 1380'-1280', 1 shot/20' from		
		850'-750' & 1 shot/10' from 350'-250' & every 1' from		
6% Gel Between Cement Plugs		298'-293'.		

Description of monument: 8" x 5'
and that the work of plugging and filling said well was completed on the 15th day of June, 2010
And further deponents saith not.

P S Ondrusek
Larry M. Lamp

Sworn and subscribe before me this 21 day of December 2010

My commission expires: Nov. 12, 2018

Tina L Pethtel
Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Gene Smith
Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
East Resources, Inc
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Nov. 12, 2018

FARM A. Stonestreet, WELL 2. ACRES 182. LEASE NO. 25804.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12, E. 7, W.

COMMENCED Aug. 24, 1899. COMPLETED Aug. 28, 1899. CONTRACTOR

COMMENCED Sept. 1, 1899. COMPLETED Oct. 11, 1899. CONTRACTOR H. G. Parker,

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

Elev. Bloom 1078-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pittsburgh Coal	285	295		
Monkard Sand	795	840		
Salt Sand	1390	1497		
Big Lime	1605	1705		
Big Injun	1705	1765		
Fifty Foot	2205	2230		
Sixty Foot	2275	2300		
Gantz Sand	2310	2350		
Gordon Sand	2380	2426		
Fifth Sand	2626	2634		
Total Depth		2649		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
8 1/4 IN		795		
6 5/8 IN		1705		
5 3/16 IN		1762		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
8/17,1900.	40				
1/31,1902.	24				
10/24,1903.	30				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEPTH

PRODUCTION RECORD

4 HOURS BEFORE SHOT Fifth SAND 100. BBLS.

4 HOURS AFTER SHOT SAND BBLS.

GAS TEST

REMARKS

Liner Record.
Long liner hung to top of Fifth Sand
2 Perforated Joints at Bottom.

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JUL 15 2009
WV Department of
Environmental Protection

APPROVED BY E. B. Shira SUPT.

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 033 - 1836 - P **WELL NO:** No.2

FARM NAME: Alexander Stonestreet

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Wolf Summit 7.5'

SURFACE OWNER: Keith & Brenda Curry

ROYALTY OWNER: East Resources, Inc. et al.

UTM GPS NORTHING: 4,347,773 (NAD 27)

UTM GPS EASTING: 544,148 (NAD 27) **GPS ELEVATION:** 329 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

July 13, 2009

Date

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JUL 15 2009
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Environmental Protection

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AOR - Well Review Checklist

API Number: 47-033-01837
Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 6
Farm Name: Alexander Stonestreet
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2590
Completion Zones: 5th
Perforated Interval: Shot Top Shot 2573

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☒
Easting: 543983.7
Northing: 4348004.5
Elevation: 1003
Inside Field Boundary? ☒
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 9/16/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-

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Environmental Protection

API# 47-033-1837

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Alexander Stonestreet
LOCATION: Elevation: 1,003'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: No. 6
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. Min. Sec.
Deg. Min. Sec.

Well Type: Oil X Gas WIW

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 12/18/09'

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Mike Lamp being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 14th day of January 2010', and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2216'	1965'	10 1/4"	125'	60'
Cement	1660'	1550'	6 5/8"	530'	1078'
Cement	1100'	1000'	5 3/16"	1702'	0'
Cement	550'	450'			
Cement	300'	200'			
Cement	100'	0'			
		Ripped 6 5/8" casing 2 rips/joint from 1200' - 1100'			
6% Gel Between Cement Plugs					

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 14th day of January, 2010'
And further deponents saith not.

Larry M. Lamp

Sworn and subscribe before me this 4th day of February 2010

My commission expires: Nov. 12, 2018.

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
East Resources, Inc
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Nov. 12, 2018

33-01837-P

ARM A. Stonestreet, WELL 6. ACRES 182. LEASE NO. 25804.

OWNSHIP OR STRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12. E. 7. W.

G COMMENCED Oct. 10, 1899. COMPLETED Oct. 15, 1899. CONTRACTOR

R'G COMMENCED Oct. 20, 1899. COMPLETED Dec. 2, 1899. CONTRACTOR P. L. Huffman,

D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev. Floor 1005-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	242	248		
Dunkard Sand	755	795		
Salt Sand	1125	1205		
Big Lime	1607	1680		
Big Injun	1680	1740		
Fifty Foot	2147	2177		
Stray Sand	2348	2400		
Gordon Sand.	2410	2425		
Fifth Sand	2568	2574		
Total Depth		2590		

Note 6-24-85

Tubing parted
Pulled 2192.32' of tubing out of hole
2600' of wire line also down hole
We do not know how far down hole the wire line is.

376' of Tbg.

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN
10"		185		
6 5/8"		1608		
5 3/16		1702		

PACKERS

KIND	SIZE	DEPTH SET	DATE S

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESUL
6/ 1,1901.	24				
5/23,1902.	40				
5/17,1913.	70	7-5"X2½	2573		Pigs.
11/19.1919	100	6-1702	2455		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEPTH

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Office of Oil & Gas
NOV 13 2009
WV Department of Environmental Protection

REMARKS

Liner Pkrs. 2 @ 1702'
2 jts 10" 197.9 @ 6 5/8" Casing to 23
Pmd 354.10 22

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 95. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY E. E. Shira SUI

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01839
Operator Name: East Resources
Operator's Well #: 9
Farm Name: Alexander Stonestreet
Field Name: Wolf Summit
Area Permit Number: 2R03301 AP
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2850
Completion Zones: 5th Sand
Perforated Interval: Shot

Well Location (UTM NAD83)
Easting: 543609
Elevation: 1250
Inside Field Boundary? ☒
Coordinates Match?: No ☐ Yes ☒
Northing: 4347347
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:	No ☒	Yes ☐
Date of Last MIT: NA Passed?	No ☐	Yes ☐
Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 9 / 16 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-1839

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Alexander Stonestreet
LOCATION: Elevation: 1,250'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 9
Quadrangle: Wolf Summit 7.5'
County: Harrison
Deg. ____ Min. ____ Sec. ____
Deg. ____ Min. ____ Sec. ____

Well Type: Oil X Gas ____ WIW ____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 12/18/09'

Coal Operator or Owner: NA
Coal Operator or Owner: NA

RECEIVED
Office of Oil & Gas
JUN 01 2010
WV Department of Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Mike Lamp being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 13th day of April, 2010, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2588'	2485'	6 5/8" 202'	1696'
Cement	1935'	1800'	5 3/16" 1897'	65'
Cement	1322'	1200'		
Cement	552'	420'		
Cement	250'	0'		
		Ripped 6 5/8" casing every collar from 1930' - 1830'; 1330'-1230' &		
		through coal from 550' - 500'		
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 28th day of April 2010'
And further deponents saith not.

Larry M. Lamp

Sworn and subscribe before me this 28 day of May 2010

My commission expires: Nov. 12. 2018

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: _____

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
East Resources, Inc
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Nov. 12, 2018

5M-9-22

33-01839P

FARM A. Stonestreet. WELL 9. ACRES 182. LEASE NO. 25804.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 12. E. 7. W.

DRLG COMMENCED Dec. 20, 1899. COMPLETED Dec, 25, 1899. CONTRACTOR E. Myers,

RIG COMMENCED Jan. 1, 1900. COMPLETED Feb. 17, 1900. CONTRACTOR J. M. Gniver,

OIL COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

Elev. Floor 1454-00

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	500	506		
Dunkard Sand	960	980		
Salt Sand	1330	1410		
Big Lime	1870	1935		
Big Injun	1935	2000		
Fifty Foot	2517	2547		
Gordon Sand	2647	2675		
Fifth Sand	2825	2830		
Total Depth		2850		

9485

950 Shut at 7/16

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8		1898		
5 3/16		1962 Casing Shot May - 1937		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
9/19,1900.	40				
6/--,1901.	20				
7/ 1,1903.	40				
6/19,1919.	20				
7/ 1,1919.	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEPTH

REMARKS

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 50. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY W. E. Shirey SUPT.

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 033 - 01839 - P **WELL NO:** No.9

FARM NAME: Alex. Stonestreet

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Wolf Summit 7.5'

SURFACE OWNER: Keith & Brenda Curry

ROYALTY OWNER: East Resources, Inc. et al.

UTM GPS NORTHING: 4,347,347 (NAD 27)

UTM GPS EASTING: 543,609 (NAD 27) **GPS ELEVATION:** 381 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___

RECEIVED
Office of Oil & Gas
NOV 13 2009
WV Department of
Environmental Protection

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

November 11, 2009

Date

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01841 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: #1
Farm Name: BT Stoothers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2680
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547087.4 Northing: 4351455.6
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Shot
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RM B. T. Strothers, WELL 1. ACRES 43. LEASE NO. 33872.

NSHIP OR RICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.10. E. 9. W.

COMMENCED 19 COMPLETED 19 CONTRACTOR

COMMENCED May 3, 19 00, COMPLETED June 15, 19 00, CONTRACTOR Morrow & Co.

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal	9--	---		
xen Sand	1575	1615		
g Injun	1717	1807		
fty Foot	2235	2295		
rden Sand	2405	2440		
fth Sand	2660	2668		
tal Depth		2680		

OTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABA
10"		210		
8¼"		850		
6⅝"		1717		

PACKERS

KIND	SIZE	DEPTH SET	DATE

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESU
10/--.1900.	30				
7/ 8.1901.	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPT

REMARKS

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 125. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST Gas Well.

APPROVED BY E. E. Strother

H-20333-184

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01862 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 2
Farm Name: A.J. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2873
Completion Zones: 5th Perforated Interval: 3 Shots

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544747 Northing: 4349273.8
Elevation: 1278
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion — No ☐ Yes ☑
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☑
Cemented across injection zone? — No ☑ Yes ☐
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature: _____
Date Reviewed: 10 / 25 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01862-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: WEBB, RUBY & DORIAN Operator Well No.:A.J.WILLIAMS #2

LOCATION: Elevation: 1,278.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 200 Feet South of 39 Deg. 20 Min. 30 Sec.
Longitude 6500 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner _____

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Daniel M. Moore and Harold Bowers being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 25th day of October, 19 93, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2796'	2396'	5-3/16" 1925'	0'
Cement	1980'	1880'	6-5/8" 420'	1470'
Cement	706'	606'		
Cement	572'	472'		
Cement	438'	338'		
Cement	100'	Surface		
Note: 6-5/8" casing perforated @ 680', 560-540 (every collar).				
6% Gel spotted between each cement plug.				

Description of monument: 1 joint 6-5/8" casing extending 30" above surface.
and that the work of plugging and filling said well was completed on the 3rd day of November, 19 93.

And furthur deponents saith not.

Daniel Moore
Harold Bowers

Sworn and subscribe before me this 12th day of November, 1993
My commission expires June 7 2000

Curtis A. Lucas
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CURTIS A. LUCAS
1504 Race
Parkersburg, West Virginia 26101
My Commission Expires June 7, 2000

Oil and Gas Inspector: _____

12/6/93

HARR 1862-P

BUFFALO DISTRICT.

SOUTH PENN OIL COMPANY—COMPLETION

FARM J. J. Williams WELL NO. 2

TRACT N. 11 - 12 E. 8 W.

STOCK ACRES 81

NO. 27335

LEASED BY Van Hile

DISTRICT Van Hile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Sept. 30,1899 COMPLETED Nov. 7,1899. DEPTH 2875

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pcn. Coal or Big Lime					
Pch Coal	516	521		6⅝	1890
Big Lime	1815	1885			
Big Injun	1915	2055			
Stray	2580	2630			
Fifth	2844	2849		PACKERS AND DEPTH SET	

INITIAL PROD. 130 Bbls SAND Fifth DEPTH 2844

GAS TEST

SHOT April -1900 QUARTS 40

REMARKS May - 1902 40

REPORTED BY W. P. Penn ABANDONED

-033-1862

RM A. J. Williams, WELL 2. ACRES 81. LEASE NO. 27335.

VNSHIP OR TRICT Ten Mile, COUNTY Harrison, STATE West Va. N. 31-12E. 8. W.

COMMENCED Sept. 23, 1899. COMPLETED Sept. 27, 1899. CONTRACTOR E. Myers,

G COMMENCED Sept. 30, 1899. COMPLETED Nov. 7, 1899 CONTRACTOR H. J. Parker,

). COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
gh Coal	515	521		
nkard Sand	1020	1200		
lt Sand	1600	1740		
g Lime	1815	1885		
g Injun	1915	2055		
fty Foot	2435	2465		
irty Foot	2530	2570		
tray Sand	2580	2630		
fth Sand	2844	2849		
tal Depth		2873		

Lemmon Allison
AP Well No. 47-033-1862P
Long Rd
Good loc

OTAL DEPTH

PRODUCTION RECORD

4 HOURS BEFORE SHOT Fifth SAND 130. BBLS.

4 HOURS AFTER SHOT SAND BBLS.

AS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝" 5¾,6		1890 1925		
5-3/16"	1925	1940'		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Hook-Wall Parmaco	5-3/16"x6-5/16"	8"x 1929'	3-14-57

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
4/--,1900.	40				
5/--,1902.	40				
4-16-57	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

May --,1909.

Liner Record. 5 X 5½" F. J. Casin
1st. Section. 193'(9Jts. Top 2643'.
2nd. " 194'(9 " top 2449'.
Bottom Joint perforated 18 Jts in All.
May 1909.
All Liner pulled and left out Mar. 12, 1957
A. A. Gloeckner

387

APPROVED BY E. B. Shaw SUPT. 27.3

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01863 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 3
Farm Name: A.S. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 6817
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544876.6 Northing: 4349089.5
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

API #47-033-1863 -P

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Operator Well No.: A. J. Williams #3

LOCATION: Elevation: Quadrangle:
District: County:
Latitude: Feet South of Deg. Min. Sec.
Longitude Feet West of Deg. Min. Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued:

Coal Operator or Owner: N/A

Coal Operator or Owner:

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of ____ ss:

Victor G. Stinespring and Kenneth M. Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 24th day of March, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 42 sks.	2440'	2300'	5"x5½" liner 0	413'
Cement	1937'	1820'		
Cement	985'	895'	6-5/8" csg ripped	@ 492, 423 & 320
Cement	495'	395'	Removed 320'	Left 1553'
Cement	325'	300'	Could not clean out	to ID. Liner
Cement	50'	Surface	collapsing & inj.	tbg. cut @ 2460
			leaving some tbg and packer	
			in hole	

Description of monument: 1 joint 6 5/8" casing extending 30" above surface.
and that the work of plugging and filling said well was completed on the 24th day of May, 1994.

And furthur deponents saith not.

Victor G. Stinespring

Ken Dotson

Sworn and subscribe before me this 7th day of June, 1994

My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: ____

M A. J. Williams, WELL 3. ACRES 81. LEASE NO. 27335.

ISHIP OR TRICT Ten Mile, COUNTY Harrison, STATE West Va, N. S1-1E. 8. W.

COMMENCED Jan. 18, 19 00. COMPLETED Jan. 23, 19 00. CONTRACTOR C. H. Ross & Co.

COMMENCED Jan. 27, 19 00. COMPLETED Mar. 9, 19 00. CONTRACTOR H. J. Parker,

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nduator		16		
h Coal	450	456		
nkard Sand	956	1056		
lt Sand	1456	1560		
g Lime	1770	1870		
g Injun	1870	1930		
fty Foot	2376	2400		
rdon Sand	2536	2596		
fth Sand	2789	2796		
tal Depth		2817		

033-1863

RECEIVED
WV Division of Environmental Protection
DEC 20 1994
Permitting
Office of Oil & Gas

AL DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 35. BBLS.

HOURS AFTER SHOT SAND BBLS.

S TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHICH ABN'D.
6 5/8"		1872		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
5/--,1900	40				
4/ 5,1902	24				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. May 1, 1912.
Put in 2 Sections 5 X 6 5/8" F. J. Liner.
1st Section 8 Jts. Top 2380'
2nd " 11 " " 2554'

APPROVED BY

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01864 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 4
Farm Name: AJ Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2647
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544987.8 Northing: 4349349.2
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Slot
Cemented across injection zone?		? No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☒

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

9

CLARKSBURG DISTRICT.

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM A. J. Williams WELL No. 4

ELEVATION _____ N. _____ E. 11 – 12 E. S W.

LEASE No. 27335 ACRES 81

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Jan. 9,1900. COMPLETED Feb. 24,1900 DEPTH 2647

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	235	291		6⅝	1725
Big Lime	1695	1795			
Big Injun	1795	1855			
Gordon	2307	2440			
Fifth	2624	2632		PACKERS AND DEPTH SET	

INITIAL PROD. 160 Bbls SAND Fifth DEPTH 2624

GAS TEST _____

SHOT Aug. 1,1901 QUARTS 24

REMARKS Over.

REPORTED BY W. F. Bell ABANDONED _____

47-033-1864

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01864 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 4
Farm Name: A.S. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2647
Completion Zones: 5th Sand Perforated Interval: Open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 544987.8 Northing: 4349349.2
Elevation: 1058
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

5

(TEN) DISTRICT.

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM L. J. Williams WELL NO. 4

ELEVATION _____ N. _____ E. 11 - 12 E. 8 W. _____

LEASE NO. 27335 ACRES 81

WATERS OF Tan Mile

DISTRICT Tan Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Jan. 9,1900. COMPLETED Feb. 24,1900 DEPTH 2647

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	235	291		6⅝	1725
Big Lime	1695	1795			
Big Injun	1795	1855			
Gordon	2307	2440			
Fifth	2624	2632		PACKERS AND DEPTH SET	

INITIAL PROD. 160 Bbls SAND Fifth DEPTH 2624

GAS TEST _____

SHOT Aug. 1,1901 QUARTS 24

REMARKS _____ Over.

REPORTED BY W. F. Gibson ABANDONED _____

47-033-1864

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01865 Area Permit Number: 2R03301 AP
Operator Name:
Operator's Well #: 5
Farm Name: A.S Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2705
Completion Zones: 5th Perforated Interval: 4 shots

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 541517.6 Northing: 4349171.5
Elevation: 1134
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01865-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: WEBB, RUBY & DORIAN Operator Well No.:A.J.WILLIAMS #5

LOCATION: Elevation: 1,134.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 350 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 5300 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 09/01/93

Coal Operator or Owner: N/A

Coal Operator or Owner: ____

RECEIVED
WV Division of Environmental Protection
AUG 09 1994
Permitting
Office of Oil & Gas

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richard C. Green and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 21st day of July, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
				6-3/16" csg. 615'	0'
				6-3/16" liner 0'	120'
				6-5/8" csg. 850'	870'
Cement	75 sks.	2625'	2200'		
Cement	20 sks.	1800'	1700'		
Cement	20 sks.	850'	750'		
Cement	67 sks.	330'	230'		
Cement	50 sks.	50'	Surface		
					8/17/94

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 28th day of July, 1994.

And furthur deponents saith not.

Richard C. Green

Kenneth Dotson

Sworn and subscribe before me this 8th day of August, 1994
My commission expires: July 10, 1997

Melissa K. Bailey
Notary Public

Oil and Gas Inspector: ____

HARR 1865-P

RM A. J. Williams, WELL 5. ACRES 81. LEASE NO. 27335.

NSHIP OR RICT Ten Mile, COUNTY Harrison, STATE West Va. N. 91-12E. 8. W.

COMMENCED Jan. 27, 19 00. COMPLETED Feb. 1, 19 00. CONTRACTOR C. H. Ross & Co.

COMMENCED Feb. 6, 19 00. COMPLETED Mar. 19, 19 00. CONTRACTOR H. J. Parker,

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		written (10-24-41)
h Coal	313	319		
nkard Sand	815	920		
t Sand	1415	1600		
g Limo	1630	1733		
g Injun	1733	1800		
fty Foot	2230	2260		
ray Sand	2410	2455		
rdon Sand	2456	2500		
fth Sand	2677	2684		
tal Depth		2705		

Pennzoil

rods
Tbg
Csg bent

A.P.I. Well No.
47-033-1965-P

OTAL DEPTH

PRODUCTION RECORD

4 HOURS BEFORE SHOT Fifth SAND 6 BBLS.

4 HOURS AFTER SHOT SAND BBLS.

AS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝" 5 3/16		1720 615'	Ran 1921	

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
5/ 7,1900.	40				
1/--,1900.	24				
10/ 2,1902.	40				
7/15,1920.	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record.

6 Joints 5 3/16" Casing for Liner. Top 230(

APPROVED BY E. E. Shira SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01866 Area Permit Number: 2R03301 AP
Operator Name: ~~[illegible]~~ East Resources
Operator's Well #: 6
Farm Name: A.S. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2817
Completion Zones: 5th Perforated Interval: Shot 2788-2796

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 545115.3 Northing: 4349559.4
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☒
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep

RECEIVED
WV Division of Environmental Protection
FEB 08 94
Permitting Office of Oil & Gas

API # 47- 33-01066-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: ZERKLE, WILLIAM O. Operator Well No.:A.J.WILLIAMS #6

LOCATION: Elevation: 1,240.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 14450 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 5200 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105

Coal Operator or Owner _____

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Daniel M. Moore and Richard Moore being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 23rd day of December, 1993, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2,817'	2,255'	5-3/16 1879	packer only
Cement	1,924'	1,824'	6-5/8" 483	1364
Cement	1,520	1,420		
Cement	500	400	5" x 5½" liner from	2374' - 2282'
Cement	300	200	left in.	
Cement	100	surface		
NOTE: 6% gel placed between each cement plug				

2/24/94

Description of monument: 1-joint of 6-3/8" csg. extended 30" above surface
and that the work of plugging and filling said well was completed on the 17th day of January, 1994.

And furthur deponents saith not.

Daniel M. Moore

Richard D. Moore

Sworn and subscribe before me this 24th day of February, 1994
My commission expires: June 7, 2000

Curtis A. Lucas
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CURTIS A. LUCAS
1904 Race Street
Parkersburg, West Virginia 26101
My Commission Expires

Oil and Gas Inspector: _____

HARR. 1866-P

SM-3-23

FARM A. J. Williams, WELL 6. ACRES 61. LEASE NO. 27335.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. 31-12E. S. W.

RIG COMMENCED Jan. 27, 19 00. COMPLETED Feb. 3, 19 00. CONTRACTOR C. H. Ross & Co.

DR'G COMMENCED Feb. 8, 19 00. COMPLETED Mar. 23, 19 00. CONTRACTOR H. J. Parker.

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	440	447		
Dunkard Sand	540	640		
Salt Sand	1530	1600		
Big Lime	1760	1860		
Big Injun	1860	1900		
Fifty Foot	2460	2490		
Stray Sand	2601	2627		
Gordon Sand	2627	2647		
Fifth Sand	2788	2796		
Total Depth		2817		

Permit Application
API No. 47-033-1866 P.
Producing
Bobtail

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 85. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABND.
6⅝"		1847		
5⅛"		650		
5 3/16"	Pulled 18-1940	1881'		1881'

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Spang Duplex	5 3/16 x 6 5/8 x 16	1873'	Pulled 18-1940

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TIME SHOT	BOTTOM	RESULT
10/28,1919.	40	4" Pigs	2780		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Nov. 19, 1919.

Liner Record. Nov. 18, 1919.

210' -- 10 Jts. 5X5½" F. J. Casing. Top 2572'

198' -- 9 " " " " " 2374'

Jan. 1, 1926.

650' -- 30 Jts. 5⅛" Casing. On Hook Wall Packer.

APPROVED BY [signature] SUPT.

HUFFMAN DISTRICT.

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM A. J. Williams WELL No. 6

ELEVATION _____ N. _____ E. 11 — 12 W. 8 W.

LEASE No. 27336 ACRES 81

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Feb. 8, 1900 COMPLETED Mar. 25, 1900 DEPTH 2817

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PEN. COAL OR BIG LIME					
Pgh Coal	440	447		6⅝	1847
Big Lime	1760	1860			
Big Injun	1860	1900			
Gordon	2627	2647		PACKERS AND DEPTH SET	
Fifth	2788	2796			

INITIAL PROD. 85 Bbls. SAND Fifth DEPTH 2788

GAS TEST _____

SHOT Oct. 28, 1919 QUARTS 40

REMARKS _____

REPORTED BY [signature] ABANDONED _____

47-033-1866

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01866 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: AS Williams #6
Farm Name: William Zerkle
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2817
Completion Zones: 5th Sand Perforated Interval: Shot 40 QTS

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545115.7 Northing: 4349559.4
Elevation: 1740
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Shot
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joel Whitehair Signature:
Date Reviewed: 7/12/2017

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Se

RECEIVED
WV Division of Environmental Protection
FEB 08 94
Permitting Office of Oil & Gas

API # 47- 33-01066-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: ZERKLE, WILLIAM O. Operator Well No.:A.J.WILLIAMS #6

LOCATION: Elevation: 1,240.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 14450 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 5200 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105

Coal Operator or Owner _____

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Daniel M. Moore and Richard Moore being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 23rd day of December, 1993, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2,817'	2,255'	5-3/16 1879	packer only
Cement	1,924'	1,824'	6-5/8" 483	1364
Cement	1,520	1,420		
Cement	500	400	5" x 5½" liner from	2374' - 2282'
Cement	300	200	left in.	
Cement	100	surface		
NOTE: 6% gel placed between each cement plug				

2/4/94

Description of monument: 1-joint of 6-5/8" csg. extended 30" above surface
and that the work of plugging and filling said well was completed on the 17th day of January, 1994.

And furthur deponents saith not.

Daniel M. Moore
Richard M. Moore

Sworn and subscribe before me this 4th day of February, 1994
My commission expires: June 7, 2000

Curtis A. Lucas
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CURTIS A. LUCAS
1904 Race Street
Parkersburg, West Virginia 26101
My Commission Expires

Oil and Gas Inspector: _____

HARR. 1866-P

SM-3-43

FARM A. J. Williams, WELL 6. ACRES 61. LEASE NO. 27335.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. 11-12E. 8. W.

RIG COMMENCED Jan. 27, 1900. COMPLETED Feb. 3, 1900. CONTRACTOR C. H. Ross & Co.

DR'G COMMENCED Feb. 8, 1900. COMPLETED Mar. 23, 1900. CONTRACTOR H. J. Parker,

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	440	447		
Dunkard Sand	540	640		
Salt Sand	1530	1600		
Big Lime	1760	1860		
Big Injun	1860	1900		
Fifty Foot	2460	2490		
Stray Sand	2601	2627		
Gordon Sand	2627	2647		
Fifth Sand	2788	2796		
Total Depth	[illegible]	2817		

Pennzoil Company
API No. 47-033-1866 P.
Producing
Bobtail

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		1847		
5⅓"		650		
5 3/16	Injun 18-1940	1881'		8794

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Spang Underhole	5 3/16 x 5 3/16 x 16	1873'	Feb 18 1940

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP	SHOT	BOTTOM	RESULT
10/28,1919.	40	4"Pigs	2720			

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Nov. 19, 1919.
Liner Record. Nov. 18, 1919.
210' -- 10 Jts. 5X5½" F. J. Casing. Top 2572'
198' -- 9 " " " " " 2374'
Jan. 1,1926.
650' -- 30 Jts. 5⅓" Casing. On Hook Wall Packer.

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 85. BBLS.
24 HOURS AFTER SHOT SAND BBLS.
GAS TEST

APPROVED BY [signature] SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01867 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 7
Farm Name: A.S. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2698
Completion Zones: 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 545180.5 Northing: 4134930.9
Elevation: 1142
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

A

FARM A. J. Williams, WELL 7. ACRES 81. LEASE NO. 27335.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 11-12 E. 8 W.

RIG COMMENCED June 10, 19 00. COMPLETED June 18, 19 00. CONTRACTOR C. E. Hess & Co.

DR'G COMMENCED June 20, 19 00. COMPLETED July 27, 19 00. CONTRACTOR H. J. Parker.

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STATE GAS REGISTERED	REMARKS
Conductor		16		
Pgh Coal	316	323		4-13-49
Dunkard Sand	820	915		
Salt Sand	1365	1425		
Big Lime	1640	1735		
Big Injun	1735	1800		
Fifty Foot	2235	2275	1	
Stray Sand	2405	2465		
Gordon Sand	2465	2515		
Fifth Sand	2677	2683		
Total Depth		2698		
TOTAL DEPTH				

Gas 1/10 on 11"

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN (NO MEAS.)
8 1/2"		949		
6 5/8"		1739		
5 3/16	1758	1778	1778 Jun 20, 1961	

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Spang Hook Wall	5 3/16 x 6 3/4	1758	4-13-49

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
11/--,1900	24.				
9/16,1920	40.	5" Shell.			
11-2-1961	60	3-4½"x 7'	2677	2685	45' bridge on top shot.

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SET	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. Sept. 1920.
1 St. Section 191' 9 Jts. Top 2479'
2 Nd. " 234' 11 " " 2228'

April 13, 1949, Installed string of 5-3/16" casing 1778 feet to shut off water leak 6-5/8" casing.

June 20, 1961 pulled 1778' of 5-3/16 casing. and left out

PRODUCTION RECORD

Fifth

24 HOURS BEFORE SHOT SAND 90. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY W. O. Lewis SUPT.

Note: 19 Joints of 5" x 5½" Liner pulled and left out
1 Joint of 5" x 5½" Liner left in well, couldn't get it.

Eward Allen - Sept. 25, 1961

	PRODUCTION RECORD	
1930	593	
1931	413	
1932	307	
1933	286	
1934	357	
1935	408	
1936	415	
1937	415	
1938	396	
1939	376	
1940	394	
1941	407	
1942	442	
1943	416	
1944	512	
1945	875	
1946	818	
1947	739	
1948	586	
1949	133	Water On Well String 5½" Casing Run.
1950	100	
1951	74	
1952	92	
1953	68	
1954	56	
1955	73	
1956	42	
1957	58	
1958	14	
1959	0	
1960	0	

WR-38
01-Sep-93

Environmental Pro-
JAN 0 5 94
Permitting
Office of Oil & G

API # 47- 33-01867-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: BLAND, JAMES Operator Well No.:A,J,WILLIAMS #7

LOCATION: Elevation: 1,142.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 14900 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 4850 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105

Coal Operator or Owner ____

Agent: James A. Crews

Coal Operator or Owner ____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Daniel M. Moore and Richard M. Moore being first duly sworn according to law depose and say that they are experienced, in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 7th day of December, 1993, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2625'	2215'	6-5/8"	1025	714
Cement	1825'	1725'	8-1/4"	365	584
Cement	1710'	1610'			
Cement	1025'	925'			
Cement	365'	265'			
Cement	100'	surface			
NOTE: 6% gel placed between cement plugs					

Description of monument: 1 joint 6-5/8" casing extending 30' above surface
and that the work of plugging and filling said well was completed on the 16th day of December, 1993.

And furthur deponents saith not.

Daniel M. Moore
Richard M. Moore

Sworn and subscribe before me this 30th day of December, 1993

My commission expires: June 7 2000

NOTARY PUBLIC
STATE OF WEST VIRGINIA
CURTIS A. LUCAS
1504 Race Street
Parkersburg, West Virginia
My Commission Expires June 7, 2000

Curtis A. Lucas
Notary Public

Oil and Gas Inspector: ____

1/18/94

HARR 1867-P

No. 1 DISTRICT

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM A. J. Williams WELL No. 7

ELEVATION _____ N. _____ 11 - 12 - 8 W. _____

LEASE No. 27335 ACRES 81

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED June 20,1900 COMPLETED July 27,1900 DEPTH 2698

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	316	323		8¼	949
Big Lime	1640	1735		6⅝	1739
Big Injun	1735	1800			
Gordon	2465	2515		PACKERS AND DEPTH SET	
Fifth	2677	2685			

INITIAL PROD. 90 Bbls. SAND Fifth DEPTH 2677

GAS TEST _____

SHOT Nov.- 1900 QUARTS 24

REMARKS Sept.16,1920. 40

REPORTED BY A. F. Bess ABANDONED _____

47-033-1867

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01868 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: J.T. Williams 1
Farm Name: Rebeckah Ayers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2942'
Completion Zones: Fifth Sand Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 545480.4 Northing: 4350447.4
Elevation: 1353'
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☐
Well perforated in injection zone?		No ☐	Yes ☐
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☑ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

plugged

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Plugged Properly

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01868-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: AYERS, REBECKAH L. Operator Well No.:J.T.WILLIAMS #1

LOCATION: Elevation: 1,352.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 11350 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 3900 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 09/01/93

Coal Operator or Owner: The Endres Company
110 State St.
Bridgeport, WV 26330

Coal Operator or Owner: _____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. A. Crews and Ken Dotson being first duly sworn according to law deposd and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 20th day of September, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
Junk left in hole many years ago. C.O. to 2870' & obtained verbal to plug from this point.					
				Perforated liner @ 2740' (w/1 ft.	
cement	50 sks.	2870'	2389'	& 4 holes)	
cement	22 sks.	2069'	1965'		
cement	30 sks.	1000'	900'	5x5k liner 0'	401'
cement	33 sks.	615'	500'	6 5/8" csg. 254'	1731'
cement	55 sks.	274'	150'	5 3/16" csg. 2004'	0'
cement	45 sks.	50'	Surface		
					10/29/94

Description of monument: 7" csg set 30" above ground level
and that the work of plugging and filling said well was completed on the 5th day of October, 1994.

And furthur deponents saith not.

R. A. Crews

Ken Dotson

Sworn and subscribe before me this 11th day of October, 1994
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: _____

HAR 1868-P

FARM J.J. Williams, WELL 1 ACRES 150 LEASE NO. 7[illegible]

COMMENCED Mar. 6 1900 COMPLETED Mar. 11 1900 CONTRACTOR C. E. Reed Co.

COMMENCED Mar. 16 1900 COMPLETED May 18 1900 CONTRACTOR [illegible]

D. & C. COMMENCED ____ 19__ COMPLETED ____ 19__ CONTRACTOR ____

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh. Coal	558	565		
Dunkard Sand	1065	1090		
Big Lime	1930	2010		
Big Injun	2010	2080		
Fifty Foot	2505	2580		
Gordon Sand	2700	2775		
Fifth Sand	2916	2922		
Tot. Depth		2948		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY METER)	PULLED (TALLY METER)	LEFT IN (WHICH ONE?)
6 5/8"		1985'		
5 3/16		2031'		

Plugged 5" Pennzoil Attn: Mark Hall 412-933-1965 ?

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
OWS	5 3/16 x 6 5/8	2031'	

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
9/21/1926	20	4 1/2" - 7'	2916'		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	KIND	DEPTH
[illegible]					

REMARKS

Liner Record - Oct. 1910.
5 I 6 5/8" - 7" J. Liner
2011' 9 Jts. with Packer at 2772'
Top Section 2021' 9 Jts. 7" [illegible]
Bell Nipple at 2508'
Liner Pulled Sept. [illegible]
Liner Reran Oct. 1, 1926
159' Sr. South I Sept. Top Packer 2787'
223' 10" 2 [illegible] 2501'
Oct.

Not Low Pressure Water Flood

PRODUCTION RECORD

24 HOURS BEFORE SHOT	Fifth SAND	85	BBLS.
24 HOURS AFTER SHOT	SAND		BBLS.
GAS TEST			

TOTAL DEPTH

APPROVED BY [signature]

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 - 01869 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: J.T. Williams 2
Farm Name: Rebeckah L. Ayers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2654
Completion Zones: Fifth Sand Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545527.1 Northing: 4350721.5
Elevation: 1058
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☐
Well perforated in injection zone?		No ☐	Yes ☐ Plugged
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Properly Plugged

Reviewer Name: Laura Adkins Signature: Laura Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

RECEIVED
WV Division of Environmental Protection
AUG 02 94
Permitting Section of Oil & Gas

API # 47- 33-01869-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: AYERS, REBECKAH L. Operator Well No.:J.T.WILLIAMS #2

LOCATION: Elevation: 1,058.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 10650 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 3700 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner _____

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Ricky A. Green and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 21st day of June, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
Perforated 5x5½" liner @ 2645' (2 shots) 2425' (2shots) & 2395' (2 shots)					
Cement	80 sks.	2600'	2014'		
Cement	20 sks.	1750'	1640'	5-3/16" csg. 880'	1827'
Cement	30 sks.	650'	750'	6-5/8" csg. 860'	860'
Cement	60 sks.	310'	210'	8-1/4" csg. 195'	602'
Cement	80 sks.	100'	Surface		
					8/5/94

Description of monument: 7" csg 30" above ground level
and that the work of plugging and filling said well was completed on the 13th day of July, 1994.

And furthur deponents saith not.

Ricky A. Green

x Kenneth Dotson

Sworn and subscribe before me this 28th day of July, 1994
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: _____

HARR 1869-P

RM J. T. Williams, WELL 2. ACRES 150. LEASE NO. 32706.

WNSHIP OR TRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.O-11E. 8.W.

. COMMENCED Mar.10, 19 00. COMPLETED Mar.14, 19 00. CONTRACTOR G. H. Ross & Co.

G COMMENCED Mar.23, 19 00. COMPLETED May 19, 19 00. CONTRACTOR G. L. McKain.

). COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
onductor		16		
gh Coal	275	280		
unkard Sand	790	825		
alt Sand	1190	1270		
ig Lime	1580	1650		
ig Injun	1650	1725		
ifty Foot	2220	2300		
ordon Sand	2390	2460		
ifth Sand	2636	2640		
otal Depth		2656		

TOTAL DEPTH

Permit 9-T. Williams #2
Bl Cr. Cr. APF well
Cool 10° No. 47-033-1869-P

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN LEAVING
8¼"		797' 7"		
6⅝"		1720		
5 3/16		1707	Aug 27-1927	

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
12/ 2,1903.	40	4" Pigs	2636		
8/ 2-1929	40	4 1/4	2634	2640	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. Aug. 1929 905.
1st Section 199 Ft 9 Jts Top 2427 Scotia
2nd Section 210 Ft 10 Jts Top 3217
Middle Section 12 Jts. Top Section 5 Jt
Bottom-Hole liner record was copied
by mistake on Gas "Liner.

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 75. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY E. V. Shira

Form 328 (1915) 12M7

WELL RECORD.

J. J. Williams Farm, [illegible] Acres

[illegible] mile District Kanawha County [illegible] State

Well No. 2

Rig Commenced March 10 1909 } G. W. Ross & Co Contractor.

Rig Completed " 9th 1909

Drilling Commenced " 23 1909 } G. L. McClain Contractor.

Drilling Completed May 19 1909

FORMATION.	TOP.	REMARKS.	BOTTOM
Condr.	16 ft.		
10" Casing	280		
Slate	799 07		
6 5/8	1220		
Pgh. Coal	275		280
Big Dunkard	790		825
Salt Sand	1190		1270
Big Lime	1450		1650
Big Injun	1650		1725
Soft Sand	2220		2300
Gordon	2390		2460
5th	2636		2640
	Total Depth		2656

NOTE:

A good record must show the formation from top to bottom of well.

47-033-1869

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033- 01870 Area Permit Number: 2R 03301 AP
Operator Name: Eust Resources
Operator's Well #: J. T. Williams 3
Farm Name: William C. Gillespie
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2873'
Completion Zones: Gordon, Fifth Sand Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545638.1 Northing: 4351012.1
Elevation: 1263
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☐
Cemented across injection zone?		No ☐	Yes ☐ Plugged
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Properly Plugged

Reviewer Name: Laura Adkins Signature: Laura L Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01870-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

MAY 16 94
Permitting
Office of Oil & Gas

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: GILLESPIE, WILLIAM C. Operator Well No.:J.T.WILLIAMS #3

LOCATION: Elevation: 1,263.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 9650 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 3600 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner N/A

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of _____ ss:

Victor Stinespring and Ken Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 26th day of April, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2865'	2230'	650' of 6-5/8"	1230'
Gel	2230'	2070'		
Cement	2070'	1970'		403' 5x5½" FJ Liner
Gel	1970'	650'		2442-2485'
Cement	650'	530'		
Gel	530'	125'		
Cement	125'	Surface		5/17/94

Description of monument: 1 jt. of 6-5/8" extending 30" above surface
and that the work of plugging and filling said well was completed on the 4th day of May, 1994.

And furthur deponents saith not.

Ken Dotson

Sworn and subscribe before me this 13th day of May, 1994
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: _____

MAY 1870-P

M J. T. Williams, WELL 3, ACRES 150, LEASE NO. 32706.

ISHIP OR ICT Ten Mile, COUNTY Harrison, STATE West Va. N. 30-11E. 8, W.

COMMENCED Mar. 17, 1900. COMPLETED Mar. 24, 1900. CONTRACTOR J. M. Crawford,

COMMENCED Mar. 26, 1900. COMPLETED May 10, 1900. CONTRACTOR D. M. Wallace,

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal	485	490		
nkard Sand	995	1035		
g Lime	1860	1920		
g Injun	1920	1980		
OTAL DEPTH		2873		

Pennzoil Plugged
API No.
47-033-01870

Fifth Sd
Fair Sh.

Tools dropped
in hole-Bailed

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
10"		105		
6 5/8"		1980		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
11/19,1900	24				
7/18,1903	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

4 HOURS BEFORE SHOT Fifth SAND No Data BBLS.

4 HOURS AFTER SHOT SAND BBLS.

GAS TEST

REMARKS

Liner Record. May 1915.
403' F. J. Casing in two Sections.
Top of Liner 2442' [illegible] bottom Jts.
perforated.

APPROVED BY E. V. Shiras SUPT.

Form 226 (1-09)

WELL RECORD

J. T. Williams Farm, Acres

Jno Mills District Harrison County W. Va. State

Well No. 3

Rig Commenced Mch 17 1909

Rig Completed " 24 " "

Drilling Commenced " 26 " "

Drilling Completed May 10 " "

J. M. Crawford Contractor.

D. M. Wallace Contractor.

FORMATION	TOP.	REMARKS	BOTTOM
Conductor	16 ft.		
10" Casing	105		
8¼	1035		
6¾	1988		
Big Coal	485		490
Big Dunkard	995		1035
Lime	1860		1920
Sand	1930		1980
50 ft. Sand	2390		2430
Gordon	2580		2676
5th	2851		2856
	Total Depth		2873

Note:

A good record must show the formation from top to bottom of well.

47-033-1870

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01871 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 4
Farm Name: JT Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2902
Completion Zones: 5th Perforated Interval: Shot 2868 - 2878'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545979.3 Northing: 4350466.4
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion No ☐ Yes ☑
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☐ Yes ☐ ?
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Underwood Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

01871

J. T. Williams, WELL 4. ACRES 150. LEASE NO. 32706.

TOWNSHIP OR DISTRICT Ten Mile. COUNTY Harrison, STATE West Va. N. 30-11E. 8 W.

RIG COMMENCED Dec. 21, 1899. COMPLETED Dec. 28, 1899. CONTRACTOR E. Myers,

DR'G COMMENCED Jan. 3, 1900. COMPLETED Mar. 6, 1900. CONTRACTOR Schauffener Bros.

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

#50

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		15		
Pgh Coal	515	520	✓	
Dunkard Sand	1040	1145	✓	
Salt Sand	1705	1755	✓	
Big Lime	1915	1985	✓	
Big Injun	1990	2030	✓	
Fifty Feet	2455	2495	✓	
Gordon Sand	2555	2720	✓	
Fifth Sand	2868	2878	✓	
Total Depth		2902	✓	

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 110. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
10"		190	190	
8 1/4"		1024	1024	
6 5/8"		1940		
5 3/16"		852	852	
5-3/16		2467		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Parmaco Hook Wall	6-5/8" x 5-3/16" x 16"	2467	

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
11/--,1900.	24				
9/24,1919.	40				
8-28-1963	40	2-4½"x7'	2868	2878	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Dec. 21, 1925.
852' -- 40 Joints. 5 3/16" Casing. Hook Wall Packer.
Jan. 2, 1923.
409' -- 5x5½" F. J. 19 Jts. Top 2453'
This Liner All Pulled Out July 1923 & Left out.
5-3/16" Casing was pulled and 2467' of 5-3/16" Casing was run back in and set on 5-3/16" x 6-5/8" x 16" Parmaco Hook Wall Packer.

APPROVED BY E. B. Sharp SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01872 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 5
Farm Name: ST Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2968
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 5457 24.3 Northing: 4350030
Elevation: 1413
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01872-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: FLETCHER, FREDERICK ETAL. Operator Well No.:J.T.WILLIAMS #5

LOCATION: Elevation: 1,413.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 12650 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 3200 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State St.
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: ____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. A. Lucas and K. Peters being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 28th day of September, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cable tools lost in hole @2500'. Obtained verbal permission from WVDEP.				
			5X5½" liner 0'	332'
cement 25 sks.	2500'	2350'	5 3/16" Csg. 2020'	0'
cement 20 sks.	2075'	1975'	6 5/8" csg. 1160'	830'
cement 20 sks.	1160'	1050'	8¼" csg. 560'	557'
cement 67 sks.	620'	510'		
cement 65 sks.	305'	200'		
cement 70 sks.	100'	60'		
				11/29/94

Description of monument: 7" csg set 30" above ground level and that the work of plugging and filling said well was completed on the 31st day of October, 1994.

And furthur deponents saith not.

R. A. Lucas
K. Peters

Sworn and subscribe before me this 11th day of November, 1994
My commission expires: June 10, 1995

William E. Gillespie
Notary Public

Oil and Gas Inspector: ____

HAR 1872-P

-2-

RM J. T. Williams, WELL 6, ACRES 150, LEASE NO. 88706.

NSHIP OR RICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.O-11E. E.W.

COMMENCED Feb. 1, 1900, COMPLETED Feb. 6, 1900, CONTRACTOR C. H. Ross & Co.

COMMENCED Feb. 13, 1900, COMPLETED April 4, 1900, CONTRACTOR H. J. Parker,

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal	585	591		
nkard Sand	1085	1185		
lt Sand	1682	1785		
g Lime	1900	2000		
g Injun	2005	2065		
fty Foot	2500	2530		
ray Sand	2650	2700		
fth Sand	2946	2952		
tal Depth		2968		

Permitted Plugging API Used 47-033-01512

W/ T-9 10 Sqs Eq'P Good Lo[illegible]

TAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
8¼"		1117		
6⅝"		1990		
5⅜"	2007	2020		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
5⅜ X 6⅝ Rockwell		2007	Oct. 20, 1902

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
8/19, 1900	24				
8/ 4, 1900	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 115. BBLS.

HOURS AFTER SHOT SAND BBLS.

AS TEST

REMARKS

Liner Record.
432' 5X5½" F. J. Casing on Cave Packer.
2726'. Top Section 10 Jts. 216' with Bell Collar at 2510'.

APPROVED BY W. E. Shiver SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01873 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 6
Farm Name: JT Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2865
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545658.3 Northing: 4350303.5
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion No ☐ Yes ☑
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑ Shot
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Wyatt Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

01873

FARM J. T. Williams. WELL 6. ACRES 150. LEASE NO. 32706.

TOWNSHIP OR DISTRICT Ten Mile. COUNTY Harrison. STATE West Va. N. 30-11E 8. W.

RIG COMMENCED Mar. 17. 19 00. COMPLETED Mar. 21. 19 00. CONTRACTOR H. J. Fisher.

DR'G COMMENCED Mar. 26. 19 00. COMPLETED May 18. 19 00. CONTRACTOR J. W. Dyson.

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conducter		16		
Pgh Coal	480	486		
Dunkard Sand	990	1030		
Gas Sand	1200	1330		
Big Lime	1859	1905		
Big Injun	1905	1950		
Fifty Feet	2390	2415		
Gordon Sand	2590	2635		
Fifth Sand	2842	2851		
Total Depth		2865		

Open 40-1433
5 3/16 Bean in Disc Well
Rock Creek Head Lowering
Light Odor, Wight 7863

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 120. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1879	#49	
5 3/16		1936		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Parmaco Disc Wall	5½X6 5/8X10"	2835'	11/15,2
" " "	5½X6 5/8X10"	2716'	11/15,2

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
9/13,1900.	40				
10/27,1927.	40	2-4'11"	2842.		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. Jan 10.1902.
6 Jts. 5 X 5½" F. J. Liner Top 2460'
Liner Pulled out. Oct. 6. 1927.
1 Sec. 212'-- 10 Jts. 5X5½" F. J. Top 2462
2 Sec. 233'-- 11 " 5X5½" F. J. " 248

APPROVED BY E. E. Shira SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01874 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 8
Farm Name: JT Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2810
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 4458353 Northing: 4350320.6
Elevation: 1263
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01874-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: FLETCHER, FREDERICK ETAL. Operator Well No.:J.T.WILLIAMS #8

LOCATION: Elevation: 1,263.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 12050 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 2600 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: ____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Ken Dotson and Curt Lucas being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 10th day of August, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
C.O. to 2284'; hole caving bad. Ran in Hole to 2272' & hole full of fluid. State gave permission to plug from that point			5-3/16"csg. 1803'	0'
			5x5½" liner 0'	398'
			6-5/8"csg. 470'	1375'
Cement 100 sks.	2250'	1800'		
Cement 25 sks.	970'	870'		
Cement 46 sks.	470'	370'		
Cement 30 sks.	350'	280'		
Cement 50 sks.	50'	Surface		
6% Gel between all plugs.				

10/4/94

Description of monument: 7" Casing - 30" Above Ground
and that the work of plugging and filling said well was completed on the 26th day of August, 1994.

HAR 1874-P

And furthur deponents saith not.

Ken Dotson
Curt Lucas

Sworn and subscribe before me this 10th day of September, 1994
My commission expires: June 11 1997

Notary Public

Oil and Gas Inspector: ____

M J. T. Williams, WELL 8, ACRES 150, LEASE NO. 32706.

SHIP OR DIST. Ten Mile, COUNTY Harrison, STATE West Va., N. S.0-11E. 8.W.

COMMENCED April 2, 19 00, COMPLETED April 6, 19 00, CONTRACTOR John M. Crawford,

COMMENCED April 11, 19 00, COMPLETED May 27, 19 00, CONTRACTOR Morrow & Co.

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
n Coal	425	430		
nkard Sand	950	1025		
g Lime	1770	1845		
g Injun	1845	1915		
fty Foot	2370	2380		
rdon Sand	2546	2576		
fth Sand	2790	2796		
tal Depth		2810		

Removed Plugging
Affidavit No.
47-033-0187-P.

Bad Road
Jan. gone

TAL DEPTH

PRODUCTION RECORD

4 HOURS BEFORE SHOT Fifth SAND 105. BBLS.

4 HOURS AFTER SHOT SAND BBLS.

AS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		1845		
5 3/16		1803		Apr 17-1934

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
8/19,1901.	12				
10/--,1903.	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. Feb. 1915.
398' 5 X5½" Liner in two Sections.
Two Bottom Jts. Perforated Packer in
Gordon Sand. Top. No. Date.

19

APPROVED BY R. E. Sharp SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 01875 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: J.T. Williams 1
Farm Name: William C. Gillespie
Field Name: Wolf Summit Field Injection Zone:

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2932'
Completion Zones: Fifth Sand Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545951.5 Northing: 4350883.9
Elevation: 1370
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☐ plugged
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Properly Plugged

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01875-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: GILLESPIE, WILLIAM C. Operator Well No.:J.T.WILLIAMS#11

LOCATION: Elevation: 1,370.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 10100 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 3000 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner N/A

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of _____ ss:

Victor G. Stinespring and Kenneth M. Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 9 th day of May, 19 94, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 50 sks.	2775'	2495'	5-3/16" csg 2043'	0
Cement 22 sks.	2400'	2300'	6-5/8" csg 620'	1412'
Cement 22 sks.	2110'	2000'	CCL log indicated that 5½"x5"	
Cement 25 sks.	625'	525'	liners had already been removed	
Cement 50 sks.	350'	250'		
Cement 110 sks.	100'	Surface		
				7/19/94

Description of monument: 1 joint 6 5/8" casing extending 30" above surface.
and that the work of plugging and filling said well was completed on the 23rd day of May, 19 94.

And furthur deponents saith not.

Victor G. Stinespring
Ken Dotson

Sworn and subscribe before me this 7th day of June, 19 94
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: _____

HARR 1675-P

M J. T. Williams, WELL 11. ACRES 150. LEASE NO. 32706.

SHIP OR ICT Ten Mile, COUNTY Harrison, STATE West Va. N. 30-11E. 8. W.

COMMENCED May 6, 19 14. COMPLETED May 14, 19 14. CONTRACTOR JohnJenney,

COMMENCED June 1, 19 14. COMPLETED Aug. 4, 19 14. CONTRACTOR South Penn Drlg. Dept.

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
iductor		16		
ı Coal	560	565		
ıkard Sand	1060	1160		
t Salt	1307	1385		
ı Salt	1530	1573		
con Sand	1807	1895		
ɜ Lime	1910	1975		
ɜ Injun	1975	2043		
fty Foot	2330	2355		
irty Foot	2570	2590		
ray Sand	2600	2618		
rdon Sand	2640	2697	Light Gas 2692'	
urth Sand	2700	2720		
fth Sand	2909	2917		
tal Depth		2932		

TAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABAND.
6⅝"		2032		
5 3/16		2043	97 jts.	9-19-38

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
8/ 5,1914	20				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record.
580' 27 Jts. 5 X 5½" F. J. Casing.
1st Section 12 Jts. 254' Top 2649'
2nd. " 15 " 326' " 2323'

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 10 BBLS.

HOURS AFTER SHOT SAND BBLS.

AS TEST

APPROVED BY W. T. Shira SUPT

Well No. 11 — J. T. Williams — Farm.
Lease No. Tenmile — District Harrison — County
Rig built by John Judkins
Well drilled by O P & P Co — Contractor.
Began drilling June 1 1914 — Completed Aug 4 1914

ROCK FORMATION	TOP	BOTTOM	S. L. M.	REMARKS
Pittsburg Coal	560	565		
Little Allegheny	925	986		
Big "	1060	1160		
1st Salt Sand	1307	1385		
2nd " "	1530	1575		
Maxon Sand	1807	1895		
Little Lime	1897	1906		
Big Lime	1910	1975		
Big Injun	1975	2043	2022	
Fifty foot	2330	2353		
Thirty "	2570	2590		
Gordon Stray	2600	2618		
Gordon Sand	2640	2698		
Show of Oil	2692			
Fourth Sand	2700	2720		
Fifth "	2909	2917	2909-2917	
Total depth		2932	2932	

CASING RECORD

Size	CHARGED TO WELL Feet	In.	PUT IN WELL Feet	In.	PULLED OUT Feet	In.	LEFT IN WELL Feet	In.	Transferred before Completion Feet	In.	Left at Well Not in Use Feet	In.
10			235		235				Shot 9/5/14			
8¼			1050		1050				2032 to			
6¼			2032						3rd Sand			

Production First 24 Hours 5 Bbls. Signed G. C. Davis Supt.

47-033-1875

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01876 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 5
Farm Name: Leverne Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☑ Plugged ☐
TD of well: 2712?
Completion Zones: 5th 2682-2695 Perforated Interval: Slot

Well Location (UTM NAD83)
Easting: 546664.8 Coordinates Match?: No ☐ Yes ☐
Elevation: 1166 Northing: 4351581.9
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Slot
Cemented across injection zone?		No ☐	Yes ☐?
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Watkins Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

033-1876

FARM Loverna Williams, WELL 6, ACRES 56½, LEASE NO. 31216.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va., N. S. 10 E. 9 W.

RIG COMMENCED May 2, 1900, COMPLETED May 9, 1900, CONTRACTOR H. J. Fisher,

DR'G COMMENCED May 18, 1900, COMPLETED June 29, 1900, CONTRACTOR Schauffner Bros.

C. D. COMMENCED ..., COMPLETED ..., CONTRACTOR ...

FORMATION

KIND	TOP	BOTTOM	REMARKS
Conductor		16	
Pgh Coal	315	320	
Dunkard Sand	810	910	
Big Lime	1650	1760	
Big Injun	1760	1840	
Fifty Feet	2230	2255	
Gorden Sand	2436	2528	
Fifth Sand	2528	2595	
Total Depth		2715	

CASING RECORD

SIZE	BOTTOM CASING (WELL LOG)	IN WELL (WELL LOG)	PULLED (TALLY SHEET)	LEFT IN
6¼"		1760		193
3"		1739	1546	

PACKERS

KIND	SIZE	DEPTH SET	DATE

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	REMARKS
6/ 1901	40				
8/ 1901	40				
9/ 1901	40	6"	1705	1760	
6/ 1914	40				

na Williams, # 5

ted out During October and November 1931

ys Cleaning out Time,

ction before Cleaning Out 8 Bbls per week,

After " " 20 " " "

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01878 Area Permit Number: 2R03301 AP
Operator Name: [redacted] East Resources
Operator's Well #: 2
Farm Name: PC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2915
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544631.7 Northing: 4349685.4
Elevation: 1290
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature: [signature]
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

NO. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM P. C. Williams WELL NO. 2

ELEVATION _____ N. _____ S. 11 E. 7 - 6 W.

LEASE NO. 27336 ACRES 200

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Oct. 24, 1899. COMPLETED Dec. 17, 1899. DEPTH 2915

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	556	563		8¼	1063
Big Lime	1860	1975		6⅝	1778
Big Injun	1975	2076			
Gordon	2634	2708			
Fifth	2890	2896		PACKERS AND DEPTH SET	

INITIAL PROD. 65 Bbls. SAND Fifth DEPTH 2890

GAS TEST _____

SHOT Mar. 1, 1900 QUARTS 40

REMARKS _____

Over.

REPORTED BY H. F. O'Brien ABANDONED _____

033-1878 117-0

WR-38
01-Sep-93

API # 47- 33-01878-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

NOV 18 93

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: RITTER, LARRY & GREGORY Operator Well No.:P.C.WILLIAMS #2

LOCATION: Elevation: 1,290.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 13800 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 6900 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner _____

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Daniel M. Moore and Harold Bowers being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 23rd day of September, 1993, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2901'	2464'	5x5½" liner 213'	218'
Cement	1850'	1750'	6-5/8 1395'	383'
Cement	1411'	1311'	8¼ 452'	611'
Cement	1140'	1040'		
Cement	605'	505'		
Cement	230'	Surface		
Note: 13 joints	(437') 1½" tubing	lost in well		
				12/6/93

Description of monument: 1 joint 8¼" casing extending 30" above survace

and that the work of plugging and filling said well was completed on the 15th day of October, 1993.

And furthur deponents saith not.

Daniel Moore

Harold Bowers

Sworn and subscribe before me this 12th day of November, 1993

My commission expires: June 7, 2000

Curtis A. Lucas
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CURTIS A. LUCAS
1604 Race Street
Parkersburg, West Virginia 26101
My Commission Expires June 7, 2000

Oil and Gas Inspector: _____

HARR 1578-P

FARM P. C. Williams, WELL 2. ACRES 200. LEASE NO. 27336.
TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 11. E. 7-8. W.
COMMENCED Oct. 15, 1899. COMPLETED Oct. 21, 1899. CONTRACTOR E. Myers,
COMMENCED Oct. 24, 1899. COMPLETED Dec. 17, 1899. CONTRACTOR H. J. Parker,
COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal	556	563		
lt Sand	1620	1740		
g Lime	1860	1975		
g Injun	1975	2075		
ray Sand	2591	2634		
rdon Sand	2634	2708		
fth Sand	2890	2896		
tal Depth		2915		

Penroil-Plugged
API well No.
47-033-01878-P.

Stamp Pd
Pump Jack (old)
Elec Mtr

TOTAL DEPTH

PRODUCTION RECORD

4 HOURS BEFORE SHOT Fifth SAND 65. BBLS.
4 HOURS AFTER SHOT SAND BBLS.
GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
8¼"		1063		
6⅝"		1778		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
3/19,1900.	40				
5/19,1902.	40				
3/ 1,1904.	80	20	Shell	60	Dumped.

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. Mar. 25,1912.
1 Section 10 Jts. 218' Top 2667'
2 " 10 " 213' " 2454'

APPROVED BY E. E. Shinn SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01879 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 3
Farm Name: P.C. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2629
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544870.26 Northing: 4349604.8
Elevation: 1032
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

RECEIVED
AUG 0 2 94

API # 47- 33-01879-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: RITTER, LARRY & GREGORY Operator Well No.:P.C. WILLIAMS#3

LOCATION: Elevation: 1,032.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 14150 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 6000 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL _____ GAS X

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner N/A

Agent: James A. Crews

Coal Operator or Owner

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richey A. Green and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 26th day of October, 1993, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
No liners	found in hole			
			5-3/16" csg. 1723'	0'
Cement 155 sks.	2622'	2120'	6-5/8" csg. 205'	1463'
Cement 22 sks.	1750'	1650'		
Couldn't recover 6-5/8"	below coal, th	efore ripped at	290 & 250 (opposite coal)	
Cement 40 sks.	300'	200'		
Cement 30 sks.	200'	100'		
Cement 80 sks.	100'	Surface		
				8/5/94

Description of monument: 7" csg - 30" above ground level
and that the work of plugging and filling said well was completed on the 20th day of June, 1994

And furthur deponents saith not.

Richey A. Green
Kenneth Dotson

Sworn and subscribe before me this 28th day of July, 1994
My commission expires June 10, 1995

Notary Public

Oil and Gas Inspector: _____

HARR 1879-P

P. C. Williams, / WELL 3. ACRES 200. LEASE NO. 27556.

OR Ten Mile, COUNTY Harrison, STATE West Va. N. S.11. E.7-8.W.

MENCED Nov. --, 1899. COMPLETED Nov. --, 1899. CONTRACTOR E. Myers,

MENCED Nov. 23, 1899. COMPLETED Jan. 10, 1900. CONTRACTOR H. J. Parker,

MENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
ctor		16		
oal	265	272		
rd Sand	755	900		
Sand	1265	1365		
ime	1585	1690		
njun	1690	1760		
Foot	2185	2200		
Sand	2305	2350		
on Sand	2350	2410		
a Sand	2604	2610		
l Depth		2629		

Pennzoil Plugged
API Well No. 47-033-01879

Casing Head Lowered when 5 3/16 casing was put in well Aug. 7th

Casing Head lowered when 5 3/16 casing was put in well lowered 2 ft.

in bottom

fair Gas well

L DEPTH

PRODUCTION RECORD

OURS BEFORE SHOT Fresh SAND 115. BBLS.

OURS AFTER SHOT SAND BBLS.

TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/16"		1668		
5 3/16"		1723		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Hook Wall Pack.	5 3/16 X 6 5/16"	1104	1/24, 25.

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
9/21,1900.	24				
1/ 1,1920.	60				
1/ 8,1925.	20	5-4'11"	2605'.		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record.
410' 18 Jts. 5 X 5 1/2" F. J. Casing. in Two Sections. Top 2190'
Bottom Joint Perforated. Pulled Out.
1st Section 224' -- 10 Jts.
2nd " 195' -- 9 " Top 2199'
Jan. 21, 1925.

APPROVED BY W. W. Shira SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01882 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 7
Farm Name: PC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2937 ?
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545193.3 Northing: 4349994.7
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion — No ☐ Yes ☑
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☑
Cemented across injection zone? — No ☐ Yes ☐?
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☒

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? Well Record Accurate?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Well Record says depth of 5th sand & TD are wrong when well was cleaned out on 8/30/65 5th was @ 2797'
No Cement Record 5" Sand pump still in well, was lost

Reviewer Name: Josh Westfall Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

01892

M P. C. Williams, WELL 7. ACRES 200. LEASE No. 27336.

HIP OR CT Ten Mile, COUNTY Harrison, STATE West Va. N. S. 11 E. 7-8W.

OMMENCED Mar. 6, 19 00. COMPLETED Mar. 15, 19 00. CONTRACTOR E. Myers,

OMMENCED Mar. 27, 19 00. COMPLETED May 10, 19 00. CONTRACTOR Schauffner Bros.

OMMENCED 19 COMPLETED 19 CONTRACTOR

#48

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
n Coal	548	554		
nkard Sand	1075	1180		
t Sand	1740	1820		
e Lime	1955	2020		
e Injun	2025	2065		
fty Foot	2495	2530		
rdon Sand	2595	2755		
fth Sand	2903	2910		WRONG!
tal Depth		2937		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
$6\frac{5}{8}$"		2035 -	log shows 1827 only Logged 8-30-65	
2" J-55 10RT Tubing		1823'	(62 joints in well)	

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
2" Hookwall 10 RT	2" x 7"OD x 16"	1825'	8-30-65

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
3/--,1901.	24				
2/--,1906.	24				
2/10,1920.	50				
8-30-65	Well was cleaned out to 2797 and found to be in the Fifth Sand.				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. Mar. 16,1920.
200'-- 1 St. Section 9 Jts. Top 2570'
202'-- 2 Nd. " 9 " " 2368'
On 7-1-65 All liner was pulled and left out except for 20' left in well.
2" tubing run 8-30-65
Note: Lost 5" Sand Pump in well on 8-30-65 - Still in well.

TAL DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 130. BBLS.
HOURS AFTER SHOT SAND BBLS.
AS TEST

APPROVED BY E. E. Sims SUP

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01883 Area Permit Number: 2R03301 AP
Operator Name: Enervest Resources
Operator's Well #: 9
Farm Name: TC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2957
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545175.7 Northing: 4350252.3
Elevation: 1344
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☐ Yes ☑
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☑ Partial Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

CORRECTED - 4/24/97

WR-38
22-Jan-97

API # 47- 33-01883-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: JOHNSON, BUDDY H. ETAL. Operator Well No.:P.C.WILLIAMS #9

LOCATION: Elevation: 1,344.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 9400 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 4950 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
P. O. Drawer 1280
Bridgeport, WV 26330

Agent: P. S. Ondrusek

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

Permit Issued: 01/22/97

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and Leroy Snodgrass being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 6th day of February, 19 97, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
80 sks. cement	2935'	2350'			
170 sks. cement	1830'	1700'	4-1/2"	1800'	1080'
35 sks. cement	1150'	1050'	7"	1150'	855'
40 sks. cement	625'	500'	8"	155'	951'
90 sks. cement	160'	Surface			
			Ripped 8" @ 625'		
					5/2/97
6% gel between all cement plugs					

Description of monument: 8" casing 4" tall
and that the work of plugging and filling said well was completed on the 25th day of February, 1997

And furthur deponents saith not.

[signature]
Leroy Snodgrass

Sworn and subscribe before me this 1st day of April, 19 97
My commission expires: August 7, 2006

Diane E. Bosley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOSLEY
PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519
My Commission Expires August 7, 2006

Oil and Gas Inspector: _____

HAR 1883-P

P. C. Williams; WELL 9; ACRES 200; LEASE NO. 27336;

SHIP OR DIST. Ten Mile; COUNTY Harrison; STATE West Va.; N. S. [illegible] E. W.

COMMENCED Dec. 1, 1899; COMPLETED Dec. 5, 1899; CONTRACTOR D. Myers;

DR'G COMMENCED Dec. 11, 1899; COMPLETED May 1, 1900; CONTRACTOR C. L. McKain;

D. D. COMMENCED 19; COMPLETED 19; CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	570	575		
Dunkard Sand	1065	1095		
Big Lime	1985	2045		
Big Injun	2045	2100		
Fifty Foot	2515	2600		
Gordon Sand	2675	2756		
Fifth Sand	2931	2937		
Total Depth		2956		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN (TALLY MEAS.)
8 1/4"		1106.		
6 5/8"		2005.		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
5/19/1900	40				
6/ /1901	24				
11-28-1958	40	4" x 9"	2931	2940	Pfd 18 jts

Pennzoil Plugging
Old Well No. 47-033-01883-P

P.C.Williams # 9

Cleaning out during October & November 1932 -

13. Days Cleaning Out

Production before Cleaning Out 9 Bbls Week, -

" After " " 16 " - "

Comenced Clng. Out October 20.1932 -

Completed " " November 2.1932 -

Gordon Sand Producer

ABANDONMENT RECORD

FROM	TO	SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT	Fifth	115	
24 HOURS AFTER SHOT	SAND		
GAS TEST			

REMARKS

Liner Record. April 1901. 210 jts 6 5/8" O.D. Casing suspended on Cave Packer set in Gordon Sand. Bottom joint perforated. 9 jts set on top with Bell Collar. 19 jts in all. Drake's Well Lot #1280. May 1958, pulled 18 jts. of above liner, could not fish other joint, shot well w/40 qts. and after shooting did not encounter liner or find it, while cleaning out well. (Did not have to cement lower caves).

APPROVED BY

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01884 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 10
Farm Name: PC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☒ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2970
Completion Zones: 5th Perforated Interval: 3 Slots

Well Location (UTM NAD83) 544999.5
Easting: [redacted] Coordinates Match?: No ☐ Yes ☒ 4350106.3
Elevation: 1300 Northing: [redacted]
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑ packer	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

CORRECTED 4/21/97

WR-38
22-Jan-97

RECEIVED
OFFICE OF OIL AND GAS

APR 30 1997

API # 47- 33-01884-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: JOHNSON, BUDDY H. ETAL. Operator Well No.:P.C.WILLIAMS#10

LOCATION: Elevation: 1,300.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 12400 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 5650 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: P. S. Ondrusek

Permit Issued: 01/22/97

Coal Operator or Owner: The Endres Company
P. O. Drawer 1280
Bridgeport, WV 26330

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. A. Green and Leroy Snodgrass being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 27th day of January, 19 97, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
80 sks. cement	2900'	2000'		
120 sks. cement	1740'	1550'	4-1/2" 1740'	1105'
30 sks. cement	1140'	1020'	7" 0'	1920'
35 sks. cement	600'	490'		
20 sks. cement	50'	Surface	7" ripped @ 1550-1650'	
			1025-1125'	
			490-590'	
6% gel between cement plugs				

Description of monument: 7" CASing 4' TALL
and that the work of plugging and filling said well was completed on the 5th day of February, 19 97.

And furthur deponents saith not.

R. A. Green
Leroy Snodgrass

Sworn and subscribe before me this 1st day of April, 19 97
My commission expires: August 7, 2006

Diane E. Bosley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOSLEY
PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519
My Commission Expires August 7, 2006

Oil and Gas Inspector: Tim Bennett

HAR 1884-P

IV-35
(Rev 8-81)

RECEIVED
MAY 2 4 1984
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date May 22, 1984
Operator's
Well No. #10
Farm P. C. Williams
API No. 47 - 033 - 1884 - REC

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil X / Gas ___ / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1317.66 Watershed Rush Run
District: Tenmile County Harrison Quadrangle Wolf Summit 7.5'

COMPANY Pennzoil Company
ADDRESS P.O.Box 1588, Parkersburg, WV 26101
DESIGNATED AGENT James A. Crews
ADDRESS P.O.Box 1588, Parkersburg, WV 26101
SURFACE OWNER Glenn W. Johnson
ADDRESS Rt. 1, Box 60, Bristol,WV 26332
MINERAL RIGHTS OWNER Gilbert S. Jamison, Agt.
ADDRESS Lakeland, Florida
OIL AND GAS INSPECTOR FOR THIS WORK Stephen Casey ADDRESS Rt.2,Box232-D,Jane Lew,WV
PERMIT ISSUED 3-24-80
DRILLING COMMENCED 4-80
DRILLING COMPLETED
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2	2486	2486	100
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION 5th Depth 2902 feet
Depth of completed well 2920 feet Rotary ___ / Cable Tools X
Water strata depth: Fresh n/a feet; Salt n/a feet
Coal seam depths: ___ Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig(surface measurement) after ___ hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig(surface measurement) after ___ hours shut in

(Continue on reverse side)

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
OWWO: Cleaned out - filled shot hole w/pea gravel around 7" casing - top @ 96' - circulated casing - cemented in w/100 sks. reg. neat -					2895-2902' - ran cement ran 2485.85' of 4-1/2" never completed ?

(Attach separate sheets as necessary)

Pennzoil Company
Well Operator

By: [signature]

Date: 5-23-84

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

FARM P. C. Williams, WELL 10. ACRES 200. LEASE No. 2733(

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.11. E.7-8.W.

RIG COMMENCED Ded. 1, 1899. COMPLETED Dec. 5, 1899. CONTRACTOR E. Myers,

DR'G COMMENCED Dec. 12, 1899. COMPLETED Feb. 15, 19 00. CONTRACTOR G. L. McKain,

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	555	560		
Dunkard Sand	1060	1115		
Salt Sand	1520	1560		
Keener Sand	1850	1925		
Big Lime	1925	2010		
Big Injun	2010	2080		
Fifty Foot	2500	2620		
Gordon Sand	2700	2760		
Fifth Sand	2395	2902		
Total Depth		2920		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	WHO
6⅝"		1920		
5⅜"		2045 on	H.W. Packer.	
			67	
			6/193	

PACKERS

KIND	SIZE	DEPTH SET	D

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	R
10/19,1900.	24				
9/7,1926.	20	4'11"	2898'		
9/14,1926.	60	4'11"	2895'		

RD

E PLUG KIND D

MAR 10 1930

OIL & GAS DIVISION
DEPT. OF MINES

P.C.Williams # 10 Cleaned out and Shot May and June 1932

Cleaning out 70 Days Daylight,

" " 26 " Tour,

Well making 4 Bbls before Cleaning Out, Liner in 2 Sections Packer on each Section, Fished out all but 4 Jts, Drilled off and went by Liner Cleaned Well, Leaving in about 3 Jts Liner and 4½" Section Bailer,

After Tubing Well making 17 Bbls per week,

Top 2717'
" 2496'

Pulled Sept. 1926. Rerun. 9/22.
Bottom. 195'--9Jts. 5X5½" F.J. Casing. Top 270
Top. 228'--11Jts. " " " Top 246
Each Sect. on Hook Wall Packer.
Mar. 17,1927. Rerun 5⅜" Casing.
2044'--94 Jts. 5⅜" Casing. on Packer

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT --Fifth SAND 100. BBLS.
24 HOURS AFTER SHOT SAND BBLS.
GAS TEST

APPROVED BY W.S. Shira

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01885 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 11
Farm Name: PC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2632
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544794 Northing: 4349833
Elevation: 1016
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☐	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01885-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: RITTER, LARRY & GREGORY Operator Well No.:P.C.WILLIAMS#11

LOCATION: Elevation: 1,016.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 13400 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 6250 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: N/A

Agent: James A. Crews

Coal Operator or Owner: _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of _____ ss:

Victor G. Stinespring and Kenneth M. Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 30th day of September, 19 94, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 20 sks.	2256'	2150'	4" bailer lost in hole	
Cement 25 sks.	1700'	1600'		
Cement 20 sks.	810'	710'	5½"x5" liner 0	404'
Cement 50 sks.	300'	150'		
Cement 43 sks.	50'	Surface	6-5/8" csg ripped 0790, 290, 270 & 220'	
			Removed 220'	Left 1418'
			(Could not get cleaned out to TD)	

Description of monument: 1 joint 6 5/8" casing extending 30" above surface
and that the work of plugging and filling said well was completed on the 6th day of June, 19 94.

Filed 7/19/94

And furthur deponents saith not.

Ken Dotson

Sworn and subscribe before me this 7th day of June, 1994
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: _____

1442R 1885-P

P. C. Williams, WELL 11. ACRES 200. LEASE NO. 27336.

SHIP OR CT Ten Mile, COUNTY Harrison, STATE West Va., N. S. 11 E. 7-8 W. 7

OMMENCED Nov. 15, 1899. COMPLETED Nov. 22, 1899. CONTRACTOR E. Myers,

:OMMENCED Nov. 25, 1899. COMPLETED Jan. 7, 1900. CONTRACTOR H. J. Parker,

OMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION Elev Floor 1018

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
ductor		16		
Coal	268	274		
kard Sand	779	900		
t Sand	1120	1240		Pennzoil Pluggers
Lime	1580	1688		Abt Well 16. 47-033-01885-P
Injun	1688	1750		
ty Foot	2200	2230		
ay Sand	2340	2370		
don Sand	2370	2440		
th Sand	2609	2615		
al Depth		2632		
				491 Ft Open Hole Bottom 5½" to Top of Liner
				In bottom Center of Vein hole

TAL DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 90. BBLS.

HOURS AFTER SHOT SAND BBLS.

S TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		1638		
5 3/16		1711		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Spang Lane Mill	5 3/16 x 6⅝ x 16	1700	

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
9/21,1900.	24				
3/13,1919.	50-	Pigs.	2610'		
Cleaned Out from 11-16-[illegible] to 1-27-25. Not Shot					

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. April 1919.
1st. Section 216' 10 Jts, Top 2390'
2nd. " 188' 9 " " 2202'

APPROVED BY [signature] SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01886 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 12
Farm Name: PC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2667
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544630.7 Northing: 4349862.6
Elevation: 1038
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth: _____	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

API # 47-033-1886

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: . . . . . Operator Well No.: P. C. Williams #12

LOCATION: Elevation: . . Quadrangle: .
District: . . County: . .
Latitude: . Feet South of . Deg. Min. Sec.
Longitude . Feet West of , Deg. Min Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner _____

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: .

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. G. Green and C. W. Green being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 19th day of September, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
Verbal permission was given by Mike Lewis on 9/19/94 to plug this well at this depth.					
Cement	25 sks.	1806'	1700'		
Cement	30 sks.	908'	808'		
Cement	70 sks.	345'	150'	6-5/8" csg. 250'	1499'
Cement	50 sks.	50'	Surface	5x5½" liner 0'	405'

WJ 11/28/94

Description of monument: 7" casing 30" Above ground level
and that the work of plugging and filling said well was completed on the 21st day of September, 1994.

And furthur deponents saith not. R. G. Green
C. W. Green

Sworn and subscribe before me this 8th day of November, 1994
My commission expires: June 10, 1997

Debra L. Bailey
Notary Public

Oil and Gas Inspector: _____

MAR 1995

FARM P. C. Williams, WELL 12. ACRES 200. LEASE NO. 27336.

TOWNSHIP OR DISTRICT Tem Mile, COUNTY Harrison, STATE West Va. N. S.11. E. 7-8W.

RIG COMMENCED Feb. 25, 19 00. COMPLETED Mar. 1, 19 00. CONTRACTOR G. H. Ross & Co.

DR'G COMMENCED Mar. 3, 19 00. COMPLETED April 14, 19 00. CONTRACTOR H. J. Parker,

J. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	305	311		
Dunkard Sand	811	900		
Salt Sand	1405	1475		
Big Lime	1625	1725		
Big Injun	1725	1765		
Fifty Feet	2225	2265		
Stray Sand	2370	2400		
Gordon Sand	2405	2460		
Fifth Sand	2643-	2649		
Total Depth		2667		

Removed Plugs

API Well No.

47-033-01886-P

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 80. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN.
6 5/8"		1749		
5 3/16"		746		

PACKERS

KIND	SIZE	DEPTH SET	DATE S

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESUL
4/--,1900.	24				
2/12,1914.	40				

ABANDONMENT RECORD

FILLED WITH.	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

RECEIVED
WV Division of Environmental Protection
OCT 11 1994
Permitting
Office of Oil & Gas

REMARKS

Liner Record. May 1914.
1st. Section. 11 Jts. 227' Top 2416'
2ns. " 8 " 178' " 2238'

June. 11, 1925.
746' -- 35 Jts. 5 3/16" Casing. Set on Hook Wall Packer.

APPROVED BY W. O. Shira SUI

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01887 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 13
Farm Name: PC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2793
Completion Zones: 5th Perforated Interval: Shot (5x)

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544453.9 Northing: 4349813.3
Elevation: 1153
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Jun-94

AUG 0 2 94

API # 47- 33-01887-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: RITTER, LARRY & GREGORY Operator Well No.:P.C.WILLIAMS#13

LOCATION: Elevation: 1,153.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 13350 Feet South of 39 Deg. 20 Min. Sec.
Longitude 7400 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Co.
P.O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner N/A

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 06/01/94

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richard A. Green and x Kenneth Watson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 23rd day of June, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
Perforated liner 2 shots per foot at 2565, 2540 & 2525					
				6-5/8" 437'	1420'
				5-3/16 &Pkr. 1918'	0'
				5x5½" liner 0'	401'
Cement	120 sks	2793'	2045'		
Cement	20 sks	1900'	1800'		
Cement	21 sks	954'	849'		
Cement	45 sks	489'	364'		
Cement	64 sks	55'	Surface		8/5/94

Description of monument: 7" csg - 30" above ground level
and that the work of plugging and filling said well was completed on the 20th day of July, 1994

And furthur deponents saith not.

Richard A. Green

x Kenneth Watson

Sworn and subscribe before me this 1st day of August, 1994
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: _____

HARR 1887-P

M P. C. Williams, WELL 13. ACRES 200. LEASE NO. 27336.

SHIP OR DIST. Ten Mile, COUNTY Harrison, STATE West Va. N. S. 11.E7-8.W.

COMMENCED Nov. 22, 1899. COMPLETED Nov. 27, 1899. CONTRACTOR E. Myers,

COMMENCED Nov. 30, 1899. COMPLETED Jan. 5. 1900. CONTRACTOR H. J. Parker,

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
onducter		16		
gh Coal	428.	435		
unkard Sand	930	1100		
alt Sand	1500	1600		
ig Lime	1850	1955		
ig Injun	1955	2015		
ifty Foot	2350	2370		
trey Sand	2475	2515		
ordon Sand	2520	2560		
ifth Sand	2769	2779		
otal Depth		2793		

033-1887

TAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		1857		
5 3/16		1918		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Parmaco Disc.	5 X 6⅝"	2540	5/ ,192
" "	5 X 6⅝"	2359	5/ ,192
Dose Mall Packer	5 3/16 X 6 7/8	1904	June 8-1934

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
1/ 8,1900.	24				
4/27,1900.	40				
4/ 1,1901.	40				
2/ 2,1904.	90	20 Shell	70	Dumped.	
4/20,1927.	30	7' 4½"	2769		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifty SAND 85. BBLS.

HOURS AFTER SHOT SAND BBLS.

AS TEST

REMARKS

Liner Record. Feb. 23, 1904.
22 Jts. 5⅜" Casing on Bottom two bottom
Joints perforated.
Liner Pulled April --,1927.
Liner Rerun May ,1927.
220'-- 1st Sec. 10 Jts. on Packer top 254C
181'-- 2nd Sec. 8 " " " " 235?

APPROVED BY E. E. Shiras SUPT.

Form 233 (M-1-21-H&C 2862

Field Superintendents will fill up one of these blanks, and mail promptly to the Pittsburgh office whenever a well in their charge is torpedoed.

South Penn Oil Company

TORPEDO REPORT

Under remarks give result of shot, length of time in cleaning out, and whether in cleaning out well was drilled deeper, and if so, how much? Did it cave badly? In fact give as full and complete an account as possible.

Buffalo ..... Dist. South 11 East 7-8

P.C.Williams ..... Farm. Well No. 13 ..... Lease No. 27336

Torpedoed, ... April 20, 1927

By ..... Marietta Torpedo Co.

No. Quarts 30 ..... Length of Shell 7 feet 4½ inches.

Diameter of Shell 5 inches. Length of Anchor 3 feet - - inches.

Feet of fluid in hole when torpedoed 15

REMARKS

Top of Shot 2769

Shot in Fifth Sand

Posted

4/23/27.

W.B.M.

033-1887

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01888 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 17
Farm Name: DC Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2645
Completion Zones: 5th Perforated Interval: Slot (4r)

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545179 Northing: 4349974.7
Elevation: 999
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
28-Jul-92

RECEIVED
W Division of
Environmental Protection
AUG 17 92
Permitting
Oil & Gas

API # 47- 33-01888-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: RITTER, LARRY P Operator Well No.:P.C.WILLIAMS 17

LOCATION: Elevation: 999.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 12900 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 7250 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P.O. Box 5519
Vienna, WV 26105

Coal Operator or Owner: N/A

Agent: J.A. Crews

Coal Operator or Owner: ____

Permit Issued: 07/28/92

AFFIDAVIT

NOTE: VERBAL PLUGGING PERMISSION GRANTED BY TIM BENNETT

STATE OF WEST VIRGINIA,
County of Wood ss:

Curtis A. Lucas and Victor Stinespring being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 23rd day of June, 1992, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Fillup	2645	1789	5 1/2 0	1740
Cement	1789	1589	6 5/8 0	1727
Gel	1589	825		
Perforate 5 1/2 & 6 5/8	800, 325, 100		NOTE: 5 1/2 & 6 5/8 STUCK TOGETHER	
Cement	825	725	NEAR SURFACE - UNABLE TO PULL	
Gel	725	325	EITHER CASING	
Cement	325	196 (Squeeze)		
Gel	196	100		
Cement	100	Surface (Squeeze)		8/19/92

Description of monument: 5 1/2" casing extending 30" above surface
and that the work of plugging and filling said well was completed on the 24th day of June, 1992.

And furthur deponents saith not.

Curtis A. Lucas

Victor Stinespring

Sworn and subscribe before me this 24th day of June, 1992
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: ____

HARR 1888-P

Jack Sutherland

FARM P. C. Williams, WELL 17. ACRES 200. LEASE NO. 27336.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. Sll. E/-8. W.

RIG COMMENCED May 7, 1900. COMPLETED May 19, 1900. CONTRACTOR C. H. Ross & Co.

DR'G COMMENCED May 26, 1900. COMPLETED July 11, 1900. CONTRACTOR J. H. Parker

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

RECEIVED Office of Oil & Gas JUL 13 '92 Environmental

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	286	292		
Dunkard Sand	786	820		
Big Lime	1606	1706		
Big Injun	1706	1766		
Fifty Foot	2215	2235		
Gordon Sand	2457	2487		
Fifth Sand	2623	2630		
Total Depth		2645		

Show fresh & salt water, coal, oil & gas encountered, giving depths in detail. Bore hole above casing, fresh or salt water, coal, oil or gas

Penn Gas Pressure 41,033. 1899

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 60. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN "WHEN ABAN'D."
6⅝" 5 3/16		1727 319	= Pulled (Dec.1961)	
5-3/16" 2" Tubing	1740'	2525.55	Pulled 2-[illegible]-53	

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
	5 3/16 & 6 5/8		9-21-4[illegible]
5½"x 7"x 16" Hook Wall Packer			Dec.1961

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
4/--,1901	24				
4/22,1919	50	Pigs			
5-27-1942	50		2624		
3-6-52	60	3-1½"x7'	2623	2630	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. May --, 1919.
Ins. Section 206' 10 Jts. Top 2417'
Ins. " 191' 9 " " 2226'
Note: This 397' of Liner pulled and left out year 1942 - Eward Allen, Foreman

APPROVED BY E. C. Evans SUPT.

Dec. 21, 1961 - 1740 feet steel line 5.5" Casing installed on 5½" x 7" x 16" Parmaco Hook Wall Packer, Inside dimension of Packer 4-7/8".
319 feet of 5.5" Casing was pulled and left out.
397 feet of Liner was pulled out and left out in 1942 but was not taken off record.

Eward Allen, Foreman

FARM P. C. Williams, WELL 17. ACRES 200. LEASE NO. 27336.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S11. E7-8. W.

RIG COMMENCED May 7, 19 00. COMPLETED May 19, 19 00. CONTRACTOR C. H. Ross & Co.

DR'G COMMENCED May 26, 19 00. COMPLETED July 11, 19 00. CONTRACTOR J. H. Parker,

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		plug 100-0
Pgh Coal	286	292		plug 350-250
Dunkard Sand	786	820		
Big Lime	1606	1706		plug 1700-1600
Big Injun	1706	1766		
Fifty Foot	2215	2235		plug 2215-2115
Gorden Sand	2457	2487		
Fifth Sand	2623	2630		plug 200' T.D.
Total Depth		2645		

Above Fifth Sand Shot was Lowered 78 inches when Casing foundation was fixed.

Verbal okay.

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABAND.
6⅝"		1727		
5 3/16		319	= Pulled (Dec.1961)	
5-3/16"	1740'			
2" Tubing		2525.55	Pulled 2-1-83	

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
	5 3/16 x 6 7/8 x 10		9-21-42
5½" x 7" x 16" Hook Wall Packer			Dec.1961

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
4/--.1901	24				
4/22,1919	50	Pigs.			
5-27-1942	50		2624		
3-6-62	60	3-4½"x7'	2623	2630	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record. May --. 1919.
1st. Section 206' 10 Jts. Top 2417'
2nd. " 191' 8 " " 2226'
Note: This 397' of Liner pulled and left out year 1942 - Ward Allen, Foreman

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 60. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

APPROVED BY E. W. Brick SUPT.

RECEIVED
Office of Oil & Gas
Virginia Department of Mines
Environmental Protection

Dec. 21, 1961 - 1740 feet steel-line 5.5" Casing installed on 5½" x 7" Dr. 16" Packer
Hook Wall Packer, Inside dimension of Packer 4-7/8"
319 feet of 5.5" Casing was pulled and left out.
397 feet of Liner was pulled out and left out in 1942 but was not
taken off record. Eward Allen, Foreman

6-19 ... 1753 ... 1853'

6-23 ... 1798 ...
... (1" sketch only)

... Plugs
1797-1587
925-725
1053-0

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01889 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 1
Farm Name: TH Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☒ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2810
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541733.1 Northing: 4350046.7
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-93

RECEIVED
Environmental Protection
MAY 16 94
Permitting
Oil & Gas

API # 47-033-1889-P

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Buddy H. Johnson et al Operator Well No.: T. H. Williams #1

LOCATION: Elevation: 1181' Quadrangle: Rush Run
District: Tenmile County: Harrison
Latitude: 12,700 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 6,450 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 9/1/93

Coal Operator or Owner: N/A

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of ____ ss:

Victor Stinespring and Ken Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 11th day of November, 1993, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2302'	2210'		
Gel	2210'	1950'	1865' - 5 3/16"	
Cement	1950'	1850'	680' - 6 5/8"	1172'
Gel	1850'	680'		
Cement	680'	580'		
Gel	580'	500'		
Cement	500'	435'		
Gel	435'	50'		
Cement	50'	Surface		

5/17/94

Description of monument: 1 jt. of 6-5/8" extending 30" above surface.
and that the work of plugging and filling said well was completed on the 25th day of April, 19 94.

And furthur deponents saith not.

Victor Stinespring
Ken Dotson

Sworn and subscribe before me this 13th day of May, 19 94
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: ____

HAR 1889-P

FARM T. H. Williams, WELL 1. ACRES 74. LEASE NO. 5410.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.11, E.7-5, W.

RIG COMMENCED Dec. 29, 1898, COMPLETED [illegible] 4, 19 00 CONTRACTOR J. Myers,

DR'G COMMENCED Jan. 6, 1899 COMPLETED Jan. 18, 19 00 CONTRACTOR J. F. Parker,

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	WELL LOG SUFFICIENT	REMARKS
Conductor		16		
Pgh Coal	445	451		
Dunkard Sand	1545	1645		
Big Injun	1845	1900		
Fifty Foot	2365	2385		
Stray Sand	2520	2560		
Gordon Sand	2641	2620		
Fifth Sand	2764	2790		
Total Depth		2810		

24 HOURS BEFORE SHOT [illegible] GRAVEL 150 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABAND.
6 5/8"		1852'		
5 3/16"		1865'		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
7/ 5.1901	24		2874'		
8/ 8.1917	40				
8/ 8.1917	60				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG SET	PULLED FROM

REMARKS

Liner Record.

408' 5X5½" W. J. Casing, in [illegible]

20 Jts. Top 2376' Heavy Steel [illegible]

Cave Packer Used.

APPROVED BY [illegible] SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01840 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 2
Farm Name: TH Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2846
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544821.7 Northing: 4350234.2
Elevation: 1204
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:	No ☑	Yes ☐
Date of Last MIT: _____ Passed?	No ☐	Yes ☐
Open Hole Completion	No ☐	Yes ☑
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
plugging started @ 2373' b/c of fish that could not be retrieved

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Sep-93

API # 47- 33-01890-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: JOHNSON, BUDDY H. ETAL Operator Well No.:T.H. WILLIAMS#2

LOCATION: Elevation: 1,204.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 11900 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 6200 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner _____

Permit Issued: 09/01/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Ken Dotson and Daniel Moore being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 20th day of April, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
2-3/8" tbg. & rods had been dropped. Fished. milled, etc. for 4 months (78 working days). Couldn't get below 2373'.				
			2-3/8" tbg. 1400'	1450' approx.
Cement 50 sks.	2373'	2140'	5x5½ liner 0'	428'
Cement 26 sks.	1850'	1710'	6-5/8" csg. 655'	1247'
Cement 50 sks.	675'	575'		
Cement 60 sks.	510'	Surface		
6% gel between all plugs				10/4/94

Description of monument: 7" Casing - 30" above ground.
and that the work of plugging and filling said well was completed on the 24th day of August, 1994.

And furthur deponents saith not.

Ken Dotson
Daniel M. Moore

Sworn and subscribe before me this 16th day of September, 1994
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: _____

HAR 1890-P

FARM T. H. Williams WELL 2 ACRES 74 LEASE NO. 82710

TOWNSHIP OR DISTRICT Pen Miley COUNTY Harrison STATE West Va. N. S.11 E.7-8 W.

RIG COMMENCED Feb. 18 19 00 RIG COMPLETED [illegible] 19 00 CONTRACTOR Geo. H. [illegible] & Co.

DR'G COMMENCED Feb. 24 19 00 DR'G COMPLETED [illegible] 19 00 CONTRACTOR H. J. [illegible]

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	470	472		
Dunkard Sand	970	1070		
Salt Sand	1570	1650		
Big Lime	1790	1890		
Big Injun	1890	1940		
Fifty Foot	2370	2400		
Stray Sand	2502	2547		
Gordon Sand	2550	2575		
Fifth Sand	2823	[illegible]		
[illegible]				

Pennzoil Pleasants

API Well No. 47-073-01890-P

TOTAL DEPTH

24 HOURS BEFORE SHOT BBLS.

24 HOURS AFTER SHOT BBLS.

GAS TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN (TALLY MEAS.)
6⅝" 5¾	936	1902 5-14-52		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Parmaco Disc.	5X6¼"	2593	9/20,27.
" "	5X6¼"	2383	9/20,27.
Oil Well Disc.	6¼X5¾	936	5-14-52

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	FROM	BOTTOM	RESULT
4/--.1900	24				
8/29,1901	24				
8/17,1927	40	2-4'11"	2823	Fifth Sand.	

ABANDONMENT RECORD

FILLED WITH	FROM		PULLED SIZE	PULLED FROM	PULLED RECOVERED

REMARKS

Liner Record.

Set 8" 23# [illegible] 5X6¼" P. J. [illegible]

Set 8" 23# [illegible] 5X6¼" P. J. [illegible]

APPROVED BY [signature] SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01891 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 3
Farm Name: TH Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2721
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544550.2 Northing: 4350183.9
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

RECEIVED
Office of Oil & Gas
MAY 06 94
WV Division of Environmental Protection

API # 47-033-1891-P

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Buddy H. Johnson et al Operator Well No.: T. H. Williams #3

LOCATION: Elevation: 1071' Quadrangle: Tenmile Creek
District: Tenmile County: Harrison
Latitude: 12,250 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 7,050 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: N/A

Agent: James A. Crews

Coal Operator or Owner: ____

Permit Issued: 9/1/93

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Daniel Moore and Richard Moore being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 7th day of April, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2715'	2120'	5-7/16" 1400'	None
Gel	2120'	1850'	6-5/8" 420'	1345'
Cement	1850'	1750'		
Gel	1750'	420'		
Cement	420'	300'		
Gel	300'	50'		
Cement	50'	Surface		

Description of monument: One joint of 6 5/8" casing extended 30" above surface.
and that the work of plugging and filling said well was completed on the 18th day of April, 1994.

And furthur deponents saith not.

Daniel M. Moore

Richard Moore

Sworn and subscribe before me this 4th day of May, 1994
My commission expires: June 10, 1997

Debra L. Buckley
Notary Public

Oil and Gas Inspector: ____

HAS 1891-P

M T. H. Williams, WELL 3. ACRES 74. LEASE NO. 3710.

SHIP OR TRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.11 E.7 S.W.

COMMENCED Feb. 12, 19 00. COMPLETED Feb. 18, 19 00. CONTRACTOR Geo. H. Ross & Co.

COMMENCED Feb. 24, 19 00. COMPLETED April 8, 19 00. CONTRACTOR H. J. Parker,

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
n Coal	354	360		
nkard Sand	864	995		
lt Sand	1455	1560		
; Lime	1685	1775		
; Injun	1775	1840		
ty Foot	2280	2310		
ay Sand	2405	2465		
don Sand	2470	2550		
th Sand	2697	2704		
al Depth		2721		

Pennzoil Plugging
API Well No.
47-033-1891-P

AL DEPTH

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND 110. BBLS.

HOURS AFTER SHOT SAND BBLS.

TEST

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6⅝"		1765		
5 3/16		1400		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Spang D.W.	5 3/16 x 6 5/8 x 10		3-4-K3

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
5/16,1901	24		2697	2703	
5/20,1927	40	2-4'11"	2698	2703	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

Liner Record - April 17, 1906.
8 Jts. 5X5½" F. J. Casing. Top 2300'
May -, 1927. Pulled Liner.
Rerun Liner June 8, th 1927.
1st. Sec. 189'-- 9 Jts. on Packer Top 2504'
2nd " 211'--10 " " " " 2291'

APPROVED BY W. G. Shira

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01892 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: TH Williams #4
Farm Name: TH Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☒ Plugged ☐
TD of well: 2942
Completion Zones: Fifth Sand Perforated Interval: Shot 2942 - 2948? Sand

Well Location (UTM NAD83)
Easting: 545482.9 Coordinates Match?: No ☐ Yes ☐
Elevation: Northing: 4350028.6
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑ Shot	Yes ☐
Cemented across injection zone?		? No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☒ ?

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

No cement Record

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 7/12/2017

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM T. H. Williams WELL NO. 4

ELEVATION _____ N. _____ E. 11 E. 7 - 8 W.

LEASE NO. 32710 ACRES 74

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Dec. 12, 1899 COMPLETED Feb. 2, 1900 DEPTH 2964

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	585	591		6⅝	2029
Big Lime	1885	1985			
Big Injun	1985	2045			
Gordon	2681	2740			
Fifth	2942	2948		PACKERS AND DEPTH SET	

INITIAL PROD. 105 Bbls. SAND Fifth DEPTH 2942

GAS TEST _____

SHOT Aug. 20, 1901 QUARTS 24

REMARKS _____

REPORTED BY A. F. Reiss ABANDONED _____

47-033-1892

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01892 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 4
Farm Name: TH Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☑ Plugged ☐
TD of well: 2942
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation:
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Slot
Cemented across injection zone?		? No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Nichols Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM T. H. Williams WELL NO. 4

ELEVATION _____ N. _____ E. 11 E. 7 – 8 W.

LEASE NO. 32710 ACRES 74

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Dec. 12, 1899 COMPLETED Feb. 2, 1900 DEPTH 2964

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
FOR. COAL OR BIG LIME					
Pgh Conl	585	591		6⅝	2029
Big Lime	1885	1985			
Big Injun	1985	2045			
Gordon	2681	2740			
Fifth	2942	2948		PACKERS AND DEPTH SET	

INITIAL PROD. 105 Bbls. SAND Fifth DEPTH 2942

GAS TEST _____

SHOT Aug. 20, 1901 QUARTS 24.

REMARKS _____

REPORTED BY A. F. Bell ABANDONED _____

47-033-1892

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01894 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 8
Farm Name: W. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2917
Completion Zones: 5th Sand Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 542999 Northing: 4347383
Elevation: 1281
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Slt
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/6/2017

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

FARM W. F. Williams, WELL 8. ACRES 108-27½. LEASE NO. 29202.

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.13, E. 6.W.

COMMENCED May 2, 19 00. COMPLETED May 12, 19 00. CONTRACTOR John M. Crawford,

S COMMENCED May 28, 19 00. COMPLETED July 6, 19 00. CONTRACTOR P. L. Huffman,

. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
nductor		16		
h Coal	595	603		
g Dunkard	1120	1160		
g Lime	1925	1995		
g Injun	2000	2080		
fty Foot	2470	2500		
rdon Sand	2715	2745		
fth Sand	2898	2903		
tal Depth		2917		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/12"		2021		
5 3/16"		1626		

#32

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
10/12,1901.	24				
5/11,1902.	24				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DEPTH

REMARKS

Liner Record.
8 Jts 5 X 5½" F. J. Casing. Top 2719'
11 " " " " " 2471'
248'

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 50. BBLS.
24 HOURS AFTER SHOT SAND BBLS.
GAS TEST

22/17

418'+

APPROVED BY E. E. Shiras SUPT.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 - 01895 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: ~~Robert~~ H. Flanagan #1
Farm Name: Louis Oliveto
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2779
Completion Zones: Fifth Sand Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 546167 Northing: 4351289
Elevation: 1194
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☐
Cemented across injection zone?		No ☐	Yes ☐ Plugged
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Plugged Property

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

RECEIVED
WV Division of
Environmental Protection
MAY 09 1995
Permitting
Office of Oil & Gas

API # 47-033-1895

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Louis Oliveto Operator Well No.: H. Flanagan #1

LOCATION: Elevation: 1194' Quadrangle: Wolf Summit
District: Tenmile County: Harrison
Latitude: 8650 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 1850 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued:

Coal Operator or Owner: The Endres Company
110 State St.
Bridgeport, WV 26330

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature], being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 25th day of October, 1994, and that the well was plugged and filled in the following manner:

TYPE		FROM	TO	PIPE REMOVED	LEFT
				6-5/8" csg. 455'	1355'
				5x5½" liner 0'	236'
Cement	120 sks	2748'	2250'		
Cement	20 sks	1850'	1750'		
Cement	20 sks	950'	850'		
Cement	110 sks	500'	300'		
Cement	76 sks	200'	100'		
Cement	55 sks	50'	Surface		

Description of monument: 7" CASING 30" Above ground level
and that the work of plugging and filling said well was completed on the 3rd day of November, 1994.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 15th day of November, 1994
My commission expires: June 16, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

WR-38
24-Sep-91

API # 47-033-1895

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Louis Oliveto Operator Well No.: H. Flanagan #1

LOCATION: Elevation: 1194' Quadrangle: Wolf Summit
District: Tenmile County: Harrison
Latitude: 8650 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 1850 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued:

Coal Operator or Owner: The Endres Company
110 State St.
Bridgeport, WV 26330

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature], being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 25th day of October, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
			6-5/8" csg. 455'	1355'
			5x5½" liner 0'	236'
Cement 120 sks	2748'	2250'		
Cement 20 sks	1850'	1750'		
Cement 20 sks	950'	850'		
Cement 110 sks	500'	300'		
Cement 76 sks	200'	100'		
Cement 55 sks	50'	Surface		

11/28/94

Description of monument: 7" casing 30" above ground level
and that the work of plugging and filling said well was completed on the 3rd day of November, 1994

HAR 1895

And furthur deponents saith not.

[signature]
[signature]

Sworn and subscribe before me this 15th day of November, 1994
My commission expires: June 16, 1997

[signature]
Notary Public

Oil and Gas Inspector: ____

FARM E. Flannagan WELL 1 ACRES 47 LEASE NO. 33875.

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S.10. E. 8. W.

RIG COMMENCED Jan. 2, 1900 COMPLETED Jan. 6, 1900 CONTRACTOR

DR'G COMMENCED Jan. 7, 1900 COMPLETED Mar. 15, 1900 CONTRACTOR Cuffey & Caley.

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENTS	REMARKS
Conductor		16		
Pgh Coal	375	381		
Dunkard	925	993		
Big Lime	1750	1825		
Big Inju.	1865	1965		
Fifty Foot	2300	2350		
Gordon Sand	2550	2590		
Fifth Sand	2750	2770		
Total Depth		2779		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN (WHEN ABN'D.)
6⅝"		1810		

Pennzoil Plugging
Appl. Will No. 47-033-01836P

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	FTG. OF TORP.	SIZE SHELL	TOP SHOT	BOTTOM	TO RESULT
9/19/1900	30				
8/16/190-	24				
C O 9-14-	44	11.5			

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND

REMARKS

Mar. 21, 1921

2361' 6-5/8" Csg. Fish in Hole. Top 23

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 9/10 BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

SIZE

APPROVED BY W. O. Lee SUPT.

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. 1 FARM H. Flannagan WELL NO. 1

ELEVATION N. 10 E. 8 W.

LEASE NO. 33875 ACRES 47

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Jan. 7, 1900. COMPLETED Mar. 15, 1900. DEPTH 2779

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
PGH. COAL OR BIG LIME					
Pgh Coal	375	381		6⅝	1810
Big Lime	1750	1825			
Big Injun	1885	1965			
Gordon	2530	2590			
Fifth	2748	2754		PACKERS AND DEPTH SET	

INITIAL PROD. 67½ Bbls. SAND Fifth DEPTH 2718

GAS TEST

SH Sept. 19, 1900. QUARTS 30

REM Aug. 16, 1901. 24

REPORTED BY W. H. Dean ABANDONED

47-033-1895

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01896 Area Permit Number: 2R 03301 AP
Operator Name: East Resources
Operator's Well #: H. Flanagan 2
Farm Name: Louis Oliveto
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2700'
Completion Zones: Fifth Sand Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 546056 Northing: 4351111.2
Elevation: 1106 ✓
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☐ Yes ☐
Well penetrates injection zone? No ☐ Yes ☐
Well perforated in injection zone? No ☐ Yes ☐ plugged
Cemented across injection zone? No ☐ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Plugged Property

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
03-Nov-94

API # 47- 33-01896-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: OLIVETO, LOUIS Operator Well No.:H. FLANAGAN #2

LOCATION: Elevation: 1,106.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 9200 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 2150 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Agent: James A. Crews

Coal Operator or Owner: _____

Permit Issued: 11/03/94

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Richard A. Crews and _____ being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 29th day of November, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 120 sks.	2752'	2300'	5 3/16" csg. 1660'	100'
Cement 20 sks.	1800'	1700'	6 5/8" csg. ripped	@800', 300',
Cement 30 sks.	800'	700'	315' & 270'	
Cement 46 sks.	350'	250'	6 5/8" csg. freepointed @ 220'	
Cement 46 sks.	150'	100'	6 5/8" csg. 220'	1455'
Cement 60 sks.	60'	Surface		
				12/15/94

Description of monument: 7" csg - 30" above GROUND level
and that the work of plugging and filling said well was completed on the 6th day of December, 1994.

And furthur deponents saith not.

Richard A. Crews
_____

Sworn and subscribe before me this 12th day of December, 1994
My commission expires: June 10, 1997

_____
Notary Public

Oil and Gas Inspector: _____

HAR 1896-P

WR-38
03-Nov-94

RECEIVED
Division of Environmental Protection
MAY 09 1995
Permitting

API # 47- 33-01896-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: OLIVETO, LOUIS Operator Well No.:H. FLANAGAN #2

LOCATION: Elevation: 1,106.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 9200 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 2150 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 11/03/94

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: _____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 29th day of November, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 120 sks.	2752'	2300'	5 3/16" csg. 1660'	100'
Cement 20 sks.	1800'	1700'	6 5/8" csg. ripped	@800', 300',
Cement 30 sks.	800'	700'	315' & 270'	
Cement 46 sks.	350'	250'	6 5/8" csg. freepointed @ 220'	
Cement 46 sks.	150'	100'	6 5/8" csg. 220'	1455'
Cement 60 sks.	60'	Surface		

Description of monument: 7" csg - 30" above ground level
and that the work of plugging and filling said well was completed on the 6th day of December, 1994.

And furthur deponents saith not.

[signature]

[signature]

Sworn and subscribe before me this 12th day of December, 1994
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

FARM H. Flannegan WELL 2. ACRES 47. LEASE No. [redacted]

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S10, E. 6 W.

RIG COMMENCED Jan. 2, 1900 COMPLETED 19 CONTRACTOR

DR'G COMMENCED 19 COMPLETED Mar. 14, 1900 CONTRACTOR

D. P. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	310	316		
Dunkard Sand	825	879		
Big Lime	1660	1740		
Big Injun	1740	1820		
Fifty Foot	2225	2275		
Gordon Sand	2440	2500		
Fifth Sand	2671	2677		
Total Depth		2700		
TOTAL DEPTH				

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1675		
5 3/16		1760		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET
Spang Diss Well	5 3/16 x 6 5/8		11/2/39

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
7/17,1900.	40				
8/14,1901.	24				
3/ 3,1904.	80	20 Qts 4½"	Shell		
		60 "	Dumped.		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT [redacted]

24 HOURS AFTER SHOT

G. A. TEST

REMARKS

[redacted] Casing in two Sections.

[redacted] Section 9 Jts.

[redacted] 10 " Rec 2260'

[redacted] May 23, 1939.

[redacted] 1939

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01897 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 3
Farm Name: H. Flanagan
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2938
Completion Zones: 5th Perforated Interval: ?

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541586 3.5 Northing: 4350997.3
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion ? No ☐ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? ? No ☐ Yes ☐
Cemented across injection zone? ? No ☐ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☒

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

No Cement Record

Reviewer Name: _____ Signature: _____
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

226 00445 12997

WELL RECORD

H. Flanagan Farm, Acres
Fish Mile District Harrison County W Va State
Well No. 3
Rig Commenced 189
Rig Completed 189 } N.E. McBride Contractor.
Drilling Commenced Jany 16 1900
Drilling Completed Apl 5 1900 } N.S. Stewart Contractor.

FORMATION.	TOP.	REMARKS.	BOTTOM
Cond	16 ft.		
10" Casg.	235		
8¼ "	1025		
6⅝ "	1900		
Pgh. Coal	522		528
Big Dunkard.	1065		1150
Fhe Sand.	1222		1307
Salt "	1435		1525
Big Lime	1880		1960
" Injun	1980		2065
50 ft Sand.	2140		2490
Gordon "	2650		2710
5th "	2903	oil	2909
Total Depth			2935

47-033-01897

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01898 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: H. Flanagan #4
Farm Name: Louis Oliveto
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2906
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545958.5 Northing: 4351253.6
Elevation: 1289
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

RECEIVED
WV Division of
Environmental Protection
MAY 09 1995
Permitting
Office of Oil & Gas

API # 47-033-1898

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Louis Oliveto Operator Well No.: H. Flanagan #4

LOCATION: Elevation: 1289' Quadrangle: Wolf Summit
District: Tenmile County: Harrison
Latitude: 8,700 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 2,500 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued:

Coal Operator or Owner: The Endress Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 6th day of November, 1994, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Perforated 5x5½" liner @	2633, 2665 & 2705			
			5x5½" liner 0'	42 jts. (?')
Cement 120 sks.	2882'	2100'	5 3/16" 1970'	497'
Cement 32 sks.	2028'	1900'	6 5/8" ripped holes	@ 1041', 1000',
Cement 23 sks.	1100'	1000'	531', 512', & 493'	
Cement 67 sks.	550'	400'	6 5/8" csg. 410'	1525'
Cement 40 sks.	250'	150'		
Cement 80 sks.	55'	Surface		

Description of monument: 7" casing - 30" above ground level
and that the work of plugging and filling said well was completed on the 16th day of November, 1994.

And furthur deponents saith not.

[signature]
[signature]

Sworn and subscribe before me this 5th day of December, 1994
My commission expires: June 10, 1997

[signature]
Notary Public

Oil and Gas Inspector: [signature]

FARM H. Flannagan WELL . . ACRES 47. LEASE NO. 33875.

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S. 10, E. 8, W.

RIG COMMENCED Aug. 16, 1899. COMPLETED Aug. 22, 1899. CONTRACTOR

DR'G COMMENCED Aug. 25, 1899. COMPLETED Oct. 29, 1899. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	510	515		
Dunkard Sand	1040	1125		
Maxon Sand	1810	1865		
Big Lime	1865	1935		
Big Injun	1965	2045		
Fifty Foot	2475	2525		
Gordon Sand	2660	2700		
Fifth Sand	2815	2862		
Total Depth		2906		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1935		
5 3/16"		2467		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
8/--.1900.	40	10'	2877		
6/ 6,1901.	40				
6/14,1908.	80	50 Qts in Shell	30		Dumped.
3/ 3,1935	60	3-20 qt.	7875		

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH
Permanent Plugging					
& Well No					
47-033-0189-P					

REMARKS

42 jts. 5" F. J. Casing, in two Sections
1st Section 21 jts.
2nd " 21 "
Bottom Joint Perforated.

TOTAL DEPTH

INSPECTION RE[illegible]

APPROVED [illegible]

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No. _____ FARM H. Flannagan WELL No. 4

ELEVATION _____ N. _____ S. 10 E. 8 W. _____

LEASE No. 33975 ACRES 47

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED Aug. 25,1899 COMPLETED Oct. 29,1899 DEPTH 2908

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	510	515		6⅝	1935
Big Lime	1865	1935			
Big Injun	1965	2045			
Gordon	2640	2700			
Fifth	2875	2882		PACKERS AND DEPTH SET	

INITIAL PROD. 50 Bbls. SAND Fifth DEPTH 2875

GAS TEST _____

SHOT Aug. 2,1900 QUARTS 40

REMARKS _____

REPORTED BY [illegible] ABANDONED _____

47-033-1898.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01899 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 5
Farm Name: H. Flannagan
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☒ Plugged ☐
TD of well: 2960
Completion Zones: 5th Sand 2935-2941 Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545765.9 Northing: 4351173.9
Elevation: 1346
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ slot
Cemented across injection zone?		No ☐	Yes ☐ ?
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. _____ FARM H. Flanagan WELL NO. 5

ELEVATION _____ N. _____ E. 10 W. 0

LEASE No. 33875 ACRES 47

WATERS OF Ten Mile

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED May 28,1900. COMPLETED July 28,1900 DEPTH 2960

SANDS	TOP	BOTTOM	ELEV. TOP	CASING	
Pgh. Coal or Big Lime					
Pgh Coal	569	575		6⅝	1990
Big Lime	1915	1975			
Big Injun	1990	2070			
Gordon	2730	2790			
Fifth	2935	2941		PACKERS AND DEPTH SET	

INITIAL PROD. 30 Bbls. SAND Fifth DEPTH 2935

GAS TEST _____

SHOT Sept.4,1900. QUARTS 24

REMARKS _____ Ovdr.

REPORTED BY W. P. Penn ABANDONED _____

47-033-1899

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 - 4100 Area Permit Number: 2R 03301 AP
Operator Name: Pennzoil 1146 Energy
Operator's Well #: E. Fletcher #130
Farm Name: Grederick Fletcher
Field Name: ~~[illegible]~~ Wolf Summit Field Injection Zone: 5th Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2926
Completion Zones: Fifth Sand Perforated Interval: N/A Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐ #
Easting: Northing:
Elevation: 1313
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐ D N/A
Open Hole Completion		No ☐	Yes ☒ 60 sts
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☒	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☒
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Gene Smith Signature:
Date Reviewed: 6/16/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Plugged

WR-38
20-Nov-97

RECEIVED
Office of Oil and Gas
APR 28 1998
WV Division of
Environmental Protection

API # 47- 33-01900-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: FLETCHER, GREDERICK Operator Well No.:E.FLETCHER #1

LOCATION: Elevation: 1,313.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 11300 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 4700 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
P. O. Drawer 1280
Bridgeport, WV 26330

Agent: P. S. Ondrusek

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

Permit Issued: 11/21/97

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Leroy Sandgren and Dale Workman being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 7th day of April, 19 98, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
16 sks. cement	2890'	2790'	5-3/16" 1981'	0'
20 sks. cement	2029'	1920'	6-5/8" 720'	1243'
35 sks. cement	740'	640'		
40 sks. cement	580'	480'		
125 sks. cement	300'	200'		
75 sks. cement	50'	Surface		
6% gel between cement plugs				

RECEIVED
Office of Oil & Gas
APR 28 1998
WV Division of
Environmental Protection

Description of monument: 6-5/8" x 20' casing
and that the work of plugging and filling said well was completed on the 15th day of April, 19 98.

And furthur deponents saith not.

Leroy Sandgren

Dale Workman

Sworn and subscribe before me this 24th day of April, 19 98

My commission expires: 10-3-2000

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIRK F. ANDERSON
801 Grand Central Avenue
Vienna, West Virginia 26105

Dirk F. Anderson
Notary Public

Oil and Gas Inspector: Tim Bennett

HAR 1900-P

(Reissued)

Well No. 1 E. Fletcher Farm 175 Acres
Lease No. 3212 Ten Mile Township Harrison County W. Va. State
U. S. Smith Contractor Penn Sky. Supt. Contractor
Drilling Commenced Dec. 2 1926. Drilling Completed Jan. 17 1926
N. S. 10-1 E. 8 W.

Rock Formation	Top	Bottom	Steel Line Measurement	Remarks
Conductor		16		
Pittsburgh Coal	540	546		
Big Lower	1875	1935		
Big Injun	1935	1970		
Gordon Sand	2725	2760		
Fifth Sand	2901	2906		
Oil & gas	2902	2904	Gas	10 water 1" in shoes for 10 bbls oil per mo.
Total Depth		2926		

Refer to book #1 for the 1st well record.

CASING RECORD AS TALLIED. NOT STEEL LINE MEASUREMENT

Size	Put in Well Feet	In.	Pulled Out Feet	In.	Left in Well Feet	In.
10"	None					
8 1/4"	1164					
6 5/8"	1963					
2" UE	2940					

Shot Date 1-18-27
Amount 60 qts.
Sand Fifth Sand
Result
Packer Size
Depth Set

Production First 24 Hours 1 Bbls. Gas Test 40 Water 1" open
Approved by E. E. Shira Superintendent

Pulled 720'

1164 | 8"

1963 | 6 5/8

47-033-1900

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033-01909 Area Permit Number: 2R 03301 AP
Operator Name: Pennzoil
Operator's Well #: John Flaherty #1
Farm Name: Finley, Alta E. Mrs.
Field Name: ~~Wildcat~~ West Smoot Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: ~~6800~~ 2844'
Completion Zones: Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546920.9 Northing: 4352372.7
Elevation: 1290' ✓
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☐	Yes ☑
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

[illegible]	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Very close to injection well 4100

OK

Reviewer Name: Gene Smith Signature: Gene Smith
Date Reviewed: 8/24/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WELL

DISTRICT — COUNTY Harrison STATE West Va. N. S.9-1/E. 9. W.

RIG COMMENCED May 14, 19 00. COMPLETED May 22, 19 00. CONTRACTOR

RIG COMMENCED May 24, 19 00. COMPLETED July 19, 19 00. CONTRACTOR

R. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

LEASE NO.

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	418	423		
Junkard	950	990		
Lacon Sand	1720	1780		
Big Lime	1780	1830		
Big Injun	1840	1910		
Pocono	2480	2650		
Coffee Shale	2650	2830		
Fifth Sand	2824	2838		
Total Depth		2844		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN "WHEN ABD"
6 5/8"		1060		

PACKERS

KIND	SIZE	DEPTH SET	DATE

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
7/-/1900.	Shot.	No. Data.			
4/ 5/1902.	40				
9/ 9/1904.	50	4½"	Pipe.		
4-21-1960	60	3-4½x7'	2824	2834	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	PLUG DEPTH

REMARKS

June 1913. 307' 6⅝" P. J.
Casing pulled two Sections. Top. 2

Pulled Out - 1960

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 32½ BBLS.

24 HOURS AFTER SHOT SAND BBLS.

DAR

APPROVED BY

47-033-1909

R-38
1-Nov-95

RECEIVED
OFFICE OF OIL AND GAS
FEB 02 1996
WV Division of

API # 47- 33-01909-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: FINLEY, ALTA E. MRS. Operator Well No.:J.FLAHERTY #1

LOCATION: Elevation: 1,290.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 4950 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 11100 Feet West of 80 Deg. 25 Min. 0 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: Philip S. Ondrusek

Permit Issued: 11/01/95

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: Anker Energy
2708 Cranberry Square
Morgantown, WV 26505

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. L. Green and _____ being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 7th day of December, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
90 sks.	2830'	2580'	6-5/8" csg. 455'	1413'
40 sks.	2580'	2360'		
25 sks.	1950'	1830'		
40 sks.	470'	370'		
40 sks.	240'	140'	No liner in well	
15 sks.	50'	Surface		

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 29th day of December, 1995

And furthur deponents saith not.

R. L. Green

_____

Sworn and subscribe before me this 22nd day of January, 1996

My commission expires: 8/22/2005

_____
Notary Public

Oil and Gas Inspector: _____

033-01904-P

FARM John Flaherty. WELL 1 ACRES 92 LEASE NO. 3387.

TOWNSHIP OR DISTRICT Ten Mile COUNTY Harrison STATE West Va. N. S.9-10E. 9. W.

RIG COMMENCED May 14, 19 00. COMPLETED May 22, 19 00. CONTRACTOR

DR'G COMMENCED May 24, 19 00. COMPLETED July 19, 19 00. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE Strings and Sizes	REMARKS
Conductor		16		
Pgh Coal	418	423		
Dunkard	950	990		
Maxon Sand	1720	1780		
Big Lime	1780	1830		
Big Injun	1840	1910		
Fifty Foot	2450	2550		
Gordon Sand	2568	2630		
Fifth Sand	2824	2832		
Total Depth		2844		
TOTAL DEPTH				

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'D.
6 5/8"		1868		

PACKERS

KIND	SIZE	DEPTH SET	DATE SET

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
7/--1900.	Shot.	No. Date.			
4/ 5.1902.	40				
9/ 9.1904.	60	4½" Pigs.			
4-21-1960	60	3-4½x7'	2824	2834	

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 32 BBLS

24 HOURS AFTER SHOT SAND BBLS

GAS TEST

REMARKS

June 1913. 387' 6X5½" F.W.
Casing put in two Sections. Top. 245
Pulled out - 1960

APPROVED BY W. O. Shira

FORM WW-4(B) INSPECTOR'S COPY
Obverse
3-91

RECEIVED
WV Division of
Environmental Protection
OCT 31 1995
Permitting
Office of Oil & Gas

1) Date: October 23, 95
2) Operator's Well No. John Flaherty #1
3) API Well No. 47 - 033 - 1909 = P
State - County - Permit

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
APPLICATION FOR A PERMIT TO PLUG & ABANDON

4) WELL TYPE: A Oil X / Gas ____ / Liquid injection ____ / Waste disposal ____ /
B (If "Gas", Production ____ / Underground storage) ____ / Deep ____ / Shallow ____ /
5) LOCATION: Elevation: 1290' Watershed: New Creek
District: Tenmile County: Harrison Quadrangle: Wolf Summit
6) WELL OPERATOR Pennzoil Products Co. CODE 37450
Address P. O. Box 5519
Vienna, WV 26105-5519
7) DESIGNATED AGENT Philip S. Ondrusek
Address P. O. Box 5519
Vienna, WV 26105-5519
8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Tim Bennett
Address 737 Karl Street
Weston, WV 26452
9) PLUGGING CONTRACTOR
Name ____
Address ____

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

Cement 2332'-2382'
Cement 1950'-1850'
Cement 1050'- 950' (Est. 6-5/8" csg. cut)
Cement 450'- 350'
Cement 250'- 150'
Cement 50'-Surface

Erect monument with API No.

Note: 6% Gel between all cement plugs.

OFFICE USE ONLY

PLUGGING PERMIT

47-033-1909-P

Permit number ____

November 1, 95
Date

This permit covering the well operator and well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof. 11-1-97

Permit expires ____ unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond	Agent	Plat	Casing	WPCP	OTHER

Chief, Office of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location.

Inspector

See the reverse side of the APPLICANT'S COPY for instructions to the well operator

FORM WW-4(B) FILE COPY
Obverse
10-91

RECEIVED
WV Division of
Environmental Protection
OCT 27 1995
Permitting
Office of Oil & Gas

1) Date: October 23, 19 95
2) Operator's Well No. John Flaherty #1
3) API Well No. 47 - 033 - 1909-P
State County Permit

21312

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
APPLICATION FOR A PERMIT TO PLUG & ABANDON

WELL TYPE: A Oil X / Gas ____ / Liquid injection ____ / Waste disposal ____ /
B (If "Gas", Production ____ / Underground storage ____ / Deep ____ Shallow ____ /)

LOCATION: Elevation: 1290' q Watershed: New Creek
District: Tenmile County: Harrison Quadrangle: Wolf Summit 6'92

WELL OPERATOR Pennzoil Products CODE 37450
Address P. O. Box 5519
Vienna, WV 26105-5519

7) DESIGNATED AGENT Philip S. Ondrusek
Address P. O. Box 5519
Vienna, WV 26105-5519

8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Tim Bennett
Address 737 Karl Street
Weston, WV 26452

9) PLUGGING CONTRACTOR
Name ____
Address ____

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

Cement 2832'-2382'
Cement 1950'-1850'
Cement 1050'- 950' (Est. 6-5/8" csg. cug)
Cement 450'- 350'
Cement 250'- 150'
Cement 50'-Surface

- Erect monument with API No.

Note: 6% Gel between all cement plugs.

OFFICE USE ONLY

PLUGGING PERMIT

Permit number 47-033-1909-P

November 1, 19 95
Date

This permit covering the well operator and well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires 11-1-97 unless plugging is commenced prior to that date and prosecuted with due diligence

Bond:	Agent:	Plat:	Casing	WPCP	OTHER

Jamie Stevens
Chief, Office of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

03011712571
44

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 – 01910 Area Permit Number: 2R 03301 AP
Operator Name: Pennzoil / East Resources
Operator's Well #: J. Flaherty #4
Farm Name: M+M Limestone, Inc
Field Name: ~~Wilsonville~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2732'
Completion Zones: Shot Fifth Sand Perforated Interval: ~~Unknown~~

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547160.5 Northing: 4352664.1
Elevation: 1210.52'
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑ Shot
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☐ Open
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☑	Yes ☐

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Clean out Unsuccessful ~~Rabbit Operation~~ ~~Unknown~~ - Good cement in open hole between 290'- 1991'.

Reviewer Name: Laura Adkins Signature: Laura J. Adkins
Date Reviewed: 7/26/15

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
OCT 23 1989
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

26-Jul-89
API # 47- 33-01910 D

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: M & M LIMESTONE, INC. Operator Well No.: J. FLAHERTY #4

LOCATION: Elevation: 1210.52 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 4180 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 10210 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: STEVE CASEY
Permit Issued: 07/26/89
Well Work Commenced: 8-2-89
Well work Completed: 8-24-89
Verbal Plugging
Permission granted on: 8-21-89
Rotary ____ Cable X Rig
Total Depth (feet) 2734
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): N/A

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			See Reverse
6-5/8"	1,748'	1,458'	Side
			-

NOTE: Efforts to clean out and drill deeper failed. Well was plugged under continuous operation after securing verbal permission from Steven Casey and Jamie Stevens of D.O.E.

OPEN FLOW DATA (See Reverse Side)

Producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Timothy P. Roush
Date: October 20, 1989

WR-38
24-Oct-89

API # 47- 33-01910-P

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVSION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVITE SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: M & M LIMESTONE CO. Operator Well No.:J. FLAHERTY #4

LOCATION: Elevation: 1210.52 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 4180 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 10210 Feet West of 80 Deg. 25 Min. 0 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Co.
P.O. Box 5519
Vienna, W.Va. 26105

Coal Operator or Owner: Clinchfield Coal Co.
P.O. Box 456
Philippi, W.Va. 26416

Agent: James A. Crews
Inspector: Stephen Casey
Permit Issued: 10/24/89

Coal Operator or Owner

RECEIVED
NOV 09 1989
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Curtis A. Lucas and Robert Criss being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Pennzoil Products Co., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 22nd day of August, 1989, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	1737	1557	6-5/8 290'	1458'
Gel	1557	351		
Cement	351	199		
Gel	199	50		
Cement	50	Surface		

Description of monument: One joint of 7" casing extending 30" above surface.

and that the work of plugging and filling said well was completed on the 23rd day of August, 1989.

And furthur deponents saith not.

Curtis A Lucas

Robert Criss

Sworn and subscribe before me this 3rd day of November, 1989
My commission expires: June 10 1997

Notary Public

HARR. 1910-F

Well Record

See existing well record attached. Efforts to clean out failed at 1764'. Well was P&A'd on verbal permission of Stephen Casey and Jamie Stevens.

Manner of Plugging

Cement	1737-1557
Gel	1557-351
Cement	351-199
Gel	199-50
Cement	50-Surface

Monument erected w/API No.

Pipe Removed

6-5/8" - removed 290'. Left in well 1458'.

RECEIVED
OCT 23 1989
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Rev 8/94P

SM-3-35

RM John Flaherty, WELL 4 ACRES 92 LEASE NO. 33871.

INSHIP OR TRICT Ten Mile COUNTY Harrison STATE WestVa.. N. Sec. 10 E. 9 W.

COMMENCED Aug. 20, 19 00. COMPLETED Sept. 1, 19 00. CONTRACTOR John M. Crawford,

O COMMENCED Sept. 6, 19 00. COMPLETED Oct. 29, 19 00. CONTRACTOR

S. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	320	323		
Dunkard	815	865		
Saxon Sand	1530	1560		
Big Lime	1680	1750		
Big Injun	1750	1855		
Fifty Foot	2280	2320		
Gordon Sand	2500	2525		
Fifth Sand	2711	2717		
Total Depth		2732		

0335' 1910

TAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN'
6 5/8"		1748		

PACKERS

KIND	SIZE	DEPTH SET	DATE S.

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
10/--,1900	40			-	
6/ 1,1901	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

REMARKS

PRODUCTION RECORD

HOURS BEFORE SHOT Fifth SAND, 15. BBLS.

HOURS AFTER SHOT SAND BBLS.

AS TEST

RECEIVED
JUN 02 1989
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

APPROVED BY W. G. Shira SUPT

RM John Flaherty, WELL 4 ACRES 92 LEASE NO. 33871.

INSHIP OR TRICT Ten Mile COUNTY Harrison STATE WestVa.. N. 9-10 E. 9 W.

COMMENCED Aug. 20, 19 00. COMPLETED Sept. 1, 19 00. CONTRACTOR John M. Crawford,

G [redacted]ENCED Sept. 6, 19 00. COMPLETED Oct. 29, 19 00. CONTRACTOR

L COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	320	323		
Dunkard	815	865		
Maxon Sand	1530	1560		
Big Lime	1680	1750		
Big Injun	1750	1855		
Fifty Foot	2280	2320		
Gordon Sand	2500	2525		
Fifth Sand	2711	2717		
Total Depth		2732		

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT IN WHEN ABN
6 5/8"		1748		

PACKERS

KIND	SIZE	DEPTH SET	DATE S

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RESULT
10/--,1900	40			-	
6/ 1,1901	40				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	PLUG SIZE	PLUG KIND	PLUG DEPTH

RECEIVED
OCT 23 1989
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

REMARKS

PRODUCTION RECORD

[redacted] HOURS BEFORE SHOT Fifth SAND 15. BBLS.

[redacted] HOURS AFTER SHOT SAND BBLS.

AS TEST

APPROVED BY W. E. Shira SUPT

IR-26-P
24-Oct-89

API # 47- 33-01910-P

RECEIVED
Division of Energy
JAN 10 90
Oil and Gas

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

INSPECTOR'S PERMIT SUMMARY FORM

Farm name: M & M LIMESTONE CO. Operator Well No.: J. FLAHERTY #4

LOCATION: Elevation: 1210.52 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 4180 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 10210 Feet West of 80 Deg. 25 Min. 0 Sec.

EXISTING WELL INFORMATION:

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV

Agent: JAMES A. CREWS

Inspector: STEVE CASEY
Permit Issued: 10/24/89
Plugging Commenced: _____
Plugging Completed: _____
Verbal Plugging
Permission granted on: _____
Rotary ____ Cable ____ Rig
Total Depth (feet) _____
Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? __
Coal Depths (ft): _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			

Verbal perm to plug 8-23-89

PLUGGING WORK

TYPE	FROM	TO	PIPE REMOVED
hole full of clean g	1764	cannot find	any casing
"	full to	surface	0
Cement	1962	1636	
7" csg cut off 4	4 way pr	in 6" to 2	0 - started at 290' & pulled
Cement	350'	150	
"	50	0	

AFFIDAVIT RECEIVED _____ RECLAMATION SCORE 55
DATE RELEASED 1-4-90

Stephen L. Casey
INSPECTOR'S SIGNATURE

----------RECORD ALL VISITS TO THIS WELL ON BACK----------

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01936 Area Permit Number: 2R 03301 AP
Operator Name: Doran & Assoc.
Operator's Well #: B-1395 (K-L-170)
Farm Name: John and Joyce Lanham
Field Name: ~~Wilsonville~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 4750'
Completion Zones: Benson, Balltown, Speechley Perforated Interval: 4622'-4638', 3500-3579', 3174'-3286'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546738.3 Northing: 4353305.8
Elevation: 1021'
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Looks to be errors on WR-35 but appears to have cement over injection zone

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 7/12/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

1936

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

RECEIVED
FEB 13 1979
OIL & GAS DIVISION

Rotary XX Oil EG
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ ____ (Kind)

Quadrangle Wolf Summit

Permit No. HAR-1936

Company Doran & Associates, Inc.
Address 728 Washington Road, Pgh., PA
Farm Hayward Lanham Acres 90
Location (waters) Tenmile Creek
Well No. B-1395 (K-L-170) Elev. 1021'
District Tenmile County Harrison
The surface of tract is owned in fee by John & Joyce Lanham
Address Clarksburg, WV 26301
Mineral rights are owned by Charles H. Lanham et al Address Wolf Summit, WV
Drilling Commenced October 16, 1978
Drilling Completed October 22, 1978
Initial open flow 119 cu. ft. -- bbls.
Final production 1070 cu. ft. per day -- bbls.
Well open 72 hrs. before test 1550# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10" 11 3/4"			
9 5/8			
8 5/8	1044'	1040'	275 sks.
7			
5 1/2			
4 1/2	4475'	4475'	285 sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record:

Interval Perforated:	FROM TO	AMT. FLUID	AMT. SAND
DATE: 11-3-78	4622 - 4638	570 BBLS.	65,000#
	3500 - 3579	519 BBLS.	60,000#
	3174 - 3286	566 BBLS.	60,000#

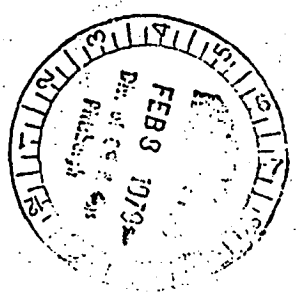
Coal was encountered at 210', 220' Feet ____ Inches
Fresh water 110' Feet ____ Salt Water ____ Feet ____
Producing Sand Benson, Balltown, Speechley Depth 4626', 3507', 3164'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Fill			0	12		
Sand			12	160		
Sandy Shale			160	210	Water @ 110'	
Coal			210	214		
Sand			214	220		
Coal			220	224		
Sand			224	270		
Sandy Shale			270	300		
Sand			300	360		
Sandy Shale			360	585		
Sand			585	630		
Shale			630	845		
Sand			845	1015		
Shale			1015	1017		
Sand			1017	1155		
Sand & Shale			1155	1235		

(over)

* Indicates Electric Log tops in the remarks section.

Formation Color Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water * Remarks
Sand	1235	1265	
Sand & Shale	1265	1540	
Sand	1540	1580	
Lime	1580	1650	
Sand	1650	1720	
Sandy Shale	1720	1855	
Sand	1855	1935	
Sandy Shale	1935	2345	
Sand	2345	2410	
Shale	2410	3105	Gas @ 2700'
Sand & Shale	3105	3500	
Sandy Shale	3500	4615	Gas @ 4440'
Brown Sand	4615	4640	
Sandy Shale	4640	4750	
Drillers' T. D.		4750	



Date Feb 5 19 79

APPROVED Donald R. Langfelder Owner

By Mgr. - Prod. & Engr.
(Title)

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01938 Area Permit Number: 2R03301 AP

Operator Name: Dominion Transmission

Operator's Well #: 12553

Farm Name: Ruth Smith Miley

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐

Well Status: Active ☒ Abandoned ☐ Plugged ☐

TD of well: ~~4370~~ 4387

Completion Zones: Benson Perforated Interval: 4229 - 4233'

Well Location (UTM NAD83)

Easting: 559775.3 Coordinates Match?: No ☐ Yes ☑

Northing: 4335559.9

Elevation: 1238'

Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:	No ☒	Yes ☐
Date of Last MIT: ~~NA~~ Passed?	No ☐	Yes ☐
Open Hole Completion	No ☒	Yes ☐
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☒	Yes ☐
Cemented across injection zone?	No ☒	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
If No: Provide Depth:		
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:

Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

RECEIVED
MAR - 5 1979
OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Quadrangle Mount Clare

Permit No. HAR-1938

Company Consolidated Gas Supply Corp.
Address 445 W. Main St., Clarksburg, WV
Farm Ruth Smith Miley Acres 28/102
Location (waters) Hastings Run
Well No. 12553 Elev. 1238'
District Elk County Harrison
The surface of tract is owned in fee by
Ruth Smith Miley, Agt.
Address 937 W. Pike St. Clarksburg, WV
Mineral rights are owned by Same
Address
Drilling Commenced November 13, 1978
Drilling Completed November 22, 1978
Initial open flow 41M cu. ft. ____ bbls.
Final production 492M cu. ft. per day ____ bbls.
Well open 4 hrs. before test 1 hr. 280# RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13 3/8	296'	296'	To surface
9 5/8			
8 5/8	1835'	1835'	To surface
7			
5 1/2			
4 1/2	4387'	4387'	125 Sks.
3			
2			
Liners Used			

Well treatment details:
Attach copy of cementing record.

Well fractured in Benson with 56,000# sand, 800 bbls. of water & 500 Gals. 15% Hcl.
Perforations: 4229 - 4233' with 16 holes.

Coal was encountered at 140' Feet 60" Inches
Fresh water 140' 225' Feet ____ Salt Water None Feet ____
Producing Sand Benson Depth 4229 - 4233'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks	
Soil			0	5			
Sand & Shale			5	73			
Red Rock			73	90			
Sandy Shale			90	105			
Red Rock			105	120			
Sandy Shale			120	140	Water	140'	1/2" Stream
Coal			140	145			
Sand & Shale			145	1180	Water	225'	
Little Lime			1180	1195	Water	705'	
Sand			1195	1240			
Big Lime			1240	1305			
Big Injun			1305	1415			
Shale & Sand			1415	1615			
Gantz			1615	1650			
Sandy Shale			1650	1675			
Gantz-A			1675	1700			
Sand & Shale			1700	1837			
Red Rock			1837	1847			
Shale & Sand			1847	3910	Gas	3698'	18 Mcf
Riley			3910	4030			
Shale			4030	4230	Gas	4049'	34Mcf
Benson			4230	4245	Gas	4360'	41 Mcf
Shale			4245	4570	T.D.		
KBM 10' above G. L.							

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet //	Bottom Feet	Oil, Gas or Water	Remarks
Gamma Ray Tops						
Big Lime			1247	1320		
Big Injun			1320	1445		
Gordon Stray			1908	- -		
Gordon			- -	1996		
4th			2000	2064		
4th-A			2108	2129		
Warren			2566	2594		
Upper Speechley			2732	2807		
Speechley			2879	2891		
Balltown			3004	3242		
Bradford			3456	3532		
Riley			3966	4073		
Benson			4226	4240		

Date March 2, 19 79

APPROVED Consolidated Gas Supply Corp., Owner

By J. E. Dayger, Manager of Prod.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 - 1949
Area Permit Number: 2R 03301 AP
Operator Name: HG Energy / Pennzoil
Operator's Well #: Beason Brown 14
Farm Name: Ken Elsey
Field Name: ~~Volcanoville~~ Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Gas Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4763
Completion Zones: Benson
Perforated Interval: Perf Int. Not given 4706 - 4727

Well Location (UTM NAD83)
Easting:
Elevation: 1158
Inside Field Boundary? ☒
Coordinates Match?: No ☐ Yes ☐
Northing:
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

N/A
No Packer ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
~~ERS shows to be injector - Call HG Energy~~ Producer (GAS)

Reviewer Name: Gene Smith
Signature:
Date Reviewed: 6/16/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

Non Flood Produce

OG-10
Rev. - 9-71

RECEIVED
AUG 01 1979
OIL & GAS DIVISION
DEPT. OF MINES

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

Quadrangle Clarksburg 15'
Permit No. Har-1949

(x) Rotary X Oil ____
Cable ____ Gas ____
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Company Pennzoil Company
Address P. O. Box 1588, Parkersburg, WV 26101
Farm Beeson H. Brown Acres 213
Location (waters) New Creek
Well No. 14 Elev. 1158.52'
District Ten Mile County Harrison
The surface of tract is owned in fee by
Jim Finley, Rt. 1, Bristol, WV
Address
Mineral rights are owned by Maud Lee Jarvis
Address 104 Kenwood Pl., Clarksburg, WV
Drilling Commenced 12-8-78
Drilling Completed 12-14-78
Initial open flow 180 cu. ft. ____ bbls.
Final production 96 cu. ft. per day ____ bbls.
Well open ____ hrs. before test ____ RP.
Well treatment details:
Fractured 12-28-78 w/819BW, 30,000# 20/40 sd., 500 Gal. 15% HCL

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1215'	1215'	385 sks.
7			
5 1/2			
4 1/2	4798	4798'	450 sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Coal was encountered at ____ Feet ____ Inches
Fresh water ____ Feet ____ Salt Water ____ Feet ____
Producing Sand Benson Depth ____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Variegated Shale & Siltstone			0	134		
Siltstone			134	192		
Silty Shale			192	314		
Pittsburgh Coal			314	320		
Silty Shale			320	340		
Silty Sand			340	358		
Shale & Silt			358	484		
Fine Siltstone			484	504		
Silty Shale			504	816		
Sandstone w/Shale			816	1098		
Shale			1098	1220		
Silty Sandstone			1220	1268		
Fine Sandstone			1268	1340		
Silty Shale			1340	1574		
Maxton Sand			1574	1578		
Fine-Med. Sandstone			1578	1675		
Pencil Cave			1675	1683		
Lt. Gray & Lt. Br. Limestone			1683	1738		
White & Lt. Br. Limestone			1738	1834		
Pocono Sandstone			1834	1850		
Pocono Shale			1850	1950		
Silty Shale			1950	2160		
Siltstone			2160	2218		
Shale			2218	2268		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Fine Sandstone			2268	2346		
Gordon Series			2346	2540		
Silty Shale			2540	2690		
5th Sand			2690	2710		
Silty Shale			2710	3060		
Warren			3060	3275		
Upper Speechley			3275	3374		
Silty Shale			3374	3510		
Balltown			3510	3532		
Silty Sandstone			3532	3600		
Siltstone			3600	3638		
Shale Siltstone			3638	4706		
Benson			4706	4727		
Siltstone			4727	4798		
Total Depth				4798		
Plug Back Depth				4763		

Date July 20 1967

APPROVED PENNZOIL COMPANY

Owner

By Curtis A. Lucas

Title Eng. Dept.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01965 Area Permit Number: 2R03301 AP
Operator Name: Petroleum Development Corp.
Operator's Well #: #1
Farm Name: ~~[illegible]~~ G.L. Duncan
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2657
Completion Zones: 5th Perforated Interval: Shot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 556329.7 Northing: 4134958.4
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Shot
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

47-033-1965

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

Clinchfield Coal Company
P. O. Box 472
Clarksburg, West Virginia 26301
COAL OPERATOR OR OWNER, ADDRESS

COAL OPERATOR OR OWNER

ADDRESS

Wm. J. Arnett
1308 Van Buren Street
Clarksburg, West Virginia 26301
LEASE OR PROPERTY OWNER, ADDRESS

PENNZOIL COMPANY
P. O. Box 1588
Parkersburg, West Virginia 26101
NAME OF WELL OPERATOR, COMPLETE ADDRESS

September 3, 1975
WELL AND LOCATION

Ten Mile District

Harrison County

Well No. 1

G. L. Duncan Farm

STATE INSPECTOR SUPERVISING PLUGGING Paul Garrett-Clarksburg, W. Va.

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison } ss:

Hubert Richards and J. B. Jameson

being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Spencer Enterprises, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 21st day of July, 1975, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD FORMATION	FILLING MATERIAL		PLUGS USED SIZE & KIND	CASING CSG PULLED	CASING CSG LEFT IN
	Could not get down hole below 2140'		5½"	1735'	0'
	Perm. Bridge	2140	7"	342'	1368'
	Stone & Clay	2140 - 2100			
	Cement	2100 - 1700			
	Gel	1700 - 1600			
	Cement	1600 - 1500			
	Gel	1500 - 750			
	Cement	750 - 700			
	Gel	700 - 305			
	Cement	305 - 235			
	Gel	235 - 75			
	Stone & Clay	75 - 30			
	Cement	30 - 0			

COAL SEAMS		DESCRIPTION OF MONUMENT
(NAME)		3' of 7" Above Ground Showing
(NAME)		Permit Number.
(NAME)		
(NAME)		

and that the work of plugging and filling said well was completed on the 31st day of July, 1975.

And further deponents saith not.

Hubert Richards
J. B. Jameson

Sworn to and subscribed before me this 12 day of September, 1975

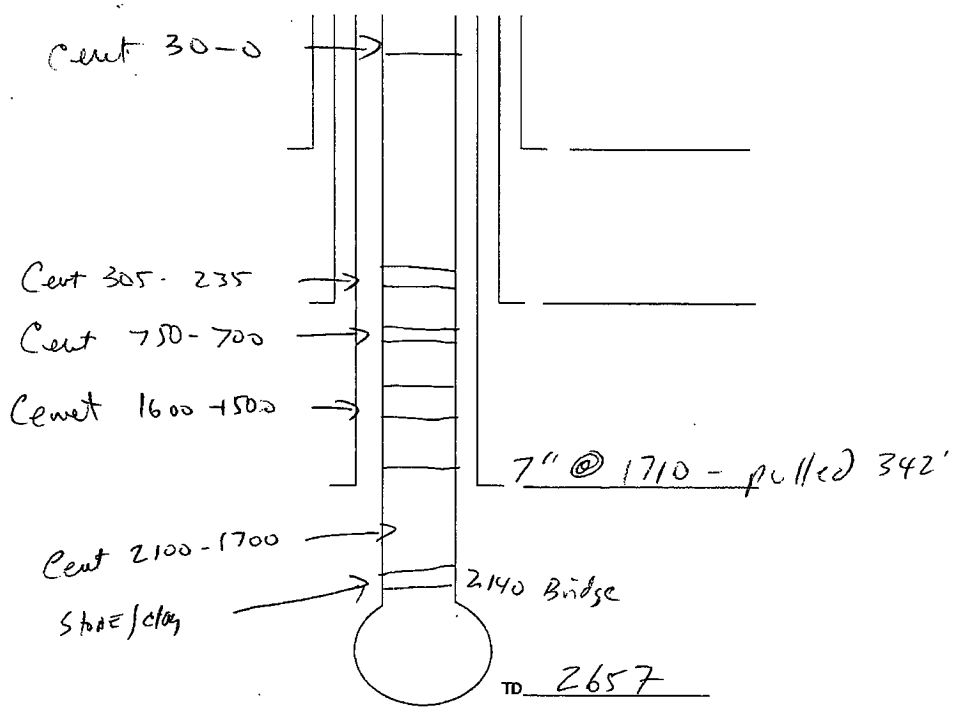
Dulfe Spencer
Notary Public.

My commission expires:
August 6 1985

Permit No. Har-1965-A

GL Duncan #1

47-033-01965



From Drillers Records/Plugging Records

G. L. Duncan , 1 39-3/4 32714

NSHIP OR RICT | COUNTY Harrison | STATE West Va. | N. S.10. E. W.

COMMENCED April 24, 19 00. COMPLETED April 30, 19 00. CONTRACTOR

COMMENCED May 3, 19 00. COMPLETED June ~~15~~, 19 00. CONTRACTOR

COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	258	264		
Sandrock	735	800		
Big Lime	1655	1700		
Big Injun	1700	1800		12/10/33
Fifty Foot	2270	2300		
Gordon Sand	2410	2460		
Fifth Sand	2638	2648		
Total Depth		2657		

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)	LEFT WHEN A
6⅝"		1710		
5⅜/16		1735		

PACKERS

KIND	SIZE	DEPTH SET	DAT
Disc Hall	5⅜/16	1735	

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM	RE
12/--,1900.	24				
2/38,1902.	24				

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND	DE

47-033-0 1965

REMARKS

Use. 1902. 5" X 5½" F. J.
1st. Section. 10Jts. 314' Top 2401'
2nd " 9 " 198' " 2223'

TOTAL DEPTH

PRODUCTION RECORD

24 HOURS BEFORE SHOT Fifth SAND 60. BBLS.

24 HOURS AFTER SHOT SAND BBLS.

GAS TEST

24 21

2 2 1

-- 00.

Nancy Wickline

RECEIVED
DEC 2 8 1978
OIL & GAS DIVISION
DEPT. OF MINES

FORM OG-8

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE AND SENT MAILED TO THE INSPECTOR, ONE COPY TO BE RETAINED BY THE OIL OPERATOR AND THE OTHER COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT EACH RESPECTIVE ADDRESS.

Nathan Goff Estate
COAL OPERATOR OR OWNER

Clarksburg, W.V. 26301
ADDRESS

COAL OPERATOR OR OWNER

ADDRESS

Same
LESSEE OR PROPERTY OWNER

ADDRESS

Petroleum Development Corporation
NAME OF WELL OPERATOR

P.O. Box 26, Bridgeport, W.V. 26330
COMPLETE ADDRESS

November 2, 1978 (1)
WELL AND LOCATION

Coal District

Harrison County

Well No. Glen View Brick Co. #1

Nathan Goff Estate Farm

STATE INSPECTOR SUPERVISING PLUGGING Paul Garrett 421 Beech St. Clarksburg, W.V. 26301
622-3871

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison } ss:

John C. Moore and [illegible]

being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Petroleum Development Corporation well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 1st day of December, 1978, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING	
FORMATION		SIZE & KIND	CASING PULLED	CASING LEFT IN
0-444	Cement (perf 2" & 6 5/8" @444')		NONE	1250'-6 5/8"
444-1650	Cement (perf 2" @1650')			2302'-2"
1650-2302 T.D.	Cement & Water			
COAL WORKED	Rock			
(NAME)		Drill hole connected coalbed vent		
(NAME)		but point of location surveyed &		
(NAME)		plat with affidavit.		
(NAME)				

and that the work of plugging and filling said well was completed on the 12 day of December, 19 78

And further deponents saith not.

Sworn to and subscribed before me this 18th day of DECEMBER, 1978

My commission expires
MAY 16 1988

Notary Public

Permit No. [illegible]

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01966
Operator Name: Petroleum Service Partners
Operator's Well #: 2 or K-L-81
Farm Name: L.H. Rodgers
Field Name: Wolf Summit
Area Permit Number: 2R AP
Field Injection Zone: 5th Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑? Abandoned ☐ Plugged ☐
TD of well:
Completion Zones: Ball Town – Lower Speechley
Perforated Interval: 3450 – 3507, 3155 – 3177, 3100 – 3409

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☐
Easting: 549764.9
Northing: 4358109.9
Elevation: 1241
Inside Field Boundary? ☐
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑?
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Map shows as plugged? RBDMS shows it Active

Reviewer Name: Josh Westbrook
Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

IV-35
(Rev 8-81)

REVISED

Date 8-29-86
Operator's
Well No. K-L-81
Farm L. H. Rodgers #2
API No. - HAR - 1966

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 1241' Watershed Little Ten Mile Creek
District: Sardis County Harrison Quadrangle Wolf Summit

COMPANY Doran & Associates, Inc.
ADDRESS 200 Roessler Rd., Pgh., PA 15220
DESIGNATED AGENT Charlie Stimeling
ADDRESS P.O. Box 39, Bridgeport, WV
SURFACE OWNER Gerald & Louise McGinnis
ADDRESS Clarksburg, WV 26301
MINERAL RIGHTS OWNER Martha Cooksey
ADDRESS Bridgeport, WV 26330
OIL AND GAS INSPECTOR FOR THIS WORK
ADDRESS
PERMIT ISSUED December, 1978
DRILLING COMMENCED December 6, 1978
DRILLING COMPLETED December 14, 1978
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
9 5/8			
8 5/8	1225'	1225'	215sks.
7			
5 1/2			
4 1/2	4132'	4132'	325sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION ___ Depth ___ feet
Depth of completed well 4758 feet Rotary X / Cable Tools ___
Water strata depth: Fresh 130 feet; Salt - feet
Coal seam depths: 210' & 357' Is coal being mined in the area? no

OPEN FLOW DATA
Producing formation Balltown - Lower Speechley Pay zone depth 3499-3160 feet
Gas: Initial open flow 84 Mcf/d Oil: Initial open flow - Bbl/d
Final open flow 738 Mcf/d Final open flow - Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure 1675# psig (surface measurement) after 72 hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(Continue on reverse side)

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Interval Perforated: January 5, 1979

3450-3507' 572 BBLS. sand - 60,000#

3455-3177' 667 BBLS. sand - 60,000#

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Soil			0	40	
Sand			40	180	Water 1" @ 130'
Coal			180	185	
Sand			185	210	
Coal			210	215	
Sand			215	295	
Sandy shale			295	357	
Coal			357	360	
Sandy shale		RR	360	745	
Sand			745	800	
Sandy shale			800	910	
Sand			910	945	
Sandy shale			945	1015	
Sand			1015	1225	
Shale			1225	1490	
Lime			1490	1510	
Shale			1510	1515	
Lime			1515	1530	
Sandy shale			1530	1570	
Sand			1570	2200	
Sandy shale			2200	2240	
Sand			2240	2295	
Sandy shale			2295	2365	
Sand			2365	2420	Gas @ 3730' - 2" water
Sandy shale			2420	4565	Gas @ 4535' - 2" water
Sand			4565	4580	
Shale			4580	4640	
Sand			4640	4665	
Shale			4665	4758	Gas 10 Jts. down 4/10-2" water
Driller's			T.D.	4758	
Logger's			T.D.	4756	

SEE ATTACHED SHEET

(Attach separate sheets as necessary)

Doran & Associates, Inc.
Well Operator

Donald R. Laughlin

By: Donald R. Laughlin
Vice President - Operations

Date: Revised - September 3, 1986,
requested by the WV Dept. of Mines.

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

Attachment to K-L-81 - L. H. Rodgers #2 well formations

Upper Speechley	3002	3160
Lower Speechley	3160	3458
Balltown	3458	4014
Bradford	4014	4636
Benson	4636	4758
Driller's T.D.		4758
Logger's T.D.		4756

OG-10
Rev. 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

RECEIVED
FEB 13 1979
OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Quadrangle Wolf Summit

Permit No. HAR-1966

Company Doran & Associates, Inc.
Address 728 Washington Road, Pgh., PA
Farm L. H. Rogers Acres 120
Location (waters) Little Ten Mile Creek
Well No. B-1165 (K-L-81) Elev. 1241'
District Sardis County Harrison
The surface of tract is owned in fee by Gerald Cooksey
Louise McGinnis
Address Clarksburg, WV 26301
Mineral rights are owned by Martha Cooksey
Address Bridgeport, WV 26330
Drilling Commenced December 6, 1978
Drilling Completed December 14, 1978
Initial open flow 84 cu. ft. — bbls.
Final production 738 cu. ft. per day — bbls.
Well open 72 hrs. before test 1675# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10"	11 3/4"		
9 5/8			
8 5/8	1225'	1225'	215 sks.
7			
5 1/2			
4 1/2	4132'	4132'	325 sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record:

Interval Perforated:	FROM	TO	AMT. FLUID	AMT. SAND
DATE: 1-5-79	3450	3507	572 BBLS.	60,000#
	3155	3177	667 BBLS.	60,000#

Coal was encountered at 210' & 357' Feet ____ Inches ____
Fresh water 130' Feet ____ Salt Water ____ Feet ____
Producing Sand Balltown - Lower Speechley Depth 3499' - 3160'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Fill			0	40		
Sand			40	180	W. @ 130'	
Coal			180	185		
Sand			185	210		
Coal			210	215		
Sand			215	295		
Sandy Shale			295	357		
Coal			357	360		
Sandy Shale & Red Rock			360	745		
Sand			745	800		
Sandy Shale			800	910		
Sand			9910	945		
Sandy Shale			945	1015		
Sand			1015	1225		
Shale			1225	1490		
Little Lime			1490	1510		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil Gas or Water	Remarks
Sandy Shale			670	715		
Sand			715	745		
Sandy Shale			745	895		
Sand			895	975		
Sandy Shale			975	1080		
Sand			1080	1110		
Sandy Shale			1110	1235		
Sand			1235	1305		
Sandy Shale			1305	1390		
Lime			1390	1460		
Sand			1460	1535		
Sandy Shale			1535	1655		
Sand			1655	1675		
Sandy Shale			1675	1900		
Sand			1900	2065		
Sandy Shale			2065	2085		
Sand			2085	2145		
Sandy Shale			2145	2370	Gas @ 2235'	
Sand			2370	2400		
Sandy Shale			2400	2795		
Sand			2795	2850	Gas @ 2825'	
Sandy Shale			2850	4400	Gas @ 4275'	
Sand			4400	4420		
Sandy Shale			4420	4560		
Drillers' T.D.				4560		

Date: Feb. 5 1979

APPROVED: Donald R. Laughlin Owner

By: Mgr. Prod. & Engr.

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 1-2

RECEIVED
FEB 13 1979
OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Quadrangle Wolf Summit

Permit No. HAR-1966

Company Doran & Associates, Inc.
Address 728 Washinton Road, Pgh., PA
Farm L. H. Rogers Acres 120
Location (waters) Little Ten Mile Creek
Well No. B-1165 (K-L-81) Elev. 1241'
District Sardis County Harrison
The surface of tract is owned in fee by Gerald & Louise McGinnis
Address Clarksburg, WV 26301
Mineral rights are owned by Martha Cooksey
Address Bridgeport, WV 2633[illegible]
Drilling Commenced December 6, 1978
Drilling Completed December 14, 1978
Initial open flow 84 cu. ft. -- bbls.
Final production 738 cu. ft. per day -- bbls.
Well open 72 hrs. before test 1675# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10" 11 3/4"			
9 5/8			
8 5/8	1225'	1225'	215 sks.
7			
5 1/2			
4 1/2	4132'	4132'	325 sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record:

Interval Perforated:	FROM	TO	AMT. FLUID	AMT. SAND
DATE: 1-5-79				
	3450	3507	572 BBLS.	60,000#
	3155	3177	667 BBLS.	60,000#

Coal was encountered at 210' & 357' Feet ____ Inches
Fresh water 130' Feet ____ Salt Water ____ Feet ____
Producing Sand Balltown - Lower Speechley Depth 3499' - 3160'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Fill			0	40		
Sand			40	180	F. W. @ 130'	
Coal			180	185		
Sand			185	210		
Coal			210	215		
Sand			215	295		
Sandy Shale			295	357		
Coal			357	360		
Sandy Shale & Red Rock			360	745		
Sand			745	800		
Sandy Shale			800	910		
Sand			910	945		
Sandy Shale			945	1015		
Sand			1015	1225		
Shale			1225	1490		
Little Lime			1490	1510		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sandy Shale			670	715		
Sand			715	745		
Sandy Shale			745	895		
Sand			895	975		
Sandy Shale			975	1080		
Sand			1080	1110		
Sandy Shale			1110	1235		
Sand			1235	1305		
Sandy Shale			1305	1390		
Lime			1390	1460		
Sand			1460	1535		
Sandy Shale			1535	1655		
Sand			1655	1675		
Sandy Shale			1675	1900		
Sand			1900	2065		
Sandy Shale			2065	2085		
Sand			2085	2145		
Sandy Shale			2145	2370	Gas @ 2235'	
Sand			2370	2400		
Sandy Shale			2400	2795		
Sand			2795	2850	Gas @ 2825'	
Sandy Shale			2850	4400	Gas @ 4275'	
Sand			4400	4420		
Sandy Shale			4420	4560		
Drillers' T. D.				4560		



Date Feb. 5 1979

APPROVED Donald R. Langlois Owner

By Mgr. Prod & Engr. (Title)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 01973 Area Permit Number: 2R03301 AP
Operator Name: LBS Energy Assoc.
Operator's Well #: B-1346 (K-L-215)
Farm Name: S. Dennison #1
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4917
Completion Zones: Baltown Benson Perforated Interval: 3524-3584' 4710-4716'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545839.8 Northing: 4349547.5
Elevation: 1401
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes
Cemented across injection zone?		No ☐	Yes ☑ ?
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

RECEIVED
JAN 14 1980
OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ ____ (Kind)

Quadrangle Wolf Summit

Permit No. Har-1973

Company Doran & Associates, Inc.
Address 728 Washington Rd., Pgh., PA 15228
Farm J. Dennison #1 Acres 173
Location (waters) Rush Run
Well No. B-1346 (K-L-215) Elev. 1401'
District Tenmile County Harrison
The surface of tract is owned in fee by Harry & Anna Riggs
Address R.D. 1, Box 54, Bristol, WV 26332
Mineral rights are owned by Edward Allenison, et al Address R.D.1, Bristol, WV 26332
Drilling Commenced 1-04-79
Drilling Completed 1-10-79
Initial open flow 145 cu. ft. - bbls.
Final production 348 cu. ft. per day - bbls.
Well open 8 hrs. before test 1100# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13 3/8" 11 3/4"	32'	32'	
9 5/8			
8 5/8	1407'	1407'	180 sks.
7			
5 1/2			
4 1/2	4810'	4810'	285 sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record:

Interval Perforated:	FROM	TO	AMT. FLUID	AMT. SAND
1-25-79	3524	3584	650 BBLS.	50,000#
	4710	4716	509 BBLS.	40,000#

Coal was encountered at 232', 290', 525' Feet ____ Inches
Fresh water 75' Feet ____ Salt Water ____ Feet ____
Producing Sand Balltown, Benson Depth 3518' 4723'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Top Soil			0	22		
Sand			22	40		
Shale - Red Rock			40	70		
Sand			70	232	F. W. @ 75'	
Coal			232	235		
Sandy Shale			325	240		
Sand			240	290		
Coal			290	293		
Sandy Shale			293	315		
Sand			315	355		
Sandy Shale			355	525		
Coal			525	528		
Sandy Shale			528	540		
Shale - Red Rock			540	720		
Sandy Shale			720	945		
Sand			945	1115		
Sandy Shale			1115	1220		
Sand			1220	1355		
Sandy Shale			1355	1700	Gas @ 1700'	
Lime			1700	1770		
Sand			1770	1800		
Sandy Shale			1800	2410		
Sand			2410	2465		

(over)

* Indicates Electric Log tops in the remarks section.

Formation Color Hard or Soft	Top Feet is	Bottom Feet	Oil, Gas or Water * Remarks
Sandy Shale	2465	3490	Gas @ 2666'
Sand	3490	3540	
Sandy Shale	3540	4325	Gas @ 3915'
Sand	4325	4500	
Sandy Shale	4500	4725	Gas @ 4720'
Sand - Brown	4725	4732	Gas @ 4731'
Sand - White	4732	4760	
Sandy Shale	4760	4905	
Drillers T.D.		4905	
5th Sand	2660	2676	
Upper Speechley	3216	3266	
Speechley	3276	3330	
Balltown	3518	3618	
Benson	4720	4732	
Loggers T.D..		4917	

Date Dec. 28 19 79

APPROVED Donald R. Laughlin Owner

By Donald R. Laughlin, Manager-Prod. & Eng.
(Title)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-01993 Area Permit Number: 2R03301 AP
Operator Name: EQT
Operator's Well #: A-684
Farm Name: JT Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4875
Completion Zones: 1978 → Ballow & Benson Perforated Interval: see well record 3170' - 4725'
2003 → 5th Sand & 30' Sand 2682 - 2698 & 2352 - 2368
Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547095.6 Northing: 4350086.5
Elevation: 1261
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? [redacted] Yes ☑
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature: [signature]
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

OG-10
Rev. 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

RECEIVED
JAN 29 1979
OIL & GAS DIVISION
DEPT. OF MINES

Quadrangle CLARKSBURG (15')
Permit No. HAR-1993
47-033

Rotary X Oil
Cable Gas XX
Recycling Comb.
Water Flood Storage
Disposal (Kind)

Company Allegheny Land & Mineral Co.
Address Box 1740, Clarksburg, WV
Farm J.T.Williams Acres 180
Location (waters) West Fork River
Well No. A-684 Elev. 1261'
District Ten Mile County Harrison
The surface of tract is owned in fee by
Cecil & Eileen Fisher
Address Rt.1, Bristol, WV 26332
Mineral rights are owned by Paule A. Hornor, etal Address 200 Temple Terrace, Clarksburg, WV 26301
Drilling Commenced December 27, 1978
Drilling Completed December 29, 1978
Initial open flow ____ cu. ft. ____ bbls.
Final production ____ cu. ft. per day ____ bbls.
Well open ____ hrs. before test ____ RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1247'	1247	Cement to Surf.
7			
5 1/2			
4 1/2	4827'	4827	" " 2900'
3			
2			
Liners Used			

Attach copy of cementing record.

Well was fractured January 11, 1979 by Dowell
Final test: Open flow - 311 MCF
Rock Pressure - 1200# - 17 hrs.

Coal was encountered at 367-81', 400-06', 421-25', 788-791' Feet ____ Inches
Fresh water @ 367' Feet ____ Salt Water ____ Feet ____
Producing Sand Balltown & Benson Depth 3600-3636'; 4714-4728'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Fill dirt			0	5		
Sand & Shale			5	367	Water - 3/4" stream @ 367'	
Coal *****			367	3	Coal *****	
Shale & Red Rock			371	400		
COAL *****			400	406	Coal *****	
Sand			406	421		
COAL *****			421	425	Coal *****	
Shale & Red Rock			425	661		
Sand			661	721		
Sand & Shale			721	788		
COAL *****			788	791	Coal *****	
Sand & Shale			791	1652		
Little Lime			1652	1688		
Sand & Shale			1688	1698		
Big Lime			1698	1760		
Injun Sand			1760	1816		
Sand & Shale			1816	2270		
Sand			2270	2284		
Sand & Shale			2284	2680		
Sand			2680	2702		
Sand & Shale			2702	3170		
Speechly Sand			3170	3176		
Sand & Shale			3176	3280		
Speechly Sand			3280	3294		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand & Shale			3294	3372		
Speechly Sand			3372	3380		
Sand & Shale			3380	3600		
Balltown Sand			3600	3636		
Sand & Shale			3636	4110		
Sand			4110	4142		
Sand & Shale			4142	4714		
Benson Sand			4714	4728		
Sand & Shale			4728	4875		
		total depth		4875(Driller)		

Perforations:

3170-3172' - 2 holes
3281-3283' - 2 "
3291-3293' - 2 "
3372-3374' - 2 "
3600-3604' - 4 "
3610-3612' - 2 "
3617-3621' - 4 "
4720-4725' - 15 "

Date January 25, 1979

APPROVED Allegheny Land & Mineral Co.

By Claron Dawson, Supt.

WR-35

API # 47- 033-01993F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name: Williams, J. T. Operator Well No.: A-684 (152931)

LOCATION: Elevation: 1243' Quadrangle: Wolf Summit

District: Tenmile County: Harrison

					Minutes	Seconds
Latitude:	12580	Feet South of	39	Deg.	20	0
Longitude:	10580	Feet West of	80	Deg.	25	0

Company: Equitable Production Company
P.O. Box 2347, 1710 Pennsylvania Avenue
Charleston, WV 25328

Agent: Stephen G. Perdue

Inspector: Tim Bennett
Permit Issued: 5/30/2003
Well work commenced: 07/24/03
Well work completed: 09/11/03
Verbal Plugging
Permission granted on:
Rotary Rig X Cable Rig
Total Depth 4875 feet
Fresh water depths (ft) previously reported

Salt water depths (ft) previously reported

Is coal being mined in area?
Coal Depths (ft): previously reported

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
2 3/8"		4749'	

RECEIVED
Office of Oil & Gas
Office of Chief
FEB 11 2004
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation Fifth Sand; Thirty Foot Sand Pay Zone Depth (ft): See Attach for details

Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow: 421 MCF/d Final open flow: ____
Time of open flow between initial and final tests ____ Hours
Static rock pressure ____ psig (surface pressure) after ____ Hours

Second producing formation ____ Pay Zone Depth (ft): ____

Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow: ____ MCF/d Final open flow: ____
Time of open flow between initial and final tests ____ Hours
Static rock pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Kathy Jarvis
For: Equitable Production Company

By: Cindy L. Donia
Date: 2/6/04

EQUITABLE PRODUCTION COMPANY
WR-35 COMPLETION REPORT - Attachment
Well Treatment Summary

Well: WV-152931 Williams A-684 API# 47-033-01993F

Date	08/08/03	08/08/03				
Type Frac Acid, N_2, Foam , Water	Foam	Foam				
Zone Treated	Fifth Sand	Thirty Foot Sand				
# Perfs From - To:	19 2682' – 2698'	17 2352'-2368'				
BD Pressure @ psi	2017	3200				
ATP psi	1941	2743				
Avg. Rate, B=B/M, S= SCF/M	15 B (foam)	13 B (foam)				
Max. Treat Press psi	2039	3119				
ISIP psi	1541	3142				
Frac Gradient	0.57					
10 min S-I Pressure	1385					
Material Volume Sand-sks	250	150				
Water-bbl	343	279				
SCF N_2	85,700	50,300				
Acid-gal	500 gal 15%	500 gal 15%				
NOTES:		Stage screen out				

TOP	BOTTOM	FORMATION	REMARKS
			Previously reported

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-02009-P
Area Permit Number: 2R 03301 AP
Operator Name: Cabot Oil & Gas
Operator's Well #: C.M. Lyons #1
Farm Name: C.M. Lyons
Field Name: ~~[illegible]~~ / Wolf Summit
Field Injection Zone: ~~Fifth~~ Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 5068'
Completion Zones: Benson, Bradford, Balltown
Perforated Interval: 3784'-3810, 4302'-4319', 4904'-4924'

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☐
Easting: 547164.1
Northing: 4352068.1
Elevation: ~~4352068~~ 1171'
Inside Field Boundary? ☑
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Laura Adkins
Signature: Laura L. Adkins
Date Reviewed: Sept. 1, 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
18-Apr-89

RECEIVED
Oil & Gas
JAN 25 1996
WV Division of Environmental Protection

API # 47-033-2009

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVSION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVITE SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: C.M. Lyons Operator Well No.: #1

LOCATION: Elevation: 1171' Quadrangle: Wolf Summit
District: Tenmile
Latitude: 8300' South of 39 Deg, 25 Min, 0 Sec.
Longitude 8500' West of 80 Deg, 17 Min,30 Sec.

Well Type: OIL _____ GAS X

Company: Cabot Oil & Gas
3 Gateway Center, Suite 2000
Pittsburgh, PA 15222-1011

Coal Operator or Owner: Same as Surface

Agent: Russel Perkins
Inspector: Tim Bennett
Permit Issued:

Coal Operator or Owner

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Delbert Fisher and Jacky Perrine being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Hydrocarbon Well Service, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 1st day of December, 1992, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	4924'	4724'	8 5/8" 0	1272'
Gel	4724'	3810'	4 1/2" 1477'	3652'
Cement	3810'	3610'		
Gel	3610'	1477'		
Cement	1477'	1300'		
Gel	1300'	0'		
				2/11/93

Description of monument: _____

and that the work of plugging and filling said well was completed on the 2nd day of December, 1992.

And ~~further~~ deponents saith not.

/ Dilbert Fisher

/ Jacky Perrine

Sworn and subscribe before me this 8 day of January, 1993.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Joyce K. Hudson
Commission Expires: June 16, 1998

My commission expires: June 16, 1998

Joyce K. Hudson
Notary Public

FORM WW-4(B) FILE COPY
Obverse
7/85

1) Date: January 6, 1993
2) Operator's Well No. Lyons #1
3) API Well No. 47 - 033 - 2009 -P
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

APPLICATION FOR A PERMIT TO PLUG AND ABANDON A WELL

4) WELL TYPE: A Oil ____ / Gas X / Liquid injection ____ / Waste disposal ____ /
B (If "Gas", Production X / Underground storage ____ / Deep ____ Shallow X /

5) LOCATION: Elevation: 1171' (Q) Watershed: New Creek Left prong 691
District: TenMile County: Harrison Quadrangle: Wolf Summit

6) WELL OPERATOR Cabot Oil & Gas CODE
Address 3 Gateway Center, Suite 2000
Pittsburgh, PA 15222-1011

7) DESIGNATED AGENT Russel Perkins
Address Rt. 60 - 32D Street, Box 454
Glasgow, WV 25086

8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Tim Bennett
Address 737 Karl Street
Weston, WV 26452

9) PLUGGING CONTRACTOR
Name Hydrocarbon Well Service
Address P.O. Drawer 976
Buckhannon, WV 26201

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

Cement	4924' - 4724'	
Gel	4724' - 3810'	
Cement	3810' - 3610'	
Gel	3610' - 1477'	
Cement	1477' - 1300'	Cut 4 1/2" csg. @ 1477'
Gel	1300' - 0'	

1272' of 8 5/8" 235 sks.
coal -990'-993'
1350'-1354'

16797

OFFICE USE ONLY

PLUGGING PERMIT

VERBAL PLUGGED

Permit number 47-033-2009-P

December 1st. 19 92
Date

This permit covering the well operator and well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires 12-1-94 unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	WPCP	OTHER

Director, Division of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

RECEIVED
JUL 23 1979
OIL & GAS DIVISION
DEPT. OF MINES

Quadrangle Wolf Summit
Permit No. 47-033-2009

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Company Doran & Associates, Inc.
Address 728 Washington Rd., Pgh., PA 15228
Farm C. M. Lyons Acres 50
Location (waters) New Creek Left Prong
Well No. 1 (K-L-226) Elev. 1171'
District Tenmile County Harrison
The surface of tract is owned in fee by Roberta Thelma Lyons
Address Rt. 4, Clarksburg, WV 26301
Mineral rights are owned by Same as Surface
Owner ____ Address ____
Drilling Commenced 3-23-79
Drilling Completed 3-30-79
Initial open flow 188 M cu. ft. ____ bbls.
Final production 853 M cu. ft. per day ____ bbls.
Well open 72 hrs. before test 1300# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1272'	1272'	235 Sks.
7			
5 1/2			
4 1/2	5129'	5129'	325 Sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record:

Date:	Interval Perforated: From	To	Amt. Fluid	Amt. Sand
4-9-79	4904'	4924'	490 BBLS.	45,000#
	4302'	4319'	495 BBLS.	45,000#
	3784'	3810'	560 BBLS.	60,000#

Coal was encountered at 990' & 1350' Feet ____ Inches
Fresh water 555' Feet ____ Salt Water ____ Feet ____
Producing Sand Benson - Bradford - Balltown Depth 4902' - 4294' - 3778'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Fill			0	10		
Sand			10	165		
Sandy Shale			165	195		
Sand			195	240		
Sandy Shale - Red Rock			240	550		
Sand			550	580	Water @ 555'	
Sandy Shale			580	640		
Shale - Red Rock			640	665		
Sandy Shale			665	760		
Shale - Red Rock			760	990		
Coal			990	993		
Sandy Shale			993	1130		
Sand			1130	1185		
Shale			1185	1340		
Sand			1340	1350		
Coal			1350	1354		
Sandy Shale			1354	1395		
Sand			1395	1445		
Sandy Shale			1445	1630		
Shale - Red Rock			1630	1800		
Little Lime			1800	1812		
Shale & Red Rock			1812	1825		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Big Lime			1825	1905		
Sand			1905	2035		
Sandy Shale			2035	2145		
Sand			2145	2220		
Sandy Shale			2220	2600		
Sand			2600	2615		
Sandy Shale			2615	2625		
Sand			2625	2700		
Sandy Shale			2700	3170		
Sand			3170	3270		
Sandy Shale			3270	3760		
Sand			3760	3805		
Sandy Shale			3805	4900	Gas @ 4780'	
Sand (Benson)			4900	4925		
Sandy Shale			4925	5060		
Drillers' T. D.				5065		
Speechley			3562	3574		
Balltown			3778	3826		
Bradford			4294	4324		
Benson			4902	4926		
Loggers' T.D.				5068		

July 18, 19 79

Donald R. Laughlin
Owner

APPROVED

Vice President - Operations
(Title)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 - 02025 - P Area Permit Number: 2R AP
Operator Name: East Resources
Operator's Well #: Miller #1
Farm Name: Lycans, Michael & Doris
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2738
Completion Zones: 5th Perforated Interval: Shot 2719-2724

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547117.7 Northing: 4351761.8
Elevation: 1225
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Weatherholt Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
01-Nov-95

RECEIVED
OFFICE OF OIL AND GAS
FEB 07 1996
WV Division of Environmental Protection

API # 47- 33-02025-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: LYONS, MICHAEL & DORIS Operator Well No.:C. NUTTER #1

LOCATION: Elevation: 1,225.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 7000 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 10500 Feet West of 80 Deg. 25 Min. 0 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: Philip S. Ondrusek

Permit Issued: 11/01/95

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: Anker Energy
2708 Cranberry Square
Morgantown, WV 26505

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

[signature] and [signature] being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 3rd day of January, 1996, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
80 sks. cement	2725'	2500'	6-5/8" csg. 1020'	780'
50 sks. cement	2500'	2250'	8-1/4" csg. 360'	530'
30 sks. cement	1875	1350		
30 sks. cement	975'	875'		
40 sks. cement	380'	280'		
40 sks. cement	200'	100'		
50 sks. cement	50'	Surface	Note: 6% gel between all cement plugs.	

Description of monument: 7" 4ft. tall casing
and that the work of plugging and filling said well was completed on the 26th day of January, 1996.

And furthur deponents saith not.

[signature]
[signature]

Sworn and subscribe before me this 1st day of February, 1996
My commission expires: 10/4/2006

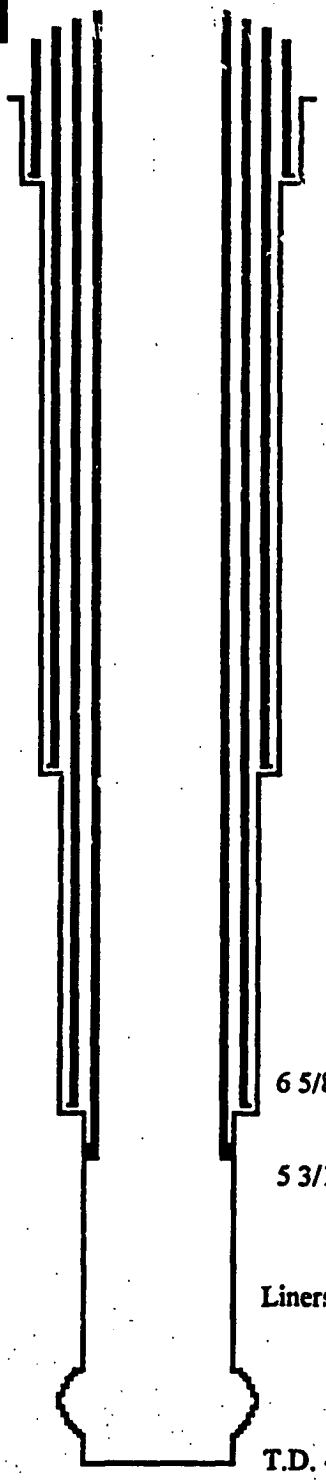
[signature]
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIRK F. ANDERSON
601 Grand Central Avenue
Vienna, West Virginia 26105

Oil and Gas Inspector: [signature]

033-02025-P

CORDELIA NUTTER #1
47-033-2025-P
P & A



T.D.:	2738'
10" Csg:	160'
8 1/4" Csg:	890'
6 5/8" Csg:	1800'
5 3/16" Csg.& pkr:	2099'

Pittsburg Coal
335 - 341'

10" Csg. - 160' - Pulled ?

Dunkard Sand: 880-920'

8 1/4" Csg. - 890' - Pulled ?

Big Injun 1745 - 1790'

6 5/8" Csg: 1800'

5 3/16" Csg. & Pkr. - 2099'

Gordon 2443 - 2545'

Liners have been Pulled!

Fifth Sand:
2718 - 2738'

T.D. - 2738'

B-1

Cordelia Nutter, — Well #1 — 25 Acres — Lease No. 33859

TOWNSHIP OR DISTRICT Ten Mile, COUNTY Harrison, STATE West Va. N. S.10. E. 9.

RIG COMMENCED April 25, 19 00. COMPLETED May 2, 19 00. CONTRACTOR

DR'G COMMENCED May 5, 19 00. COMPLETED July 26, 19 00. CONTRACTOR

D. D. COMMENCED 19 COMPLETED 19 CONTRACTOR

FORMATION

KIND	TOP	BOTTOM	STEEL LINE MEASUREMENT	REMARKS
Conductor		16		
Pgh Coal	335	341		
Dunkard Sand	880	920		This was made on the original
Big Injun	1745	1790		
Gordon Sand	2443	2545		
Fifth Sand	2718	2724		2717-2503
Total Depth		2738		

RECEIVED
MAY 5 1975
OIL & GAS DIVISION
DEPT. OF MINES

2003
1790
163

TOTAL DEPTH

CASING RECORD

SIZE	BOTTOM CASING (STEEL LINE)	PUT IN WELL (TALLY MEAS.)	PULLED (TALLY MEAS.)
10"		160	
8¼"		890	
6⅝"		1800	2116'-193 Jts.

PACKERS

KIND	SIZE	DEPTH SET
6¼"	6¼"	2116'

TORPEDO RECORD

DATE SHOT	NO. QTS.	SIZE SHELL	TOP SHOT	BOTTOM
1/ 1,1901.	30			
2/23,1902.	40			
6/16,1903.	40			
3/18,1904.	65	20 Qts 4" Shell	48	
11/11,1904.	40	Pigs.		
6-14-1962	40	2-5"x 5'	2719	2724

ABANDONMENT RECORD

FILLED WITH	FROM	TO	SIZE	PLUG KIND

REMARKS

July 1938. Pulled - 1942
20 Jts. 5 X 5½" F. J. Casing. 4
1st.Section. 11 Jts. 226'
2nd. " 9 " 191'
Top of Liner. 2
1 -- Jt. & Wkg. Barrel in Hole.

PRODUCTION RECORD

24 HOURS BEFORE SHOT
24 HOURS AFTER SHOT SAND 100 BBLS.
GAS TEST SAND BBLS.

APPROVED BY E. E. Shinn

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 02085 Area Permit Number: 2R03301 AP
Operator Name: Mountain V
Operator's Well #: A - 809
Farm Name: Goodwin
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4923
Completion Zones: Ballytown Benson Perforated Interval: 3554 - 3556, 3588 - 3593, 3603 - 3607, 4754 - 4764

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 548159.8 Northing: 4352412.5
Elevation: 1270
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date: August 8, 1979

FORM IV-35
(Obverse)
[08-78]

WELL OPERATOR'S REPORT OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Operator's Well No. A-809
API Well No. 47 - 033 - 2085
State County Permit

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas") Production X / Underground storage ___ / Deep ___ / Shallow ___ /

LOCATION: Elevation: 1270' Watershed: Cat Fish of Ten Mile Creek
District: Sardis County: Harrison Quadrangle: Clarksburg (15')

WELL OPERATOR Allegheny Land & Mineral Co. DESIGNATED AGENT same
Address P. O. Box 1740 Address
Clarksburg, WV 26301

PERMITTED WORK: Drill X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate ___ /
Plug off old formation ___ / Perforate new formation ___ /
Other physical change in well (specify) ___

RECEIVED
AUG 13 1979
OIL & GAS DIVISION
DEPT. OF MINES

PERMIT ISSUED April 10, 1979

OIL & GAS INSPECTOR FOR THIS WORK
Name Paul Garrett
Address 321 Beech Street
Clarksburg, WV 26301

(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ___, 19___)

GEOLOGICAL TARGET FORMATION: Benson Depth 4700 feet

Depth of completed well, 4923 feet Rotary X / Cable Tools ___

Water strata depth: Fresh @ 40', 290', 330', 520', 670' feet Salt ___ feet

Coal seam depths: 431-435', 842-847', 865-869', 965'-967' Is coal being mined in the area? no

Work was commenced May 8, 1979, and completed May 31, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS Size	Grade	Weight per ft	New	Used	FOOTAGE INTERVALS For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor	1-3/4"			X		314'	314'	Cemented to surface	
Fresh water									
Coal	8-5/8"			X		1306'	1306'	" "	Sizes
Intermediate									
Production	4½"	J-55	10.5#	X		4879'	4879'	" "	Depths set 3000'
Tubing									
Liners									Perforations: Top Bottom

OPEN FLOW DATA

Producing formation Balltown Pay zone depth 3550-3608 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Both sands Final open flow, 582 Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, ___ hours
Static rock pressure, 1470# psig (surface measurement) after 96 hours shut in

[If applicable due to multiple completion--]

Second producing formation Benson Pay zone depth 4742-4758 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Final open flow, ___ Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, ___ hours
Static rock pressure, ___ psig (surface measurement) after ___ hours shut in

FORM IV-35
(Reverse)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Well was fractured May 31, 1979 by Dowell.

Perforations: 3554-3556' - 3 shots
3588-3593' - 10 "
3603-3607' - 4 "
4754-4764' - 12 shots (log not on depth here)

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Clay			0	5	
Shale			5	15	
Sand & Shale			15	53	Water - ½" stream @ 40'
Limestone			53	95	
Sand & Shale			95	290	" - 3" " @ 290'
Open Mine ##			290	310'	Open mine ###
Sand & Shale			310	431	Water - ½" " @ 330'
COAL #####			431	435	Coal #####
Sand & Shale			435	842	Water - 1" " @ 520'
COAL #####			842	847	Coal #### Water @ 670'
Sand & Shale			847	865	
COAL #####			865	869	Coal #####
Sand & Shale			869	965	
COAL #####			965	967	Coal #####
Sand & Shale			967	1630	
Little Lime			1630	1650	
Sand & Shale			1650	1680	
Big Lime			1680	1756	
Injun Sand			1756	1818	
Sand & Shale			1818	1930	
Gordon Sand			1930	1948	
Sand & Shale			1948	2254	
4th Sand			2254	2276	
Sand & Shale			2276	2298	
5th Sand			2298	2309	
Sand & Shale			2309	2982	
Bayard Sand			2982	3018	
Sand & Shale			3018	3250	
Speechly Sand			3250	3290	
Sand & Shale			3290	3550	
Balltown Sand			3550	3608	
Sand & Shale			3608	4742	
Benson Sand			4742	4758	
Shale			4758	4923	
			total depth	4923 (Driller)	

(Attach separate sheets to complete as necessary)

Allegheny Land & Mineral Company
Well Operator

By Claron Dawson

Its Supt.

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-02136 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 46
Farm Name: Kohl, Pearl & Janet
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐ (Specify) 3200-3508 - Balltown
Well Status: ? Active ☐ Abandoned ☐ Plugged ☒ ?
TD of well: 4752'
Completion Zones: Benson & Perforated Interval: 4511.5-4512.5 → Riley; 4499-4501 → Riley; 4517-4579 - Riley; 4711-4721 → Benson

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544806.7 Northing: 4348106.5
Elevation: 1091
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
HG Map symbol indicates well as active?

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9 / 14 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
31-Aug-95

API # 47- 33-02136-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: KOBOT, PAUL & JANET Operator Well No.:HIRAM LYNCH #46

LOCATION: Elevation: 1,091.27 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 4050 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 5910 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: Philip S. Ondrusek

Permit Issued: 08/31/95

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

R. G. Green and Leroy Snodgrass being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 22nd day of April, 1996, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
30 sks. cement	4740'	4710'	4-1/2" csg. 2280'	2472'
40 sks. cement	3550'	3100'	8-5/8" csg. 1194'	1194'
45 sks. cement	2280'	2120'	(Cement to surface)	
36 sks. cement	1325'	1225'		

5/28/96

Description of monument: Frected monument with API number.
and that the work of plugging and filling said well was completed on the 3rd day of May, 1996

And furthur deponents saith not.

R. G. Green
Leroy Snodgrass

Sworn and subscribe before me this 21 day of May, 1996

My commission expires: 10/3/2000

Dirk F. Anderson
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIRK F. ANDERSON
601 Grand Central Avenue
Vienna, West Virginia 26105
My Commission Expires Oct. 3, 2000

Oil and Gas Inspector:

HAR 2136-P

FORM IV-35
(Reverse)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Fractured Sept. 5 & 6, 1979
(1) w/500 gals. 15% HCL, 715BW, 30,000#20/40 sd.

(2) w/500 gals. 15% HCL, 665BW, 28,000#20/40 sd.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Shale & Siltstone			0	226	
Sand			226	266	
Shale & Siltstone			266	330	
Sand			330	350	
Shale			350	366	
Sand			366	380	
Shale & Siltstone			380	786	
Sand			786	824	
Shale & Siltstone			824	902	
Sand			902	934	
Shale			934	976	
Sand			976	1046	
Shale			1046	1076	
Sand			1076	1090	
Shale			1090	1102	
Sand & Shale			1102	1124	
Shale			1124	1130	
Sand			1130	1150	
Siltstone			1150	1186	
Sand			1186	1276	
Shale & Siltstone			1276	1312	
Shale			1312	1326	
Siltstone			1326	1368	
Shale & Siltstone			1368	1560	
Sand			1560	1580	
Little Lime			1580	1602	
Pencil Cave			1602	1610	
Big Lime			1610	1680	
Loyalhanna Limestone			1680	1862	
Shale & Siltstone			1862	1886	
Shale			1886	2082	
Siltstone			2082	2106	
Shale			2106	2190	
Sand			2190	2204	
Shale			2204	2286	
Sand			2286	2292	
Shale			2292	2298	

(Attach separate sheets to complete as necessary)

Well Operator

By Curtis A. Lemon

Its _____

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

FORM IV-35
(Reverse)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fres and salt water, coal, oil and ga
Sand			2298	2316	
Shale			2316	2348	
Sand			2348	2366	
Shale			2366	2372	
Sand			2372	2405	
Sand and Shale			2405	2452	
Shale			2452	2604	
Fifth Sand			2604	2612	
Shale			2612	2982	
Shale and Silt			2982	3156	
Upper Speechley			3156	3278	
Lower Speechley			3278	3300	
Shale			3300	3418	
Balltown			3418	3620	
Shale			3620	3938	
Siltstone			3938	3996	
Shale			3996	4156	
Siltstone			4156	4174	
Shale			4174	4338	
Siltstone			4338	4375	
Shale			4375	4464	
Riley			4464	4520	
Shale			4520	4708	
Benson			4708	4722	
Shale			4722	4785	
Total Depth				4785	
PBD				4752	

(Attach separate sheets to complete as necessary)

Pennzoil Company
Well Operator

By Curtis A. Lucas

Its Civil Engineering Dept.

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033-02172 Area Permit Number: 2R 03301 AP
Operator Name: Alamco, Inc
Operator's Well #: 4787 Bramer
Farm Name: Wikert, Donald & Lisa
Field Name: ~~Wildcat~~ Volt Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ ~~Producer~~ (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 3707'
Completion Zones: Fifth Sand, 4th Sand, Big Dunkard, Gordon, Gordon Stray, Balltown, Benson
Perforated Interval: 1790-1800, 3592'-3594', 3597-3599', 3607-3609, 3613-3616', 2520'-2540', 2470-2490, 2447-2448, 2358-2362, 2274-2278

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544321 Northing: 4134485 0.2
Elevation: 1169'
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☑

Outstanding Violations:	No ☑	Yes ☐
Date of Last MIT: N/A Passed?	No ☐	Yes ☐
Open Hole Completion	No ☑	Yes ☐
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑
Cemented across injection zone?	No ☐	Yes ☑
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☑
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
CIBP set at 3,550 KB, dumped bailer of Cal-Seal on top of bridge plug to permanently abandon deeper zones. Shot squeeze holes @ 2752' -53' KB Circulate Cement to bring Cement top to 1300' KB from 3120 KB' Then perfed 5th sand, 4th sand, Gordon & Gordon Stray

Reviewer Name: Laura Adkins Signature: Laura Adkins
Date Reviewed: 7-19-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

2172

WR-35

RECEIVED
SEP 24 1991
DEPT. OF ENERGY

24-Jul-91
API # 47- 33-02172 F

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Reviewed FMG

Well Operator's Report of Well Work Recorded

Farm name: WIKERT, DONALD & LINDA Operator Well No.: A 787 BRAMER

LOCATION: Elevation: 1169.00 Quadrangle: WOLF SUMMIT

District: SARDIS County: HARRISON
Latitude: 310 Feet South of 39 Deg. 0 Min. 0 Sec.
Longitude 9000 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: ALAMCO, INC.
200 W. MAIN ST., P.O. BOX 1740
CLARKSBURG, WV 26302-1740

Agent: MARTY L. PERRI

Inspector: TIM BENNETT
Permit Issued: 07/24/91
Well work Commenced: 08/28/91
Well work Completed: 09/10/91
Verbal Plugging
Permission granted on: _____
Rotary N/A Cable _____ Rig
Total Depth (feet) 3676'
Fresh water depths (ft) 50' & 285'

Salt water depths (ft) -

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 283'-285' & 626'-629'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8 5/8"	1323'	1323'	surface
4 1/2"	-	3676'	1300'
2 3/8"	-	2498'	-

OPEN FLOW DATA

Producing formation 5th Sand, 4th Sand Big Injun, Gordon, Gordon Stray Pay zone depth (ft) 1790'-2540
Gas: Initial open flow N/A MCF/d Oil: Initial open flow - Bbl/d
Final open flow 467 MCF/d Final open flow - Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 225 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

RECEIVED
OCT 17 91
Division of Energy
Oil and Gas Section

For: ALAMCO, INC.
By: Richard R. Hoffman
Date: 9/23/91

A-787

1. Set solid cast iron bridge plug @ 3,550' KB and dump bailer of Cal-Seal on top of CIBP to permanently abandon deeper zones.

2. Shoot squeeze holes @ 2,752'-53' KB.

3. Circulate cement to bring cement top to 1,300' KB from 3,120' KB.

4. Perforate 5th Sand (2,520'-2,540') 6 shots, 4th Sand (2,470'-2,490') 6 shots (2,447'-2,448') 2 shots, Gordon (2,358'-2,362') 5 shots and Gordon Stray (2,274'-2,278') 5 shots.

5. Fracture Gordon Stray, Gordon, 4th Sand and 5th Sand with 22,360 lbs. of 20/40 sand.

6. Perforate Big Injun (1,790'-1,800') 11 shots.

7. Fracture Big Injun with 13,700 lbs. of 20/40 sand.

RECEIVED
OCT 17 91
Division of Energy
Oil and Gas Section

TMM\100991.1-4

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date: December 5, 1979
Operator's Well No. A-787
API Well No. 47 - 033 - 2172
State County Permit

FORM IV-35
(Obverse)
[08-78]

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas x / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas", Production ___ / Underground storage ___ / Deep ___ / Shallow x /)

LOCATION: Elevation: 1128' Watershed: Ten Mile Creek
District: Sardis County: Harrison Quadrangle: Clarksburg (15')

WELL OPERATOR ALLEGHENY LAND & MINERAL CO. DESIGNATED AGENT ALLEGHENY LAND & MINERAL CO.
Address P. O. BOX 1740 Address P. O. BOX 1740
CLARKSBURG, W. VA. 26301 CLARKSBURG, W. VA. 26301

RECEIVED
DEC 10 1979
OIL & GAS DIVISION
DEPT. OF MINES

PERMITTED WORK: Drill x / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate ___
Plug off old formation ___ / Perforate new formation ___
Other physical change in well (specify) ___

PERMIT ISSUED ON February 12, 1979

OIL & GAS INSPECTOR FOR THIS WORK:
Name Paul Garrett
Address 321 Beech Street
Clarksburg, WV 26301

(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ___, 19___)

GEOLOGICAL TARGET FORMATION: Balltown/Benson Depth 4600 feet

Depth of completed well, 3707 feet Rotary x / Cable Tools ___ /

Water strata depth: Fresh 50, 285 feet; Salt ___ feet.

Coal seam depths: 283-285', 626-629' Is coal being mined in the area? ___

Work was commenced October 4, 1979, and completed October 9, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS Size	Grade	Weight per ft	New	Used	FOOTAGE INTERVALS For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor	11-3/4"			x		35'	35'	Cemented to surface	
Fresh water	8-5/8"								
Coal	8-5/8"			x		1308'	1308'	" "	Sizes
Intermediate									
Production	4½"			x		3687'	3687'	" "	3300' set
Tubing									
Liners									
									Perforations:
									Top Bottom

OPEN FLOW DATA

Producing formation Balltown Pay zone depth 3591-3622 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Final open flow, 119 Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, ___ hours
Static rock pressure, 1300# psig (surface measurement) after ___ hours shut in

[If applicable due to multiple completion--]
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Final open flow, ___ Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, ___ hours
Static rock pressure, ___ psig (surface measurement) after ___ hours shut in

FORM IV-35
(Reverse)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Well was fractured October 19, 1979 by Dowell.

Perforations: 3592 - 3594' - 2 holes
3597 - 3599' - 2 "
3607 - 3609' - 2 "
3613 - 3616' - 3 "

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Soil			0	3	
Sand & Shale			3	283	3/4" stream @ 50' Water - 1" " @ 285'
COAL *****			283	285	COAL *****
Sand & Shale			285	626	
COAL *****			626	629	COAL *****
Sand & Shale			629	1522	
Big Lime			1522	1598	
Injun Sand/W			1598	1671	
Sand & Shale			1671	1782	
Sand			1782	1812	
Sand & Shale			1812	2442	
5th Sand			2442	2492	
Sand & Shale			2492	3148	
Speechly Sand			3148	3178	
Sand & Shale			3178	3591	
Balltown Sand			3591	3622	
Shale			3622	3707	
		total depth		3707 (Driller)	

(Attach separate sheets to complete as necessary)

Allegheny Land & Mineral Company
Well Operator

By Clason Dawson

Its Supt.

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

FORM IV-35
(Obverse)
[08-78]

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Date: December 5, 1979
Operator's Well No. A-787
API Well No. 47 - 033 - 2172
State County Permit

WELL TYPE: Oil ____/ Gas x /Liquid Injection ____/ Waste Disposal ____/
(If "Gas", Production ____/ Underground storage ____/ Deep ____/ Shallow xx /)

LOCATION: Elevation: 1128' Watershed: Ten Mile Creek
District: Sardis County: Harrison Quadrangle: Clarksburg (15')

WELL OPERATOR ~~ALLEGHENY LAND & MINERAL CO.~~
Address P. O. BOX 1743
CLARKSBURG, W. VA. 26301

DESIGNATED AGENT ALLEGHENY LAND & MINERAL CO.
Address P. O. BOX 1743
CLARKSBURG, W. VA. 26301

RECEIVED
DEC 10 1979
OIL & GAS DIVISION
DEPT. OF MINES

PERMITTED WORK: Drill x / Convert ____/ Drill deeper ____/ Redrill ____/ Fracture or stimulate ____
Plug off old formation ____/ Perforate new formation ____
Other physical change in well (specify) ____

PERMIT ISSUED ON February 12, 1979

(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ____, 19____)

OIL & GAS INSPECTOR FOR THIS WORK:
Name Paul Garrett
Address 321 Beech Street
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Balltown/Benson Depth 4600' feet

Depth of completed well, 3707' feet; Rotary x / Cable Tools ____

Water strata depth: Fresh 50,285 feet; salt, ____ feet.

Coal seam depths: 283-285', 626-629' Is coal being mined in the area? ____

Work was commenced October 4, 1979, and completed October 9, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS Size	Grade	Weight per ft	New	Used	FOOTAGE INTERVALS For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor	11-3/4"			x		35'	35'	Cemented to surface	
Fresh water	8-5/8"								
Coal	8-5/8"			x		1308'	1308'	" "	Sizes
Intermediate									
Production	4½"			x		3687'	3687'	" "	3300' set
Tubing									
Liners									Perforations:
									Top Bottom

OPEN FLOW DATA

Producing formation Balltown Pay zone depth 3591-3622 feet
Gas: Initial open flow, ____ Mcf/d Oil: Initial open flow, ____ Bbl/d
Final open flow, 119 Mcf/d Final open flow, ____ Bbl/d
Time of open flow between initial and final tests, ____ hours
Static rock pressure, 1300# psig (surface measurement) after ____ hours shut in

[*If applicable due to multiple completion--*]

Second producing formation ____ Pay zone depth ____ feet
Gas: Initial open flow, ____ Mcf/d Oil: Initial open flow, ____ Bbl/d
Final open flow, ____ Mcf/d Final open flow, ____ Bbl/d
Time of open flow between initial and final tests, ____ hours
Static rock pressure, ____ psig (surface measurement) after ____ hours shut in

FORM IV-35
(Reverse)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Well was fractured October 19, 1979 by Dowell.

Perforations: 3592 - 3594' - 2 holes
3597 - 3599' - 2 "
3607 - 3609' - 2 "
3613 - 3616' - 3 "

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Soil			0	3	3/4" stream @ 50'
Sand & Shale			3	283	Water - 1" " @ 285'
COAL *****			283	285	COAL *****
Sand & Shale			285	626	
COAL *****			626	629	COAL *****
Sand & Shale			629	1522	
Big Lime			1522	1598	
Injun Sand			1598	1671	
Sand & Shale			1671	1782	
Sand			1782	1812	
Sand & Shale			1812	2442	
5th Sand			2442	2492	
Sand & Shale			2492	3148	
Sweechly Sand			3148	3178	
Sand & Shale			3178	3591	
Balltown Sand			3591	3622	
Shale			3622	3707	
		total depth		3707 (Driller)	

(Attach separate sheets to complete as necessary)

Allegheny Land & Mineral Company
Well Operator

By Claron Dawson

Its Supt.

NOTE: Regulation 2.03(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 02478 Area Permit Number: 2R03301 AP
Operator Name: EMAX Oil Co.
Operator's Well #: S-322
Farm Name: B Deene Southern
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 5145
Completion Zones: Benson & Balltown Perforated Interval: somewhere between 4760 - 3620'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547906.4 Northing: 4351734.6
Elevation: 1403
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11/15/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

FORM IV-35
(Obverse)
(08-78)

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Well No. S-322 Southern
API No: 47- 033-2478
State County Permit

WELL TYPE: Oil ____ / Gas X / Liquid Injection ____ / Waste Disposal ____ /
(If "Gas", Production X / Underground storage ____ / Deep ____ / Shallow X /

LOCATION: Elevation: 1403 Watershed: Ten Mile Creek
District: Sardis County: Harrison Quadrangle: Wolf Summit 7.5'

WELL OPERATOR James F. Scott
Address P.O. Box 112
Salem, W. Va. 26426

DESIGNATED AGENT SAME
Address ____

PERMITTED WORK: Drill X / Convert ____ / Drill deeper ____ / Redrill ____ / Fracture or stimulate ____
Plug off old formation ____ / Perforate new formation ____ /
Other physical change in well (specify) ____

PERMIT ISSUED ON Sept. 24, 19 80

OIL & GAS INSPECTOR FOR THIS WORK:
Name Paul Garrett
Address 321 Beech St.
Clarksburg, W.Va. 26301

(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED
____, 19____)

GEOLOGICAL TARGET FORMATION: Benson Depth 4600 feet

Depth of completed well, 5145 feet Rotary X / Cable Tools ____

Water strata depth: Fresh, 31 feet; salt, 351-500 feet.

Coal seam depths: 120-123;171-174;231-235;347-351; Is coal being mined in the area? ____

Work was commenced Oct. 14, 19 80, and completed Oct. 20, 19 80

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS Size	Grade	Weight per ft	New	Used	FOOTAGE INTERVALS For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor	13-4								Kinds
Fresh water									
Coal									Sizes
Intermediate	8 5-8		20#	X			956	to surface	
Production	4½		10.5#	X			4864	420 sks	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

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JUN 1981
DEPT. OF MINES

OPEN FLOW DATA
Producing formation Benson; Balltown Pay zone depth 4760-3620 feet
Gas: Initial open flow, ____ Mcf/d Oil: Initial open flow, ____ Bbl/d
Final open flow, 1100 Mcf/d Final open flow, ____ Bbl/d
Time of open flow between initial and final tests, ____ hours
Static rock pressure, 1250 psig (surface measurement) after ____ hours shut in
[If applicable due to multiple completion--]
Second producing formation ____ Pay zone depth ____ feet
Gas: Initial open flow, ____ Mcf/d Oil: Initial open flow, ____ Bbl/d
Final open flow, ____ Mcf/d Final open flow, ____ Bbl/d
Time of open flow between initial and final tests, ____ hours
Static rock pressure, ____ psig (surface measurement) after ____ hours shut in

033-2478

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Benson Perfs 4758--4787 (15 Holes)
20,000# 80/100 Sand
40,000# 20/40 Sand

Balltown Perfs 3622--3644 (12 Holes)
15,000# 80/100 Sand
30,000# 20/40 Sand

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including Indication of all fresh and salt water, coal, oil and gas
and & Shale			0	30	
and			30	120	½" stream H2/O at 31'
oal			120	123	
and			123	171	½" stream H2/O at 351'
oal			171	174	
and			174	231	½" stream H2/O at 500'
oal			231	235	
and			235	321	
hale			321	347	
oal			347	351	
and & Shale			351	532	
oal			532	536	
and			536	635	
oal			635	638	
hale			638	660	
and			660	780	
hale			780	800	
and			800	845	
and & Shale			845	1740	
Lime			1740	1850	
hale			1850	2000	
and & Shale			2000	3634	
hale			3634	4008	
and & Shale			4008	4536	
hale			4536	4760	
enson			4760	4780	
hale			4780	5010	
and			5010	5020	
hale			5020	5155	
amma Ray Log					
ig Lime			1720	1860	
th. Sand			2705	2725	
alltown			3600	3680	
enson			4762	4778	

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DEPT. OF MINES

(Attach separate sheets to complete as necessary)

Well Operator Amoco Prod Co J. Scott

By

Its

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geologic record of all formations, including coal, encountered in the drilling of a well."

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 02489
Area Permit Number: 2R03301 AP
Operator Name: Enervest Operating
Operator's Well #: Dolan #1
Farm Name: Scarberry, Daniel & Penny
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 5997
Completion Zones: ~~Alexander~~, Benson, Riley, Fifth Sand
Perforated Interval: 5217-5366, 4998-5095, 4778-4900, 2544-2570

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☐
Easting: 544245.5
Northing: 4346798.7
Elevation: 1075
Inside Field Boundary? ☐
Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:	No ☒	Yes ☐
Date of Last MIT: NA Passed?	No ☐	Yes ☐
Open Hole Completion	No ☒	Yes ☐
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☐	Yes ☒
Packer immediately above injection zone (<100')? NA	No ☐	Yes ☐ No Packer ☐
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	If No: Provide Depth: No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 9/01/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

API # 47-33-02489-F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name: Daniel & Penny Scarberry Operator Well No.: Dolan #1

Location: Elevation: 1075.0' Quadrangle: Wolf Summit, WV 7.5'

District: Tenmile County: Harrison

Latitude: 8050 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 8270 Feet West of 80 Deg. 27 Min. 30 Sec.

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Permitting
SEP 26 2001
WV Department of
Environmental Protection

Company: Interstate Energy, Inc.
1064 Old Route 33
Weston, WV 26452-7722

Agent: Kenneth L. Pote

Inspector: Tim Bennett
Permit Issued: 06/15/01 (Rework)
Well Work Commenced: 06/15/01
Well Work Completed: 06/20/01
Verbal Plugging
Permission granted on: _____
Rotary X Cable _ Rig
Total Depth (Feet) 5997 Feet
Fresh water depths (ft.) 15'
Salt water depths (ft.) None reported on Orig. OG-10
Is coal being mined in area (Y/N)? N
Coal Depths (ft.): None reported on Orig. OG-10

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11-3/4"	14.0'	0.0'	
8-5/8"	1232.0'	1232.0'	CTS
4-1/2"		5484.0'	730 Sks.

Information taken from Orig. OG-10.

OPEN FLOW DATA

Producing formation: Fifth Sand Pay zone depth (ft.) 2544'-2570'
Gas: Initial open flow: N/A MCF/d Oil: Initial open flow: N/A Bbl/d
Final open flow: 280 MCF/d Final open flow: N/A Bbl/d
Time of open flow between initial and final tests: N/A Hours
Static Rock Pressure: 169 psig (surface pressure) after 48 Hours

Second producing formation: None Pay zone depth (ft.) None
Gas: Initial open flow: N/A MCF/d Oil: Initial open flow: N/A Bbl/d
Final open flow: N/A MCF/d Final open flow: N/A Bbl/d
Time of open flow between initial and final tests: N/A Hours
Static Rock Pressure: psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: INTERSTATE ENERGY, INC.
By: Kenneth L. Pote, President
Date: September 24, 2001

Interstate Energy, Inc.
Dolan #1
47-033-02489-F

Details of Perforated Intervals, Fracturing or Stimulating, Physical Change

Fifth Sand 2544'-2570'; 14 Holes; 30,600# 20/40 Sand; 189 Bbls. S/L Fluid; 66,000 SCF Nitrogen

Well Log Information: See Original OG-10.

OG-10
Rev. 2-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Wolf Summit 7.5

Permit No 47-033-2489

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb ____
Water Flood ____ Storage ____
Disposal ____ ____ (Kind)

Company CHASE PETROLEUM
Address P. O. Drawer 369, Glenville, WV
Farm Robert Myers Acres 97.2
Location (waters) Tenmile Creek
Well No. Dolan #1 Elev. 1075
District Tenmile County Harrison
The surface of tract is owned in fee by Robert & Deloris Myers
Address -
Mineral rights are owned by Dorothy Lockard, et al Address Box 1711, Clarksburg, WV 26301
Drilling Commenced February 8, 1981
Drilling Completed Februauy 15, 1981
Initial open flow 250,000 cu. ft. 0 bbls.
Final production 1,200,000 cu. ft. per day 0 bbls.
Well open 10 hrs. before test 1800 RP

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu ft (Sks.)
Size 20-16 Cond.			
13-10" 11 3/4	14'	0	
9 5/8			
8 5/8 23 #	1232'	1232'	CTS
7			
5 1/2		-	
4 1/2 10.5 #	5484'	5484'	730 sks
3			
2			
Liners Used			

Well treatment details:
Attach copy of cementing record.

Fraced Alexander	5217-5366	15 holes	652 Bbls Total Fluid	25,000 # 80/100
				56,000 # 20/40
Fraced Benson	4998-5095	18 holes	649 Bbls Total Fluid	25,000 # 80/100
				56,000 # 20/40
Fraced Riley	4778-4900	19 holes	646 Bbls Total Fluid	25,000 # 80/100
				56,000 # 20/40

Coal was encountered at None Feet - Inches
Fresh water 15' Feet ____ Salt Water ____ Feet ____
Producing Sand Alexander, Benson, Riley Depth 5217-5366, 4998-5095, 4778-4900

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Clay & Shale			0	10		
Sand			10	85		
Shale & Sand			85	100		
Sand			100	172		
Sand & Shale			172	350		
Shale			350	533		
Sand			533	550		
Shale			550	750		
Sand			750	780		
Sand & Shale			780	966		
Red Rock & Shale			966	1092		
Sand & Shale			1092	1279		
Sand & Shale			1279	1545		
Lime			1545	1660		
Shale			1660	1680		
Sand			1680	1730		
Shale			1730	1810		
Sand			1810	1835		
Sand & Shale			1835	2140		
Sand			2140	2160		
Shale			2160	2235		
Sand			2235	2440		
Shale			2440	4778		

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Environmental Protection

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Riley			4778	4900		
Sand			4900	4998		
Benson			4998	5095		
Shale			5095	5217		
Alexander			5217	5366		
Sand & Shale			5366	5997	T. D.	

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Environmental Protection

Date 8-24-00

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Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 02811
Area Permit Number: 2R03301 AP
Operator Name: Boxton Oil & Gas
Operator's Well #: B-506
Farm Name: [redacted] Meyers - Swiger
Field Name: Wolf Summit
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 5323
Completion Zones: Benson, Balltown
Perforated Interval: 4888-4897, 3694-3712

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☐
Easting: 541776.4
Northing: 4346882.3
Elevation: 1327
Inside Field Boundary? ☐
Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')? NA		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 9 / 01 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

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SEP 29 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

IV-35
(Rev 8-81)

Date September 10, 1982
Operator's
Well No. B-506
Farm James A. Swiger
API No. 47 - 033 - 2811

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 1327' Watershed Tenmile Creek
District: Tenmile County Harrison Quadrangle Wolf Summit 7.5

COMPANY J & J Enterprise Inc. % Berry Energy Consultants & Mgrs.
ADDRESS P.O. Box 5, Clarksburg, WVa. 26301
DESIGNATED AGENT SAME
ADDRESS SAME
SURFACE OWNER Delmer Myers
ADDRESS Rt. 1, Box 124A, Wolf Summit, W.Va. 26462
MINERAL RIGHTS OWNER James A. Swiger
ADDRESS Box 124 Wilsonburg, W.Va. 26462
OIL AND GAS INSPECTOR FOR THIS WORK Stephen Casey Rt. 2 Box 232-D ADDRESS Jane Lew, W.Va. 26378
PERMIT ISSUED June 22, 1982
DRILLING COMMENCED 6-26-82
DRILLING COMPLETED 7-1-82
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond. 11-3/4			
13-10"			
9 5/8			
8 5/8	1365'	1365'	295 Sks.
7			
5 1/2			
4 1/2	5016'	5016'	475 Sks.
3			50/50 POZ
2			
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 4700' feet
Depth of completed well 5333' feet Rotary XX / Cable Tools ___
Water strata depth: Fresh 175', 200' feet; Salt None feet
Coal seam depths: 160-163 & 450-456' Is coal being mined in the area? XX

OPEN FLOW DATA
Producing formation Benson, Balltown Pay zone depth 4888-4897, 3694-3712 feet
Gas: Initial open flow 115.46 Mcf/d Oil: Initial open flow N/A Bbl/d
Final open flow 292,000 Mcf/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure 1400# psig (surface measurement) after 14 Days shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(Continue on reverse side)

FORM IV-35
(REVERSE)

r & Foam Frac. August 20, 1982

DETAILS OF PERFORATED I ERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

1st. Stage; Benson: (Water) 10,000,80/100, 32,000,20/40 - 709 Bbls. Fluid

2nd Stage; Balltown: (Foam) 80,000,20/40 - 377 Bbls. H_2O, 624,800 SCF of N_2

Perforations: Benson 4888-4897

Balltown 3694-3712

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Cond.			0	15	
Sand & Shale			15	160	Water @ 72' - ½" stream
Coal			160	163	Coal
Sand & Shale			163	222	
Sand			222	286	
Sand & Shale			286	450	
Coal			450	456	Coal
Shale			456	670	
Sand			670	720	
Sand & Shale			720	980	
Shale			980	1175	
Sand & Shale			1175	1242	
Sand			1242	1265	
Sand & Shale			1265	1416	
Shale			1416	1690	
Red Rock & Shale			1690	1770	
Big Lime			1770	1885	
Sand & Shale			1885	2[illegible]	Gas Ck @ 2008' No Show
Shale			2160	2600	
Sand			2600	2630	
Sandy Shale			2630	2730	
Shale			2730	3345	Gas Ck @ 3009' 60/10 - 1" w/water
Sand			3345	3380	
Shale			3380	3560	
Sand & Shale			3560	3610	
Shale			3610	3740	
Sand & Shale			3740	3910	
Shale			3910	4165	
Sandy Shale			4165	4300	
Sand & Shale			4300	4718	Gas Ck @ 4324' 9[illegible] 1" w/water
Benson			4718	4740	
Sand & Shale			4740	5085	Gas Ck @ 4950' 160/10- 1" w/water
Alexander			5085	5120	
Sand & Shale			5120	5323 TD	

(Attach separate sheets as necessary)

J & J Enterprise Inc. %
Berry Energy Consultants & Mgrs.
Well Operator

By: [signature]

Date: 9/27/82

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 03279 Area Permit Number: 2R03301 AP
Operator Name: Williams I
Operator's Well #: [redacted] XTO Energy
Farm Name: Williams #1
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2792
Completion Zones: Gordon Perforated Interval: 2502-2738'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 544252.3 Northing: 4351294
Elevation: 1160
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☑ Yes ☐
Well perforated in injection zone? No ☑ Yes ☐
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9/12/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

IV-35
(Rev 8-81)

RECEIVED
FEB 25 1988
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date February 11th, 1986
Operator's
Well No. S-24
Farm Williams # 1
API No. 47- 033 - 3279

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1160 Watershed Termile Creek
District: Termile County Harrison Quadrangle Wolf Summit

COMPANY Sheldon and Sheldon, Inc.
ADDRESS 901 W. Main St. Suite 201, Bridgprt. WV
DESIGNATED AGENT David J. Sheldon
ADDRESS 118 Westwood ave, Bridgprt, WV 26330
SURFACE OWNER Allen Huffman
ADDRESS
MINERAL RIGHTS OWNER John T. Williams, Heirs
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Steve Casey ADDRESS Rt. 2 Box 232-D Jane Lew
PERMIT ISSUED November 22nd, 1985
DRILLING COMMENCED N/a
DRILLING COMPLETED N/a
IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON N/a

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8			
7	1924	1924	300 sks.
5 1/2			
4 1/2	2734	2734	130 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Gordon Depth 2680' feet
Depth of completed well 2792' feet Rotary ___ / Cable Tools ___
Water strata depth: Fresh ___ feet; Salt ___ feet
Coal seam depths: ___ Is coal being mined in the area? ___

OPEN FLOW DATA
Producing formation 50' 30' and Gordon Pay zone depth 2506-2742 feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 730 Mcf/d Final open flow ___ Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 463 psig (surface measurement) after 48 hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(Continue on reverse side)

HARR. 3279

Record of Dora Williams well

Native coal	85		
Pittsburgh coal	570-576		
Big Dunkard	1065-1138		
Gas sand	1265-1412		
1st Salt sand	1420-1443		
Maxon	1820-1885		
Big Lime	1900	1960	6" Casing 1910
Big Injun	1960	2065	Gas 2023
Squaw	2077		
Fifty Ft	2491	2536	Gas 2503
Gordon	2672-2680		oil 2674
			" 2703
	TD 2718		

This is the only Record I have of this well. I found a Log that my Father had Run on this well

Robert Loathes

47-035-3279-F

WELL RECORD

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perforation 2502-2738 ; 20 Holes .39

Fractured Using 630 bbls of Water, 10,000# 80-100 Sand, 30,000# 20-40 Sand, 500 gals acid, and 80,000 scf. N2

RECEIVED
FEB 25 1988
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
NO RECORD AVAILABLE TO 1900.			
Log Depths			
Shale	1800	1823	
Little Lime	1823	1880	
Shale	1880	1901	
Big Lime	1901	1964	
Big Injun	1964	2055	
Shale	2055	2480	
Sand 50ft.	2480	2523	
Shale	2523	2602	
Sand 30ft.	2602	2616	
Shale	2616	2680	
Sand Gordon	2680	2702	
Shale and Sand	2702	2792	
	T.D.	2792	

(Attach separate sheets as necessary)

Sheldon and Sheldon, Inc.
Well Operator

By: [signature]

Date: February 11th, 1986

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

246

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-03439 Area Permit Number: 2R 03301 AP
Operator Name: CNG Development
Operator's Well #: CNGD 2838
Farm Name: Lexie Bramer
Field Name: ~~Wilsonville~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☐
TD of well: 6823'
Completion Zones: Perforated Interval: 3358-3363, 3370-3371, 3030-3034, 3040-3043, 3047-3050

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547749 Northing: 4353795.2
Elevation: 996'
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☑

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

Distance over 3200' away from injector

8/24/16

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

4½" Casing in hole. Well does not ~~appear~~ appear to be cemented across injection zone.
~~Operator~~ HG Energy needs to notify CNG to provide logs to show monitor 8⅝" x 4½" annulus. OR CNG can provide cement across 5th Sand

Reviewer Name: Laura L. Adkins Signature: Laura L. Adkins
Date Reviewed: 7/25/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

3439

IV-35
(Rev 8-81)

RECEIVED
APR 11 1990
DEPT. OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date August 12, 1987
Operator's
Well No. CNGD 283R
Farm Lexie Bramer
API No. 47 - 033 - 3439

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 996 Watershed Tennille Creek
District: Sardis County Harrison Quadrangle Wolf Summit

COMPANY CNG Development Company
ADDRESS P. O. Box 15746 Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698 Bridgeport, WV 26330
SURFACE OWNER Nancy B. Hardman Rt. 1, Box 162
ADDRESS Wallace, WV 26448
MINERAL RIGHTS OWNER Lexie Bramer
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Stephen Case ADDRESS Rt. 2, Box 232D Jane Lew, WV 26378
PERMIT ISSUED May 26, 1987
DRILLING COMMENCED June 17, 1987
DRILLING COMPLETED June 22, 1987
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	40	40	To Surf.
9 5/8			
8 5/8	1310	1310	To Surf.
7			
5 1/2			
4 1/2	6572	6572	200 Sks.
3			
2-3/8	3329	3329	-
Liners used			

GEOLOGICAL TARGET FORMATION Top of Tully Ls. Depth 6865 feet
Depth of completed well 6823 feet Rotary X / Cable Tools ___
Water strata depth: Fresh 55 80 feet; Salt ___ feet
Coal seam depths: 171 - ? Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Balltown Speechley Pay zone depth 3358-3381 3030-3050 feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 101 Mcf/d Final open flow ? Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1050 psig (surface measurement) after 14 day hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(Continue on reverse side)

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perf. Balltown 3358 - 63, .39 HSC; 3370 - 81, 14 holes, .39 HSC;
Speechley 3030 - 34, 10 holes; 3040 - 43, 8 holes; 3047 - 50, 8 holes
Nowsco 30# gel water frac - breakdown 2400, AVE HHP 1805, AVE Rate 35,
AVE PR 2100, MAX 2250, Total Sand 70,000#, MAX CONC. 5#/gal, Total
Acid 500 Gal, Total Fl. 752, Sl Fl. 502, ISIP 1800; 2nd Stage Breakdown 2750,
AVE HHP 1634, AVE Rate 35, AVE PR 1900, MAX TR PR 2400, Total Sand
70,000#, Max Conc. 5#/gal, Total Acid 500 gal, Total Fl 761, Sl Fluid 502,
ISIP 1320

WELL LOG

FORMATION COLOR, HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
Clay	0	3	1/2'' H_2O @ 55'
Sd & Sh	3	173	1'' Stream H_2O @ 80'
Coal	173	176	Coal 173 - 176
Sd, Sh.& Rr	176	1450	
B Lime & Injun	1450	1670	Oil Odor 2780
Sd & Sh	1670	4610	
Benson	4610	4670	
Sd & Sh	4670	6800	
Tully Sd	6800	6823	
LOG TOPS			
Big Lime	1445	1531	
Big Injun	1531	1610	
Gantz	1922	1940	
Gordon Gp	2031	2304	
5th	2434	2474	
Warren	2818	2844	
U. Speechley	3020	3110	
Speechley	3330	3384	
Balltown	3840	3900	
Benson	4478	4540	
Sycamore Grit	6323	6386	

(Attach separate sheets as necessary)

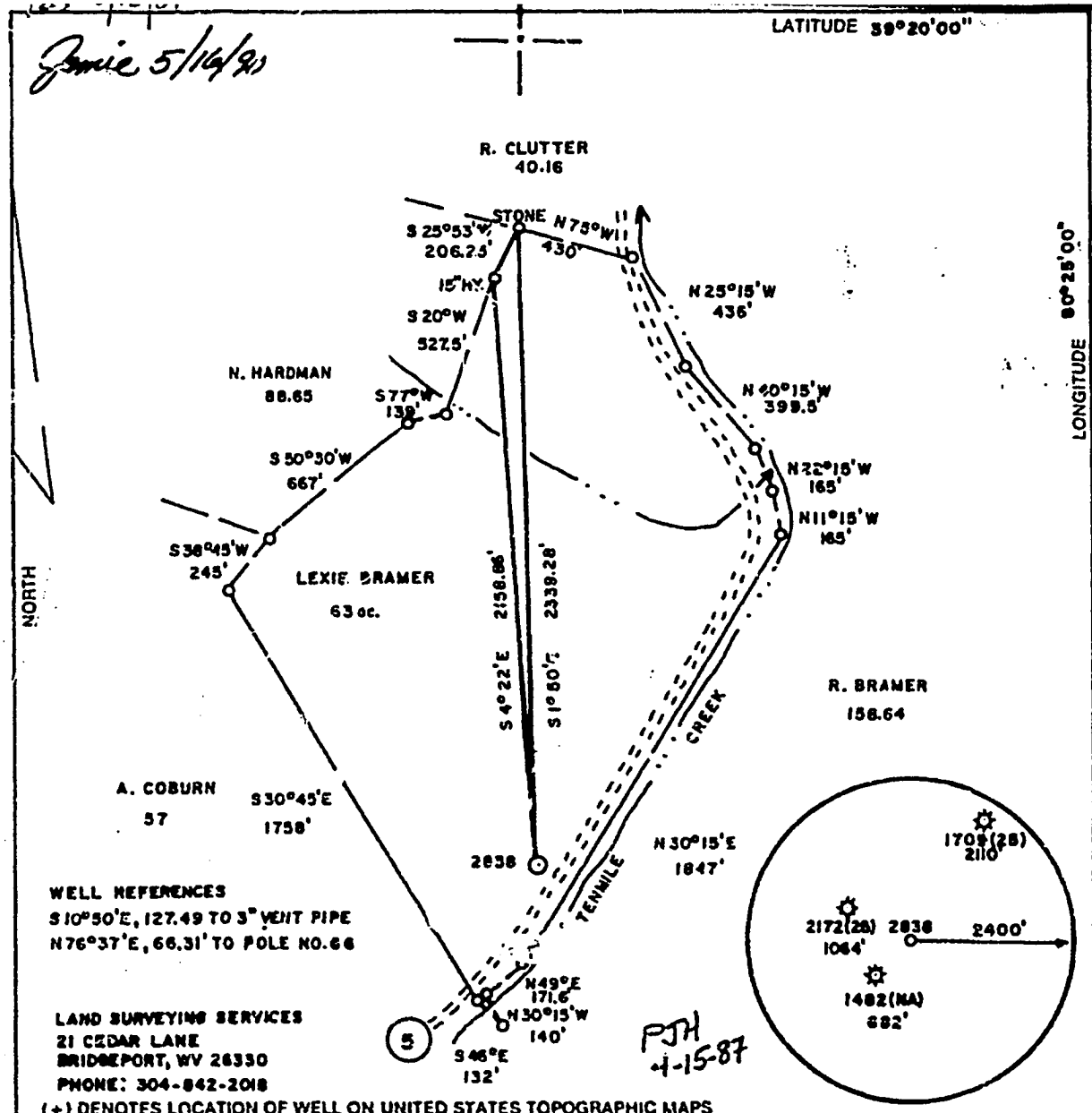
CNG DEVELOPMENT COMPANY
Well Operator

By: [signature]

Date: August 12, 1987

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

Jamie 5/14/87



WELL REFERENCES
S 10°50'E, 127.49 TO 3" VENT PIPE
N 76°37'E, 66.31' TO POLE NO. 66

LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE: 304-842-2018

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 IN 200
PROVEN SOURCE OF ELEVATION API 2172 ELEV 1169'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

(SIGNED) _____

R.P.E. _____ L.L.S. 674

STEPHEN D. LOSH

No. 674

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE MARCH 2, 1987
OPERATOR'S WELL NO. 2838
API WELL NO.
47 - 033 - 3439-P
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 996' WATER SHED TENMILE CREEK
DISTRICT SARDIS COUNTY HARRISON
QUADRANGLE WOLF SUMMIT 7.5 min.
SURFACE OWNER NANCY B. HARDMAN ACREAGE 88.8
OIL & GAS ROYALTY OWNER LEXIE BRAMER LEASE ACREAGE 63
LEASE NO. DY-18544
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION TOP OF TULLY LS. ESTIMATED DEPTH 6865'
WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
ADDRESS ONE PARK RIDGE CENTER ADDRESS RT. 2, BOX 628
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

COUNTY NAME HARR.
PERMIT 3439-P

FORM WW-6
MT. MAIL 10573

WR-36
17-May-90

RECEIVED
Division of Energy
JUN 22 90
Permitting
Oil and Gas Section

API # 47- 33-03439-P

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVSION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVITE SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: WIKERT, DONALD Operator Well No.:CNGD 2838

LOCATION: Elevation: 996.00 Quadrangle: WOLF SUMMIT
District: SARDIS County: HARRISON
Latitude: 450 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 8300 Feet West of 80 Deg. 25 Min. 0 Sec.

Well Type: OIL _____ GAS _____

Company: CNG Development Company
Crosswind Corporate Park
Rt. 2, Box 698
Bridgeport, WV 26330
Agent:
Inspector: Stephen Casey
Permit Issued: 05/17/90

Coal Operator or Owner: Little Buck Coal Company
P. O. Box 8034
Lebanon, VA 24266

Coal Operator or Owner:

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Dowell Schlumberger and Nowsco being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by CNG Development Company, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 14 day of June, 1990, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
(Full Report on Back)				
P & A Bottom Hole 7/14/87			4.5 2007 ----	-- 1605
P & A Top Hole 6/14/90:				8-5/8" 1310'
Cmt. plug 70 sks	3400	2450		
Gel	2450	2000		
Cmt. plug 30 sks	2000	1900		
Gel	1900	1676		
Cmt. plug 80 sks	1676	1400		
Gel	1400	0		
				6/28/90

Description of monument: 48" x 8" Cap vented, hole on side with Permit No.
47-033-03439P - CNGD WN 2838

and that the work of plugging and filling said well was completed on the 14 day of June, 1990.

And furthur deponents saith not.

Sworn and subscribe before me this 14th day of June, 1990
My commission expires: 07/13/93

Mary Ellen Elliott
Notary Public

HARR 3439-P

7/14/87 - P & A Bottom Hole

6336 - 5170	Cmt. Plug (Squeeze with 75 sks)
5130	Shot 4 1/2" casing
5130 - 5030	Cmt. Plug 100' plug 30 sks
5030 - 3603	Gel (reran 4 1/2" & cmt. @ 3603')

6/14/90 - P & A Top Hole

3400 - 2450	Cmt. plug 70 sks (inside 4 1/2" csg.)
2450 - 2000	Gel
2000 - 1900	Cmt. plug 30 sks
1900 - 1676	Gel
1676 - 1400	Cmt. plug 80 sks
1400 - 0	Gel

Installed vented monument

27501

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 - 03470 Area Permit Number: 2R 6330) AP
Operator Name: CNG
Operator's Well #: CNGP 2994
Farm Name: Holtzworth, John D. / Wayne Herrod
Field Name: ~~Hitchcockville~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 5525'
Completion Zones: Benson, Balltown Perforated Interval: 4972-4980', 3879-3908'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 546805.7 Northing: 4352790.8
Elevation: 1371'
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Gas well drilled to produce Benson
then went back in later & Completed Balltown

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 7-11-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

IV-35
(Rev 8-81)

RECEIVED
FEB 01 1988
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date January 21, 1988
Operator's
Well No. 2994
Farm John Paul Jones
API No. 47 - 033 - 3470

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 1371 Watershed Tenmile Creek of West Fork River
District: Tenmile County Harrison Quadrangle Wolf Summit

COMPANY CNG Development Company
ADDRESS P. O. Box 15746 Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698 Bridgeport, WV 26330
SURFACE OWNER Wayne Herrod
ADDRESS Box 57 Bristol, WV 26332
MINERAL RIGHTS OWNER John Paul Jones
ADDRESS c/o Appa Jones 107 Morgan St. Clarksburg, WV 26301
OIL AND GAS INSPECTOR FOR THIS WORK Stephen Casey ADDRESS Rt. 2, Box 232D Jane Lew, WV 26378
PERMIT ISSUED Aug. 10, 1987
DRILLING COMMENCED Dec. 16, 1987
DRILLING COMPLETED Dec. 20, 1987
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1304	1304	To Surf.
7			
5 1/2			
4 1/2	5140	5140	450 sks
3			
2 1/4	4995	4995	---
Liners used			

GEOLOGICAL TARGET FORMATION Top of Tully Depth 7200 feet
Depth of completed well 5525 feet Rotary X / Cable Tools
Water strata depth: Fresh 300 / 545 feet; Salt feet
Coal seam depths: 12 - 14 / 270 - 273 Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Benson Pay zone depth 4972-80 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow 267 Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1200 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)
Second producing formation Pay zone depth feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow Mcf/d Oil: Final open flow Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure psig (surface measurement) after hours shut in

HARR - 3470

(Continue on reverse side)

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perforated Benson 4972 - 80, 24 holes, .39" HSC

30# Gel Water Frac - Breakdown 2100, Ave HHP 2150, Ave Rate 35, Ave Pr. 2500, Max Tr Pr 2890, 500 gal Acid, 70,000# Sand, Max Conc. 5, Total Fluid 783, SL Fluid 466, ISIP 1420, 5 min 1350.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
KB - GL			0	10	1/2" stream water @ 300'
Soil & Shale			10	12	1 1/2" stream water @ 545'
Coal			12	14	
Sand, Shale & RR			14	270	Coal 12 - 14
Coal			270	273	270 - 273
Sand, Shale & RR			273	1810	
Lime			1810	1830	
Sand, Shale & RR			1830	1965	
Lime & Injun			1965	2100	
Sand & Shale			2100	2965	
5th Sand			2965	2995	
Sand & Shale			2995	4990	
Benson			4990	5025	
Sand & Shale			5025	5525	
LOG TOPS					
Big Lime			1942	2050	
Big Injun			2050	2082	
Weir			2196	2280	
Gantz			2428	2478	
Gordon Gp.			2528	2802	
5th			2954	2968	
Gayard			3000	3014	
Warren			3298	3342	
U. Speechley			3364	3423	
Speechley			3509	3662	
Balltown			3854	3888	
Bradford			4356	4410	
Riley			4794	4910	
Benson			4970	5030	

RECEIVED
FEB 01 1988
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY
Well Operator

By: [signature]

Date: January 21, 1988

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

906

IV-35
(Rev 8-81)

Date January 21, 1988
Operator's
Well No. 2994
Farm John Paul Jones
API No. 47 - 033 - 3470

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 1371 Watershed Tennile Creek of West Fork River
District: Tennile County Harrison Quadrangle Wolf Summit

COMPANY CNG Development Company
ADDRESS P. O. Box 15746 Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698 Bridgeport, WV 26330
SURFACE OWNER Wayne Herrod
ADDRESS Box 57 Bristol, WV 26332
MINERAL RIGHTS OWNER John Paul Jones
ADDRESS c/o Appa Jones 107 Morgan St. Clarksburg, WV 26301
OIL AND GAS INSPECTOR FOR THIS WORK Stephen Casey ADDRESS Rt. 2, Box 232D Jane Lew, WV 26378
PERMIT ISSUED Aug. 10, 1987
DRILLING COMMENCED Dec. 16, 1987
DRILLING COMPLETED Dec. 20, 1987
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1304	1304	To Surf.
7			
5 1/2			
4 1/2	5140	5140	450 sks
3			
2 1/2	4995	4995	---
Liners used			

GEOLOGICAL TARGET FORMATION Top of Tully Depth 7200 feet
Depth of completed well 5525 feet Rotary X / Cable Tools ___
Water strata depth: Fresh 300 / 545 feet; Salt ___ feet
Coal seam depths: 12 - 14 / 270 - 272 Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Benson Pay zone depth 4972-80 feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 267 Mcf/d Final open flow ___ Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1200 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(Continue on reverse side)

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perforated Benson 4972 - 80, 24 holes, .39" HSC

30# Gel Water Frac - Breakdown 2100, Ave HHP 2150, Ave Rate 35, Ave Pr. 2500, Max Tr Pr 2890, 500 gal Acid, 70,000# Sand, Max Conc. 5, Total Fluid 783, SL Fluid 466, ISIP 1420, 5 min 1350.

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
KB - GL	0	10	1/2" stream water @ 300'
Soil & Shale	10	12	1 1/2" stream water @ 545'
Coal	12	14	
Sand, Shale & RR	14	270	Coal 12 - 14
Coal	270	273	270 - 273
Sand, Shale & RR	273	1810	
Lime	1810	1830	
Sand, Shale & R.	1830	1965	
Lime & Injun	1965	2100	
Sand & Shale	2100	2965	
5th Sand	2965	2995	
Sand & Shale	2995	4990	
Benson	4990	5025	
Sand & Shale	5025	5525	
LOG TOPS			
Big Lime	1942	2050	
Big Injun	2050	2082	
Weir	2196	2280	
Gantz	2428	2478	
Gordon Gp.	2528	2802	
5th	2954	2968	
Bayard	3000	3014	
Warren	3298	3342	
U. Speechley	3364	3423	
Speechley	3509	3662	
Balltown	3854	3888	
Bradford	4356	4410	
Riley	4794	4910	
Benson	4970	5030	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY
Well Operator

By: [signature]

Date: January 21, 1988

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

WR-35

14-Jul-95
API # 47- 33-03470 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: HOLTZWORTH, JOHN D. Operator Well No.: CNGP 2994

LOCATION: Elevation: 1,371.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 3700 Feet South of 39 Deg. 20Min. Sec.
Longitude 11560 Feet West of 80 Deg. 25 Min. Sec.

Company: CNG PRODUCING COMPANY
ROUTE 2, BOX 698
BRIDGEPORT, WV 26330-0698

Agent: RODNEY J. BIGGS

Inspector: TIM BENNETT
Permit Issued: 07/17/95
Well work Commenced: 08/14/95
Well work Completed: 09/29/95
Verbal Plugging
Permission granted on: _____
Rotary ____ Cable ____ Rig
Total Depth (feet) _____
Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? ___
Coal Depths (ft): _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
Re-Ran 147 Jts. 1.5" TBG			

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Office of Oil & Gas
Permitting
SEP 11 1998
WV Division of
Environmental Protection

OPEN FLOW DATA

Producing formation Balltown Pay zone depth (ft) 3879-3908 (19)
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow * 84 MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure 725 psig (surface pressure) after 4 Hours
*Commingle with Existing production
Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Rod Biggs

For: CNG PRODUCING COMPANY

By: Rodney J Biggs, Production Manager, Appalachian Region
Date: 09/03/98

HAR 3470 F

CNGP WV02994 WORKOVER

8/3/95 - Pulled 1 1/2" Tubing T.D. Hole at 5097'.

08/14/95 - Perforated and Fraced as follows:

Balltown, 3879 - 3908', 19 holes
P.D. 3928 #
Tot. Fluid - 527 gal
Tot. Sand - 40,000#
Tot. Acid - 500 gal.
Avg. Rate - 28 bpm
Avg. Press - 2250#
B. F. - 2000#

08/29/95 - F.O.F. = 84 MCFD - 725#

08/29/95 - Re-Ran 1 1/2" Tubing.

08/30/95 - T.B.I.L.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 03614 Area Permit Number: 2R03301 AP
Operator Name: CNG Producing Co.
Operator's Well #: CNGD 3652
Farm Name: Furney, Bernard & Evelyn
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Never Drilled

Well Type: X Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☐
TD of well:
Completion Zones: Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation:
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☐	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☐
Well perforated in injection zone?		No ☐	Yes ☐
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☐

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Permit was Cancelled / Never Drilled

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 8/31/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

24-May-91

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION
CHARLESTON 25305
FINAL INSPECTION REPORT

Dear RODNEY J. BIGGS:

The FINAL INSPECTION REPORT for the permit listed below has been received in this office. Only the column checked below applies:

_____ The well designated by the below captioned permit number has been released under your blanket bond

_____ Please return the enclosed cancelled single bond which covered the well designated by the above captioned permit number to the surety company that executed said bond in your behalf, in order that they may give you credit on their records.

__X__ NEW WELL PERMIT CANCELLED

Company: CNG PRODUCING COMPANY
Permit No. 47- 33-03614 Issued On: 05/16/89
Farm: FURNER, BERNARD & EVELYN Well: CNGD 3652
County: HARRISON District: TENMILE

Theodore M. Streit
Director
DIVISION OF OIL AND GAS

IR-26
OBVERSE

INSPECTOR'S PERMIT SUMMARY FORM

WELL TYPE_____ API# 47- 33-03614

ELEVATION: 1287.00 OPERATOR: CNG DEVELOPMENT CO., A DELAWAR
E CORP.

DISTRICT: TENMILE TELEPHONE: (304)623-8840

QUADRANGLE: SALEM FARM: FURNER, BERNARD & EVELYN

COUNTY: HARRISON WELL NO.: CNGD 3652

SURFACE OWNER_____ COMMENTS (Y/N)__ TELEPHONE

TARGET FORMATION_____ DATE APPLICATION RECEIVED 04/27/89

DATE PERMIT ISSUED: 05/16/89

DATE LOCATION STARTED_____ NOTIFIED_____ DRILLING COMMENCED_____

WATER DEPTHS_____,_____,_____,_____

COAL DEPTHS_____,_____,_____,_____

RECEIVED
MAY 24 91
Division of Energy
Oil and Gas Section

CASING

RAN_____FEET OF _____" PIPE ON _____WITH _____FILL UP

RAN_____FEET OF _____" PIPE ON _____WITH _____FILL UP

RAN_____FEET OF _____" PIPE ON _____WITH _____FILL UP

RAN_____FEET OF _____" PIPE ON _____WITH _____FILL UP

RAN_____FEET OF _____" PIPE ON _____WITH _____FILL UP

PITS

PIT DISCHARGE DATE_____ TYPE_____

FIELD ANALYSIS pH____ Fe_____ mg/l Cl_____mg/l

D.O.___mg/l TOC_____ mg/l

WELL RECORD RECEIVED 5-23-91

DMR RECEIVED 5-23-91

DATE RELEASED 5-23-91 Reclamation Score 0

Steve Cooper
INSPECTOR'S SIGNATURE

----------RECORD ALL VISITS TO THIS WELL ON BACK----------

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 03615 Area Permit Number: 2R03301 AP
Operator Name: Consol Gas
Operator's Well #: CNGD 3653
Farm Name: Myers, Robert & Delores
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 5137
Completion Zones: Benson Perforated Interval: 4824-4835'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 542251.7 Northing: 4345611.8
Elevation: 1258
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')? NA		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 8/31/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

16-May-89
API # 47- 33-03615

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: MYERS, ROBERT & DELORES Operator Well No.: CNGD 3653

LOCATION: Elevation: 1258.00 Quadrangle: SALEM

District: TENMILE County: HARRISON
Latitude: 12000 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 2975 Feet West of 80 Deg. 30 Min. 0 Sec.

Company: CNG DEVELOPMENT CO., A DE
P. O. BOX 15746
PITTSBURGH, PA 15244-0000

Agent: RODNEY J. BIGGS

Inspector: STEVE CASEY
Permit Issued: 05/16/89
Well work Commenced: 08/09/89
Well work Completed: 08/15/89
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5137'
Fresh water depths (ft) 110'; 1800'

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 472-476; 840-844

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8 5/8"	1648	1648	To Surf.
4 1/2"	4991	4991	375 sks.
1 1/2"	4824	4824	-----

RECEIVED
SEP 20 1989
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4824-4835
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
8/29/89 Final open flow 400 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 950 psig (surface pressure) after 24 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

HARR 3615

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Rodney J. Biggs, Manager
For: CNG DEVELOPMENT CO., A DELAWARE CORP.
By: Rod Biggs
Date: September 7, 1989

Ran Corrlog and CBL. Perforated Benson 4824 - 4835, 22 holes, .39 HSC
Water Frac Benson - 30# Gel - Break 1887, Avg TPSI 2377, Avg Rate 31 BPM,
HHP used 1816, ISI 2267, 5 min 1647, Used 500 gals 15% HCL, 5000# 80/100,
65,000# 20/40 Sand, 5# Max Sand Conc./gal, BHTP 3700#

Clay, Sd, SH & RR	0	472	1/2" stream water at 110'	
Coal	472	476	1 3/4" stream @ 1800'	
Sd, Sh & RR	476	840		
Coal	840	844	Coal	472 - 476
Sd, Sh. & RR	844	1865		840 - 844
Lime/Injun	1865	2010		
Sd, Sh	2010	5137		

LOG TOPS

Big Lime	1766	1928
Big Injun	1928	2008
Gantz	2286	2320
50'	2405	2448
Gordon Stray	2500	2606
Gordon	2615	2650
5th	2816	2841
Bayard	2854	2878
Warren	3166	3204
Upper Speechley	3397	3413
Speechley	3500	3527
Balltown	3634	3778
Bradford	4202	4303
Riley	4670	4712
Benson	4824	4912

RECEIVED
SEP 20 2019
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1788

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-03676 Area Permit Number: 2R 03301 AP
Operator Name: Pennzoil Products
Operator's Well #: John Flaherty #9
Farm Name: Exploration Partners
Field Name: ~~Wildcat~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☐ ERIS Shows Shut In
TD of well: 4936'
Completion Zones: Fifth/Benson Perforated Interval: Fixed ERIS to reflect a producer active

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547192.6 Northing: 4352680.4
Elevation:
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Gene Smith Signature: Gene Smith
Date Reviewed: 8/24/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-37
(9/94)

Date: May 3, 19 96
Operator's
Well No. John Flaherty #9
API No. 47- 033 - 3676

RECEIVED
Oil & Gas Division
MAY 15 1996
WV Division of Environmental Protection

STATE OF WEST VIRGINIA
BUREAU OF ENVIRONMENT, OFFICE OF OIL AND GAS
PRE-OPERATION CERTIFICATE
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR Pennzoil Products Co.
Address P. O. Box 5519
Vienna, WV 26105-5519

DESIGNATED AGENT Philip S. Ondrusek
Address P. O. Box 5519
Vienna, WV 26105-5519

GEOLOGICAL TARGET FORMATION Benson Fifth Depth 4724 - 4745 feet(top) to 2707 - 2720 feet(bottom)
Virgin reservoir pressure in target formation 1250 psig
Source of information on virgin reservoir pressure: Estimated
Perforation intervals 2711-2714' (Fifth) Open-hole intervals
4726-4735' (Benson)

MAXIMUM PERMITTED INJECTION OPERATIONS
Well head injection pressure: 1226 psig Bottom hole pressure: 2400 psig
Volume per hour: 21 Bbls.

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED
Liquids to be injected for oil recovery: Fresh water and water produced from the Fifth Sand.
Wastes to be disposed of: None

Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.)
Bactericides and other chemicals necessary to maintain water quality, improve oil recovery and/or maintain well integrity.

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

ADDITIONAL DRILLING AS PART OF THE CONVERSION (Complete form WR-35)

DETAILS ON NEW CASING AND TUBING PROGRAM AS PART OF THE CONVERSION (To be completed below unless the new casing and tubing program is described on a form WR-35, submitted in connection with the permit to which this form WR-37 relates.)

CASING OR TUBING TYPE	SIZE	GRADE	WEIGHT PER FT.	NEW	USED	FOOTAGE USED IN DRILLING	FOOTAGE LEFT IN WELL	CEMENT USED	PACKERS (KIND, SIZE & DEPTH SET)
CONDUCTOR									
FRESH WATER									
COAL									
INTERMEDIATE	7"			X		1318'	1318'	300 sks.	Packer @
PRODUCTION	4-1/2"	J-55	10.5	X		4876'	4876'	240 sks.	4636'
TUBING	2 3/8						4636'		
LINERS									

M-WR37
(REVERSE)

MECHANICAL INTEGRITY TEST

Test Method: Press. test on 4½" casing - tested to at least 2000 psi for 20 minutes.
See attached chart
Press. test on 2-3/8" tubing - tested to at least 2000 psi for 20 minuts
See attached chart

The undersigned certifies that the test was performed on May 7, 1996 (2-3/8") April 24 (4½"), 19 96 and demonstrated the mechanical integrity of the well. The test was witnessed by _____ representing the Office of Oil and Gas.

Pennzoil Products Company
Well Operator

May 3, 1996
Date

THIS WELL IS AUTHORIZED FOR INJECTION.

Signed _____ UIC PROGRAM DIRECTOR

Date 5/21/96

[NOTE: That the mechanical integrity of this well must be demonstrated again within ninety (90) days of five years from this date in order for injection to continue. Please notify the state inspector 24 hours in advance of the test].

Pennzoil Products Company
Well Operator

By: Donald D Bright

Its Petroleum Engineer

WR-37
(REV. 9/94)

Date: March 25 20 09
Operator's
Well No. John Flaherty #9
API No. 47 - 033 - 03676

STATE OF WEST VIRGINIA
BUREAU OF ENVIRONMENT, OFFICE OF OIL AND GAS
PRE-OPERATION CERTIFICATE
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR East Resources Inc.
Address P.O. Box 5519
Vienna, WV 26105-5519

DESIGNATED AGENT P. S. Ondrusek
Address P.O. Box 5519
Vienna, WV 26105-5519

GEOLOGICAL TARGET FORMATION Fifth Depth 2707 feet (top) to 2720 feet (bottom)
Virgin reservoir pressure in target formation 1,250 psig
Source of information on virgin reservoir pressure: Estimated
Perforation intervals 2711'-2714' (Fifth) 4726'-4735' (Benson) Open-hole intervals

MAXIMUM PERMITTED INJECTION OPERATIONS
Well head injection pressure: 1,226 psig Bottom hole pressure: 2,400 psig
Volume per hour: 21 Barrels

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED
Liquids to be injected for oil recovery: Fresh water and water produced from the Fifth Sand
Wastes to be disposed of: None

Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.)
Bactericides and other chemicals necessary to maintain water quality, improve oil recovery and/or maintain well integrity.

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

ADDITIONAL DRILLING AS PART OF THE CONVERSION (Complete form WR-35)

DETAILS ON NEW CASING AND TUBING PROGRAM AS PART OF THE CONVERSION (To be completed below unless the new casing and tubing program is described on form WR-35, submitted in connection with the permit to which this form WR-37 relates.)

CASING OR TUBING TYPE	SIZE	GRADE	WEIGHT PER FT.	NEW	USED	FOOTAGE USED IN DRILLING	FOOTAGE LEFT IN WELL	CEMENT USED	PACKERS (KIND, SIZE & DEPTH SET)
CONDUCTOR									
FRESH WATER									
COAL									
INTERMEDIATE	7"			X		1318	1318	300 sks.	
PRODUCTION	4-1/2"	J-55	10.5	X		4876	4876	240 sks.	
TUBING	2-3/8"	J-55	4.6	X			4636		4636'
LINERS									

FORM-WR37
(REVERSE)

MECHANICAL INTEGRITY TEST

Test Method: Shot fluid level w/well on injection - shut well in
Shot fluid level w/well shut in 24 hrs. - returned to injection
Shot fluid level w/well on injection 24 hrs.
Charts attached

The undersigned certifies that the test was performed on February 25-27, 20 09 and demonstrated the mechanical integrity of the well. The test was witnessed by _____ representing the Office of Oil and Gas.

East Resources Inc. 03/25/2009

THIS WELL IS AUTHORIZED FOR INJECTION

Signed _____ UIC PROGRAM DIRECTOR

Date 3/27/09

[NOTE: That the mechanical integrity of this well must be demonstrated again within ninety (90) days of five years from this date in order for injection to continue. Please notify the state inspector 24 hours in advance of the test].

East Resources Inc.
Well Operator

By: _____
Its Project Engineer

WR-35

02-Oct-95
API # 47-33-03676 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: EXPLORATION PARTNERS Operator Well No.: J. FLAHERTY #9

LOCATION: Elevation: 1,209.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 4,175 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 10,150 Feet west of 80 Deg 25 Min 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 10/2/95
Well work Commenced: 4/24/96
Well work Completed: 4/25/96
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 4,936
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
7"	1318.35	1318.35	300 SKS
4 ½"	4876.1	4876.1	240 SKS

OPEN FLOW DATA * Water Injection Well

Producing formation Fifth Sand Pay zone depth (ft) 2707-2720'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hour

Second producing formation Benson Pay zone depth (ft) 4724-4745'
Gas: Initial open flow NA MCF/d Oil: Initial open flow NA Bbl/d
Final open flow NA MCF/d Final open flow NA Bbl/d
Time of open flow between initial and final tests NA Hours
Static rock pressure NA psig (surface pressure) after NA Hour

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald Bright
Date: 5-9-96

HAR 3676 S

Treatment : Perforated Fifth Sand from 2,711' to 2,714' w/ 12 holes. Treated w/ 300 gals 15% HCl, 205 bbl gelled water, and 5,000 lbs 20/40 sand.

Well Log : All depths are measured depths relative to KB.

Sand and Shale	0	-	172
Shale	172	-	224
Sand	224	-	236
Shale	236	-	252
Sand	252	-	358
Shale	358	-	489
Sand	489	-	512
Shale	512	-	697
Sand	697	-	770
Shale	770	-	832
Sand	832	-	861
Shale	861	-	868
Sand	868	-	896
Shale	896	-	937
Sand	937	-	1118
Shale	1118	-	1230
Sand	1230	-	1253
Shale	1253	-	1624
Sand	1624	-	1664
Shale	1664	-	1683
Sand	1683	-	1846
Shale	1846	-	2279
Sand	2279	-	2304
Shale	2304	-	2358
Sand	2358	-	2372
Shale	2372	-	2463
Sand	2463	-	2495
Shale	2495	-	2511
Sand	2511	-	2550
Shale	2550	-	2568
Sand	2568	-	2577
Shale	2577	-	2707
Fifth Sand	2707	-	2720
Shale	2720	-	3604
Sand	3604	-	3634
Shale	3634	-	4724
Benson	4724	-	4745
Shale	4745	-	4936
TD	4936		

FORM WW-3(B) FILE COPY
(Obverse)
10/91

21135

RECEIVED
Office of Oil & Gas
UIC Section
AUG 17 1995
WV Division of
Environmental Protection

1) Date: August 15, 19 95
2) Operator's Well No. John Flaherty #9
3) SIC Code
4) API Well NO. 47 - 033 - 3676 -FRAC
State County Permit
5. UIC Permit No.

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
for the
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

6) WELL TYPE: Liquid injection X / Gas injection (not storage) / Waste disposal /
7) LOCATION: Elevation: 1209' Watershed: Ten Mile Creek 692
District: Ten Mile County: Harrison Quadrangle: Wolf Summit
8) WELL OPERATOR Pennzoil Products Co. 37450
Address P. O. Box 5519
Vienna, WV 26105
9) DESIGNATED AGENT Philip S. Ondrusek
Address P. O. Box 5519
Vienna, WV 26105
10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Tim Bennett
Address 737 Karl Street
Weston, WV 26452
11) DRILLING CONTRACTOR:
Name
Address
12) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate X /
Plug off old formation / Perforate new formation / Convert X /
Other physical change in well (specify)
13) GEOLOGICAL TARGET FORMATION, Fifth Sand Depth 2707 feet(top) to 2720 feet(bottom)
14) Estimated depth of completed well, (or actual depth of existing well) 4936 ft.
15) Approximate water strata depths: Fresh N/A feet; salt, N/A feet.
16) Approximate coal seam depths: N/A
17) Is coal being mined in the area? Yes / No X /
18) Virgin reservoir pressure in target formation 1250 psig. Source Estimated
19) Estimated reservoir fracture pressure 2650 psig (BHFP)
20) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour: 42 bbls. Bottom hole pressure 2400
21) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES: Fresh water, produced water, bactericides and other chemicals as necessary to maintain water quality & improve oil recovery.
22) FILTERS (IF ANY): Cartridge filters and/or coal bed filters
23) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL:
24) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS Size	Grade	Weight per ft.	New	Used	FOOTAGE INTERVALS For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor									Kinds
Fresh water									
Coal									Sizes
Intermediate						See Well Record			
Production									Depths set
Tubing	2-3/8	J-55	4.6	X		4720'	4720'	Set on packer	
Liners									Perforations: Top Bottom

25) APPLICANT'S OPERATING RIGHTS were acquired from John and Sarah Flaherty
by deed / lease X / other contract / dated September 24, 18 1897, of record in the Harrison County Clerk's office in Book 102 at page 10

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File

FORM WW-3(B) FILE COPY
(Reverse)

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-033-3676-FRAC October 2nd. 19 95
Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and (if required) construction and reclamation plan, subject to any modifications and conditions specified below.

Permit expires 10-2-97 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
✓	✓	MB	MB	CK# 22189

Michael W. Garvin
CHIEF, OFFICE OF OIL AND GAS

NOTE: Keep one copy of this permit posted at the drilling location.

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

OFFICE USE ONLY

This part of Form IV-3(b) is to record the dates of certain occurrences and any follow-up inspections.

	Date		Date(s)
Application received		Follow-up inspection(s)	
Well work started		" "	
Total depth reached		" "	
Well Record received		" "	
Reclamation completed		" "	

OTHER INSPECTIONS

Reason:

Reason:

File

WR-35

20-Oct-89
API # 47- 33-03676

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: M & M LIMESTONE, INC. Operator Well No.: J. FLAHERTY #9

LOCATION: Elevation: 1209.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 4175 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 10150 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: STEVE CASEY
Permit Issued: 10/20/89
Well work Commenced: 11-13-89
Well work Completed: 12-7-89
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 4936'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): N/A

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
7"	1318.35	1318.35	300 sks.
4-1/2"	4876.10'	4876.10'	240 sks.

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4724-4745'
Gas: Initial open flow 6 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 150 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 1590 psig (surface pressure) after 118 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Timothy P. Roush
Date: December 20, 1989

NW - 10709

Perforate: Benson 4726-4735' (10 holes)

Frac: w/500 gallons 15% HCl, 680 Bbls. gelled water, 10,000# 10/20 sand and 25,000# 20/40 sand.

Well Record

Sand and Shale	0-172
Shale	172-224
Sand	224-236
Shale	236-252
Sand	252-358
Shale	358-489
Sand	489-512
Shale	512-697
Sand	697-770
Shale	770-832
Sand	832-861
Shale	861-868
Sand	868-896
Shale	896-937
Sand	937-1118
Shale	1118-1230
Sand	1230-1253
Shale	1253-1624
Sand	1624-1664
Shale	1664-1683
Sand	1683-1846
Shale	1846-2279
Sand	2279-2304
Shale	2304-2358
Sand	2358-2372
Shale	2372-2463
Sand	2463-2495
Shale	2495-2511
Sand	2511-2550
Shale	2550-2568
Sand	2568-2577
Shale	2577-2707
Sand	2707-2720
Shale	2720-3604
Sand	3604-3634
Shale	3634-4724
Benson	4724-4745
Shale	4745-4936
T.D.	4936'

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 03712 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: BH Brown #15
Farm Name: Rogers, Aubrey
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4942
Completion Zones: Gordon, 4th, 5th Perforated Interval: See well records
Big Injun, Maxton
Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546132.1 Northing: 4351852.6
Elevation: 1240
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☐ Yes ☑
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

3303712

WR-35

21-Mar-02

API # 47-033-3712

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: Rogers, Aubrey — Operator Well No.: B.H. Brown #15

LOCATION: Elevation: Elevation 1,240.00 — Quadrangle: Wolf Summit 7.5'

District: Tenmile — County: Harrison

Latitude: 6,800 Feet south of 39 Deg 20 Min 00 Sec.

Longitude 1,900 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: Michael McCown

Inspector: Tim Bennett

Permit Issued: 3/21/2002

Well work Commenced: 4/2/2002

Well work Completed: 5/6/2002

Verbal plugging permission granted on:

Rotar X Cable Rig

Total Depth (feet) 4,942

Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N

Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	1350'	1350'	Existing Casing
4 1/2"	4909'	4909'	Existing Casing

OPEN FLOW DATA *Comingled

Producing formation Gordon, Fourth Sand, Fifth Sand — Pay zone depth (ft) 2404-2696

Gas: Initial open flow 0* MCF/d — Oil: Initial open flow 0* Bbl/d

Final open flow 40* MCF/d — Final open flow 0* Bbl/d

Time of open flow between initial and final tests Hours

Static rock pressure psig (surface pressure) after Hours

Second producing formation Big Injun, Maxton — Pay zone depth (ft) 1767-1938

Gas: Initial open flow * MCF/d — Oil: Initial open flow * Bbl/d

Final open flow * MCF/d — Final open flow * Bbl/d

Time of open flow between initial and final tests Hours

Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

RECEIVED
Office of Oil & Gas
MAY 29 2002
WV Department of Environmental Protection

For: EAST RESOURCES, INC.

By:

Date: 5/28/02

Perforated: 4852-4864 - 2 holes/Ft.

Fractured w/500 Gal. 15% HCl, 667 Bbls. gelled H_2O, 10,000# of 80/100 sand, and 25,000# of 20/40 sand.

Sand & Shale	0 - 60
Sand	60 - 92
Shale	92 - 242
Sand	242 - 324
Shale	324 - 606
Sand	606 - 663
Shale	663 - 1010
Sand	1010 - 1144
Shale	1144 - 1194
Sand	1994 - 1260
Shale	1260 - 1455
Sand	1455 - 1472
Shale	1472 - 1480
Sad	1480 - 1506
Shale	1506 - 1750
Maxton	1750 - 1805
Big Lime	1805 - 1884
Loyalhanna	1884 - 1967
Shale	1967 - 2401
Gordon	2401 - 2426
Shale	2426 - 2804
Fifth Sand	2804 - 2812
Shale	2812 - 2820
Sand	2829 - 2846
Shale	2846 - 3398
Speechly	3398 - 3519
Shale	3519 - 3730
Tenmile	3730 - 3762
Shale	3762 - 4842
Benson	4842 - 4864
Shale	4864 - 4942
Total Depth	4942
Plug Back Depth	4882

-Sph01

WR-35

RECEIVED
Division of Energy
JUL 30 90
Permitting
Oil and Gas Section

03-May-90
API # 47- 33-03712

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: ROGERS, AUBREY Operator Well No.: B.H. BROWN #15

LOCATION: Elevation: 1240.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 6800 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 1900 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: STEVE CASEY
Permit Issued: 05/03/90
Well work Commenced: 05/25/90
Well work Completed: 05/31/90
Verbal Plugging
Permission granted on: _____
Rotary x Cable ____ Rig
Total Depth (feet) 4942
Fresh water depths (ft) 445

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 8-5/1"	1350'	1350'	to surface
4-1/2"	4909'	4909'	525 sks.

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4852
Gas: Initial open flow 344 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 190 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 1440 psig (surface pressure) after 69 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

IAPR 3712

Curtis A. Lucas

For: PENNZOIL PRODUCTS COMPANY

By: Curtis A. Lucas, Adv. Engineering Techn.
Date: July 24, 1990

west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

September 08, 2015

FINAL INSPECTION REPORT

Fracture Permit Cancelled

HG ENERGY, LLC,

The FINAL INSPECTION REPORT for the CANCELLED permit, API Well Number: 47-3303712, issued to HG ENERGY, LLC, and listed below has been received in this office. The permit has been cancelled as of 9/4/2015.

James Martin
Chief

Operator: HG ENERGY, LLC
Operator's Well No: B. H. BROWN 15
Farm Name: ROGERS, AUBREY
API Well Number: 47-3303712
Date Issued: 01/04/2013

Date Cancelled: 09/04/2015

Promoting a healthy environment.

WR-35

03-May-90
API # 47- 33-03712

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: ROGERS, AUBREY Operator Well No.: B.H. BROWN #15

LOCATION: Elevation: 1240.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 6800 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 1900 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: STEVE CASEY
Permit Issued: 05/03/90
Well work Commenced: 05/25/90
Well work Completed: 05/31/90
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4942
Fresh water depths (ft) 445

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/1"	1350'	1350'	to surface
4-1/2"	4909'	4909'	525 sks.

RECEIVED
Office of Oil & Gas
Permitting
MAR 05 2002
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4852
Gas: Initial open flow 344 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 190 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 1440 psig (surface pressure) after 69 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Curtis A. Lucas

For: PENNZOIL PRODUCTS COMPANY

By: Curtis A. Lucas, Adv. Engineering Techn.
Date: July 24, 1990

Perforated: 4852-4864 - 2 holes/Ft.

Fractured w/500 Gal. 15% HCl, 667 Bbls. gelled H_2O, 10,000# of 80/100 sand, and 25,000# of 20/40 sand.

Sand & Shale	0 - 60
Sand	60 - 92
Shale	92 - 242
Sand	242 - 324
Shale	324 - 606
Sand	606 - 663
Shale	663 - 1010
Sand	1010 - 1144
Shale	1144 - 1194
Sand	1994 - 1260
Shale	1260 - 1455
Sand	1455 - 1472
Shale	1472 - 1480
Sad	1480 - 1506
Shale	1506 - 1750
Maxton	1750 - 1805
Big Lime	1805 - 1884
Loyalhanna	1884 - 1967
Shale	1967 - 2401
Gordon	2401 - 2426
Shale	2426 - 2804
Fifth Sand	2804 - 2812
Shale	2812 - 2820
Sand	2829 - 2846
Shale	2846 - 3398
Speechly	3398 - 3519
Shale	3519 - 3730
Tenmile	3730 - 3762
Shale	3762 - 4842
Benson	4842 - 4864
Shale	4864 - 4942
Total Depth	4942
Plug Back Depth	4882

WR-35

21-Mar-02

API # 47-033-3712

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

A-B

Farm name: Rogers, Aubrey
LOCATION: Elevation: Elevation 1,240.00
District: Tenmile
Latitude: 6,800 Feet south of 39 Deg 20 Min 00 Sec.
Longitude 1,900 Feet west of 80 Deg 27 Min 30 Sec.

Operator Well No.: B.H. Brown #15
Quadrangle: Wolf Summit 7.5'
County: Harrison

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: Michael McCown
Inspector: Tim Bennett

Permit Issued: 3/21/2002
Well work Commenced: 4/2/2002
Well work Completed: 5/6/2002
Verbal plugging permission granted on:
Rotar X Cable Rig
Total Depth (feet) 4,942
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	1350'	1350'	Existing Casing
4 1/2"	4909'	4909'	Existing Casing

RECEIVED
Office of Oil & Gas
Permitting
MAY 29 2002
WV Department of
Environmental Protection

OPEN FLOW DATA *Comingled

Producing formation Gordon, Fourth Sand, Fifth Sand Pay zone depth (ft) 2404-2696
Gas: Initial open flow 0* MCF/d Oil: Initial open flow 0* Bbl/d
Final open flow 40* MCF/d Final open flow 0* Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Big Injun, Maxton Pay zone depth (ft) 1767-1938
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES INC
By:
Date: 5/28/02

Treatment :

Stage 1: Perforated@1767'-1800' (4 holes/ft), 1936'-1938' (2 holes/ft), 2404'-2408', 2414'-2416', 2482'-2488', 2590'-2610', 2640'-2650', 2658'-2670', (1 hole/ft), 2694'-2696' (2 holes/ft).
Fractured w/45 bbls 15% HCl, 852 bbls gelled water and 55400# 20/40 sand.

Stage 2: Treated 1767'-1800' interval w/375 gal 15% HCl, 159 bbls gelled water and 1545# 20/40 sand.

Stage 3: Treated 1767'-1800' interval w/500 gal 15% HCl, 48 bbls cross-linked gel, 2700# 80/100 sand and 30475# 20/40 sand.

Well Log :

Note: All depths relative to K.B.

Sand & Shale	0	-	60	Shale	3519	-	3730
Sand	60	-	92	Tenmile	3730	-	3762
Shale	92	-	242	Shale	3762	-	4842
Sand	242	-	324	Benson	4842	-	4864
Shale	324	-	606	Shale	4864	-	4942
Sand	606	-	663		4942	-	TD
Shale	663	-	1010				
Sand	1010	-	1144				
Shale	1144	-	1194				
Sand	1194	-	1260				
Shale	1260	-	1455				
Sand	1455	-	1472				
Shale	1472	-	1480				
Sand	1480	-	1506				
Shale	1506	-	1750				
Maxton	1750	-	1805				
Big Lime	1805	-	1884				
Loyalhanna	1884	-	1967				
Shale	1967	-	2401				
Gordon	2401	-	2426				
Shale	2426	-	2804				
Fifth Sand	2804	-	2812				
Shale	2812	-	2820				
Sand	2820	-	2846				
Shale	2846	-	3398				
Speechly	3398	-	3519				

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033-03736 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: C.W. Smith 9
Farm Name: Don & Debra Herrod
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 4836'
Completion Zones: Benson, Fifth Sand Perforated Interval: 4608-4616, 2580-2583

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 546329.4 Northing: 4351145
Elevation: 1039
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

[illegible]	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
JAN 02 1991
DEPT. OF ENERGY

25-Jul-90
API # 47- 33-03736

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: STROTHER, ROY F. & ELOISE Operator Well No.: C.W. SMITH #9

LOCATION: Elevation: 1039.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 9250 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 1250 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: STEVE CASEY
Permit Issued: 07/25/90
Well work Commenced: 7-27-90
Well work Completed: 8-14-90
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 4836
Fresh water depths (ft) 15', 260'

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 260-265

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 13-3/8"	20'	20'	
8-5/8"	1132.25'	1132.25'	450 Sks.
4-1/2"	4724.30'	4724.30'	525 Sks.

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4606-4618
Gas: Initial open flow Show MCF/d Oil: Initial open flow -- Bbl/d
Final open flow 35 MCF/d Final open flow -- Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 850 psig (surface pressure) after 24 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Timothy P. Roush
Date: December 27, 1990

HAR 3736

Fracture Record

Perforated Benson 4608-4616 9 holes
Treated w/500 gal. 15% HCl, 674 Bbls. gelled water,
25,000# 20/40 sand and 10,000# 80/100 sand.

Well Log

Sand & Shale	0-932
Salt Sand	932-1131
Shale	1131-1236
Sand	1236-1244
Shale	1244-1277
Sand	1277-1291
Shale	1291-1365
Sand	1365-1384
Shale	1384-1546
Sand	1546-1560
Little Lime	1560-1592
Big Lime	1592-1671
Big Injun	1671-1727
Pocono Shale	1727-2160
Fifty Foot	2160-2184
Devonian Shale	2184-2234
Gordon Series	2234-2421
Devonian Shale	2421-2576
Fifth Sand	2576-2590
Devonian Shale	2590-3486
Balltown	3486-3490
Devonian Shale	3490-4606
Benson	4606-4618
Devonian Shale	4618-4836
T.D.	4836

10918

WR-35

27-Sept-96

API # 47-33-03736

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: STROTHER, ROY F. & ELOISE Operator Well No.: C.W. SMITH #9

LOCATION: Elevation: 1,039.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 9,250 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 1,250 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 8/14/96
Well work Commenced: 8/29/96
Well work Completed: 8/30/96
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 4,836' (PBTD 4,580')
Fresh water depths (ft) 15', 260'

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 260-265

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 13 3/8"	20	20	
8-5/8"	1132.25	1132.25	450 SKS
4 ½"	4724.3	4724.3	525 SKS

RECEIVED
Office of Oil & Gas
APR 05 1997
WV Department of Environmental Protection

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2576-2590'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald J. Bright Donald J. Bright
Date: October 17, 1996

Treatment : Original completion 8-14-90 : Perforated Benson Sand from 4,608' to 4,616' w/ 9 holes. Treated with 500 gals 15% HCl, 674 bbl gelled water, 25,000 lbs 20/40 sand, and 10,000 lbs 80/100 sand.

Recompletion 8-30-96 : Perforated Fifth Sand from 2,580' to 2,583' w/ 12 holes. Treated w/ 300 gals 15% HCl, 185 bbl gelled water, and 5,000 lbs 20/40 sand.

Well Log : All depths are measured depths relative to KB.

Sand and Shale	0	-	932
Salt Sand	932	-	1,131
Shale	1,131	-	1,236
Sand	1,236	-	1,244
Shale	1,244	-	1,277
Sand	1,277	-	1,291
Shale	1,291	-	1,365
Sand	1,365	-	1,384
Shale	1,384	-	1,546
Sand	1,546	-	1,560
Little Lime Sand	1,560	-	1,592
Big Lime Sand	1,592	-	1,671
Big Injun Sand	1,671	-	1,727
Pocono Shale	1,727	-	2,160
Fifty Foot Sand	2,160	-	2,184
Devonian Shale	2,184	-	2,234
Gordon Series	2,234	-	2,421
Devonian Shale	2,421	-	2,576
Fifth Sand	2,576	-	2,590
Devonian Shale	2,590	-	3,486
Balltown	3,486	-	3,490
Devonian Shale	3,490	-	4,606
Benson Sand	4,606	-	4,618
Devonian Shale	4,618	-	4,836

TD	4,836
PBTD	4,580

WR-35

21-Jul-04

API # 47 33 3736

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

RECEIVED
Office of Oil & Gas
Office of Chief
OCT 20 2004
WV Department of
Environmental Protection

Farm name: STROTHER,ROY F., & ELOISE Operator Well No.: C.W. SMITH 9

LOCATION: Elevation: 1,039.00 Quadrangle: WOLF MUTTIT

District: TENMILE County: HARRISON
Latitude: 9,250 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 1,250 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: MIKE UNDERWOOD
Permit Issued: 07/21/04
Well work Commenced: 07/23/04
Well work Completed: 07/25/04
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 4836
Fresh water depths (ft) 15', 260'

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 260-265

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
13 3/8"	20.00'	20.00'	
8 5/8"	1132.25'	1132.25'	450 sks
4 1/2"	4724.30'	4724.30'	525 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2576-2590
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: _____
Date: 10/19/04

Treatment : Treated perforations 2580'-2583' with 250 gals 15% HCL, 331 bbls cross linked gel, and 20,900# 20/40 sand

Well Log : SEE ORIGINAL WELL RECORD

WR-35

21-Jul-04

API # 47 33 3736

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

RECEIVED
Office of Oil & Gas
Office of Chief
OCT 20 2004
WV Department of
Environmental Protection

Farm name: STROTHER,ROY F., & ELOISE Operator Well No.: C.W. SMITH 9

LOCATION: Elevation: 1,039.00 Quadrangle: WOLF MUTTIT

District: TENMILE County: HARRISON

Latitude: 9,250 Feet south of 39 Deg 20 Min 0 Sec.

Longitude: 1,250 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: MIKE UNDERWOOD

Permit Issued: 07/21/04

Well work Commenced: 07/23/04

Well work Completed: 07/25/04

Verbal plugging permission granted on: _____

Rotary X Cable _____ Rig _____

Total Depth (feet) 4836

Fresh water depths (ft) 15', 260'

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N

Coal Depths (ft): 260-265

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
13 3/8"	20.00'	20.00'	
8 5/8"	1132.25'	1132.25'	450 sks
4 1/2"	4724.30'	4724.30'	525 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2576-2590

Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d

Final open flow * MCF/d Final open flow * Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.

By: _____

Date: 10/19/04

Treatment : Treated perforations 2580'-2583' with 250 gals 15% HCL, 331 bbls cross linked gel, and 20,900# 20/40 sand

Well Log : SEE ORIGINAL WELL RECORD

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 - 03911 Area Permit Number: 2R 03301 AP
Operator Name: Excel Energy, Inc. / XTO Energy
Operator's Well #: UNB #1 E-214
Farm Name: Morris, Will E. - Trust
Field Name: ~~Wildcat~~ Volf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 5055' DTD
Completion Zones: FifthSand, Gordon, 30'+50', Berson, Balltown, Speechley Perforated Interval: 4850-4860, 3642-3753, 3250-3530, 2657-2869, 2404-2485
Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 546896.6 Northing: 4353725.6
Elevation: 1234'
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Producing gas well

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: _____

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35 RECEIVED

JAN 2 2 93

04-Nov-92
API # 47- 33-03911

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: UNION NATIONAL BANK Operator Well No.: 1-E-214

LOCATION: Elevation: 1234.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 625 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 11200 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: EXCEL ENERGY, INC
P. O. BOX 1020
BRIDGEPORT, WV 26330-1020

Agent: HARRY L. BARNETT

Inspector: TIM BENNETT
Permit Issued: 11/06/92
Well work Commenced: 12/06/92
Well work Completed: 12/14/92
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5055'
Fresh water depths (ft) 40', 670'

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 26'-27'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 9 5/8"	30'	-----	-----
7"	1249'	1249'	C.T.S.
4 1/2"	4930'	4930'	320 sks

OPEN FLOW DATA

Producing formation Benson, Balltown and Speechley Pay zone depth (ft) 4850'-3530'
Gas: Initial open flow 60 MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow 942 MCF/d Final open flow ---- Bbl/d
Time of open flow between initial and final tests ---- Hours
Static rock Pressure 1450 psig (surface pressure) after 76 Hours

Second producing formation ------ Pay zone depth (ft) ------
Gas: Initial open flow --- MCF/d Oil: Initial open flow ----- Bbl/d
Final open flow --- MCF/d Final open flow ----- Bbl/d
Time of open flow between initial and final tests ----- Hours
Static rock Pressure --- psig (surface pressure) after ----- Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HARR 3911

Reviewed TMB
Recorded

For: EXCEL ENERGY, INC
By: Sara Aman Sara Aman
Date: January 19, 1993

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

STAGE I (4850' - 4860') 15 holes, 284 bbl wtr., 45,000# sand, 500 gal Acid, 360,000 SCF N_2.

STAGE II (3642' - 3753') 15 holes, 432 bbl wtr., 45,000# sand, 500 gal Acid, 82,000 SCF N_2.

STAGE III (3250' - 3530') 12 holes, 325 bbl wtr., 25,000# sand, 750 gal Acid, 46,000 SCF N_2.

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Fill	0	8	
Soil and Shale	8	26	
Coal	26	27	
Sand and Shale	27	287	1 1/2" stream wtr. @ 40'
Sand	287	547	
Sand and Shale	547	660	
Sand	660	895	1/2" stream wtr. @ 670'
Sand and Shale	895	1766	
Maxton	1766	1782	
Shale	1782	1810	
Big Lime	1810	1870	
Big Injun	1870	1936	
Shale	1936	2412	
Fifty Foot Sand	2412	2515	
Shale and Sand	2515	2656	
Gordon	2656	2675	
Shale	2675	2830	
Fifth Sands	2830	2840	Gas Show
Shale	2840	3526	
Speechley	3526	3536	
Shale	3536	3746	
Balltown	3746	3780	
Shale	3780	4870	
Benson	4870	4890	Gas Show
Shale	4890	5055	DTD

WR-35

3911

DATE: April 20, 2005
API#: 47-3303911 Frac

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name: Morris, Will E. – Trust Operator Well No: UNB #1 E-214

LOCATION: Elevation: 1,234' Quadrangle: Wolf Summit

District: Tenmile County: Harrison
Latitude: 625 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude: 11,200 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: EXCEL ENERGY, INC.

	Casing & Tubing	Used in Drilling	Left in Hole	Cement fill Up Cu. Ft.
Address: PO Box 1020	9 5/8"	30'	----	----
Bridgeport, WV 26330	7"	1,249'	1,249'	C.T.S.
Agent: H.L. Barnett	4 ½"	4,930'	4,930'	320 sks
Inspector: Tim Bennett				
Date Permit Issued: 09/27/2000				
Date Well Work Commenced: 10-21-2000				
Date Well Work Completed: 11-08-2000				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 5,055'				
Fresh Water Depth (ft.): 40', 670'				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 26'-27'				

OPEN FLOW DATA

Producing formation 5th Sand, Gordon, 30' & 50' Pay zone depth (ft) 2,404'-2,669'
Gas: Initial open flow Show MCF/d Oil: Initial open flow Show Bbl/d
Final open flow 400 MCF/d Final open flow 2 Bbl/d
Time of open flow between initial and final tests ---- Hours
Static Rock Pressure ---- psig (surface pressure) after ---- Hours

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow ---- MCF/d Final open flow ---- Bbl/d
Time of open flow between initial and final tests ---- Hours
Static Rock Pressure ---- psig (surface pressure) after ---- Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOING: 1.) DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING, PHYSICAL CHANGE. FTC. 2). THE WELL LOG WHICH IS A SYNTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELL BORE.

Signed: H. L. Barnett
By: H.L. Barnett, President
Date: April 20, 2005

RECEIVED
Office of Oil & Gas
Office of Chief
APR 2 2 2005
WV Department of
Environmental Protection

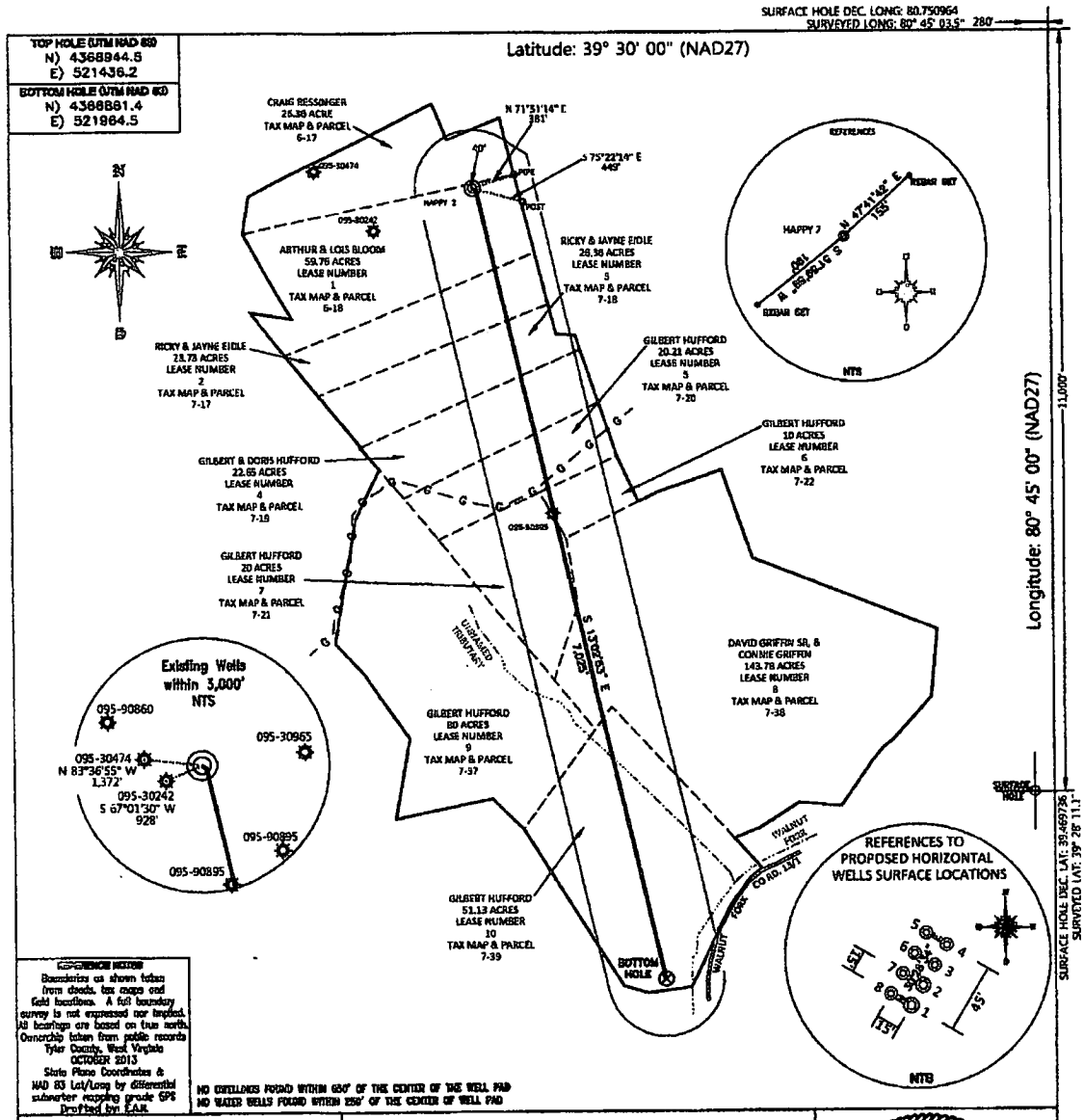
FORM WR-35

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

STAGE I	**5th Sand & Gordon**	**Perf 2,657'-2,869' (8 holes) Fraced using 570 bbls H20, 35,000# sand, 1,000 gal acid & 107,000 SCF N2.**
STAGE II	**30' & 50"**	**Perf 2,404'-2,485' (7 holes) Fraced using 585 bbls H20, 35,000# sand, 1,000 gals acid and 31,000 SCF N2.**
STAGE III		
STAGE IV		

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal oil and gas
Fill	0	8	
Soil and Shale	8	26	
Coal	26	27	
Sand and Shale	27	287	1 ½" stream water @ 40'
Sand	287	547	
Sand and Shale	547	660	
Sand	660	895	½" stream water @ 670'
Sand and Shale	895	1766	
Maxton	1766	1782	
Shale	1782	1810	
Big Lime	1810	1870	
Big Injun	1870	1936	
Shale	1936	2412	
Fifty Foot Sand	2412	2515	
Sand and Shale	2515	2656	
Gordon	2656	2675	
Shale	2675	2830	
Fifth Sands	2830	2840	Gas Show
Shale	2840	3526	
Speechley	3526	3536	
Shale	3536	3746	
Balltown	3746	3780	
Shale	3780	4870	
Benson	4870	4890	Gas Show
Shale	4890	5055	DTD



FILE #: 201367
DRAWING #: 2
SCALE: PLAT - 1" = 1200'
TICK MARK - 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: _____

L.L.S. #2124: Ernest J. Benchek III

ERNEST J. BENCHEK III
LICENSED
No. 2124
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE: AUGUST 1, 2014

OPERATOR'S WELL #: HAPPY 2

API WELL #: 47 (STATE) 95 (COUNTY) 02147 (PERMIT) H6A

Well Type: ☐ Oil ☐ Waste Diposal ☐ Production ☐ Deep
☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

RECEIVED
Office of Oil and Gas
AUG 11 2014
WV Department of
Environmental Protection

WATERSHED: OUTLET MIDDLE ISLAND CREEK
ELEVATION: 1255
COUNTY/DISTRICT: TYLER/McELROY
QUADRANGLE: SHIRLEY, WV
SURFACE OWNER: ARTHUR & LOIS BLOOM
ACREAGE: 59.76 +/-
OIL & GAS ROYALTY OWNER: WILMA FISHER - TM5/18, JOHN LAMBERT ICE - TM5/18, GLENNA RUTH McMULLEN - TM7/17,18,19,20, MARY ANN KERSLOSH - TM7/21, GILBERT HUFFORD - TM7/37,39
ACREAGE: 457.82 +/-
LEASE NUMBERS: 1. T3042A1, T3041AA, T3039E 2. T3039E; T3042A1; T3040-T3041AA 3. T3039E; T3040-T3041AC, 4. T3039E, 5. T3039E, 6. T3039B, 7. T3039A 8. T3039A, 9. T3046, 10. T3013

DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒
PLUG OFF FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐
CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY): _____

TARGET FORMATION: MARCELLUS
ESTIMATED DEPTH: TVD: 7,254' TMD: 15,210'
WELL OPERATOR: JAY BEE OIL & GAS, LLC.
DESIGNATED AGENT: SHANE DOWELL
ADDRESS: 3570 SHIELDS HILL ROAD
ADDRESS: 3570 SHIELDS HILL ROAD
CITY: CAIRO STATE: WV ZIP CODE: 26337
CITY: CAIRO STATE: WV ZIP CODE: 26337

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 03941 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 6
Farm Name: TH Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☒ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2659
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544457.1 Northing: 4350796.5
Elevation: 987
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion — No ☐ Yes ☑
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☑
Cemented across injection zone? — No ☑ Yes ☐
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☒ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Well was plugged starting @ 475'
Verbal permission given to plug b/c unable to clean out well

Reviewer Name: Joshua Westbrook Signature: _____
Date Reviewed: 10 / 25 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
24-Sep-91

API # 47-033-3941-P

STATE OF WEST VIRGINIA
DIVISION OF ENERGY
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Buddy H. Johnson et al Operator Well No.: T. H. Williams #6

LOCATION: Elevation: 987' Quadrangle: Wolf Summit
District: Tenmile County: Harrison
Latitude: 11,650 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 7,450 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Co.
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: Verbal 11/22/93

Coal ~~Operator~~ or Owner: The Endres Company
110 State St.
Bridgeport, WV 26330

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Victor G. Stinespring and Kenneth M. Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 2nd day of December, 1993, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement 25 sks.	475'	375'		
Cement 25 sks.	329'	265'		
Cement 120 sks.	100'	Surface		
6% Gel betweel all cement plugs				
Ted Streit approved plugging from this depth of 475'				

8/17/94

Description of monument: 1 joint 6 5/8" casing extending 30" above surface.
and that the work of plugging and filling said well was completed on the 3rd day of December, 1993.

And furthur deponents saith not.

Ken Dotson
Victor G. Stinespring

Sworn and subscribe before me this 7th day of June, 1994
My commission expires: June 11, 1997

Notary Public

Oil and Gas Inspector: ____

HARR 3941-P

WR-35

13-Aug-93
API # 47- 33-03941 W

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JOHNSON, BUDDY H. ETAL. Operator Well No.: T.H.WILLIAMS #6

LOCATION: Elevation: 987.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 11650 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 7450 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 08/16/93
Well work Commenced: 11/4/93
Well work Completed: 12/3/93
Verbal Plugging
Permission granted on: 11/22/93
Rotary ____ Cable X Rig
Total Depth (feet) 4585'
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N
Coal Depths (ft): NA

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			

RECEIVED
WV Division of Environmental Protection
OCT 11 1994
Permitting
Office of Oil & Gas

WAS UNABLE TO CLEAN OUT WELL. VERBAL PERMISSION TO PLUG GRANTED 11/22/93.

OPEN FLOW DATA

Producing formation NA Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

Second producing formation NA Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: [signature]
Date: 10/5/94

033-3941

Form 226 — 06170

B-119

WELL RECORD.

J H Williams Farm, ... Acres.

Tenn Mills District Harrison County W Va State.

Well No. 6

Rig Commenced March 1st 1905
Rig Completed March 14th 1905
Drilling Commenced March 28th 1905
Drilling Completed June 29 1905

G W Rose Co Contractor.
H J Parker Contractor.

FORMATION.	TOP.	REMARKS.	BOTTOM.
Wood Conductor			16
10" Casing			327
8¼" "			831
6⅝" "			1751½
Pittsburg Coal	290		301
Big Dunkard	790		860
" Lime	1617		1711
" Injun Sand	1717		1760
Fifty Foot "	2214		2232
Gordon "	2390		2423
Fifth "	2635		2641
Total Depth			2689

all 8¼ Casing pulled out

Casing in well	Casing not in well	
10" — 327 ft	10" — 4.9 ½	ft
8¼" — 1751 ½ "	8¼" — 10 ½ 2	"
	6⅝" — 63 —	"

Well Shot well be small producer Permit Pulled
Y L as 7/27-1900 Apl 47-033-3941-W
O.K.
Geo

NOTE: Gas 92 05 — Clinch 6 05

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
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AOR - Well Review Checklist

API Number: 47-033- 01984 Area Permit Number: 2R03301 AP
Operator Name: Petroleum Service Potters
Operator's Well #: #2, KL-225 (B-1530)
Farm Name: J. Dennison #2
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 5254
Completion Zones: Benson & Balltown Perforated Interval: 4737-4741' & 3567-3573'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545559.5 Northing: 4349352.8
Elevation: 1121
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☐

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

950' - Surface has gel only?

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 21 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
DATE

API #

33-1984-P

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Department, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses

Farm name: J. Dennison Operator Well No.: #2 KL-225

LOCATION: Elevation: 1121' Quadrangle: Wolf Summit
District: Ten Mile County: Harrison
Latitude: 820 Feet South of Deg. 39 Min. 20 Sec. 00
Longitude: 560 Feet West of Deg. 80 Min. 27 Sec. 30

Well Type: Oil ___ GAS X

Company: Petroleum Service Partners, Inc.
1460 N. Old 119 Hwy.
Indiana, PA 15701

Coal Operator or Owner: Willis G. Tetrick, Et Al
P O Box 267
Clarksburg, WV 26301

Coal Operator or Owner: ___

Agent: L. Edward Corley

Permit Issued Date: 1/29/01

Office of Oil & Gas
Permitting
FEB 04 2003
WV Department of
Environmental Protection

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Harrison ss:

Charles R. Brown and ___ being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Secretary, say that said work was commenced on the 17th day of December 2002, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
1 Cement	4750	4650		
1 Cement	3600	3500		
1 Cement	2700	2600		
1 Cement	1500	1400	1500' of 4½" csg.	Left 3288' of 4½" csg.
1 Cement	1050	950		890' - 878' csg (cemented to surface)
6% Gel Spacer Between Plugs				
6% Gel Circulated to Surface				

Description of monument 3' piece of 8 5/8" pipe with 2" vents and steel plate with well name and API number. and that the work of plugging and filling said well was completed on the 17th day of December 2002

And further deponents saith not Charles R Brown President

Sworn and subscribe before me this 9th day of January, 2003
My commission expires: April 8, 2004
Kathy J. Rhoades
Notary Public

Notarial Seal
Kathy J. Rhoades, Notary Public
White Twp., Indiana County
My Commission Expires Apr. 8, 2004
Member, Pennsylvania Association of Notaries

Oil and Gas Inspector: Tim Bennett 1-24-03

T.B. 1-24-2003

2/5/03

OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Quadrangle Wolf Summit

Permit No. 47-033-1984

Company Doran & Associates, Inc.
Address 728 Washington, Rd., Pgh., PA 15228
Farm J. Dennison #2 Acres 173
Location (waters) Rush Run
Well No. B-1530 (K-L-225) Elev. 1121'
District Tenmile County Harrison
The surface of tract is owned in fee by Harry & Anna Riggs
Address R.D. #1, Box 54, Bristol, WV 26332
Mineral rights are owned by Ed Allenison, et al
Address R.D.1, Bristol, WV 26332
Drilling Commenced 1-10-79
Drilling Completed 1-19-79
Initial open flow 157 M cu. ft. - bbls.
Final production 230 M cu. ft. per day - bbls.
Well open 72 hrs. before test 1100# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	880'	880'	200 sks.
7			
5 1/2			
4 1/2	4534'	4534'	310 sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record:

	Interval Perforated:	FROM	TO	AMT. FLUID	AMT. SAND
1-25-79		4737	4741	550 bbls.	45,000 #
"		3567	3593	567 bbls.	60,000 #

Coal was encountered at 240', 310' & 620' Feet ____ Inches
Fresh water 20' Feet ____ Salt Water ____ Feet ____
Producing Sand Benson, Balltown Depth 4754, 3588

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Top Soil			0	15		
Sand			15	60	F.W. @ 20'	
Red Rock			60	65		
Sand			65	235		
Shale			235	240		
Coal			240	243		
Sand			243	300		
Shale			300	310		
Coal			310	315		
Sand			315	450		
Sand-Shale & Red Rock			450	620		
Coal			620	622		
Sandy Shale			622	690		
Sand			690	750		
Sandy Shale & Red Rock			750	960		
Sand			960	1155	Increase Water @ 990'	
Sandy Shale			1155	1315		
Sand			1315	1390		
Sandy Shale			1390	1540		
Sand			1540	1600		
Sandy Shale			1600	1640		
Little Lime			1640	1655		
Sandy Shale			1655	1675		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water - Remarks
ig Lime			1675	1770	
ndy Shale			1770	1790	
and			1790	1840	
andy Shale			1840	2360	
and			2360	2380	
andy Shale			2380	2480	
and			2480	2540	
andy Shale			2540	2955	Gas @ 2675'
and			2955	3030	
andy Shale			3030	3085	
and			3085	3330	
andy Shale			3330	3350	
and - Dark			3350	3360	
andy Shale			3360	3590	Gas @ 3385'
and - Dark			3590	3625	
andy Shale			3625	4755	Gas @ 4070'
and - Brown			4755	4775	
andy Shale			4775	5250	
illers T.D.				5250	
th Sand			2680	2692	
peechley Interval			3358	3508	
ions			3552	3558	
alltown			3588	3618	
enson			4754	4802	Gas @ 4766'
lexander			5138	5154	
oggers T.D.				5254	

Dec Jan 23 1980

APPROVED Ranaco C.T. Langhlin Owner

By Vice President - Operations

(Title)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-03942 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 17
Farm Name: FL Fletcher
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2803
Completion Zones: 5th Sand Perforated Interval: 2645-2647'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541398.6 Northing: 4350672.4
Elevation: 1031
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

26-Jul-93
API # 47- 33-03942

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: F.L. FLETCHER & B. WILCOX Operator Well No.: E. FLETCHER #17

LOCATION: Elevation: 1,031.00 Quadrangle: WOLF GAP

District: TENMILE County: HARRISON
Latitude: 10400 Feet South of 39 Deg. 20Min. Sec.
Longitude 4300 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 07/26/93
Well work Commenced: 10/16/93
Well work Completed: 6/21/94
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2803'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 445'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8	361	361	To Surface 105 Sks.
4-1/2	2737.35	2737.35	470 Sks.

OPEN FLOW DATA *Waterflood producer

Producing formation Fifth Sand Pay zone depth (ft) 2635'-2656'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HAR 3942

For: PENNZOIL PRODUCTS COMPANY
By: _____
Date: 7/8/94

Treatment

Perforated: Fifth Sand with 12 holes 2645'-2647'
Treated with 300 gal. 15% HCl 202 bbl. gelled water
and 5,000# 20/40 sand

Well Log:

Sand & Shale	0 - 445'
Coal	445' - 484'
Sand & Shale	484' - 996'
Sand	996' - 1070'
Sand & Shale	1070' - 1272'
Sand	1272' - 1298'
Shale	1298' - 1545'
Sand	1545' - 1628'
Shale	1628' - 1719'
Sand	1719' - 1778'
Shale	1778' - 2212'
Sand	2212' - 2230'
Shale	2230' - 2323'
Sand	2323' - 2342'
Shale	2342' - 2403'
Sand	2403' - 2458'
Shale	2458' - 2635'
Fifth Sand	2635' - 2656'
T.D.	2803'

175-32

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

47-033-04025

API Number: 47-033-04025 Area Permit Number: 2R 03301 AP
Operator Name: Exploration Partners - XTO
Operator's Well #: M&M Limestone #1 or E-0320
Farm Name: Exploration Partners
Field Name: ~~Weblo Branch Littleville~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 4866 DTD
Completion Zones: Benson, Balltown, Speechley Perforated Interval: 4708'-4722', 3584'-3612', 3260'-3290'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547189.9 Northing: 4353131.4
Elevation: 1157'
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: —		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Gas Producer

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 7/7/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

20-Apr-94
API # 47- 33-04025

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: EXPLORATION PARTNERS Operator Well No.: M&M LIMESTONE#1

LOCATION: Elevation: 1,157.00 Quadrangle: WOLF SUMMIT

District: [illegible]E County: HARRISON
Latitude: 2600 Feet South of 39 Deg. 20Min. Sec.
Longitude 10250 Feet West of 80 Deg. 25 Min. Sec.

Company: EXPLORATION PARTNERS PROD
P. O. BOX 1245
BRIDGEPORT, WV 26330-1245

Agent: LOUIS A. FERRARI

Inspector: TIM BENNETT
Permit Issued: 04/21/94
Well work Commenced: 7/24/95
Well work Completed: 7/31/95
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4866 DTD
Fresh water depths (ft) 108, 283
Salt water depths (ft) N/A
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 278-283 (open mine)

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 16"	30'	30'	---
11 3/4"	318'	318'	160 sks
8 5/8"	1124'	1124'	292 sks
4 1/2"	4796'	4796'	750 sks

OPEN FLOW DATA

Producing formation Benson,Balltown,Speechley Pay zone depth (ft) 3260-4722
Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 475 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 8 Hours
Static rock Pressure 1000# psig (surface pressure) after 24 Hours

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow ---- MCF/d Final open flow ---- Bbl/d
Time of open flow between initial and final tests ---- Hours
Static rock Pressure ---- psig (surface pressure) after ---- Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EXPLORATION PARTNERS PRODUCING CO.

By: Louis A. Ferrari Louis A. Ferrari
Date: August 3, 1995

HAR 4025

I. (4708-4722) 16 holes, 500 gal 15% HCL, 450 sks sand, 500 bbl gelled H2O

II. (3584-3612) 17 holes, 500 gal 15% HCL, 350 sks sand, 400 bbl gelled H2O

III. (3260-3290) 16 holes, 500 gal 15% HCL, 300 sks sand, 350 bbl gelled H2O

Sand & Shale	0	278	1/2" H2O @ 108'
Coal & Shale (Open mine??)	278	283	7" H2O @ 283
Sand & Shale	283	694	
Sand	694	747	
Sand & Shale	747	1013	
Sand	1013	1219	
Shale	1219	1569	
Sand	1569	1675	
Big Lime	1675	1736	
Big Injun	1736	1795	Gas Show
Shale	1795	2255	
Sand & Shale	2255	2483	
Gordon Sand	2483	2550	
Shale	2550	2730	
5th Sand	2730	2740	Gas Show
Shale	2740	3260	
Speechley	3260	3280	Gas Show
Shale	3280	3580	
Balltown	3580	3620	Gas Show
Shale	3620	4710	
Benson	4710	4740	Gas Show
Shale	4740	4866	DTD

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033- 04031 Area Permit Number: 2R 03301 AP
Operator Name: Exploration Partners / XTO
Operator's Well #: M&M Limestone #2
Farm Name: Exploration Partners
Field Name: ~~[illegible]~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 4965' OTD
Completion Zones: Benson, Balltown, Speechley Perforated Interval: 4702-4713', 3568'-3594', 3242'-3262'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 547624.7 Northing: 4350369.6
Elevation: 1166' ft
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐	
Date of Last MIT: _____	Passed?	No ☐	Yes ☐	N/A
Open Hole Completion		No ☑	Yes ☐	
Well penetrates injection zone?		No ☐	Yes ☑	
Well perforated in injection zone?		No ☑	Yes ☐	
Cemented across injection zone?		No ☐	Yes ☑	
Packer immediately above injection zone (<100')?		No ☐	Yes ☐	No Packer ☑
		If No: Provide Depth:		
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑	

MIP Calculation:

[illegible]	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Gas Well

Reviewer Name: Laura L. Adkins Signature: Laura L. Adkins
Date Reviewed: 7-11-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
W/ Division of
Environmental Protection
FEB 05 1996
Permitting
Office of Oil & Gas

31-May-94

API # 47- 33-04031

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: Exploration Partners Operator Well No.: M & M Limestone #2

LOCATION: Elevation: 1,166.00 Quadrangle: Wolf Summit

District: Sardis County: Harrison
Latitude: 2885 Feet South of 39 Deg. 20 Min. Sec.
Longitude 8935 Feet West of 80 Deg. 25 Min. Sec.

Company: Exploration Partners Prod
P.O. Box 1245
Bridgeport, WV 26330-1245

Agent: Louis A. Ferrari

Inspector: Tim Bennett
Permit Issued: 05/31/94
Well Work Commenced: 12/11/95
Well Work Completed: 12/16/95
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4955 DTD
Fresh water depths (ft) _____
60, 380
Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 266-269

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 16"	40'	40'	---
8 5/8"	1138'	1138'	550 sks
4 1/2"	4793'	4793'	750 sks

OPEN FLOW DATA

Producing formations Benson, Balltown, Speechley Pay zone depth (ft) 3242-4713
Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 949 MCF/d Final open flow N/A Bbl/
Time of open flow between initial and final tests 8 Hour
Static rock pressure 1350# psig (surface pressure) after 24 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HARR 4031

For: EXPLORATION PARTNERS PRODUCING CO.

By: Louis A. Ferrari Louis A. Ferrari
Date: January 31, 1996

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE, ETC

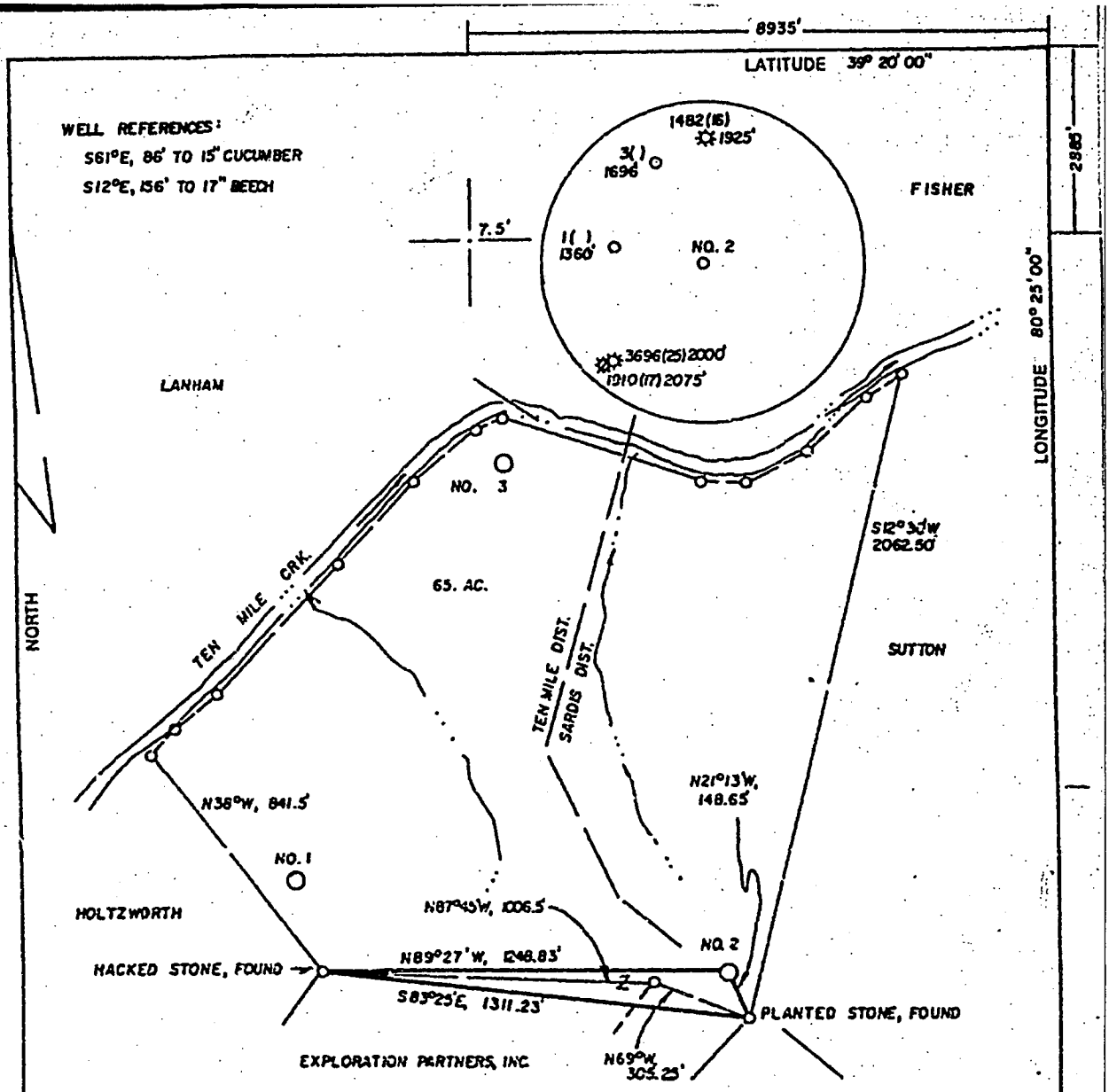
STAGE I. (4702-4713), 24 HOLES, 500 GAL 15% HCL, 50,000# SAND, 494 BBL GELLED H20

STAGE II. (3568-3594), 24 HOLES, 500 GAL 15% HCL, 36,000# SAND, 423 BBL GELLED H20

STAGE III. (3242-3262), 20 HOLES, 500 GAL 15% HCL, 26,000# SAND, 332 BBL GELLED H20

WELL LOG

FORMATION COLOR HARD OR SOFT fresh	TOP FEET	BOTTOM FEET	REMARKS Including indication of all and salt water, coal and gas
FILL	0	15	
SAND & SHALE	15	150	1/4" H20 @ 60'
SAND	150	266	
COAL	266	269	
SAND & SHALE	269	588	1 1/4" H20 @ 380'
SAND	588	638	
SAND & SHALE	638	1000	
SAND	1000	1070	
SAND & SHALE	1070	1650	
BIG LIME	1650	1700	
BIG INJUN	1700	1790	
SHALE	1790	2330	
SAND & SHALE	2330	2401	
SAND	2401	2507	GAS SHOW
SHALE	2507	2660	
5TH SAND	2660	2670	GAS SHOW
SHALE	2670	3570	
BALLTOWN	3570	3600	GAS SHOW
SHALE	3600	4700	
BENSON	4700	4720	GAS SHOW
SHALE	4720	4965	



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 400'
MINIMUM DEGREE OF ACCURACY 1 IN 200
PROVEN SOURCE OF ELEVATION KNOB 2680' SW OF LOC AT 1524'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

(SIGNED) J. Michael Evans

R.P.E. _____ L.L.S. 900

J. MICHAEL EVANS LICENSED No 900 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE JUNE 28, 19 93
OPERATOR'S WELL NO. M & M LIMESTONE 2
API WELL NO. E-321
47 - 033 - 4031
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1166' WATER SHED TENMILE CREEK
DISTRICT SARDIS COUNTY HARRISON
QUADRANGLE WOLF SUMMIT 7.5'
SURFACE OWNER EXPLORATION PARTNERS, INC. ACREAGE 65.
OIL & GAS ROYALTY OWNER EXPLORATION PARTNERS, INC. LEASE ACREAGE 65.
LEASE NO. _____
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION BENSON ESTIMATED DEPTH 5025'
WELL OPERATOR EXPLORATION PARTNERS, INC. DESIGNATED AGENT LOUIS A. FERRARI
ADDRESS P.O. BOX 1245 ADDRESS P.O. BOX 1245
BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

FORM WV-6

COUNTY NAME

PERMIT

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE, ETC.

STAGE I. (4702-4713), 24 HOLES, 500 GAL 15% HCL, 50,000# SAND, 494 BBL GELLED H20

STAGE II. (3568-3594), 24 HOLES, 500 GAL 15% HCL, 36,000# SAND, 423 BBL GELLED H20

STAGE III. (3242-3262), 20 HOLES, 500 GAL 15% HCL, 26,000# SAND, 332 BBL GELLED H20

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal and gas
FILL	0	15	
SAND & SHALE	15	150	1/4" H20 @ 60'
SAND	150	266	
COAL	266	269	
SAND & SHALE	269	588	1 1/4" H20 @ 380'
SAND	588	638	
SAND & SHALE	638	1000	
SAND	1000	1070	
SAND & SHALE	1070	1650	
BIG LIME	1650	1700	
BIG INJUN	1700	1790	
SHALE	1790	2330	
SAND & SHALE	2330	2401	
SAND	2401	2507	GAS SHOW
SHALE	2507	2660	
5TH SAND	2660	2670	GAS SHOW
SHALE	2670	3570	
BALLTOWN	3570	3600	GAS SHOW
SHALE	3600	4700	
BENSON	4700	4720	GAS SHOW
SHALE	4720	4965	

WR-35

COPY

31-May-94

API # 47- 33-04031

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: Exploration Partners Operator Well No.: M & M Limestone #2

LOCATION: Elevation: 1,166.00 Quadrangle: Wolf Summit

District: Sardis County: Harrison
Latitude: 2885 Feet South of 39 Deg. 20 Min. Sec.
Longitude 8935 Feet West of 80 Deg. 25 Min. Sec.

Company: Exploration Partners Prod
P.O. Box 1245
Bridgeport, WV 26330-1245

Agent: Louis A. Ferrari

Inspector: Tim Bennett
Permit Issued: 05/31/94
Well Work Commenced: 12/11/95
Well Work Completed: 12/16/95
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4965 DTD
Fresh water depths (ft) _____
60, 380
Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 266-269

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 16"	40'	40'	---
8 5/8"	1138'	1138'	550 sks
4 1/2"	4793'	4793'	750 sks

RECEIVED
Office of Oil & Gas
Permitting
FEB 04 1999
WV Division of
Environmental Protection

OPEN FLOW DATA

Producing formations Benson, Balltown, Speechley Pay zone depth (ft) 3242-4713

Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 949 MCF/d Final open flow N/A Bbl/
Time of open flow between initial and final tests 8 Hour
Static rock pressure 1350# psig (surface pressure) after 24 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HAR 4031 F

For: EXPLORATION PARTNERS PRODUCING CO.

By: Louis A. Ferrari
Louis A. Ferrari
Date: January 31, 1996

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE, ETC.

STAGE I. (4702-4713), 24 HOLES, 500 GAL 15% HCL, 50,000# SAND, 494 BBL GELLED H20

STAGE II. (3568-3594), 24 HOLES, 500 GAL 15% HCL, 36,000# SAND, 423 BBL GELLED H20

STAGE III. (3242-3262), 20 HOLES, 500 GAL 15% HCL, 26,000# SAND, 332 BBL GELLED H20

WELL LOG

FORMATION COLOR HARD OR SOFT fresh	TOP FEET	BOTTOM FEET	REMARKS Including indication of all and salt water, coal and gas
FILL	0	15	
SAND & SHALE	15	150	1/4" H20 @ 60'
SAND	150	266	
COAL	266	269	
SAND & SHALE	269	588	1 1/4" H20 @ 380'
SAND	588	638	
SAND & SHALE	638	1000	
SAND	1000	1070	
SAND & SHALE	1070	1650	
BIG LIME	1650	1700	
BIG INJUN	1700	1790	
SHALE	1790	2330	
SAND & SHALE	2330	2401	
SAND	2401	2507	GAS SHOW
SHALE	2507	2660	
5TH SAND	2660	2670	GAS SHOW
SHALE	2670	3570	
BALLTOWN	3570	3600	GAS SHOW
SHALE	3600	4700	
BENSON	4700	4720	GAS SHOW
SHALE	4720	4965	

WR-35

COPY

31-May-94

API # 47- 33-04031

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: Exploration Partners Operator Well No.: M & M Limestone #2

LOCATION: Elevation: 1,166.00 Quadrangle: Wolf Summit

District: Sardis County: Harrison
Latitude: 2885 Feet South of 39 Deg. 20 Min. Sec.
Longitude 8935 Feet West of 80 Deg. 25 Min. Sec.

Company: Exploration Partners Prod
P.O. Box 1245
Bridgeport, WV 26330-1245

Agent: Louis A. Ferrari

Inspector: Tim Bennett
Permit Issued: 05/31/94
Well Work Commenced: 12/11/95
Well Work Completed: 12/16/95
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4965 DTD
Fresh water depths (ft) _____
60, 380
Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 266-269

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 16"	40'	40'	---
8 5/8"	1138'	1138'	550 sks
4 1/2"	4793'	4793'	750 sks

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FEB 04 1999
Environmental Protection

OPEN FLOW DATA

Producing formations Benson, Balltown, Speechley Pay zone depth (ft) 3242-4713

Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 949 MCF/d Final open flow N/A Bbl/
Time of open flow between initial and final tests 8 Hour
Static rock pressure 1350# psig (surface pressure) after 24 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HAR 4031F

For: EXPLORATION PARTNERS PRODUCING CO.

By: Louis A. Ferrari
Louis A. Ferrari
Date: January 31, 1996

WR-35

30-DEC-98
API # 47-033-4031 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: EXPLORATION PARTNERS Operator Well No.: E-0321 LIMESTONE #2

LOCATION: Elevation: 1,166.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 2985 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 8935 Feet West of 80 Deg. 25 Min. 00 Sec.

Company: Exploration Partners LLC
P.O. Box 930
Bridgeport, WV 26330-0930

Agent: Louis A. Ferrari

Inspector: TIM BENNETT
Permit Issued: 12/30/98
Well Work Commenced: 12/7/98
Well Work Completed: 12/7/98
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) ********
Fresh water depths (ft) _____
****
Salt water depths (ft) *** _____
Is coal being mined in area (Y/N)? *
Coal Depths (ft): *******

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			

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Office of Oil & Gas
Permitting
FEB 04 1999
WV Division of
Environmental Protection

OPEN FLOW DATA

Producing formations 50', GORDON Pay zone depth (ft) 2318-2533
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 119 MCF/d Final open flow N/A Bbl/
Time of open flow between initial and final tests 24 Hour
Static rock pressure 160 psig (surface pressure) after 24 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EXPLORATION PARTNERS LLC
By: Louis A. Ferrari
Date: JANUARY 29, 1999

HAR 4031 F

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033-04032 Area Permit Number: 2R 03301 AP
Operator Name: XTO
Operator's Well #: MM Limestone #3 / E-0322
Farm Name: Exploration Partners
Field Name: ~~Wolf~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 4690' DTD
Completion Zones: Benson, Balltown Speechley, Injun, 50' sand, Gordon
Perforated Interval: 4540'-4552', 3417'-3436', 3075'-3116', 2167'-2342', 1605'-1649'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547380.5 Northing: 4353535.2
Elevation: 962
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Gas Production well

Reviewer Name: Laura L. Adkins Signature: Laura L. Adkins
Date Reviewed: 7-12-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

4105
30736

WR-35

RECEIVED
WV Division of Environmental Protection
MAR 06 1996
Permitting
Office of Oil & Gas

31-May-94
API # 47- 33-04032

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: Exploration Partners Operator Well No.: M&M Limestone #3

LOCATION: Elevation: 962.00 Quadrangle: Wolf Summit

District: Tenmile County: Harrison
Latitude: 1325 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 9650 Feet West of 80 Deg. 25 Min. 00 Sec.

Company: Exploration Partners Prod
P.O. Box 1245
Bridgeport, WV 26330-1245

Agent: Louis A. Ferrari

Inspector: Tim Bennett
Permit Issued: 05/31/94
Well Work Commenced: 2/20/96
Well Work Completed: 2/25/96
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4690 DTD
Fresh water depths (ft) _____
25, 305
Salt water depths (ft) N/A
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 75/80; 90-94; 115-121

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 16"	40'	40'	---
11 3/4"	125'	125'	80 sks
8 5/8"	930'	930'	250 sks
4 1/2"	4616'	4616'	775 sks

OPEN FLOW DATA

Producing formations Benson, Balltown, Speechley Pay zone depth (ft) 3075-4552
Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 474 MCF/d Final open flow show Bbl/
Time of open flow between initial and final tests 4 Hour
Static rock pressure 800# psig (surface pressure) after 24 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HAR 4032

For: EXPLORATION PARTNERS PRODUCING CO.
By: Louis A. Ferrari
Date: March 4, 1996

33-04032

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE, ETC.

Stage I. (4548-4552) 20 holes, 500 gal 15% HCL, 45,000 # sand, 400 bbl H20
Stage II. (3417-3438) 22 holes, 500 gal 15% HCL, 40,000 # sand, 350 bbl H20
Stage III. (3075-3116) 22 holes, 500 gal 15% HCL, 35,000 # sand, 310 bbl H20

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal and gas
SAND & SHALE	0	75	DAMP @ 25'
COAL	75	80	
SHALE	80	90	
COAL	90	94	
SAND	94	115	
COAL	115	121	
SAND	121	324	2-3" H20 @ 305'
SAND & SHALE	324	1085	
SAND	1085	1219	
SAND & SHALE	1219	1490	
BIG LIME	1490	1550	
INJUN	1550	1630	
SHALE	1630	2050	
SAND & SHALE	2050	2290	
GORDON	2290	2350	
SHALE	2350	2520	
5TH SAND	2520	2530	GAS SHOW
SHALE	2530	3070	
SPEECHELY	3070	3120	GAS SHOW
SHALE	3120	3410	
BALLTOWN	3410	3450	GAS SHOW
SHALE	3450	4520	
BENSON	4520	4550	GAS SHOW
SHALE	4550	4690	DTD

WR-35

30-DEC-98
API # 47-033-4032 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: EXPLORATION PARTNERS Operator Well No.: e-0322 LIMESTONE #3

LOCATION: Elevation: 962.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 1325 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 9650 Feet West of 80 Deg. 25 Min. 00 Sec.

Company: Exploration Partners LLC
P.O. Box 930
Bridgeport, WV 26330-0930

Agent: Louis A. Ferrari

Inspector: TIM BENNETT
Permit Issued: 12/30/98
Well Work Commenced: 12/10/98
Well Work Completed: 12/10/98
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) ********
Fresh water depths (ft) _____
******
t water depths (ft) ***
Is coal being mined in area (Y/N)? *
Coal Depths (ft): *******

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			

RECEIVED
Office of Oil & Gas
Permitting
FEB 04 1999
WV Division of
Environmental Protection

OPEN FLOW DATA

Producing formations INJUN, 50', GORDON Pay zone depth (ft) 1605-2342
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 231 MCF/d Final open flow N/A Bbl/
Time of open flow between initial and final tests 24 Hour
Static rock pressure 80 psig (surface pressure) after 24 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EXPLORATION PARTNERS LLC
By: Louis A. Ferrari
Date: JANUARY 29, 1999

HAR 4032 F

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE, ETC.

I (2167-2342) 18 HOLES, 500 GAL 15% HCL, 20,000 # SAND, 245 BBL H20
II (1685-1649) 17 HOLES, 500 GAL 15% HCL, 20,000 # SAND, 215 BBL H20

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal and gas

WR-35

31-May-94
API # 47- 33-04032

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

COPY

Well Operator's Report of Well Work

Farm name: Exploration Partners Operator Well No.: M&M Limestone #3

LOCATION: Elevation: 962.00 Quadrangle: Wolf Summit

District: Tenmile County: Harrison
Latitude: 1325 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 9650 Feet West of 80 Deg. 25 Min. 00 Sec.

Company: Exploration Partners Prod
P.O. Box 1245
Bridgeport, WV 26330-1245

Agent: Louis A. Ferrari

Inspector: Tim Bennett
Permit Issued: 05/31/94
Well Work Commenced: 2/20/96
Well Work Completed: 2/25/96
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4690 DTD
Fresh water depths (ft) _____
25, 305
Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 75/80; 90-94; 115-121

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 16"	40'	40'	---
11 3/4"	125'	125'	80 sks
8 5/8"	930'	930'	250 sks
4 1/2"	4616'	4616'	775 sks

OPEN FLOW DATA

Producing formations Benson, Balltown, Speechley Pay zone depth (ft) 3075-4552

Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 474 MCF/d Final open flow show Bbl/
Time of open flow between initial and final tests 4 Hour
Static rock pressure 800# psig (surface pressure) after 24 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

RECEIVED
Office of Oil & Gas
Permitting
FEB 04 1999
WV Division of
Environmental Protection

For: EXPLORATION PARTNERS PRODUCING CO.
By: Louis A. Ferrari
Date: March 4, 1996

HAR 4032F

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE, ETC.

Stage I. (4540-4552) 20 holes, 500 gal 15% HCL, 45,000 # sand, 400 bbl H2O
Stage II. (3417-3438) 22 holes, 500 gal 15% HCL, 40,000 # sand, 350 bbl H2O
Stage III. (3075-3116) 22 holes, 500 gal 15% HCL, 35,000 # sand, 310 bbl H2O

WELL LOG

FORMATION COLOR HARD OR SOFT fresh	TOP FEET	BOTTOM FEET	REMARKS Including indication of all and salt water, coal and gas
SAND & SHALE	0	75	DAMP @ 25'
COAL	75	80	
SHALE	80	90	
COAL	90	94	
SAND	94	115	
COAL	115	121	
SAND	121	324	2-3" H2O @ 305'
SAND & SHALE	324	1085	
SAND	1085	1219	
SAND & SHALE	1219	1490	
BIG LIME	1490	1550	
INJUN	1550	1630	
SHALE	1630	2050	
SAND & SHALE	2050	2290	
GORDON	2290	2350	
SHALE	2350	2520	
5TH SAND	2520	2530	GAS SHOW
SHALE	2530	3070	
SPEECHELY	3070	3120	GAS SHOW
SHALE	3120	3410	
BALLTOWN	3410	3450	GAS SHOW
SHALE	3450	4520	
BENSON	4520	4550	GAS SHOW
SHALE	4550	4690	DTD

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04046 Area Permit Number: 2R03301 AP
Operator Name: ~~HG Energy~~ East Resources
Operator's Well #: 1
Farm Name: Sarah Adams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2980
Completion Zones: 5th Perforated Interval: ? 5th

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1256
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion ? No ☐ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? ? No ☐ Yes ☐
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Walters Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

54

WWR-38

API# 47-033-4046

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Sarah Adams
LOCATION: Elevation: 1,256'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 1
Quadrangle: Salem 7.5'
County: Harrison
Deg. ____ Min. ____ Sec. ____
Deg. ____ Min. ____ Sec. ____

Well Type: Oil X Gas ____ WIW ____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 12/02/2008'

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 20th day of May, 2009, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2350'	2000'	5 1/4" 150'	1872'
Cement	950'	800'		
Cement	710'	400'		
Cement	100'	0'		
		Perforated 5 1/2" Casing 1 shot every 20' from 950'-850',		
		one Shot every 20' from 700'-600' & Every 1' thru		
		Coal From 647'-643' & Every 20' from 550'-450'.		
6% Gel Between Cement Plugs		*Note: No Evidence of 6 5/8" Casing in Hole.		

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 3rd day of June, 2009'
And further deponents saith not.

Kenneth Dotson
Victor Stinespring

Sworn and subscribe before me this 15th day of June, 2009

My commission expires: Oct. 4, 2016

S. Dianne Dulaney
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P.O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

Affidavit reviewed by the Office of Oil and Gas:

_____

Title: _____

LOG & HISTORY:

WELL NO. 1

47-033-0406

SE Adams #1

Pipe 6 5/8" 1920 ft.
5 3/16" 2022 ft.
2" 2970 ft.

Log;

Pgh Coal	643	- 647	
Big Injun	2021	- 2141	
50 Ft.	2550	- 2565	gas
Stray Gordon	2640	- 2684	
5'th Sand	2947	- 2958	good oil at 2950
T.D.	2980		

Inventory; 3" x 80' Pipe Rig
Set Bull Wheels & Iron Beam
25 H.P. Gas Engine

This well has not produced for over 7 yrs. The tubing is parted about 700 ft. down hold. This was supposed to have been one of the best wells, and was supposed to have been making 10 to 14 bbl. a week when the tubing parted.

WELL NO. 3

47-033-0407

Pipe 6 1/4" 1985 ft.

Log;

Pgh. Coal	602	- 609	
Big Injun	2045	- 2092	
50 Ft.	2500	- 2522	
Stray Gordon	2615	- 2630	
1'st Gordon	2674	- 2698	
2'nd Gordon	2708	- 2725	
4'th Sand	2739	-2749	
5'th Sand	2912	- 2921	Oil
T.D.		2946	

The tubing has been removed from this well in preparation to drilling it deeper for possible gas. The location is cleared, and some rig timbers moved in.

WELL NO. 4

47-033-0408

SE Adams #4

Pipe 6 5/8" 2082'

Log;

Pgh Coal	714	- 721	
Big Injun	2146	- 2218	
50 Ft.	2620	- 2640	
Stray Gordon	2690	- 2730	
Gordon	2790	- 2815	
4'th Sand	2835	- 2865	Gas
5'th Sand	3031	- 3038	Oil
T. D.		3055	

This was a good well at one time, but it has part of a string of tubing in it. A person could shoot or treat the Big Injun Sand in this well, and perhaps get some gas out of it.

There was a No. 2 and a No. 5 well on this lease pulled and plugged years ago. (Thus there were a total of 8 wells on the 267 acre lease)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-04048 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 4
Farm Name: South Adams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 3055
Completion Zones: 5th Perforated Interval: ?

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1327
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion ? No ☐ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? ? No ☐ Yes ☐
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Watkins Signature:
Date Reviewed: 7/24/2017

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

#55

API# 47-033-4048

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Sarah Adams
LOCATION: Elevation: 1,327'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: No. 4
Quadrangle: Salem 7.5'
County: Harrison
Deg. Min. Sec.
Deg. Min. Sec.

Well Type: Oil X Gas WIW

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 12/02/2008'

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 8th day of May, 2009, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	2,003'	1,800'	6 5/8" 205'	1872'
Cement	1,222	1,100'		
Cement	757'	650'		
Cement	240'	140		
Cement	100	0		
			Ripped 6 5/8" casing from 2,000' to 1,900' and	
			from 1,200' to 1,100'. Put in a continuous rip	
			through coal from 721' to 714'.	
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 19th day of June, 2009'
And further deponents saith not.

Kenneth Dotson

Sworn and subscribe before me this 15th day of June, 2009

My commission expires: Oct. 4, 2016

S. Dianne Dulaney
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

Affidavit reviewed by the Office of Oil and Gas:

Title:

#55

LOG & HISTORY:

WELL NO. 1 — 47-033-0406

SE Adams #1

Pipe: 6 5/8" 1920 ft.; 5 3/16" 2022 ft.; 2" 2970 ft.

Log;

Pgh Coal	643	- 647	
Big Injun	2021	- 2141	
50 Ft.	2550	- 2565	gas
Stray Gordon	2640	- 2684	
5'th Sand	2947	- 2958	good oil at 2950
T.D.	2980		

Inventory; 3" x 80' Pipe Rig
Set Bull Wheels & Iron Beam
25 H.P. Gas Engine

This well has not produced for over 7 yrs. The tubing is parted about 700 ft. down hold. This was supposed to have been one of the best wells, and was supposed to have been making 10 to 14 bbl. a week when the tubing parted.

WELL NO. 3 — 47-033-0407

Pipe: 6 1/4" 1985 ft.

Log;

Pgh. Coal	602	- 609	
Big Injun	2045	- 2092	
50 Ft.	2500	- 2522	
Stray Gordon	2615	- 2630	
1'st Gordon	2674	- 2698	
2'nd Gordon	2708	- 2725	
4'th Sand	2739	-2749	
5'th Sand	2912	- 2921	Oil
T.D.		2946	

The tubing has been removed from this well in preparation to drilling it deeper for possible gas. The location is cleared, and some rig timbers moved in.

WELL NO. 4 — 47-033-0408

SE Adams #4

Pipe: 6 5/8" 2082'

Log;

Pgh Coal	714	- 721	
Big Injun	2146	- 2218	
50 Ft.	2620	- 2640	
Stray Gordon	2690	- 2730	
Gordon	2790	- 2815	
4'th Sand	2835	- 2865	Gas
5'th Sand	3031	- 3038	Oil
T. D.		3055	

This was a good well at one time, but it has part of a string of tubing in it. A person could shoot or treat the Big Injun Sand in this well, and perhaps get some gas out of it.

There was a No. 2 and a No. 5 well on this lease pulled and plugged years ago. (Thus there were a total of 6 wells on the 267 acre lease)

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04050 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 7
Farm Name: Sarah Adams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: [redacted] 3035'
Completion Zones: 5th Perforated Interval: Open ?

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541521 Northing: 4346237
Elevation: 399m 1308' Outside Field Boundary? (1320' or less) ☐
Inside Field Boundary? ☒

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒ ?
Cemented across injection zone?	No ☒ [redacted]	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**

Bottom Hole Injection Pressure **0**

Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9/14/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

RECEIVED
Office of Oil & Gas
APR 16 2009
WV Department of
Environmental Protection

API# 47-033-4050

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Sarah Adams
LOCATION: Elevation: 1,310'
District: Tenmile
Latitude:
Longitude:

Operator Well No.: No. 7
Quadrangle: Salem 7.5'
County: Harrison
Deg. Min. Sec.
Deg. Min. Sec.

Well Type: Oil X Gas WIW

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 12/02/2008'

Coal Operator or Owner: NA
Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Victor Stinespring and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 23rd day of March, 2009, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement	3000'	2880'	6 5/8" 200'	1850'
Cement	2100'	2000'	5 3/16" 2100'	0'
Cement	1200'	1100'		
Cement	750'	635'		
Cement	500'	400'		
Cement	250'	150'		
Cement	100'	0'		
		Ripped 6 5/8" Casing Every Collar From 1200'-1100' &		
		750'-650' Thru Coal & 500'-400'		
6% Gel Between Cement Plugs				

Description of monument: 7" x 5'
and that the work of plugging and filling said well was completed on the 8th day of April, 2009
And further deponents saith not.

Sworn and subscribe before me this 14th day of April, 2009

My commission expires: Oct. 4, 2016

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title:

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

33-04050P

WELL NO. 6

47-033-0409

Pipe	6 5/8"	2045 ft.	
Log	Pgh. Coal	684 - 692	
	Big Injun	2105 - 2185	
	50 Ft.	2570 - 2590	
	Gordon Stray	2700 - 2725	
	Gordon	2730 - 2775	Oil
	4'th Sand	2790 - 2842	Good oil
	5'th Sand	2996 - 3004	
	T.D.	3026	

This was a very good well years ago, but the tubing has been removed, It is supposed to be clear to the bottom, and it was intended to be drilled deeper.

WELL NO. 7

47-033-04050

Pipe	6 5/8"	2050 ft.	
	5 3/16"	2100 ft.	
	2"	3000 ft.	
Log	Pgh Coal	695- 701	
	Big Injun	2115 - 2200	
	50 ft.	2580 - 2600	
	Stray Gordon	2712 - 2736	
	Gordon	2742 - 2778	
	4'th Sand	2801 - 2850	Oil
	5'th Sand	3005 - 3015	
	T.D.	3035	

New tubing & rods were run in this well in 1978, but it was not cleaned out and is pumping atleast 100 ft. off bottom. It has a lot of gas with the oil and will flow when pumping. Will pump about 10 bbl. a week, if pumped regularly.

Inventory; 25 H.P. Superior Gas engine, (Rig thrown down)
65 Bbl. Steel tank.
D-8 "Oil Well" Heavy duty Pump Jack. (brand new in 1974)
14 H.P. Wisconsin Motor with clutch

WELL NO. 8

47-033-04051

Pipe	6 5/8"	1910 ft.	
	5 3/16"	2000 ft.	
	2"	2900 ft.	
Log;	Pgh. Coal	560 -567	
	Big Injun	1976 - 2050	
	Gordon Sand	2629 - 2669	Oil
	5'th Sand	2878 - 2888	Oil
	T.D.	2907	

Inventory;
3" x 80' Steel Pipe Rig.
Steel Bull Wheels & Steel Beam
25 H.P. Reed Gas Engine
105 BBL Tank (new 1974)

Three Oil pays in thiswell. Was one of the best. Tubing was pulled and a new pump put on in 1979. All it needs now is a set of cups put on, and it will pump

09-10-2008 15:46 EAST RESOURCES INC 3047823563

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 033 - 4050 -P **WELL NO:** No.7

FARM NAME: Sarah Adams

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Salem 7.5'

SURFACE OWNER: Hilary Heights Ltd.

ROYALTY OWNER: East Resources, Inc. et al.

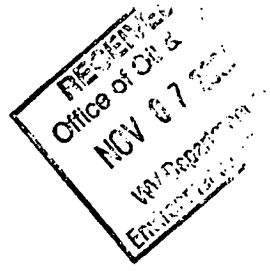
UTM GPS NORTHING: 4,346,237 (NAD 27)

UTM GPS EASTING: 541,521 (NAD 27) **GPS ELEVATION:** 399 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___



I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

November 5, 2008

Date

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04051 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: 8
Farm Name: Sarah Adams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒
TD of well: 2907
Completion Zones: 5th Sand Gordon Sand Big Injun
Perforated Interval: ? 1976 - 2050' Big Injun 2629 - 2669' Gordon 2872 - 2888' 5th

Well Location (UTM NAD83)
Easting: 542141
Elevation: 1187
Inside Field Boundary? ☒
Coordinates Match?: No ☐ Yes ☒
Northing: 4346999
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☒
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☐	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9 / 16 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WWR-38

API# 47-033-4051

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: Sarah Adams
LOCATION: Elevation: 1,182'
District: Tenmile
Latitude: _____
Longitude: _____

Operator Well No.: No. 8
Quadrangle: Salem &.5'
County: Harrison
Deg. ____ Min. ____ Sec. ____
Deg. ____ Min. ____ Sec. ____

Well Type: Oil X Gas ____ WIW ____

Company: East Resources Inc.
P.O. Box 5519
Vienna, WV 26105
Agent: Philip S. Ondrusek
Inspector: Tim Bennett
Permit Issued: 12/2/08'

Coal Operator or Owner: NA

Coal Operator or Owner: NA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:
Philip S. Ondrusek and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by East Resources Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 27th day of April, 2009, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED		LEFT
Cement	2600'	2400'			
Cement	1980'	1880'	6 5/8"	395'	1,515
Cement	1100'	1000'	5 3/16"	0	1,900'
Cement	610'	500'			
Cement	415'	300'			
Cement	120'	0'			
		Perforated 5 3/16" Casing One Shote Every 10'-2592'-2500'			
		& every 20' From 1970'-1870'. Perforated 6 5/8" Casing			
		1 Shot Every 20' 1100'-1000', 1 Shot Every 10' From			
6% Gel Between Cement Plugs		600'-500' & 1 Shot Every 1' From 567'-560'.			

Description of monument: 7" x 5'
Note: 5 3/16" casing dropped in hole - top of casing -1,025'

and that the work of plugging and filling said well was completed on the 6th day of May, 2009
And further deponents saith not.

Kenneth Dotson

Sworn and subscribe before me this 20th day of May, 2009

My commission expires: Oct. 4, 2016

Notary Public

Affidavit reviewed by the Office of Oil and Gas:

Title: Manager

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
P. O. Box 5519
Vienna, West Virginia 26105
My Commission Expires Oct. 4, 2016

RECEIVED
Office of Oil & Gas
MAY 21 2009
WV Department of
Environmental Protection

33-04051-P

WELL NO. 6

47-033-0409

Pipe 6 5/8" 2045 ft.

Log

Pgh. Coal	684 - 692	
Big Injun	2105 - 2185	
50 Ft.	2570 - 2590	
Gordon Stray	2700 - 2725	
Gordon	2730 - 2775	Oil
4'th Sand	2790 - 2842	Good oil
5'th Sand	2996 - 3004	
T.D.	3026	

This was a very good well years ago, but the tubing has been removed, It is supposed to be clear to the bottom, and it was intended to be drilled deeper.

WELL NO. 7

47-033-04050

Pipe 6 5/8" 2050 ft.
5 3/16" 2100 ft.
2" 3000 ft.

Log

Pgh Coal	695- 701	
Big Injun	2115 - 2200	
50 ft.	2580 - 2600	
Stray Gordon	2712 - 2736	
Gordon	2742 - 2778	
4'th Sand	2801 - 2850	Oil
5'th Sand	3005 - 3015	
T.D.	3035	

New tubing & rods were run in this well in 1978, but it was not cleaned out and is pumping atleast 100 ft. off bottom. It has a lot of gas with the oil and will flow when pumping. Will pump about 10 bbl. a week, if pumped regularly.

Inventory; 25 H.P. Superior Gas engine, (Rig thrown down)
65 Bbl. Steel tank.
D-8 "Oil Well" Heavy duty Pump Jack. (brand new in 1974)
14 H.P. Wisconsin Motor with clutch

WELL NO. 8

47-033-04051

Pipe 6 5/8" 1910 ft.
5 3/16" 2000 ft.
2" 2900 ft.

Log;

Pgh. Coal	560	-567	
Big Injun	1976	- 2050	
Gordon Sand	2629	- 2669	Oil
5'th Sand	2878	- 2888	Oil
T.D.		2907	

Inventory;
3" x 80' Steel Pipe Rig.
Steel Bull Wheels & Steel Beam
25 H.P. Reed Gas Engine
105 BBL Tank (new 1974)

Three Oil pays in thiswell. Was one of the best. Tubing was pulled and a new pump put on in 1975. All it needs now is a set of cups put on, and it will pump

09-10-2008 15:46 EAST RESOURCES INC 3047823563

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 033 - 4051-P **WELL NO:** No.8

FARM NAME: Sarah Adams

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Harrison **DISTRICT:** Tenmile

QUADRANGLE: Salem 7.5'

SURFACE OWNER: Hilary Heights Ltd.

ROYALTY OWNER: East Resources, Inc. et al.

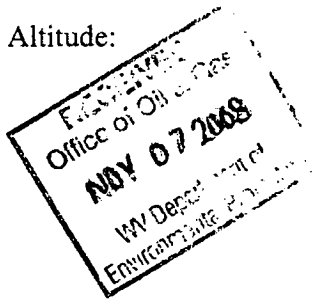
UTM GPS NORTHING: 4,346,999 (NAD 27)

UTM GPS EASTING: 542,141 (NAD 27) **GPS ELEVATION:** 360 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___



I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Timothy P. Roush — Professional Surveyor

Signature — Title

November 5, 2008

Date

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04066 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: Dream #3
Farm Name: James Baldwyer
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☒ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐ Shut in
TD of well: 2802
Completion Zones: 5th Sand Perforated Interval: 2666 - 2668

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546540 Northing: 4350235
Elevation: 1187
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 862.98
Bottom Hole Injection Pressure 2132.8
Hydrostatic Pressure 1269.82

Comments:
Permit Cancelled on 3/17/2016
Status is Shut in

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2(/ 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

March 22, 2016

FINAL INSPECTION REPORT

Re-Work Permit Cancelled

HG ENERGY, LLC,

The FINAL INSPECTION REPORT for the CANCELLED permit, API Well Number: 47-3304066, issued to HG ENERGY, LLC, and listed below has been received in this office. The permit has been cancelled as of 3/17/2016.

James Martin
Chief

Operator: HG ENERGY, LLC
Operator's Well No: E. A. DUNCAN 8
Farm Name: BALDINGER, JAMES E.
API Well Number: 47-3304066
Date Issued: 07/30/2014

Date Cancelled: 03/17/2016

WR-35

19-Sep-94
API # 47- 33-04066 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

3304066 SN

Well Operator's Report of Well Work

Farm name: BALDINGER, JAMES E. Operator Well No.: E.A. DUNCAN #8

LOCATION: Elevation: 1,187.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 12050 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 500 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 09/19/94
Well work Commenced: 10/15/94
Well work Completed: 03/24/95
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2802'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 296'-303'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 8-5/8"	399.8'	399.8'	125 sks
4-1/2"	2730.25'	2730.25'	450 sks

OPEN FLOW DATA *Water Injection Well

Producing formation Fifth Sand Pay zone depth (ft) 2661'-2681'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock Pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

RECEIVED
Office of Oil & Gas
JUN 25 1995
WV Department of
Environmental Protection

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Timothy P. Roush
Date: April 28, 1995

TREATMENT

Perforated Fifth sand from 2666'-2668' KB with 12 holes. Fractured with 300 gals. 15% HCL, 188 bbls. gelled water and 5000 lbs. 20/40 sand.

WELL LOG

Sand and Shale	0'- 296'
Coal (Pittsburgh Coal)	296'- 303'
Sand with Shale streaks	303'- 483'
Sahle w/sand streaks	483'- 783'
Sand	783'- 852'
Shale w/sand streaks	852'- 998'
Sand	998'-1115'
Shale w/sand streaks	1115'-1269'
Sand	1269'-1354'
Shale	1354'-1632'
Limetston (Little Lime)	1632'-1647'
Sahle	1647'-1682'
Limestone (Big Lime)	1682'-1741'
Sand (Big Injun)	1741'-1808'
Shale	1808'-2245'
Sand (Fifty foot)	2245'-2257'
Shale	2257'-2319'
Sand (Thirty foot)	2319'-2332'
Shale and Sand	2332'-2445'
Sand (Gordon)	2445'-2476'
Shale	2476'-2484'
Sand (Fourth)	2484'-2508'
Shale	2508'-2661'
Sand (Fifth)	2661'-2681'
Shale	2681'-2802'
T.D.	2802'

3304066W

TREATMENT

Perforated Fifth sand from 2666'-2668' KB with 12 holes. Fractured with 300 gals. 15% HCL, 188 bbls. gelled water and 5000 lbs. 20/40 sand.

WELL LOG

Sand and Shale	0'- 296'
Coal (Pittsburgh Coal)	296'- 303'
Sand with Shale streaks	303'- 483'
Sahle w/sand streaks	483'- 783'
Sand	783'- 852'
Shale w/sand streaks	852'- 998'
Sand	998'-1115'
Shale w/sand streaks	1115'-1269'
Sand	1269'-1354'
Shale	1354'-1632'
Limetston (Little Lime)	1632'-1647'
Sahle	1647'-1682'
Limestone (Big Lime)	1682'-1741'
Sand (Big Injun)	1741'-1808'
Shale	1808'-2245'
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Shale and Sand	2332'-2445'
Sand (Gordon)	2445'-2476'
Shale	2476'-2484'
Sand (Fourth)	2484'-2508'
Shale	2508'-2661'
Sand (Fifth)	2661'-2681'
Shale	2681'-2802'
T.D.	2802'

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04068 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: E Fletcher #4
Farm Name: Fletcher, Richard ETUX.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☒ Other ☐
Well Status: Active ☐ Abandoned ☒ Plugged ☐
TD of well: 630'
Completion Zones: NA Perforated Interval: NA

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: Northing:
Elevation: 1321
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☑ Yes ☐
Well perforated in injection zone? No ☑ Yes ☐
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

RBDMS = Abandoned

Reviewer Name: Josh Writek Signature:
Date Reviewed: 7/12/2017

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

03-Oct-94

API # 47- 33-04068-W

#28

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: FLETCHER, RICHARD ETUX. Operator Well No.: E. FLETCHER #4

LOCATION: Elevation: 1,321.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 9150 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 4050 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 10/03/94
Well work Commenced: 09/06/94
Well work Completed: 10/12/94
Verbal Plugging
Permission granted on: _____
Rotary _____ Cable X Rig
Total Depth (feet) 630
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N
Coal Depths (ft): NA

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
5-1/2"	595'	595'	200 Sks.
2-3/8" Tbg	630'	630'	-

OPEN FLOW DATA *This is a waterflood observation well with no production.

Producing formation NA Pay zone depth (ft) NA
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Timothy A. Crews
Date: 11/2/95

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04069 Area Permit Number: 2R03301 AP
Operator Name: ~~CNX~~ HG Energy
Operator's Well #: 61 Myers, Roxanna
Farm Name: Myers, Roxana
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 3007
Completion Zones: 5th Sand Perforated Interval: 2450-2953'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 514619 Northing: 4349000
Elevation: 1367
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10/20/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
WV Division of
Environmental Protection
APR 15 1996
Permitting
Office of Oil & Gas

17-Oct-94
API # 47-033-4069

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: MYERS, ROXANNA M. ETAL Operator Well No.: NATHAN GOFF #61

LOCATION: Elevation: 1,367' Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 650 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 6,900 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 10/17/94
Well work Commenced: 8/25/95
Well work Completed: 11/8/95
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3,082
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft):

Casing & Tubing	Used in Drilling	Left in Well	Cement Fiil Up Cu. Ft.
Size			
8-5/8	709.15'	709.15'	200 SKS
4 ½"	3023'	3023'	200 SKS

OPEN FLOW DATA * Water Producer

Producing formation Fifth Sand Pay zone depth (ft) 2941'-2959'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: [signature]
Date: 4/12/96

H/A# 4069

Treatment : Perforated Fifth Sand 2950'-2953' (12 Holes) Treated Via 4 1/2" CSG 300 gal 15% HCl Acid, 146 BBL gelled water & 3000 lb 20/40 Sand.

Well Log :

Sand & Shale	0	-	1551'
Sand	1551'	-	1646'
Sand & Shale	1646'	-	1918'
Sand	1918'	-	1936'
Shale	1936'	-	1956'
Sand	1956'	-	2045'
Sand	2045'	-	2109'
Shale	2109'	-	2521'
Sand	2521'	-	2542'
Sand & Shale	2542'	-	2629'
Sand	2629'	-	2653'
Sand & Shale	2653'	-	2706'
Sand	2706'	-	2735'
Shale	2735'	-	2743'
Sand	2743'	-	2792'
Sand & Shale	2792'	-	2941'
Fifth Sand	2941'	-	2959'
T.D.	3082'		

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Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04070 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 62
Farm Name: Myers, Roxanna M. Etal
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2954
Completion Zones: 5th Perforated Interval: 2832 - 2834

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 514377 Northing: 4349635
Elevation: 1193
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☐	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35 RECEIVED
WV Division of Environmental Protection
APR 15 1996
Permitting
Office of Oil & Gas

17-Oct-94
API # 47-033-4070

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: MYERS, ROXANNA M. ETAL Operator Well No.: NATHAN GOFF #62

LOCATION: Elevation: 1,193' Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 13,900 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 7,700 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 10/17/94
Well work Commenced: 11/9/94
Well work Completed: 4/5/95
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2,954'
Fresh water depths (ft) NA
Salt water depths (ft) NA
Is coal being mined in area (Y/N) N
Coal Depths (ft):

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8	570'	570'	185 SKS
4 ½"	2918.35'	2918.35'	450 SKS

OPEN FLOW DATA * Water Producer

Producing formation Fifth Sand Pay zone depth (ft) 2824'-2842'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By:
Date: 4/12/96

HAR 4070

Treatment : Perforated Fifth Sand 2832-2834 (12 Holes) Treated Via 4 1/2" CSG 300 gal 15% HCl Acid, 146 BBL gelled water & 5000 lb 20/40 Sand.

Well Log :

Sand & Shale	0	-	1505'
Sand	1505'	-	1549'
Shale	1549'	-	1746'
Sand	1746'	-	1823'
Sand & Shale	1823'	-	1950'
Sand	1950'	-	1975'
Shale	1975'	-	2407'
Sand	2407'	-	2418'
Shale	2418'	-	2500'
Sand	2500'	-	2529'
Sand & Shale	2529'	-	2585'
Sand	2585'	-	2607'
Shale	2607'	-	2614'
Sand	2614'	-	2663'
Sand & Shale	2663'	-	2824'
Fifth Sand	2824'	-	2842'
T.D.	2954'		

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AOR - Well Review Checklist

API Number: 47-033- 04074 Area Permit Number: 2R03301 AP
Operator Name: East Resources
Operator's Well #: B H Brown #13
Farm Name: Rogers, Aubrey
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☒ Plugged ☐
TD of well: 7 2560
Completion Zones: 5th Perforated Interval: Slot

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546403.9 Northing: 4352144.1
Elevation: 991
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Rework Permit Cancelled
No Copy of WR-35

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

BUFFALO DISTRICT.

No. 8

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO _____ FARM B. H. Brown WELL NO. 13

ELEVATION _____ N. _____ S. 10 E. _____ W. _____

LEASE NO. 32716 ACRES _____

WATERS OF New Creek

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED May 12,1901. COMPLETED May 20,1901. DEPTH 2578

SANDS	TOP	BOTTOM	ELEV. TOP	CASING
PGH. COAL OR BIG LIME				
Pgh Coal	195	198		
Big Lime	1550	1590		
Big Injun	1590	1640		
Gordon	2327	2367		PACKERS AND DEPTH SET
Fifth	2560	2580		

INITIAL PROD. 6 Bbls. SAND Fifth DEPTH 2560

GAS TEST _____ " _____ " _____

SHOT May 21,1901. QUARTS 40 " _____ " _____

REMARKS _____

(Over.)

REPORTED BY H. H. Brown ABANDONED Aug. 7,1906.

Shots.

Aug. 4,1903. - 50 Qts.

Aug. 9,1904. - 40 "

033 4074

17-Dec-96

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS
CHARLESTON 25311
FINAL INSPECTION REPORT

Dear PHILIP S. ONDRUSEK:

The FINAL INSPECTION REPORT for the CANCELLED permit listed below has been received in this office. The permit has been cancelled as of 12/17/96.

Company: PENNZOIL PRODUCTS COMPANY
Permit No. 47- 33-04074 W — Issued On: 12/02/94
Farm: ROGERS, AUBREY — Well: B. H. BROWN 13
County: HARRISON — District: TENMILE

Theodore M. Streit
Chief
OFFICE OF OIL AND GAS

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-04077 Area Permit Number: 2R03301 AP
Operator Name: Penzoil Products Company
Operator's Well #: JC Smith 1
Farm Name: Moffett, Christine
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2620
Completion Zones: 5th Perforated Interval: slt

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1077
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
1. Need WR-38/plugging Affidavit

Reviewer Name: Josh Wathen Signature:
Date Reviewed: 7/12/17

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

04077 #53

JCSmith #1

MUTUAL OIL AND GAS, INC.

P. O. BOX 311
SPENCER, WEST VIRGINIA 25276
PHONE (304) 927-4154

ADMINISTRATIVE:
112 STATE ST.
SALEM, W. VA. 26426
(304) 782-3165

FIELD:
STATE RUN RD. AT RT. 1
SPENCER, W. VA. 2527
927-1982

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To J. Sutherland	From Rick
Co.	Co. Bristol
Dept. Parkersburg	Phone #
Fax # 1-480-2239	Fax # 782-2216

Information for permit # 033-2268
Smith #1

Producing Formation - Fifth Sand

Top of Formation - 2588

Bottom of Formation - 2598

Casings - 5 3/16 - 2000

Casings - 6 5/8 - 1614

Tubing - 2" - 2620

Total Depth - 2620

Drilling Commenced 1899

Drilling Ended 1899

RECEIVED
MAR 1980
OIL & GAS DIVISION
DEPT. OF MINES

RECEIVED
MAR 7 1980
OIL & GAS DIVISION
DEPT. OF MINES

Wayne Roberts
Wayne Roberts

These are the records Mr Roberts sent us on J.C. Smith #1.

Rick

WR-38
30-Nov-94

RECEIVED
OFFICE OF OIL AND GAS
AUG 15 1995
WV Division of Environmental Protection

API # 47- 33-04077-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: MOFFETT, CHRISTINE Operator Well No.:J,C, SMITH #1

LOCATION: Elevation: 1,077.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 10200 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude 1100 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS ____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Agent: James A. Crews

Permit Issued: 12/01/94

Coal Operator or Owner: The Endres Company
110 State Street
Bridgeport, WV 26330

Coal Operator or Owner: ____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Rickey A. Green and Kenneth Dotson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 1st day of May, 1995, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
220 sks. cement	2594'	2345'	No liner found	
15 sks. cement	1650'	1550'	6-5/8" csg. 400'	1214'
20 sks. cement	1000'	900'	6-3/16" csg.2000'	0'
45 sks. cement	410'	300'	& packer	
40 sks. cement	255'	175'		
70 sks. cement	100'	Surface		

Description of monument: 7" CASING - 30" Above ground level
and that the work of plugging and filling said well was completed on the 14th day of May, 1995.

And furthur deponents saith not.

Rickey A. Green
Kenneth Dotson

Sworn and subscribe before me this 14th day of May, 1995
My commission expires: June 10, 1997

Notary Public

Oil and Gas Inspector: Tim Bennett

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04097 Area Permit Number: 2R03301 AP
Operator Name: ~~Ben~~ HG Energy
Operator's Well #: Ben Wilson II
Farm Name: Dixon, Charles & Mary
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☒ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 570'
Completion Zones: NA Perforated Interval: NA

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 546832.3 Northing: 4351057.4
Elevation: 1397
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion NA No ☑ Yes ☐
Well penetrates injection zone? No ☑ Yes ☐
Well perforated in injection zone? No ☑ Yes ☐
Cemented across injection zone? No ☑ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Whitehead Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
WV Division of
Environmental Protection
NOV 06 1995
Permitting
Office of Oil & Gas

01-Jun-95
API # 47- 33-04092

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: DIXON, CHARLES & MARY Operator Well No.: Ben Wilson #1

LOCATION: Elevation: 1,397.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 9300 Feet South of 39 Deg. 20Min. Sec.
Longitude 11400 Feet West of 80 Deg. 25 Min. Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 06/02/95
Well work Commenced: 08/22/95
Well work Completed: 09/14/95
Verbal Plugging
Permission granted on: _____
Rotary ____ Cable X Rig
Total Depth (feet) 570'
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N
Coal Depths (ft): NA

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8"	545'	545'	340 Sks.
2-3/8" tbg.	557'	557'	-

OPEN FLOW DATA *This well is a waterflood observation well with no production.

Producing formation NA Pay zone depth (ft) NA
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

Second producing formation ____ Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock Pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: [signature]
Date: 11/2/95

HAR 4092

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-04096 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 23
Farm Name: Zirkle, Wilbert
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐? Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☐
TD of well: 5007 5th = 2791 - 2794
Completion Zones: 5th & Benson Perforated Interval: Benson 4818 - 4822

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1217
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☐ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

27-Jun-95
API # 47- 33-04096 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: ZIRKLE, WILBERT O. Operator Well No.: P.C.WILLIAMS#23

LOCATION: Elevation: 1,217.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 13975 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 5450 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 06/27/95
Well work Commenced: 9/19/95
Well work Completed: 11/8/95
Verbal Plugging
Permission granted on:
Rotary X Cable Rig
Total Depth (feet) 5007
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 442-450

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	542'	542'	170 Sks.
1-1/2"	4395.35'	4895.35'	450 Sks.

OPEN FLOW DATA *Water Injection Well

Producing formation Fifth Sand Pay zone depth (ft) 2785-2801
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock Pressure * psig (surface pressure) after * Hours

Second producing formation Benson Pay zone depth (ft) 4814-4824
Gas: Initial open flow NA MCF/d Oil: Initial open flow NA Bbl/d
Final open flow NA MCF/d Final open flow NA Bbl/d
Time of open flow between initial and final tests NA Hours
Static rock Pressure NA psig (surface pressure) after NA Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By:
Date: January 2, 1996

HAR
4096 S

Treatment: Fifth Sand: Perforated 2791'-2794' w/12 holes
Treated perfs. via 4-1/2" casing with 500 gals. 15% Hcl,
286 bbl. gelled water & 5,000# 20/40 sand
Benson: Perforated 4818'-4822' w/16 holes
Treated perfs. via 4-1/2" casing with 300 gals. 15% Hcl
566 bbl. gelled water & 50,000# 20/40 sand.

Well Logs:

0	- 442	Sand & Shale
442	- 450	Pittsburgh Coal
450	- 1145	Sand & Shale
1145	- 1270	Sand
1270	- 1725	Shale w/sand
1725	- 1745	Little Lime
1745	- 1805	Shale w/sand
1805	- 1875	Big Lime
1875	- 1942	Big Injun
1942	- 2355	Shale
2355	- 2382	Fifty-Foot
2382	- 2580	Shale
2580	- 2600	Gordon
2600	- 2610	Shale
2610	- 2622	Fourth Sand
2622	- 2785	Shale
2785	- 2801	Fifth Sand
2802	- 4660	Silt & Shale
4660	- 4706	Riley
4706	- 4814	Silt & Shale
4814	- 4824	Benson
5007		T. D.

WR-37
REV. 9/94)

Date: December 26, 19 95
Operator's
Well No. P. C. Williams #23
API No. 47- 033 - 4096

JAN

STATE OF WEST VIRGINIA
BUREAU OF ENVIRONMENT, OFFICE OF OIL AND GAS
PRE-OPERATION CERTIFICATE
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR Pennzoil Products Co.
Address P. O. Box 5519
Vienna, WV 26105-5519

DESIGNATED AGENT Philip S. Ondrusek
Address P. O. Box 5519
Vienna, WV 26105-5519

GEOLOGICAL TARGET FORMATION Fifth Benson Depth _____ feet(top) to _____ feet(bottom)
Virgin reservoir pressure in target formation 1250 psig
Source of information on virgin reservoir pressure: Estimated
Perforation intervals 4818'-4822' (Benson) Open-hole intervals _____
2791'-2794' (Fifth)

MAXIMUM PERMITTED INJECTION OPERATIONS
Well head injection pressure: 1191 psig Bottom hole pressure: 2400 psig
Volume per hour: 21 Bbls.

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED
Liquids to be injected for oil recovery: Fresh water and water produced from the Fifth Sand.
Wastes to be disposed of: None
Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.)
Bactericides and other chemicals necessary to maintain water quality, improve oil recovery and/or maintain well integrity.

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

ADDITIONAL DRILLING AS PART OF THE CONVERSION (Complete form WR-35)

DETAILS ON NEW CASING AND TUBING PROGRAM AS PART OF THE CONVERSION (To be completed below unless the new casing and tubing program is described on a form WR-35, submitted in connection with the permit to which this form WR-37 relates.)

CASING OR TUBING TYPE	SIZE	GRADE	WEIGHT PER FT.	NEW	USED	FOOTAGE USED IN DRILLING	FOOTAGE LEFT IN WELL	CEMENT USED	PACKERS (KIND, SIZE & DEPTH SET)
CONDUCTOR									
FRESH WATER									
COAL									
INTERMEDIATE	8-5/8"	L.S.	20	X		~~4792~~ 542	~~4792~~ 542	170 sks	
PRODUCTION	4-1/2"	J-55	10.5	X		4895	4895	450 sks	
TUBING									
LINERS									

FORM-WR37
(REVERSE)

MECHANICAL INTEGRITY TEST

Test Method: Positive pressure on 4½" csg. - 2000# for 20 minutes
See attached chart

The undersigned certifies that the test was performed on September 26, 19 95 and demonstrated the mechanical integrity of the well. The test was witnessed by _____ representing the Office of Oil and Gas.

Pennzoil Products Company
Well Operator

12/26/95
Date

THIS WELL IS AUTHORIZED FOR INJECTION.

Signed _____ UIC PROGRAM DIRECTOR

Date 2/1/96

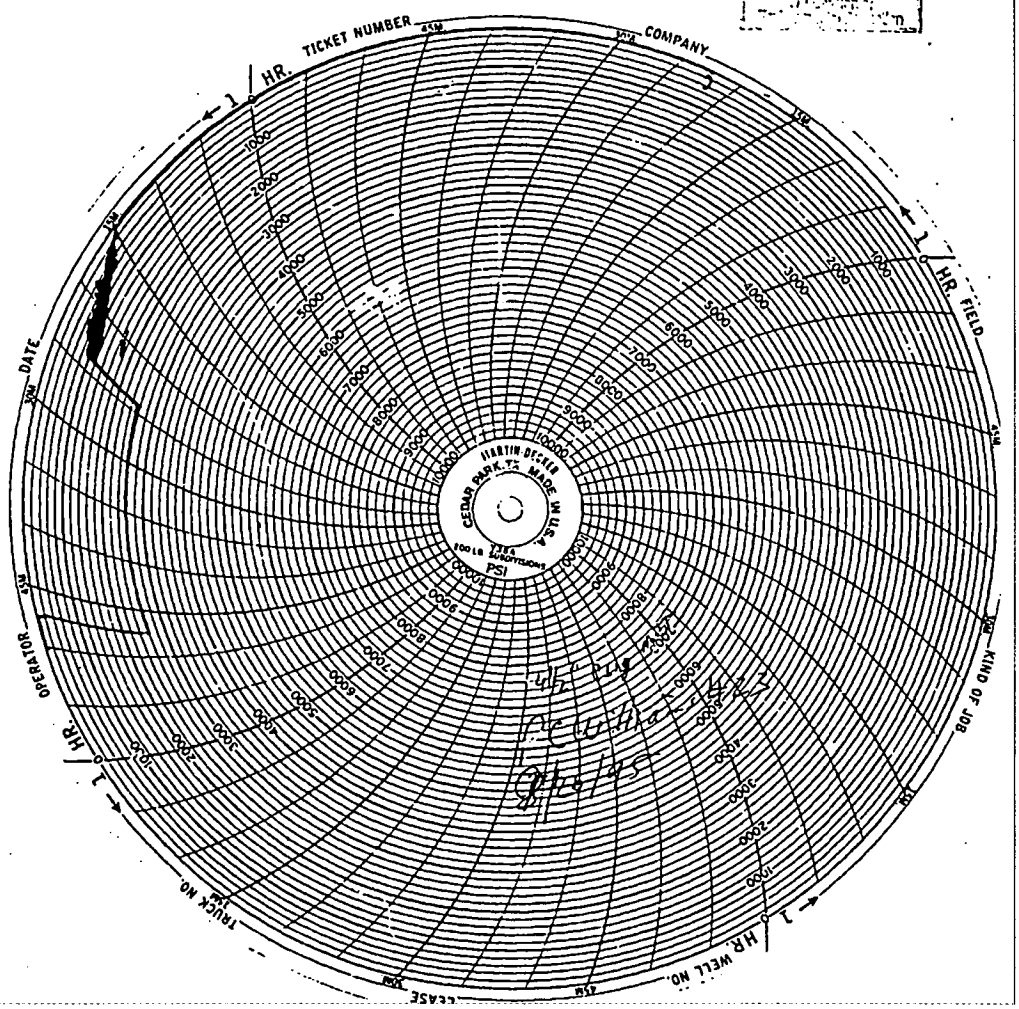
[NOTE: That the mechanical integrity of this well must be demonstrated again within ninety (90) days of five years from this date in order for injection to continue. Please notify the state inspector 24 hours in advance of the test].

Pennzoil Products Company
(Well Operator)

By: _____

Its Petroleum Engineer

P. C. Williams #23
47-033-4096



OG-10
Rev. - 9-71

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

RECEIVED
FEB 13 1979
OIL & GAS DIVISION
DEPT. OF MINES

Rotary X Oil ____
Cable ____ Gas X
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ ____ (Kind)

Quadrangle Wolf Summit

Permit No. HAR-1966

Company Doran & Associates, Inc.
Address 728 Washinton Road, Pgh., PA
Farm L. H. Rogers Acres 120
Location (waters) Little Ten Mile Creek
Well No. B-1165 (K-L-81) Elev. 1241'
District Sardis County Harrison
The surface of tract is owned in fee by Gerald & Louise McGinnis
Address Clarksburg, WV 26301
Mineral rights are owned by Martha Cooksey
Address Bridgeport, WV 2633
Drilling Commenced December 6, 1978
Drilling Completed December 14, 1978
Initial open flow 84 cu. ft. -- bbls.
Final production 738 cu. ft. per day -- bbls.
Well open 72 hrs. before test 1675# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10" 11 3/4'			
9 5/8			
8 5/8	1225'	1225'	215 sks.
7			
5 1/2			
4 1/2	4132'	4132'	325 sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record:

Interval Perforated:	FROM	TO	AMT. FLUID	AMT. SAND
DATE: 1-5-79	3450	3507	572 BBLS.	60,000#
	3155	3177	667 BBLS.	60,000#

Coal was encountered at 210' & 357' Feet ____ Inches
Fresh water 130' Feet ____ Salt Water ____ Feet ____
Producing Sand Balltown - Lower Speechley Depth 3499' - 3160'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Fill			0	40		
Sand			40	180	F. W. @ 130'	
Coal			180	185		
Sand			185	210		
Coal			210	215		
Sand			215	295		
Sandy Shale			295	357		
Coal			357	360		
Sandy Shale & Red Rock			360	745		
Sand			745	800		
Sandy Shale			800	910		
Sand			910	945		
Sandy Shale			945	1015		
Sand			1015	1225		
Shale			1225	1490		
Little Lime			1490	1510		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sandy Shale			670	715		
Sand			715	745		
Sandy Shale			745	895		
Sand			895	975		
Sandy Shale			975	1080		
Sand			1080	1110		
Sandy Shale			1110	1235		
Sand			1235	1305		
Sandy Shale			1305	1390		
Lime			1390	1460		
Sand			1460	1535		
Sandy Shale			1535	1655		
Sand			1655	1675		
Sandy Shale			1675	1900		
Sand			1900	2065		
Sandy Shale			2065	2085		
Sand			2085	2145		
Sandy Shale			2145	2370	Gas @ 2235'	
Sand			2370	2400		
Sandy Shale			2400	2795		
Sand			2795	2850	Gas @ 2825'	
Sandy Shale			2850	4400	Gas @ 4275'	
Sand			4400	4420		
Sandy Shale			4420	4560		
Drillers' T. D.				4560		

FEB 9 1972

Date Feb. 5 1972

APPROVED Donald R. Laughlin Owner

By Mgr. Prod & Engr.
(Title)

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04098 Area Permit Number: 2R03301 AP

Operator Name: HG Energy

Operator's Well #: 2

Farm Name: WM Dennison

Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐

Well Status: Active ● Abandoned ☐ Plugged ☐

TD of well: 2783

Completion Zones: 5th Perforated Interval:

Well Location (UTM NAD83)

Coordinates Match?: No ☐ Yes ☑

Easting: 541602.3 Northing: 4348868.3

Elevation:

Inside Field Boundary? ●

Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐

Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑ ?
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑ ?
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ If No: Provide Depth: Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:

Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
WV Division of
Environmental Protection
JUL 28 1995
Permitting
Office of Oil & Gas

Form 226 0445 1200

0134 1135

WELL RECORD.

Wm. Dawson Farm, W. Va. Acres
Grn. Mile District Harrison County W. Va. State

Well No. 2

Rig Commenced April 25 1900 } G. H. Rowe & Co. Contractor.
Rig Completed May 1 " "

Drilling Commenced " 7 " " } H. Parker Contractor.
Drilling Completed June 12 " "

FORMATION.	TOP.	REMARKS.	BOTTOM
Cond.	12 ft.		
10" Casg	460		
8¼ "	971		
6⅝ "	1858		
Pgh. Coal	1410		416
Big Dunkard	910		1050
" Lime	1736		1886
" Sand	1834		1900
50 ft Sand.	2330		2350
Gordon "	2537		2590
5th "	2758		2764
Total Depth			2783

033-4098

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47- 033 – 04101 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: GL. Duncan #4
Farm Name: Lyons, Michael & Doris
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☑ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☐
TD of well: 2814
Completion Zones: 5th Perforated Interval: 2695 – 2698

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1175
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

[illegible]	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

15-Aug-95
API # 47-33-04101 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: LYONS, MICHAEL & DORIS Operator Well No.: G.L. DUNCAN #4

LOCATION: Elevation: 1,175.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 6,650 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 10,800 Feet west of 80 Deg 25 Min 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 08/16/95
Well work Commenced: 10/18/95
Well work Completed: 02/01/96
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2,814
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 310' - 317'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8	372'	372'	210 SKS
4 ½"	2756.15'	2756.15'	200 SKS

RECEIVED
Office of Oil & Gas
Permitting
MAR 05 2002
WV Department of
Environmental Protection

OPEN FLOW DATA * Water Injection Well

Producing formation Fifth Sand Pay zone depth (ft) 2688-2704
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hour

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hour

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald J. Bright
Date: 2-5-96

Treatment : Perforated Fifth Sand from 2,695' to 2,698' w/ 12 holes. Treated w/ 300 gals 15% HCl, 173 bbl gelled water, and 5,000 lbs 20/40 sand.

Well Log : All depths are measured depths relative to KB.

Sand and Shale	0	-	310'
Pittsburgh Coal	310'	-	317'
Sand	317'	-	357'
Shale w/ sand streaks	357'	-	480'
Sand	480'	-	502'
Shale	502'	-	810'
Sand w/ shale streaks	810'	-	863'
Shale w/ sand streaks	863'	-	1025'
Sand	1025'	-	1101'
Shale w/ sand streaks	1101'	-	1220'
Sand	1220'	-	1248'
Shale w/ sand streaks	1248'	-	1596'
Maxton Sand	1596'	-	1674'
Shale	1674'	-	1686'
Big Lime	1686'	-	1772'
Big Injun	1772'	-	1829'
Shale	1829'	-	2272'
Fifty Foot Sand	2272'	-	2290'
Shale	2290'	-	2348'
Thirty Foot Sand	2348'	-	2361'
Shale and sand	2361'	-	2458'
Gordon Sand	2458'	-	2498'
Shale	2498'	-	2513'
Fourth Sand	2513'	-	2528'
Shale w/ sand streaks	2528'	-	2688'
Fifth sand	2688'	-	2704'
Shale and Sand	2704'	-	2800'

T.D. -Logger	2800'	KB
T.D. -Driller	2814'	KB

WR-35

31-Mar-02

API # 47-033-04101

RECEIVED
Office of Oil & Gas
Permitting
JUL 24 2002
WV Department of
Environmental Protection

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: Lyons, Michael & Doris
LOCATION: Elevation: 1,175.00
District: Ten Mile
Latitude: 6,650 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 10,800 Feet west of 80 Deg 25 Min 30 Sec.

Operator Well No.: G.L. Duncan #4
Quadrangle: Wolf Summit 7.5"
County: Harrison

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: Michael McCown
Inspector: Tim Bennett

Permit Issued: 3/31/2002
Well work Commenced: 7/3/2002
Well work Completed: 7/18/2002
Verbal plugging permission granted on: _____
Rotary X Cable ___ Rig
Total Depth (feet) 2814'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): 310-317

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	372'	372'	Existing Casing
4 1/2"	2756.15'	2756.15'	Existing Casing

OPEN FLOW DATA

Producing formation Thirty Foot Sand, Gordon Sand Pay zone depth (ft) 2348-2498
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation Maxton Sand Pay zone depth (ft) 1596-1674
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: [signature]
Date: 9/19/02

Treatment :

Set drillable bridge plug @2600'.

Stage 1: Perforated@2354', 2356',2360',2369',2471',2473',2475',2477', 2479',2481',2483' (1 hole/interval).
Treated w/500 gal 15% HCl, 490 bbls foam and 21,500# 20/40 sand.

Stage 2: Perforated@1806'-1822' (2 holes/ft).
Treated w/500 gal 15% HCl, 450 bbls foam and 21,900# 20/40 sand.

Stage 3: Perforated@1602',1604',1610',1612',1614',1616', 1618', 1620', 1626', 1628', 1630', 1632', 1634', 1636', 1638', 1640', 1648', 1650', 1652', 1654' (1 hole/interval).
Treated w/500 gal 15% HCl, 525 bbls foam, 41,000# 20/40 sand.

Well Log :

Note: All depths relative to K.B.

Sand & Shale	0	-	310
Pittsburgh Coal	310	-	317
Sand	317	-	357
Shale w/sand streaks	357	-	480
Sand	480	-	502
Shale	502	-	810
Sand w/shale streaks	810	-	863
Shale w/sand streaks	863	-	1025
Sand	1025	-	1101
Shale w/sand streaks	1101	-	1220
Sand	1220	-	1248
Shale w/sand streaks	1248	-	1596
Maxton Sand	1596	-	1674
Shale	1674	-	1686
Big Lime	1686	-	1772
Big Injun	1772	-	1829
Shale	1829	-	2272
Fifty Foot Sand	2272	-	2290
Shale	2290	-	2348
Thirty Foot Sand	2348	-	2361
Shale and Sand	2361	-	2458
Gordon Sand	2458	-	2498
Shale	2498	-	2513
Fourth Sand	2513		2528
Shale w/sand streaks	2528	-	2688
Fifth Sand	2688	-	2704
Shale and Sand	2704	-	2800
	2800	-	TD

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Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04109 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: Hiram Lyle 48
Farm Name: Fuse, Anne Et Al
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☒ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☐ Shut In
TD of well: 2800
Completion Zones: Fifth Sand Perforated Interval: 2655 - 2658'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544573.1 Northing: 4348669
Elevation: 1086
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☐ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: _____
No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Josh Westfall Signature:
Date Reviewed: 7/6/2017

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

08-Nov-95

API # 47- 33-04109 S

#17

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: FARR, ANNE ETAL. Operator Well No.: HIRAM LYNCH #48

LOCATION: Elevation: 1,086.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 2000 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 7100 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 11/09/95
Well work Commenced: 11-28-95
Well work Completed: 12-18-95
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2800
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 314-320

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8"	398.60'	398.60'	150 Sks.
4-1/2"	2742.95'	2742.95'	200 Sks.

RECEIVED
Office of Oil & Gas
Permitting
SEP 28 2001
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation Fifth Sand Pay zone depth (ft) 2651-2666
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock Pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY

By: Donald S. Bright

Date: January 3, 1996

Treatment - Perforated Fifth Sand 2655'-2658' with 12 holes. Treated Fifth Sand with 300 gals. 15% Hcl, 182 bbls gelled water and 5,000 lbs. 20/40 sand.

Well Log -

Shale w/Sand streaks	0' - 314'
Pittsburgh Coal	314' - 320'
Sand	320' - 404'
Shale w/Sand streaks	404' - 1016'
Sand w/Shale streaks	1016' - 1104'
Shale w/Sand streaks	1104' - 1248'
Sand w/Shale streaks	1248' - 1344'
Shale	1344' - 1625'
Limestone (Little Lime)	1625' - 1642'
Shale	1642' - 1664'
Limestone (Big Lime)	1664' - 1741'
Sand (Big Injun)	1741' - 1816'
Shale	1816' - 2245'
Sand (Fifty Foot)	2245' - 2252'
Shale	2252' - 2333'
Sand (Thirty Foot)	2333' - 2340'
Sand	2340' - 2363'
Sand w/Shale streaks	2363' - 2416'
Sand (Gordon)	2416' - 2443'
Shale w/Sand streaks	2443' - 2475'
Sand (Fourth)	2475' - 2485'
Shale w/Sand streaks	2485' - 2651'
Sand (Fifth)	2651' - 2666'
Shale	2666' - 2818'
T.D. - Logger	2818'
T.D. - Driller	2800'

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AOR - Well Review Checklist

API Number: 47-033- 4121 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: Brown #19
Farm Name: Rogers, Aubrey
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 3041'
Completion Zones: 5th Perforated Interval: 2950-2953

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545907.9 Northing: 4351657.9
Elevation: 1346
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion — No ☑ Yes ☐
Well penetrates injection zone? — No ☐ Yes ☑
Well perforated in injection zone? — No ☐ Yes ☑
Cemented across injection zone? — No ☐ Yes ☑
Packer immediately above injection zone (<100')? — No ☐ Yes ☐ No Packer ☐
If No: Provide Depth: No ☐ Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

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WV Division of Environmental Protection
SEP 30 1996
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Office of Oil & Gas

06-Jun-96
API # 47-33-04121

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: ROGERS, AUBREY Operator Well No.: B.H. BROWN #19

LOCATION: Elevation: 1,346.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 7,400 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 2,600 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 6/10/96
Well work Commenced: 7/24/96
Well work Completed: 8/23/96
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3,041
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 589' - 597'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8"	695.65	695.65	175 SKS
4 ½"	2994.6	2994.6	200 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2941-2958'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald S. Wright
Date: 9-27-96

HAR 4121

Treatment : Perforated Fifth Sand from 2,950' to 2,953' w/ 12 holes. Treated w/ 300 gals 15% HCl, 188 bbl gelled water, and 5,000 lbs 20/40 sand.

Well Log : All depths are measured depths relative to KB.

Sand and Shale	0	-	589
Pittsburgh Coal	589	-	597
Sand w/ shale streaks	597	-	695
Shale w/ sand streaks	695	-	1,097
Sand	1,097	-	1,125
Shale w/ sand streaks	1,125	-	1,206
Sand	1,206	-	1,267
Shale	1,267	-	1,305
Sand w/ shale streaks	1,305	-	1,385
Shale w/ sand streaks	1,385	-	1,595
Sand	1,595	-	1,619
Shale	1,619	-	1,850
Maxton Sand	1,850	-	1,917
Shale	1,917	-	1,934
Big Lime Sand	1,934	-	2,050
Big Injun Sand	2,050	-	2,080
Shale w/ sand streaks	2,080	-	2,514
Fifty Foot Sand	2,514	-	2,536
Shale	2,536	-	2,599
Thirty Foot Sand	2,599	-	2,606
Sand and shale	2,606	-	2,706
Gordon Sand	2,706	-	2,749
Sand w/ shale streaks	2,749	-	2,776
Fourth Sand	2,776	-	2,787
Shale	2,787	-	2,941
Fifth Sand	2,941	-	2,958
Shale			3,041
TD - Logger	3,041		
TD - Driller	3,041		

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AOR - Well Review Checklist

API Number: 47-033- C04124 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 17
Farm Name: S.W. Denham
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3080
Completion Zones: 5th Sand Perforated Interval: 2950-2954'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 545360.9 Northing: 4348850.7
Elevation: 1441
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
WV Division of Environmental Protection
SEP 30 1996
Permitting
Office of Oil & Gas

02-Jul-96
API # 47-33-04124

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: GLASPELL, MARY & PAUL JR. Operator Well No.: J.W. DENNISON #17

LOCATION: Elevation: 1,441.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 1,400 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 4,500 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 7/2/96
Well work Commenced: 7/30/96
Well work Completed: 8/22/96
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3,080
Fresh water depths (ft) 390', 480'

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 572' - 580'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8"	658.95	658.95	185 SKS
4 ½"	3047.25	3047.25	200 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2947-2964'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald D Bright
Date: 9-27-96

HAR 4124

Treatment : Perforated Fifth Sand from 2,950' to 2,954' w/ 16 holes. Treated w/ 300 gals 15% HCl, 191 bbl gelled water, and 5,000 lbs 20/40 sand.

Well Log : All depths are measured depths relative to KB.

Sand	0	-	80
Shale w/ sand streaks	80	-	363
Sand w/ shale streaks	363	-	572
Pittsburgh Coal	572	-	580
Shale	580	-	601
Sand	601	-	628
Shale w/ sand streaks	628	-	976
Sand	976	-	997
Shale	997	-	1038
Sand	1038	-	1057
Shale	1057	-	1286
Sand	1286	-	1433
Sand w/ shale streaks	1433	-	1577
Sand w/ shale streaks	1577	-	1667
Shale	1667	-	1920
Little Lime Sand	1920	-	1938
Shale	1938	-	1960
Big Lime Sand	1960	-	2050
Big Injun Sand	2050	-	2107
Shale	2107	-	2722
Gordon Sand	2722	-	2758
Sand	2758	-	2780
Fourth Sand	2780	-	2793
Shale w/ sand streaks	2793	-	2948
Fifth Sand	2948	-	2964
Shale	2964	-	3078
TD - Logger	3078		
TD - Driller	3080		

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AOR - Well Review Checklist

API Number: 47-033- 04123 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 16
Farm Name: Romayne, David S.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☒ Plugged ☐
TD of well: 2935'
Completion Zones: 5th Perforated Interval: 2792 - 2795'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 516016.4 Northing: 4349629
Elevation: 1305
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

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WV Division of
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SEP 30 1996

Permitting
Office of Oil & Gas

24-Jul-96
API # 47-33-04123

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: ROMANO, DAVID J. Operator Well No.: J.W. DENNISON #16

LOCATION: Elevation: 1,305.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 13,950 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 2,350 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 6/14/96
Well work Commenced: 8/15/96
Well work Completed: 8/30/96
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2,935
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 428' - 435'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8"	525	525	215 SKS
4 ½"	2886.65	2886.65	275 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2789-2801'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald J. Bright
Date: 9-27-96

HAR 4123

Treatment : Perforated Fifth Sand from 2,792' to 2,795' w/ 12 holes. Treated w/ 300 gals 15% HCl, 186 bbl gelled water, and 5,000 lbs 20/40 sand.

Well Log : All depths are measured depths relative to KB.

Sand and Shale	0	-	428
Pittsburgh Coal	428	-	435
Sand w/ shale streaks	435	-	487
Shale w/ sand streaks	487	-	917
Sand	917	-	980
Shale	980	-	1,135
Sand w/ shale streaks	1,135	-	1,230
Shale w/ sand streaks	1,230	-	1,423
Sand w/ shale streaks	1,423	-	1,597
Shale	1,597	-	1,763
Little Lime Sand	1,763	-	1,778
Shale	1,778	-	1,819
Big Lime Sand	1,819	-	1,892
Big Injun Sand	1,892	-	1,943
Shale	1,943	-	2,363
Fifty Foot Sand	2,363	-	2,386
Shale	2,386	-	2,444
Thirty Foot Sand	2,444	-	2,456
Sand and shale	2,456	-	2,574
Gordon Sand	2,574	-	2,604
Shale	2,604	-	2,611
Fourth Sand	2,611	-	2,637
Shale w/ sand streaks	2,637	-	2,789
Fifth Sand	2,789	-	2,801
Shale	2,801	-	2,936

TD - Logger	2,936
TD - Driller	2,935

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AOR - Well Review Checklist

API Number: 47-033- 04132 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: Denman 7
Farm Name: Ross, Steven & Everett
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: ~~Active~~ Abandoned ☒ Plugged ☐
TD of well: 2720
Completion Zones: 5th Perforated Interval: 2589 - 2592, 2599 - 2600

Well Location (UTM NAD83)
Easting: 521574 6.1 Coordinates Match?: No ☐ Yes ☐
Elevation: 1102 Northing: 4134 9062.4
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/2017

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

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WV Division of Environmental Protection
SEP 3 1 1996
Permitting Office of Oil & Gas

24-Jul-96
API # 47-33-04132

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: ROSS, STEVEN & EVERETT Operator Well No.: W.M. DENNISON #7

LOCATION: Elevation: 1,102.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 750 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 3,200 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 7/31/96
Well work Commenced: 8/20/96
Well work Completed: 8/30/96
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2,720
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 219' - 226'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8"	307	307	125 SKS
4 ½"	2662	2662	200 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2587-2606'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation ____ Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald J. Bryant
Date: 9-27-96

HAA 4132

Treatment : Perforated Fifth Sand from 2,589' to 2,592' and 2,599' to 2,600' w/ 12 holes. Treated w/ 300 gals 15% HCl, 188 bbl gelled water, and 5,000 lbs 20/40 sand.

Well Log : All depths are measured depths relative to KB.

Sand and Shale	0	-	219
Pittsburgh Coal	219	-	226
Sand w/ shale streaks	226	-	315
Shale w/ sand streaks	315	-	712
Sand	712	-	765
Shale w/ sand streaks	765	-	920
Sand w/ shale streaks	920	-	1,043
Shale w/ sand streaks	1,043	-	1,127
Sand and shale	1,127	-	1,241
Shale w/ sand streaks	1,241	-	1,564
Little Lime Sand	1,564	-	1,587
Shale	1,587	-	1,615
Big Lime Sand	1,615	-	1,691
Big Injun Sand	1,691	-	1,748
Shale w/ sand streaks	1,748	-	2,163
Fifty Foot Sand	2,163	-	2,184
Shale w/ sand streaks	2,184	-	2,246
Thirty Foot Sand	2,246	-	2,254
Sand and shale	2,254	-	2,369
Gordon Sand	2,369	-	2,405
Shale	2,405	-	2,410
Fourth Sand	2,410	-	2,435
Shale	2,435	-	2,587
Fifth Sand	2,587	-	2,606
Shale	2,606	-	2,720
TD - Logger	2,727		
TD - Driller	2,720		

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AOR - Well Review Checklist

API Number: 47-033- 04162 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 9 Wagner, Henry E.
Farm Name:
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2810
Completion Zones: 5th Perforated Interval: 2682-2685' & 2688-2691'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541691 Northing: 4350595
Elevation: 1200'
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
*RBDMS has well use as fluid injection?

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

24-Mar-97
API # 47-33-04162 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: WAGNER, HARRY K. Operator Well No.: E.A. DUNCAN #9

LOCATION: Elevation: 1,200.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 10,850 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 50 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 3/17/97
Well work Commenced: 5/17/97
Well work Completed: 6/13/97
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2,810
Fresh water depths (ft) 295

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 312 - 320

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 8-5/8	398'	398'	170 SKS
4 ½"	2746'	2746'	140 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2681-2702
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald D Bright
Date: 8-13-97

HAR 4162S

Treatment : Perforated Fifth Sand from 2682' to 2685' w/ 12 holes and 2688'-2691' w/ 12 holes. Treated w/ 207 bbs gelled water and 5,200# 20/40 sand at approx. 10 BPM.

Well Log : All depths are measured relative to KB.

Shale w/ sand streaks	0	-	312'
Pittsburgh Coal	312'	-	320'
Shale	320'		356'
Shale w/ sand streaks	356'	-	806'
Sand	806'	-	860'
Shale w/ sand streaks	860'	-	1032'
Sand	1032'	-	1105'
Shale w/ sand streaks	1105'	-	1375'
Shale	1375'		1652'
Maxton Sand	1652'	-	1670'
Shale w/ sand streaks	1670'	-	1698'
Big Lime	1698'	-	1778'
Big Injun	1778'	-	1832'
Shale	1832'	-	2266'
Fifty Foot	2266'	-	2280'
Shale and sand	2280'	-	2341'
Thirty Foot	2341'	-	2354'
Shale and sand	2354'	-	2460'
Gordon	2460'	-	2480'
Shale and Sand	2480'	-	2503'
Fourth	2503'	-	2531'
Shale w/ sand streaks	2531'	-	2681'
Fifth sand	2681'	-	2702'
Shale	2702'	-	2774'

T.D. -Logger	2774'	KB
T.D. -Driller	2810'	KB

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04163 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: BT Strothers # 6
Farm Name: Smith, Harley Glenn
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☑ Plugged ☐
TD of well: 3116
Completion Zones: 5th Sand Perforated Interval: 2963 -2973

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547407.3 Northing: 4351779.7
Elevation: 1501
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: _____ Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☐ Yes ☑
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:
No ☐ Yes ☐

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Wilson Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

24-Mar-97
API # 47-33-04163 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: SMITH, HARLEY GLENN Operator Well No.: B.T. STROTHERS #6

LOCATION: Elevation: 1,501.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 7,000 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 9,450 Feet west of 80 Deg 25 Min 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 3/17/97
Well work Commenced: 5/1/97
Well work Completed: 6/13/97
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3,116
Fresh water depths (ft) 591

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 589 - 594

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8	666'	666'	295 SKS
4 ½"	3030'	3030'	275 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2962-2979
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hour

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hour

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald S. Bright
Date: 8-13-97

HAP 4163 S

Treatment : Perforated Fifth Sand from 2968' to 2973' w/ 20 holes. Treated w/ 216 bbls gelled water and 5,500# 20/40 sand at approx. 10 BPM.

Well Log : All depths are measured relative to KB.

Shale w/ sand streaks	0	-	589'
Pittsburgh Coal	589'	-	594'
Shale	594'		616'
Sand	616'		632'
Shale w/ sand streaks	632'	-	700'
Sand	700'	-	718'
Shale w/ sand streaks	718'	-	758'
Sand	758'	-	778'
Shale w/ sand streaks	778'	-	1084'
Sand	1084'	-	1134'
Shale w/ sand streaks	1134'	-	1595'
Sand	1595'	-	1603'
Shale w/ sand streaks	1603'	-	1886'
Maxton Sand	1886'	-	1922'
Sand and shale	1922'	-	2030'
Big Lime	2030'	-	2050'
Big Injun	2050'	-	2102'
Shale	2102'	-	2544'
Fifty Foot	2544'	-	2551'
Shale and sand	2551'	-	2624'
Thirty Foot	2624'	-	2636'
Shale and sand	2636'	-	2746'
Gordon	2746'	-	2763'
Shale	2763'	-	2784'
Fourth	2784'	-	2804'
Shale w/ sand streaks	2804'	-	2964'
Fifth sand	2964'	-	2978'
Shale	2978'	-	3066'
T.D. -Logger	3066'	KB	
T.D. -Driller	3116'	KB	

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AOR - Well Review Checklist

API Number: 47- 033 - 0 4164 Area Permit Number: 2R 03301 AP
Operator Name: HG Energy
Operator's Well #: L Williams #7
Farm Name: Bonnie H Williams
Field Name: WCH Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☑ Plugged ☐
TD of well: 2683'
Completion Zones: Fifth Sand Perforated Interval: 2552'-2556' 2546' to 2549'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 541683.1 Northing: 4351566.7
Elevation: 1692
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑ Abandoned
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☐

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Abandoned / Ordered in Database "0" Production Since 2010

Reviewer Name: Laura Adkins Signature: Laura L. Adkins
Date Reviewed: 12-9-16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

17-Mar-97
API # 47-33-04164 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: WILLIAMS, BONNIE Operator Well No.: L. WILLIAMS #7

LOCATION: Elevation: 1,035.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 7,750 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 11,150 Feet west of 80 Deg 25 Min 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 3/17/97
Well work Commenced: 5/13/97
Well work Completed: 6/13/97
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2,683
Fresh water depths (ft) 165

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 169 - 177

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 8-5/8	265'	265'	105 SKS
4 ½"	2618'	2618'	140 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2544-2558
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald A Bright
Date: 8-13-97

HAR 4164 S

Treatment : Perforated Fifth Sand from 2546' to 2549' w/ 12 holes and 2552'-2556' w/ 16 holes. Treated w/ 206 bbs gelled water and 5,000# 20/40 sand at approx. 10 BPM.

Well Log : All depths are measured relative to KB.

Shale w/ sand streaks	0	-	169'
Pittsburgh Coal	169'	-	177'
Shale w/ sand streaks	177'	-	338'
Sand	338'	-	362'
Shale w/ sand streaks	362'	-	1160'
Sand	1160'	-	1190'
Shale w/ sand streaks	1190'	-	1472'
Maxton Sand	1472'	-	1498'
Shale w/ sand streaks	1498'	-	1550'
Big Lime	1550'	-	1632'
Big Injun	1632'	-	1688'
Shale	1688'	-	2132'
Fifty Foot	2132'	-	2140'
Shale and sand	2140'	-	2207'
Thirty Foot	2207'	-	2218'
Shale and sand	2218'	-	2323'
Gordon	2323'	-	2344'
Shale and Sand	2344'	-	2361'
Fourth	2361'	-	2386'
Shale w/ sand streaks	2386'	-	2544'
Fifth sand	2544'	-	2558'
Shale	2558'	-	2660'

T.D. -Logger	2658'	KB
T.D. -Driller	2683'	KB

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AOR - Well Review Checklist

API Number: 47-033- 03946 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 8
Farm Name: Johnson, Buckley H et al
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2776'
Completion Zones: 5th Perforated Interval: 2646 - 2648'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544595.4 Northing: 4350394
Elevation: 983
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

07-Aug-93
API # 47- 33-03946

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JOHNSON, BUDDY H. ETAL. Operator Well No.: T.H.WILLIAMS #8

LOCATION: Elevation: 983.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 11450 Feet South of 39 Deg. 20Min. Sec.
Longitude 7050 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: TIM BENNETT
Permit Issued: 08/03/93
Well work Commenced: 1/4/94
Well work Completed: 6/23/94
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2776'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 435'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			To Surface
8-5/8	349'	349'	130 Sks.
4-1/2	2732'	2732'	400 Sks.

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2640'-2653'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HAX 3946

For: PENNZOIL PRODUCTS COMPANY
By: [signature]
Date: 7/8/94

Treatment

Perforated: Fifth Sand with 12 holes 2646'-2648'
Treated with 300 gal. 15% HCl 189 Bbl. gelled water
and 5000# 20/40 sand

Well Log:

Sand & Shale	0' - 435'
Coal	435' - 442'
Sand & Shale	442' - 1060'
Sand	1070' - 1100'
Sand & Shale	1100' - 1568'
Sand	1568' - 1620'
Shale	1620' - 1725'
Sand	1725' - 1786'
Shale	1786' - 2216'
Sand	2216' - 2230'
Shale	2230' - 2320'
Sand & Shale	2320' - 2478'
Shale	2478' - 2640'
Fifth Sand	2640' - 2653'
T.D.	2776'

-5571

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AOR - Well Review Checklist

API Number: 47-033-04165 S Area Permit Number: 2R 03301 AP
Operator Name: Pennzoil Products Co.
Operator's Well #: J. Flaherty #10 / Smith, Harley
Farm Name: Finley, Alta E.
Field Name: ~~Mingo Flat~~ Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☐
TD of well: ~~3052~~ 3052'
Completion Zones: Fifth Sand Perforated Interval: 2934' - 2939'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547098.5 Northing: 4352277.1
Elevation: ~~1419~~ 1419'
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☑
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
Waterflood Producer - ERIS Shows Abandoned / Order

Reviewer Name: Laura L. Adkins Signature: Laura L. Adkins
Date Reviewed: 7/21/16

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

19-Mar-97
API # 47-33-04165 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: FINLEY, ALTA E. Operator Well No.: J. FLAHERTY #10

LOCATION: Elevation: 1,419.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON
Latitude: 5,450 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 10,450 Feet west of 80 Deg 25 Min 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 3/17/97
Well work Commenced: 5/6/97
Well work Completed: 6/13/97
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3,052
Fresh water depths (ft) 594

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 547 - 554

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 8-5/8	663'	663'	290 SKS
4 ½"	2981'	2981'	140 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2927-2946
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald A Bright
Date: 8-13-97

HAP 11165 S

Treatment : Perforated Fifth Sand from 2934' to 2939' w/ 20 holes. Treated w/ 211 bbls gelled water and 5,000# 20/40 sand at approx. 10 BPM.

Well Log : All depths are measured relative to KB.

Shale w/ sand streaks	0	-	547'
Pittsburgh Coal	547'	-	554'
Shale w/ sand streaks	554'	-	722'
Sand	722'	-	744'
Shale w/ sand streaks	744'	-	1176'
Sand	1176'	-	1232'
Shale w/ sand streaks	1232'		1280'
Sand	1280'		1340'
Shale w/ sand streaks	1340'		1868'
Maxton Sand	1868'	-	1898'
Shale w/ sand streaks	1898'	-	1928'
Big Lime	1928'	-	1974'
Big Injun	1974'	-	2066'
Shale	2066'	-	2511'
Fifty Foot	2511'	-	2524'
Shale and sand	2524'	-	2586'
Thirty Foot	2586'	-	2597'
Shale and sand	2597'	-	2704'
Gordon	2704'	-	2720'
Shale and Sand	2720'	-	2764'
Fourth	2764'	-	2776'
Shale w/ sand streaks	2776'	-	2927'
Fifth sand	2927'	-	2946'
Shale	2946'	-	2998'

T.D. -Logger	2998'	KB
T.D. -Driller	3052'	KB

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AOR - Well Review Checklist

API Number: 47-033-04168 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: AM Carter #7
Farm Name: Cumberledge, Wm O.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3092
Completion Zones: 5th Perforated Interval: 2940 - 2946

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 545993.2 Northing: 4351497.3
Elevation: 1326
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
RBDMS well type as Fluid Injection
TPW 6/19/2017

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

09-Apr-97
API # 47-33-04168 S

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: CUMBERLEDGE, Wm. O. Operator Well No.: A.M. CARTER #7

LOCATION: Elevation: 1,326.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 7,850 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 3,250 Feet west of 80 Deg 27 Min 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Tim Bennett
Permit Issued: 4/7/97
Well work Commenced: 5/22/97
Well work Completed: 6/20/97
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3,092
Fresh water depths (ft) 564

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 586 - 593

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8	664'	664'	295 SKS
4 ½"	3045'	3045'	140 SKS

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2940-2949
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTEREDBY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Donald J. Bright
Date: 8-13-97

HAR 41685

Treatment : Perforated Fifth Sand from 2940' to 2946' w/ 24 holes. Treated w/ 221 bbls gelled water and 5,000# 20/40 sand at approx. 10 BPM.

Well Log : All depths are measured relative to KB.

Shale w/ sand streaks	0	-	586'
Pittsburgh Coal	586'	-	593'
Shale	593'		630'
Shale w/ sand streaks	630'	-	756'
Sand	756'	-	780'
Shale w/ sand streaks	780'	-	910'
Shale	910'	-	1090'
Sand	1090'	-	1130'
Shale w/ sand streaks	1130'		1310'
Sand	1310'		1390'
Shale w/ sand streaks	1390'		1856'
Maxton Sand	1856'	-	1906'
Shale w/ sand streaks	1906'	-	1936'
Big Lime	1936'	-	2019'
Big Injun	2019'	-	2069'
Shale	2069'	-	2520'
Fifty Foot	2520'	-	2528'
Shale and sand	2528'	-	1626'
Thirty Foot	1626'	-	2646'
Shale and sand	2646'	-	2710'
Gordon	2710'	-	2728'
Shale and Sand	2728'	-	2770'
Fourth	2770'	-	2776'
Shale w/ sand streaks	2776'	-	2940'
Fifth sand	2940'	-	2949'
Shale	2949'	-	3032'

T.D. -Logger	3032'	KB
T.D. -Driller	3092'	KB

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04075 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: Nathan Goff #25
Farm Name: Nathan Goff
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☒ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2680
Completion Zones: 5th Perforated Interval: Open

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544083.4 Northing: 4349859.5
Elevation: 993
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☐	Yes ☑
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☐?
Cemented across injection zone?		No ☑	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 12/6/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

API # 47- 033-4075

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: NATHAN GOFF Operator Well No.: 25

LOCATION: Elevation: 993' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 39° 20'00" Deg.
Longitude 80° 27'30" Deg.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV

Agent: JAMES A. CREWS

Inspector:
Permit Issued:
Well work Commenced: 1/1/1900
Well work Completed: 7/31/1900
Verbal Plugging
Permission granted on:
Rotary_____ Cable _____ Rig
Total Depth (feet) 2680
Fresh water depths (ft) 315

Salt water depths (ft) None

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 315

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
10"	340	0	0
8-1/4"	904	904	0
6-5/8"	1720	1720	0

OPEN FLOW DATA

Producing formation Fifth Sandstone Pay zone depth (ft) 2642
Gas: Initial open flow N/A MCF/d Oil: Initial open flow 40 Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests Unknown Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation None Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY

By: Edward L. Crews

Date: 1/12/94

DEPTH		FORMATION TYPE	FORMATION NAME
TOP	BOTTOM		
0'	310'	Shale	
310'	315'	Coal	Pittsburgh Coal
315'	1542'	Shale & Sand	
1542'	1570'	Sand	Maxton
1570'	1592'	Shale	
1592'	1642'	Limestone	Big Lime
1642'	1717'	Shale	
1717'	1770'	Sand	Big Injun
1770'	2205'	Shale	
2205'	2230'	Sand	Fifty Foot
2230'	2317'	Shale	
2317'	2325'	Sand	Thirty Foot
2325'	2382'	Shale	
2382'	2482	Sand	Gordon
2482'	2642'	Shale	
2642'	2670'	Sand	Fifth Sandstone
2670'	2680'	Shale	

NOTE:
1. All data is estimated based on nearby wells and normal practices during era that well was drilled.
2. All casing listed on front was pulled at some time in the past. Well was abandoned at an unknown date.
3. No well record exists for this well.

RECEIVED
Office of Oil & Gas
UIC Section
AUG 16 1995
WV Division of
Environmental Protection

Workover Prognosis
Nathan Goff 25
API Number: 47-33-4075 W
Wolf Summit Field
Harrison County, WV

AFE: 07648268

PBTD: 394' GL
8 5/8" OD casing: 330' GL
Pittsburgh Coal, bottom: 321' GL
Pittsburgh Coal, top: 315' GL

The purpose of this work is to determine the source of the water that is entering this well.

The subject well was abandoned at some time in the past; however, no documentation of the method of plugging could be found. As part of the 1994 waterflood development program, this well was re-entered in order to monitor fluid levels from beneath the Pittsburgh Coal, which is the lowermost fresh water zone. Soon after completion the fluid level in this well began rising. Currently, the fluid level is at 33' GL. From March 23, 1995 through April 21, 1995, water injection into the Fifth sandstone at Nathan Goff #60 was stopped. Nathan Goff #60 is the nearest water injection well to the subject well: it is 120' away. During this shut-in period, the fluid level at the subject well continued to rise. In contrast, the fluid level in Nathan Goff #60 at the end of this shut-in period had fallen to 2,535'. This shut-in test verified that the rising fluid level in the subject well was not a result of our water injection operations.

The following procedure should help determine from where this water is entering the subject well.

1. Notify State Inspector at least 24 hours before this work begins.
2. Run a gamma ray, caliper and cement bond log from PBTD to surface.
3. MIRU spudder
4. Set a cement plug from PBTD to about 20' into the casing, about 310' GL
5. Wait on cement for 8 hours
6. Swab well down to top of cement
7. Monitor fluid level in well to determine if casing is leaking.
8. Dress top of cement by drilling about 5' to 315' GL
9. Run gamma ray log to determine exact amount of cement that is above casing seat.
10. Based on gamma ray log, drill-out cement to 1 foot below the casing seat.
11. Monitor fluid level in well to determine if casing seat is leaking
12. Wait on further instructions.

Ed Cavalier
July 26, 1995

		Approved	Date	State Approval
TO:	Paul E. King, Jr.	PK	8/8/95	
	Jack Sutherland	JS	8/9/95	
	Phil S. Ondrusek	PSO	8/14/95	Mike Lewis
	Mike McCown			Director, UIC Section
	Rick Green			WV DEP, Division of Oil and Gas
	Victor Stinespring			
	Ken Dotson			

Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-04177
Operator Name: East Resources
Operator's Well #: 21
Farm Name: Hiram Lynch
Field Name: Wolf Summit
Area Permit Number: 2R03301 AP
Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☑
TD of well: 2874
Completion Zones: 5th
Perforated Interval: open?

Well Location (UTM NAD83)
Easting: 543542.8
Elevation: 1207
Inside Field Boundary? ☑
Coordinates Match?: No ☐ Yes ☑
Northing: 4348647.1
Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: N/A Passed? No ☐ Yes ☐

Open Hole Completion	No ☐	Yes ☑ ?
Well penetrates injection zone?	No ☐	Yes ☑
Well perforated in injection zone?	No ☐	Yes ☑ ?
Cemented across injection zone?	No ☑	Yes ☐
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	If No: Provide Depth: No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0

Bottom Hole Injection Pressure 0

Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook
Signature:
Date Reviewed: 10/4/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-38
08-Sep-97

API # 47- 33-04177-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: BURNSIDE, WILLIAM, ETAL Operator Well No.:HIRAM LYNCH 21

LOCATION: Elevation: 1,207.00 Quadrangle: WOLF SUMMIT
District: TENMILE County: HARRISON
Latitude: 2050 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 10450 Feet West of 80 Deg. 27 Min. 30 Sec.

Well Type: OIL X GAS _____

Company: Pennzoil Products Company
P. O. Box 5519
Vienna, WV 26105-5519

Coal Operator or Owner: The Endres Company
P. O. Box 1280
Bridgeport, WV 26330

Agent: P. S. Ondrusek

Coal Operator or Owner: Anker Energy Corp.
2708 Cranberry Square
Morgantown, WV 26505

Permit Issued: 09/04/97

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Leroy Snodgrass and Dale Workman being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Tim Bennett Oil and Gas Inspector representing the Director, say that said work was commenced on the 22nd day of August, 1997, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE	REMOVED	LEFT
25 sks. cement	2403'	2303'	7"	588'	1327'
15 sks. cement	2330'	2300'	10"	5'	173'
25 sks. cement	2000'	1900'			
20 sks. cement	1050'	950'			
70 sks. cement	600'	450'			
50 sks. cement	260'	160'			
50 sks. cement	50'	Surface			
6% gel between cement plugs					

12/17/97

Description of monument: 7" x 20' casing
and that the work of plugging and filling said well was completed on the 26th day of August, 1997.

And furthur deponents saith not.

Dale Workman
Leroy Snodgrass

Sworn and subscribe before me this 9th day of December, 19 97

My commission expires: August 7, 2006

Diane E. Bosley
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DIANE E. BOSLEY
PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519
My Commission Expires August 7, 2006

Oil and Gas Inspector: _____

HAR 4177-P

033-4774

Form 226 10-145 1-5-07

B-109 995

WELL RECORD.

Hiram Lynch Farm, ... Acres

Fox Mills District Harrison County W. Va. State

Well No. 21

Rig Commenced Nov. 17 1899 } E. Myers Contractor.

Rig Completed " 22 1899 }

Drilling Commenced " 28 1899 } Schaffner Bros Contractor.

Drilling Completed March 23 1900

FORMATION.	TOP.	REMARKS.	BOTTOM
10" Casing	178	Cover. 16 ft.	
8¼ "	1080		
6⅝ "	1915		
Pgh Coal	495		500
Big Dunkard	1030		1250
" Lime	1830		1910
" Injun Sand	1915		2000
50 ft "	2405		2435
Gordon "	2760		2675
5th "	2854		2850
	Total Depth		2874

Penn Gas Products Plugging Co. Well No. H-7-033-04174-P.

NOTE:

A good record must show the formation from top to bottom of well.

WVDEP OOG Internal Use Only
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AOR - Well Review Checklist

API Number: 47-033-04178 Area Permit Number: 2R03301 AP
Operator Name: XTO Energy
Operator's Well #: E-0437 Nogelli 1
Farm Name: Clutter, Cherles
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4670
Completion Zones: Injun, 80', Gordon Perforated Interval: 2037-2080 1562-1572
Benson, Balltown, Speechley 4528-4532, 4487-4501, 3360-3394, 2889-3147
Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 548188.6 Northing: 4352960.3
Elevation: 1034
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 15 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

24-Nov-98

API # 47-033-4178 W

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: Clutter, Charles Operator Well No.: E-0437 Nardelli #1

LOCATION: Elevation: 1,034.00 Quadrangle: Wolf Summit

District: Sardis County: Harrison
Latitude: 3120 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 6910 Feet West of 80 Deg. 25 Min. 00 Sec.

Company: Exploration Partners Prod
P.O. Box 930
Bridgeport, WV 26330-930

Agent: Louis A. Ferrari

Inspector: Tim Bennett
Permit Issued: 11/24/98
Well Work Commenced: 11/24/98
Well Work Completed: 11/25/98
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) *********
Fresh water depths (ft) _____
****
Salt water depths (ft) *** _____
Is coal being mined in area (Y/N)?* ___
Coal Depths (ft): ******* _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			

RECEIVED
Office of Oil & Gas
Permitting
DEC 09 1998
WV Division of
Environmental Protection

OPEN FLOW DATA

Producing formations Injun, 80', Gordon Pay zone depth (ft) 1562-2280
Gas: Initial open flow Show MCF/d Oil: Initial open flow N/A Bbl/
Final open flow 351 MCF/d Final open flow N/A Bbl/
Time of open flow between initial and final tests 24 Hour
Static rock pressure 80 psig (surface pressure) after 12 Hour

Second producing formation ---- Pay zone depth (ft) ----
Gas: Initial open flow ---- MCF/d Oil: Initial Open flow ---- Bbl/
Final open flow ---- MCF/d Final open flow ---- Bbl/
Time of open flow between initial and final tests ---- Hour
Static rock pressure ---- psig (surface pressure) after ---- Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EXPLORATION PARTNERS PRODUCING CO.
By: Louis A. Ferrari Louis A. Ferrari
Date: December 04, 1998

HAR 4178 W

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE, ETC.

I (2037-2280) 25 holes, 750 gal 15% HCL, 200 sks sand, 259 bbl H20
II (1562-1572) 20 holes, 500 gal 15% HCL, 200 sks sand; 213 bbl H20

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal and gas

RECEIVED
Office of Oil & Gas
Permitting
DEC 09 1998
WV Division of
Environmental Protection

WR-35

19-Jan-98
API # 47-33-04178 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name CUTTER, CHARLES Operator Wel No: Nardelli 1-E437

LOCATION: Elevation: 1,034.00 Quadrangle: WOLF SUMMIT

District: SARDIS County: HARRISON
Latitude: 3120 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude: 6910 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: EXPLORATION PARTNERS, LLC
P.O. BOX 930
BRIDGEPORT, WV 26330-1245

Agent: LOUIS A. FERRARI

Inspector: TIM BENNETT
Permit Issued: 09/02/97
Well work commenced: 11/11/97
Well work completed: 11/18/97
Verbal Plugging
Permission granted on:
Rotary X Cable Rig
Total Depth (ft): 4670
Fresh water depths (ft) 53500

Salt water depths (ft) n/a

Is coal being mined in area (Y/N)? N

Coal Depths (ft.): 50-53

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size: 16"	40'	40'	
9 5/8"	234'	234'	70 sks
7"	1190'	1190'	215 sks
4 1/2"	4649'	4649'	360 sks

OPEN FLOW DATA

Producing formation Benson, Balltown, Speechley Pay zone depth (ft) 2889-4542
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 647 MCF/d Final open flow SHOW Bbl/d
Time of open flow between initial and final tests: 24 Hours
Static rock pressure 1075 psig (surface pressure) after 48 Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests: Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING:
1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EXPLORATION PARTNERS, LLC
By: [signature]
Date: 1-21-98

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING PHYSICAL CHANGE, ETC.
I (4528-4532) 11 holes 500 gal 15% HCL, 30000# Sand, 202 Bbl x-linked gelled H20
II (4487-4501) 11 holes 500 gal. 15% HCL, 17000# Sand, 160 Bbl x-linked gelled H20
III (3360-3394) 17 holes 500 gal. 15% HCL, 40000# Sand, 220 Bbl x-linked gelled H20
IV (2889-3147) 13 holes 500 gal. 15% HCL, 20000# Sand, 160 Bbl x-linked gelled H20

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Fill	0	20	
Sand	20	50	
Coal	50	53	H20 @ 50
Sand and shale	53	350	
Sand	350	770	H20 @ 50'
Shale	770	1000	
Sand	1000	1130	
Sand and shale	1130	1450	
Big Lime	1450	1600	
Shale	1600	2040	
50' Sand	2040	2130	Gas show
Sand and shale	2130	2240	
Gordon	2240	2300	
Shale	2300	3020	
U. Speechley	3020	3060	
Shale	3060	3140	
Speechley	3140	3160	Gas show
Shale	3160	3350	
Balltown	3350	3400	Gas show
Shale	3400	4480	
Benson	4480	4550	Gas show
Shale	4550	4670	DTD

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 04179 Area Permit Number: 2R03301 AP
Operator Name: XTO Energy
Operator's Well #: Nardelli Z - E 4138
Farm Name: Clutter, Charles
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 5060
Completion Zones: Benson, Balltown, Speechley Perforated Interval: 3441-3468, 3778-3809, 4909-4920

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 548041.2 Northing: 4353378.2
Elevation: 1420
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☑	Yes ☐
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 9 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

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WV Division of
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Office of Oil & Gas

WR-35

19-Jan-98
API # 47-33-04179

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name CLUTTER, CHARLES Operator Well No: Nardelli 2-E438

LOCATION: Elevation: 1,420.00 Quadrangle: WOLF SUMMIT

District: SARDIS County: HARRISON
Latitude: 1750 Feet South of 39 Deg. 20 Min. 0 Sec.
Longitude: 7420 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: EXPLORATION PARTNERS, LLC
P.O. BOX 930
BRIDGEPORT, WV 26330-1245

Agent: LOUIS A. FERRARI

Inspector: TIM BENNETT
Permit Issued: 09/02/97
Well work commenced: 10/29/97
Well work completed: 11/07/97
Verbal Plugging
Permission granted on:
Rotary X Cable Rig
Total Depth (ft): 5060
Fresh water depths (ft) 150

Salt water depths (ft) n/a

Is coal being mined in area (Y/N)? N

Coal Depths (ft.): 490-93 (open mine)

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size: 13 3/8"	32'	32'	
9 5/8"	532'	532'	120 sks
7"	1579'	1579'	278 sks
4 1/2"	5019'	5019'	475 sks

OPEN FLOW DATA

Producing formation Benson, Balltown, Speechley Pay zone depth (ft) 3441-4920
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 237 MCF/d Final open flow SHOW Bbl/d
Time of open flow between initial and final tests: 24 Hours
Static rock pressure 1175 psig (surface pressure) after 24 Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests: Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING:
1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EXPLORATION PARTNERS, LLC
By: [signature]
Date: 1-21-98

HAR 4179

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING PHYSICAL CHANGE, ETC.

I (4909-4920) 14 holes 500 gal 15% HCL, 28000# 20/40 Sand, 200BBL x-linked gelled H20
II (3778-3809) 16 holes 500 gal 15% HCL, 30000# 20/40 Sand, 190 Bbl x-linked gelled H20
III (3441-3468) 12 holes 500 gal 15% HCL, 36000# 20/40 Sand, 260 Bbl x-linked gelled H20

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Sand	0	30	
Sand and shale	30	130	
Sand	130	230	H20 @ 150
Sand and shale	230	490	
Coal (open mine)	490	493	
Sand and shale	493	1020	
Sand	1020	1420	Damp @ 1100
Coal	1420	1425	
Sand and shale	1425	1850	
B. Lime	1860	1940	
Injun	1940	2020	Gas Show
Shale	2020	2450	
50' Sand	2450	2550	
Sand and shale	2550	2650	
Gordon	2650	2720	
Shale	2720	3430	
Speechley	3430	3480	Gas Show
Shale	3480	3770	
Balltown	3770	3810	Gas Show
Shale	3810	4900	
Benson	4900	4950	Gas Show
Shale	4950	5060	DTD

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AOR - Well Review Checklist

API Number: 47-033- 04327 Area Permit Number: 2R03301 AP
Operator Name: XTO Energy
Operator's Well #: E-519
Farm Name: Goodwin #1
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 4788' *See Well Report
Completion Zones: Benson, Balltown, Speechly, Gordon, 30', 50', Pocono, Injun Perforated Interval: 1650-4600'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547932 Northing: 4352813.8
Elevation: 1214
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☒	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:
Map symbol shows well as plugged.

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

August 15, 2001
API # 47-33-4327

Revised

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

WELL OPERATOR'S REPORT OF WELL WORK

FARM NAME: Goodwin #1 OPERATOR WELL NO: E-519

LOCATION: ELEVATION: 1214 QUADRANGLE: Wolf Summit

DISTRICT: SARDIS COUNTY: HARRISON
LATITUDE: 3655 FEET SOUTH OF 39 DEG. 39 MIN. 20 SEC.
LONGITUDE: 7770 FEET WEST OF 80 DEG. 80 MIN. 25 SEC.

COMPANY: EXPLORATION PARTNERS, LLC

PO BOX 930
BRIDGEPORT, WV 26330

AGENT: LOUIS A. FERRARI
INSPECTOR: TIM BENNETT
PERMIT ISSUED: 3/6/01
WELL WORK COMMENCED: 4/24/01
WELL WORK COMPLETED: 4/28/01
VERBAL PLUGGING
PERMISSION GRANTED ON:
ROTARY X CABLE RIG
TOTAL DEPTH (FEET) 4700'
FRESH WATER DEPTHS (FT) 20

SALT WATER DEPTHS (FT) N/A

IS COAL BEING MINED IN AREA (Y/N)? N
COAL DEPTHS (FT) 90-93, 170-180

CASING & TUBING SIZE	USED IN DRILLING	LEFT IN WELL	CEMENT FILL UP CU. FT.
13 3/8	,	,	
9 5/8	218'	218'	120 SKS
7	1251'	1251'	245 SKS
4 ½	4688'	4688'	250 SKS

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OPEN FLOW DATA
PRODUCING FORMATIONS Benson,balltown,speehley,Gordon,30',50',Pocono,Injun PAY ZONES DEPTH (FT) 1650-4600
GAS: INITIAL OPEN FLOW show MCF/D OIL: INITIAL OPEN FLOW N/A BBL/
FINAL OPEN FLOW 335 MCF/D FINAL OPEN FLOW N/A BBL/
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS 24 HOUR(S)
STATIC ROCK PRESSURE 170 PSIG (SURFACE PRESSURE AFTER 12 HOUR(S)

SECOND PRODUCING FORMATION PAY SONE DEPTH (FT)
GAS: INITIAL OPEN FLOW MCF/D OIL: INITIAL OPEN FLOW N/A BBL/
FINAL OPEN FLOW MCF/D FINAL OPEN FLOW N/A BBL/
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS HOUR(S)
STATIC ROCK PRESSURE PSIG (SURFACE PRESSURE AFTER HOUR(S)

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC., 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

FOR: EXPLORATION PARTNERS, LLC
BY: _____ LOUIS A. FERRARI
DATE: August 15, 2001

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE ETC.

I. (3980-4600), 22 holes, 625 gal.Hcl, 200 sks 20/40, 235 BBL Gelled H2O
II. (3377-3489), 23 holes, 500 gal Hcl, 200 sks 20/40, 215 BBL Gelled H2O
III. (2989-3251), 21 holes, 750 gal.Hcl, 200 sks 20/40, 240 BBL Gelled H2O
IV. (2278-2433), 20 holes, 625 gal Hcl, 200 sks 20/40, 146 BBL Gelled H2O
V. (2132-2221), 18 holes, 500 gal. Hcl, 125 sks 20/40, 166 BBL Gelled H2O
VI. (1650-1680), 16 holes, 750 gal. Hcl, 125 sks 20/40 ,142 BBL Gelled H2O

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS-including indication of all fresh and salt water, coal and gas
shale	o	20	
sand	20	90	
coal	90	93	
shale	93	130	
sand & shale	130	170	
open mine	170	180	
shale	180	700	
sand	700	1000	
Shale	1000	1545	
Big Lime	1545	1600	
Big Injun	1600	1640	
Pocono	1640	1690	
shale	1690	2090	
50'	2090	2190	
shale	2190	2300	
Gordon	2300	2360	
Shale	2360	2510	
5th sand	2510	2530	
shale	2530	3090	
upper speechley	3090	3120	
speechley	3120	3210	
shale	3210	3410	
BallTown	3410	3460	
shale	3460	4580	
benson	4580	4600	
Shale	4600	4788 LTD	

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AOR - Well Review Checklist

API Number: 47-033- 04328 Area Permit Number: 2R03301 AP
Operator Name: XTO Energy
Operator's Well #: 2-E-520
Farm Name: Goodwin #2
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3770
Completion Zones: Balltown, Speechley, Gordon 30', 50', Pocono, Injun Perforated Interval: see well log ≈1778'- 3607'
Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547897.8 Northing: 4353135.7
Elevation: 1234
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☒	Yes ☐
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 9 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

August 17, 2001
API # 47-33-4328

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

WELL OPERATOR'S REPORT OF WELL WORK

FARM NAME: Goodwin #2 OPERATOR WELL NO: E-520

LOCATION: ELEVATION: 1233.86 QUADRANGLE: Shinnston

DISTRICT: Sardis COUNTY: Harrison
LATITUDE: 2610 FEET SOUTH OF 39 DEG. 20 MIN. 00 SEC.
LONGITUDE: 7870 FEET WEST OF 80 DEG. 25 MIN. 00 SEC.

COMPANY: EXPLORATION PARTNERS, LLC

PO BOX 930
BRIDGEPORT, WV 26330

AGENT: LOUIS A. FERRARI
INSPECTOR: Tim Bennett
PERMIT ISSUED: 3/19/01
WELL WORK COMMENCED: 5/21/01
WELL WORK COMPLETED: 5/30/01
VERBAL PLUGGING
PERMISSION GRANTED ON:
ROTARY X CABLE RIG
TOTAL DEPTH (FEET) 3770'
FRESH WATER DEPTHS (FT) 310

SALT WATER DEPTHS (FT) N/A

IS COAL BEING MINED IN AREA (Y/N)? N
COAL DEPTHS (FT) 310-315

CASING & TUBING SIZE	USED IN DRILLING	LEFT IN WELL	CEMENT FILL UP CU. FT.
13 3/8	30'	30'	
9 5/8	343'	343'	130 SKS
7	1314'	1314'	170 SKS
4 ½	3743'	3743'	180 SKS

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WV Department of
Environmental Protection

OPEN FLOW DATA
PRODUCING FORMATIONS ball town, speechley, gordon, 30', 50', pocono, injun PAY ZONES DEPTH (FT) 1760-3630
GAS: INITIAL OPEN FLOW show MCF/D OIL: INITIAL OPEN FLOW N/A BBL/
FINAL OPEN FLOW 731 MCF/D FINAL OPEN FLOW N/A BBL/
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS 24 HOUR(S)
STATIC ROCK PRESSURE 220 PSIG (SURFACE PRESSURE AFTER 12 HOUR(S)

SECOND PRODUCING FORMATION PAY SONE DEPTH (FT)
GAS: INITIAL OPEN FLOW MCF/D OIL: INITIAL OPEN FLOW N/A BBL/
FINAL OPEN FLOW MCF/D FINAL OPEN FLOW N/A BBL/
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS HOUR(S)
STATIC ROCK PRESSURE PSIG (SURFACE PRESSURE AFTER HOUR(S)

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC., 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

FOR: EXPLORATION PARTNERS, LLC

BY: _____ LOUIS A. FERRARI

DATE: August 17, 2001

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE ETC.

I. (3503-3607), 20 holes,500 gal. HCL, 200 sks 20/40, 192 BBL Gelled H2O
II. (3166-3370), 15 holes,500 gal. HCL, 100 sks 20/40, 146 BBL Gelled H2O
III. (2462-2554), 20 holes 750 gal HCL, 125 sks 20/40, 169 BBL Gelled H2O
IV. (2260-2347), 18 holes,750 gal. HCL, 125sks 20/40, 173 BBL Gelled H2O
V. (1820-1835), 16 holes, 500 gal. HCL 100 sks 20/40, 146 BBL Gelled H2O
VI. (1778-1797), 14 holes, 750gal. HCL, 250 sks 20/40, 215 BBL Gelled H2O

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS-including indication of all fresh and salt water, coal and gas
dirt	0	15	
sand	15	20	
shale & sand	20	270	
shale	270	310	
coal	310	315	
shale	315	330	
sand & shale	330	1430	
red rock	1430	1480	
shale & sand	1480	1690	
big lime	1690	1760	
big injun	1760	1830	
[illegible]ono	1830	1850	
shale	1850	2270	
50'	2270	2370	
shale	2370	2400	
30'	2400	2410	
shale	2410	2470	
gordon	2470	2530	
shale	2530	2690	
5th sand	2690	2710	
shale	2710	3250	
upper speechley	3250	3290	
shale	3290	3370	
speechley	3370	3380	
shale	3380	3600	
ball town	3600	3630	
shale	3630	3770	DTD

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AOR - Well Review Checklist

API Number: 47-033- 04349 Area Permit Number: 2R03301 AP
Operator Name: Berry Energy
Operator's Well #: B 751
Farm Name: Shirley & Goldie Ash
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☒ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 5200
Completion Zones: Balltown, Speechley, 4th Sand, Gordon Sand, 50' Perforated Interval: several see well log
Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 541040.5 Northing: 4346233.5
Elevation: 1260
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations: No ☒ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion No ☐ Yes ☒ in Benson
Well penetrates injection zone? No ☐ Yes ☒
Well perforated in injection zone? ? No ☒ Yes ☐
Cemented across injection zone? No ☐ Yes ☒
Packer immediately above injection zone (<100')? NA No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 8/31/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

API #: 47-033-04349

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name: SHIRLEY & GOLDIE ASH Operator Well No.: B751

LOCATION: Elevation: 1260 Quadrangle: Salem

District: Tenmile County: Harrison

Latitude: 9900 Feet South of 39 Deg. 17 Min. 30 Sec. N

Longitude: 6900 Feet West of 80 Deg. 30 Min. 0 Sec. W

Company: BERRY ENERGY, CONSULTANTS & MGRS. INC.
310 STILES ST., P.O. BOX 5
CLARKSBURG, WV 26302-0005

Agent: David B. Berry

Inspector: Tim Bennett

Permit Issued: 11/30/2001

Well Work Commenced: 1/22/2002

Well Work Completed: 1/28/2002

Verbal Plugging Permission granted on:

Rotary ☑ Cable ☐ Rig

Total Depth (ft) 5200

Fresh Water Depth (ft) 50, 416

Salt Water Depth (ft) 1518

Is coal being mined in area (Y/N)? N

Coal Depth (ft) N/A

Casing and Tubing	Used in Drilling	Left In Well	Cement Fill Up sks
11 3/4	22	0	
8 5/8	1060	1060	300
4 1/2		4124	251

Office of Oil & Gas
FEB 28 2002
WV Department of Environmental Protection

OPEN FLOW DATA

Producing formation Baltown and Speechley Pay zone depth (ft) 3871-3937, 3568-3572

Gas: Initial open flow 15 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 88 MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 48 Hours

Static rock pressure 150 psig (surface pressure) after 24 Hours

Second producing formation 4th, Gordon and 50-Foot Pay zone depth (ft) 2757-2809, 2716-2720, 2576-2580

Gas: Initial open flow 15 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 88 MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 48 Hours

Static rock pressure 150 psig (surface pressure) after 24 Hours

* Open flows are commingled.

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAIL OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: BERRY ENERGY, CONSULTANTS & MGRS. INC.

By: David B. Berry President

Date: 02-27-02

Operator Well No.: **B751** API #: **47-033-04349**

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Stage	T-Perf	B-Perf	Shots	Formation	Sand (Bbl)	Grade	Water (Bbl)	Foam (Bbl)	N2 (Cu Ft)
1	3871	3937	12	Balltown	40,600	20/40	91	364	330,000
2	3568	3572	13	Speechley	35,100	20/40	84	334	296,000
3	2757	2809	13	4th	40,200	20/40	97	388	340,000
4	2716	2720	14	Gordon	35,200	20/40	94	374	342,000
5	2576	2580	14	50-Foot	20,200	20/40	61	244	205,000

WELL LOG

Formation	Color	Hard/Soft	Top	Bottom	Remarks
Fill			0	4	Wet @50' 1/2" stream
RR			4	10	Wet @416' 1" stream
Sd/Sh			10	15	Wet @1518' 1 1/2" stream salt water
RR/Sh			15	63	gas check @2930' 60/10 - 1/2" w/w
Sd/Sh			63	73	gas check @3207' 60/10 - 1/2" w/w
Sand			73	109	gas check @TD 2/10 - 1/2" w/w
Sd/Sh			109	186	
Sand			186	205	
Sd/Sh			205	505	
Sand	white		505	536	
Sd/Sh			536	713	
Sand			713	842	
Blue Shell			842	896	
Sd/Sh			896	930	
Sand			930	954	
Sd/Sh			954	1804	
Sand			1804	1850	
White Sand	white		1850	1908	
Sand			1908	1965	
Maxon			1965	2040	
B. Lime			2040		
Injun				2200	
Sd/Sh			2200	2711	
Sand			2711	2733	
Sd/Sh			2733	2755	
Sand			2755	2765	
Sd/Sh			2765	2790	
Sand			2790	2810	
Sd/Sh			2810	3539	
Sand			3539	3550	
Sd/Sh			3550	3665	
Sand			3665	3680	
Sd/Sh			3680	5000	
Benson			5000	5020	
Sd/Sh			5020	5200	TD

FORMATIONS FROM OPEN HOLE LOG

Greenbrier	2050-2192
50-Foot	2587-2590
Gordon-B	2710-2742
Gordon-C	2746-2772
4th-A	2786-2820
Speechley-A	3546-3584
Balltown-C	3920-3953
Benson	5007-5019

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Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-04352 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 18
Farm Name: Rosch, Heber C Sr
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2646 *see well record
Completion Zones: Gordon, 5th & 4th Sand Perforated Interval: 2274 - 2526'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 544926 Northing: 4351327
Elevation: 1053
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11 / 2 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

27-Mar-02

API # 47-033-4352

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: Roach, Heber C. Jr. Operator Well No.: Elizabeth Fletcher #18

LOCATION: Elevation: 1,053.00 Quadrangle: Wolf Summit 7.5"

District: Ten Mile County: Harrison

Latitude: 10,525' Feet south of 39 Deg 20 Min 0 Sec.

Longitude: 5,825' Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: Michael McCown

Inspector: Tim Bennett

Permit Issued: 3/27/2002

Well work Commenced: 5/1/2002

Well work Completed: 5/4/2002

Verbal plugging permission granted on:

Rotar X Cable Rig

Total Depth (feet) 2646'

Fresh water depths (ft) 125'

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N

Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	433'	433'	170 Sacks
4 1/2"	2598'	2598'	290 Sacks

RECEIVED
Office of Oil & Gas
Permitting
MAY 29 2002
WV Department of
Environmental Protection

OPEN FLOW DATA *Comingled

Producing formation Gordon, Fifth Sand & Fourth Sand Pay zone depth (ft) 2274-2526

Gas: Initial open flow * MCF/d Oil: Initial open flow ____ Bbl/d

Final open flow * MCF/d Final open flow ____ Bbl/d

Time of open flow between initial and final tests ____ Hours

Static rock pressure ____ psig (surface pressure) after ____ Hours

Second producing formation Big Injun & Maxton Pay zone depth (ft) 1616-1820

Gas: Initial open flow 73* MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 123* MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests ____ Hours

Static rock pressure 250* psig (surface pressure) after 16 Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.

By: [signature]

Date: 5/28/02

Treatment :

Stage 1: Perforated@2454'-2458', 2467'-2469', 2490'-2492', 2520'-2526' (2 holes/ft).
Fractured w/500 gal 15% HCl, 398 bbls foam, 2800# 80/100 sand and 16650# 20/40 sand.

Stage 2: Perforated@2274'-2276', 2292'-2294', 2366'-2368', 2382'-2384', 2435'-2438' (2 holes/ft).
Fractured w/500 gal 15% HCl, 310 bbls foam, 2500# 80/100 sand and 16000# 20/40 sand.

Stage 3: Perforated@1786'-1790', 1816'-1820' (2 holes/ft).
Fractured w/500 gal 15% HCl, 370 bbls foam, 5000# 80/100 sand and 24000# 20/40 sand.

Stage 4: Perforated@1616'-1620', 1631'-1633', 1648'-1650', 1654'-1656', 1664'-1666' (2 holes/ft).
Fractured w/500 gal 15% HCl, 428 bbls foam, 3000# 80/100 sand and 30000# 20/40 sand.

Well Log : Note: All depths relative to K.B.

Sand & Shale	0	- 318		Shale	1236	-	1326
Sand	318	- 330		Sand	1326	-	1349
Shale	330	- 339		Shale	1349	-	1592
Sand	339	- 346		Maxton	1592	-	1688
Shale	346	- 412		BigLime	1688	-	1766
Sand	412	- 443		Big Injun	1766	-	1832
Shale	443	- 512		Shale	1832	-	2258
Sand	512	- 530		Fifth Sand	2258	-	2282
Shale	530	- 736		Shale	2282	-	2326
Sand	736	- 760		Sand	2326	-	2330
Shale	760	- 787		Shale	2330	-	2354
Sand	787	- 798		Sand	2354	-	2360
Shale	798	- 844		Shale	2360	-	2364
Sand	844	- 868		Sand	2364	-	2397
Shale	868	- 896		Shale	2397	-	2421
Sand	896	- 910		Sand	2421	-	2443
Shale	910	- 972		Shale	2443	-	2456
Sand	972	- 980		Gordon	2456	-	2475
Shale	980	- 1054		Shale	2475	-	2486
Sand	1054	- 1147		Sand	2486	-	2505
Shale	1147	- 1190		Shale	2505	-	2512
Sand	1190	- 1202		Fourth Sand	2512	-	2526
Shale	1202	- 1225		Shale	2526	-	2646
Sand	1225	- 1236			2646	-	TD

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AOR - Well Review Checklist

API Number: 47-033-04353 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 64
Farm Name: Johnson, William R
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2738
Completion Zones: Gordon, 4th & 5th Sand Perforated Interval: See well Record

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544261 Northing: 4341967
Elevation: 1140
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

27-Mar-02

API # 47-033-4353

Northwest

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: Johnson, William R. Operator Well No.: Nathan Goff #64

LOCATION: Elevation: 1,140.00 Quadrangle: Wolf Summit 7.5'

District: Ten Mile County: Harrison

Latitude: 13,875 Feet south of 39 Deg 20 Min 0 Sec.

Longitude: 8,100 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: Michael McCown
Inspector: Tim Bennett

Permit Issued: 3/27/2002
Well work Commenced: 4/23/2002
Well work Completed: 5/23/2002
Verbal plugging permission granted on:
Rotar X Cable Rig
Total Depth (feet) 2738'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	550'	550'	230 Sacks
4 1/2"	2720'	2720'	290 Sacks

RECEIVED
Office of Oil & Gas
Permitting
MAY 29 2002
WV Department of
Environmental Protection

OPEN FLOW DATA *Comingled

Producing formation Gordon, Fifth Sand & Fourth Sand Pay zone depth (ft) 2372-2598

Gas: Initial open flow * MCF/d Oil: Initial open flow ____ Bbl/d

Final open flow * MCF/d Final open flow ____ Bbl/d

Time of open flow between initial and final tests ____ Hours

Static rock pressure ____ psig (surface pressure) after ____ Hours

Second producing formation Big Injun & Maxton Pay zone depth (ft) 1722-1928

Gas: Initial open flow 125* MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 100* MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests ____ Hours

Static rock pressure 250* psig (surface pressure) after 16 Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: Ben Hildebrand
Date: 5/29/02

Treatment :

Stage 1: Perforated@2590'-2598' (2 holes/ft).
Fractured w/500 gal 15% HCl, 387 bbls cross-linked gel,
2800# 80/100 sand, 15000# 20/40 sand and 250 scf/bbl nitrogen.

Stage 2: Perforated@2472'-2476', 2546'-2552' (2 holes/ft).
Fractured w/500 gal 15% HCl, 355 bbls cross-linked gel,
2700# 80/100 sand, 15200# 20/40 sand and 250 scf/bbl nitrogen.

Stage 3: Perforated@2372'-2378' (2 holes/ft).
Fractured w/500 gal 15% HCl, 361 bbl cross-linked gel,
2700# 80/100 sand, 14300# 20/40 sand and 250 scf/bbl nitrogen.

Stage 4: Perforated@1894'-1897', 1920'-1928' (2 holes/ft).
Fractured w/500 gal 15% HCl, 485 bbls cross-linked gel,
2800# 80/100 sand, 25100# 20/40 sand and 250 scf/bbl nitrogen.

Stage 5: Perforated@1722'-1724', 1726'-1728', 1746'-1750', 1766'-1768'
(2 holes/ft).
Fractured w/500 gal 15% HCl, 512 bbls cross-linked gel,
3000# 80/100 sand, 25700# 20/40 sand, and 250 scf/bbl nitrogen.

Well Log :

Note: All depths relative to K.B.

Sand & Shale	0	-	829	Shale	1936	-	2310
Sand	829	-	857	Sand	2310	-	2317
Shale	857	-	868	Shale	2317	-	2365
Sand	868	-	896	Sand	2365	-	2383
Shale	896	-	956	Shale	2383	-	2470
Sand	956	-	989	Sand	2470	-	2485
Shale	989	-	1062	Shale	2485	-	2505
Sand	1062	-	1078	Sand	2505	-	2532
Shale	1078	-	1146	Shale	2532	-	2550
Sand	1146	-	1228	Sand	2550	-	2566
Shale	1228	-	1390	Shale	2566	-	2588
Sand	1390	-	1417	Gordon	2588	-	2620
Shale	1417	-	1420	Shale	2620	-	2738
Sand	1420	-	1464		2738	-	TD
Shale	1464	-	1502				
Sand	1502	-	1515				
Shale	1515	-	1690				
Maxton	1690	-	1797				
Big Lime	1797	-	1882				
Big Injun	1882	-	1936				

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AOR - Well Review Checklist

API Number: 47-033- 04481 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 209
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2810
Completion Zones: 5th Sand Perforated Interval: 2596 - 2604

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 539573.6 Northing: 4346496.7
Elevation: 1013
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

08/02/2007

API # 47 33 4881

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: HIRAM LYNCH 209

LOCATION: Elevation: 1,013' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 2,500 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 8,525 Feet west of 80 Deg 27 Min 30 Sec.

RECEIVED
Office of Oil & Gas
AUG 0 6 2009
WV Department of
Environmental Protection

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 08/02/07
Well work Commenced: 06/22/09
Well work Completed: 07/02/09
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2810'
Fresh water depths (ft) 320'

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
9 5/8"	30.00'	30.00'	
7"	388.00'	388.00'	85 sks
4 1/2"	2706.60'	2706.60'	150 sks

OPEN FLOW DATA

Producing formation Fifth Sand Pay zone depth (ft) 2596'-2609'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 8/4/09

Treatment : Treated perfs 2596'-2609' w/ 141 bbls linear gel and 1000# 30/50 sand.

Well Log :

0	237	Sand and Shale
237	248	Sand
248	344	Shale
344	354	sand
354	692	Shale
692	719	sand
719	766	Shale
766	782	sand
782	858	Shale
858	916	sand
916	964	Shale
964	1078	sand
1078	1212	Shale
1212	1228	sand
1228	1542	Shale
1542	1564	sand
1564	1580	Shale
1580	1596	sand
1596	1630	Shale
1630	1706	Big Lime
1706	1764	Big Injun
1764	2185	Shale
2185	2198	Sand
2198	2288	Shale
2288	2430	Sand
2430	2595	Shale
2595	2610	Fifth Sand
2610	2810	Shale
2810		TD

WR-35

04/19/2007

API # 47 33 04843

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JOHNSON, WILLIAM R. Operator Well No.: NATHAN GOFF 66

LOCATION: Elevation: 1,177' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 825' Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 7,750 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 04/19/07
Well work Commenced: 10/09/07
Well work Completed: 10/22/07
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2960'
Fresh water depths (ft)

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	515'	515'	135 sks
4 1/2"	2856'	2856'	150 sks

RECEIVED
Office of Oil & Gas
Office of Chief
OCT 25 2007
WV Department of
Environmental Protection

OPEN FLOW DATA * WATERFLOOD INJECTOR

Producing formation Fifth Sand Pay zone depth (ft) 2772'-2786'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 10/24/07

Treatment : Treated perforations 2772'-2786' w/ 250 gals. 15% HCl acid, 272 bbls cross linked gel, and 20,000 # 30/50 sand.

Well Log :

0	148	Sand and Shale
148	272	Sand
272	402	Shale
402	424	Sand
424	434	Shale
434	442	Sand
442	863	Shale
863	884	Sand
884	938	Shale
938	1002	Sand
1002	1036	Shale
1036	1080	Sand
1080	1124	Shale
1124	1210	Sand
1210	1284	Shale
1284	1306	Sand
1306	1360	Shale
1360	1476	Sand
1476	1604	Shale
1604	1617	Sand
1617	1724	Shale
1724	1762	Sand
1762	1793	Shale
1793	1870	Big Lime
1870	1932	Big Injun
1932	2360	Shale
2360	2373	Sand
2373	2469	Shale
2469	2618	Sand
2618	2770	Shale
2770	2788	Fifth Sand
2788	2960	Shale
2960		TD

WR-37
(REV. 9/94)

Date: October 25, 20 07
Operator's
Well No. Nathan Goff #066
API No. 47 - 033 - 04843

STATE OF WEST VIRGINIA
BUREAU OF ENVIRONMENT, OFFICE OF OIL AND GAS
PRE-OPERATION CERTIFICATE
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR East Resources Inc.
Address P.O. Box 5519
Vienna, WV 26105-5519

DESIGNATED AGENT Philip Ondrusek
Address P.O. Box 5519
Vienna, WV 26105-5519

GEOLOGICAL TARGET FORMATION Fifth Sand Depth 2770 feet (top) to 2788 feet (bottom)
Virgin reservoir pressure in target formation 80 psig
Source of information on virgin reservoir pressure: Estimated
Perforation intervals 2772'-2786' Open-hole intervals

MAXIMUM PERMITTED INJECTION OPERATIONS
Well head injection pressure: 1,196 psig Bottom hole pressure: 2,400 psig
Volume per hour: 25 Barrels

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED
Liquids to be injected for oil recovery: Fresh water and/or produced water from waterflood operations.
Wastes to be disposed of: None

Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.)
Bactericides and other chemicals necessary to maintain water quality or improve oil recovery.

Received
Office of Oil & Gas
Chief of Chief

WV Department of Environmental Protection

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

ADDITIONAL DRILLING AS PART OF THE CONVERSION (Complete form WR-35)

DETAILS ON NEW CASING AND TUBING PROGRAM AS PART OF THE CONVERSION (To be completed below unless the new casing and tubing program is described on form WR-35, submitted in connection with the permit to which this form WR-37 relates.)

CASING OR TUBING TYPE	SIZE	GRADE	WEIGHT PER FT.	NEW	USED	FOOTAGE USED IN DRILLING	FOOTAGE LEFT IN WELL	CEMENT USED	PACKERS (KIND, SIZE & DEPTH SET)
CONDUCTOR									
FRESH WATER	7"	LS	17	X		515	515	135 Sks.	
COAL									
INTERMEDIATE									
PRODUCTION	4-1/2"	J-55	10.5	X		2856	2856	150 Sks.	
TUBING									
LINERS									

FORM-WR37
(REVERSE)

MECHANICAL INTEGRITY TEST

Test Method: Pressure tested 4½" casing after 4½" cement job to 2150 psig for 20 min.
See attached chart

The undersigned certifies that the test was performed on October 10, 20 07 and demonstrated the mechanical integrity of the well. The test was witnessed by _____ representing the Office of Oil and Gas.

East Resources Inc. 10/25/2007

THIS WELL IS AUTHORIZED FOR INJECTION

Signed _____ UIC PROGRAM DIRECTOR

Date 1/17/08

[NOTE: That the mechanical integrity of this well must be demonstrated again within ninety (90) days of five years from this date in order for injection to continue. Please notify the state inspector 24 hours in advance of the test].

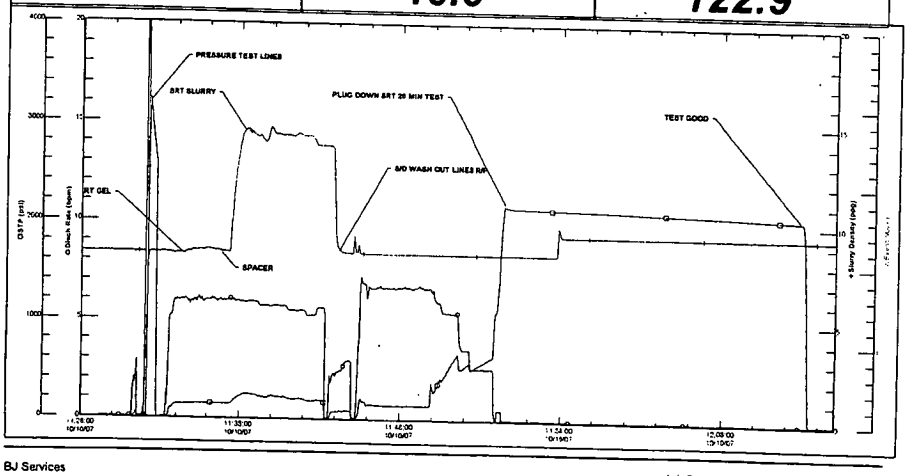
East Resources Inc.
Well Operator

By: _____
Its Project Engineer

BJ Services JobMaster Program Version 3.10
Job Number: 225043177
Customer: EAST RES
Well Name: GOFF 66

Pressure 1 (psi)	Pressure 2 (psi)	Slurry Density (ppg)	Elapsed Time (min)
5	-1	9.34	56.660

Disch Rate (bpm)	Disch Stage (bbl)	Disch Total (bbl)
0.0	46.5	122.9



BJ Services

Job Start: Wednesday, October 10, 2007

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AOR - Well Review Checklist

API Number: 47-033- 04686 Area Permit Number: 2R03301 AP
Operator Name: Tapo Energy
Operator's Well #: Haggerty 4
Farm Name: Cochran, Valerie K.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☒ Plugged ☐ ~~RBDMS~~ RBDMS status on 7/31/2016
TD of well: 3834
Completion Zones: Ballhorn, Tajon, 5th Sand Perforated Interval: 3186-3536, 2593-2632, 1684-1758

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation:
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☒

Outstanding Violations: No ☐ Yes ☒
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion No ☒ Yes ☐
Well penetrates injection zone? No ☐ Yes ☒
Well perforated in injection zone? No ☐ Yes ☒
Cemented across injection zone? No ☐ Yes ☒
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:
RBDMS well status = Abandoned

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 9 / 01 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

VIOLATION NO. 9454
FORM VI-29
(Rev 7/01)

DATE 4/7/2016
API NO. 47-033-04686

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

NOTICE EXTENDING ABATEMENT TIME

LOCATION: FARM NAME Cochran, Valerie K.
DISTRICT Sardis
WELL NO. Haggerty 4
COUNTY Harrison

TO: Tapo Energy, Inc.
ADDRESS P. O. Box 235
West Union, WV 26456

DESIGNATED AGENT Jerry Poling
ADDRESS P. O. Box 235
West Union, WV 26456

The violation set forth on April 1, 20 16 "Notice of Violation", Numbered 9431 and/or "Imminent Danger Order", Numbered _____, of that date has not been totally abated.

Based on the facts and circumstances of this matter, as determined by the undersigned, you are:

_____ Required to continue the cessation of operation until the imminent danger is totally abated.

X Granted an extension of time to totally abate the violation until May 7, 20 16.

This notice shall not be construed to bar the Office of Oil and Gas from additional proceedings, assessment of penalties or criminal charges arising out of this matter.

This is the first X /second _____/ final _____ extension of said Notice of Violation.

SIGNED Jacqualin Thornton
TITLE Environmental Resource Analyst
ADDRESS 601 57th Street, SE
Charleston, WV

TELEPHONE 304-206-6015

WR-35
Rev (5-01)

DATE: 06-26-06
API # : 47-033-04686

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Cochran Well No.: Haggerty #4

LOCATION: Elevation: 1,342' Quadrangle: Wolf Summit 7.5'

District: Sardis County Harrison
Latitude: 7,810' Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 2,450' Feet West of 80 Deg. 25 Min. 00 Sec.

Company: TAPO Energy LLC

Address:
P.O. Box 235 West Union WV 26456
Agent: Jerry Poling
Inspector: Tim Bennett
Date Permit Issued: 02/13/2006
Date Well Work Commenced: 05/16/06
Date Well Work Completed: 05/21/06
Verbal Plugging:
Date Permission granted on:
Rotary X Cable Rig
Total Depth (feet): 3834'
Fresh Water Depth (ft.): N/A

Salt Water Depth (ft.): N/A

Is coal being mined in area (N/Y)? N
Coal Depths (ft.): N/A

Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
9 5/8	120	120	85 sks
6 5/8	1348	1348	185 sks
4 ½	3834	3732	120 sks

RECEIVED
Office of Oil & Gas
JAN 21 2010
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation Balltown Pay zone depth (ft) 3186-3536 ft.
Gas: Initial open odor MCF/d Oil: Initial open flow_____Bbl/d
Final open flow show MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure 775# psig (surface pressure) after 48 Hours

Second producing formation. Big Injun/5th Sd Pay zone depth (ft) 1684-2632 ft.
Gas: Initial open flow___*____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow_____*____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

* = commingled zones

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS,

Signed: _____
By: _____
Date: _____

Haggerty #4
47-033-04686
03-20-06

Stage #	perfs	sand	avg rate	isip
#1 Balltown	3186-3536	250 sks	27 bpm	# 1470
Stage #2 5th Sd	2593-2632	100 sks	27 bpm	# 1750
Stage #4 Big Injun	1684-1756	250 sks	28 bpm	#1700

Drillers Log

Fill	0	20	
Sd/Sh	20	68	
Sd	68	335	
Sd/Sh	335	360	
Sd	360	485	
Sd/Sh	485	695	
Sd	695	1015	
Sd/Sh	1015	1425	
Sd	1425	1490	
Sd/Sh	1490	1530	
LL	1530	1550	
Sh	1550	1588	
Bl	1588	1666	
Sd	1666	1760	gas ck @ 1750 =odor
Sd/Sh	1760	2176	
Sd	2176	2490	gas ck @ 2630=odor
Sd/Sh	2490	2588	
Sd	2588	2632	
Sd/Sh	2632	3500	gas ck @ 3550 = odor
Sd	3500	3540	
Sd/Sh	3540	3834	
Td	3834		
			gas ck @ TD= odor

Electric Log Tops

Big Lime	1588
5th Sd.	2686
Balltown	3186

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-04906 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: Hiram Lynch #110
Farm Name: Jenkins, Earl & Barbara
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☑ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2960
Completion Zones: 5th Perforated Interval: 2801 - 2809

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation: 1202
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: ?	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☐
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Signature:
Date Reviewed:

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
Office of Oil & Gas
MAY 08 2008
WV Department of
Environmental Protection

WR-3

07/25/2007

API # 47 33 4906

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: HIRAM LYNCH 110

LOCATION: Elevation: 1,202' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 1,000 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 8,550 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 07/25/07
Well work Commenced: 01/18/08
Well work Completed: 02/14/08
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2960'
Fresh water depths (ft)

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	515'	515'	130 sks
4 1/2"	2898.5'	2898.5'	150 sks

OPEN FLOW DATA * WATERFLOOD INJECTOR

Producing formation Fifth Sand Pay zone depth (ft) 2794'-2810'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

HAR 4906

For: EAST RESOURCES, INC.
By:
Date: 5/7/08

AUG 22 2008

Treatment : Treated perforations 2801'-2809'w/ 500 gals. 15% HCl.

Well Log :

0	172	Sand and Shale
172	180	Sand
180	214	Shale
214	297	Sand
297	418	Shale
418	434	Sand
434	890	Shale
890	905	Sand
905	962	Shale
962	976	Sand
976	1056	Shale
1056	1078	Sand
1078	1144	Shale
1144	1232	Sand
1232	1254	Shale
1254	1270	Sand
1270	1304	Shale
1304	1316	Sand
1316	1395	Shale
1395	1436	Sand
1436	1750	Shale
1750	1758	Sand
1758	1772	Shale
1772	1890	Sand
1890	1820	Shale
1820	1900	Big Lime
1900	1958	Big Injun
1958	2382	Shale
2382	2396	Sand
2396	2486	Shale
2486	2502	Sand
2502	2517	Shale
2517	2587	Sand
2587	2594	Shale
2594	2628	Sand
2628	2676	Shale
2676	2680	Sand
2680	2794	Shale
2794	2810	Fifth Sand
2810	2960	Shale
2960		TD

WR-37
(REV. 9/94)

Date: May 5, 20 08
Operator's
Well No. Hiram Lynch #110
API No. 47 - 033 - 04906

STATE OF WEST VIRGINIA
BUREAU OF ENVIRONMENT, OFFICE OF OIL AND GAS
PRE-OPERATION CERTIFICATE
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR East Resources Inc.
Address P.O. Box 5519
Vienna, WV 26105-5519

DESIGNATED AGENT P. S. Ondrusek
Address P.O. Box 5519
Vienna, WV 26105-5519

GEOLOGICAL TARGET FORMATION Fifth Depth 2794 feet (top) to 2810 feet (bottom)
Virgin reservoir pressure in target formation 85 psig
Source of information on virgin reservoir pressure: Estimated
Perforation intervals 2801'-2809' Open-hole intervals

MAXIMUM PERMITTED INJECTION OPERATIONS
Well head injection pressure: 1,190 psig Bottom hole pressure: 2,400 psig
Volume per hour: 25 Barrels

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED
Liquids to be injected for oil recovery: Fresh water and water produced from the Fifth Sand
Wastes to be disposed of: None

Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.)
Bactericides and other chemicals necessary to maintain water quality, improve oil recovery and/or maintain well integrity.

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

ADDITIONAL DRILLING AS PART OF THE CONVERSION (Complete form WR-35)

DETAILS ON NEW CASING AND TUBING PROGRAM AS PART OF THE CONVERSION (To be completed below unless the new casing and tubing program is described on form WR-35, submitted in connection with the permit to which this form WR-37 relates.)

CASING OR TUBING TYPE	SIZE	GRADE	WEIGHT PER FT.	NEW	USED	FOOTAGE USED IN DRILLING	FOOTAGE LEFT IN WELL	CEMENT USED	PACKERS (KIND, SIZE & DEPTH SET)
CONDUCTOR									
FRESH WATER	7"	LS	17	X		515	515	to Surface	
COAL									
INTERMEDIATE									
PRODUCTION	4-1/2"	J-55	10.5	X		2898.5	2898.5	150 Sks	
TUBING									
LINERS									

FORM-WR37
(REVERSE)

MECHANICAL INTEGRITY TEST

Test Method: Pressure tested 4½" casing to 2075 psig for 20 minutes after 4½" cement job
Chart attached

The undersigned certifies that the test was performed on January 22, 20 08 and demonstrated the mechanical integrity of the well. The test was witnessed by _____ representing the Office of Oil and Gas.

East Resources Inc. 05/05/2008

THIS WELL IS AUTHORIZED FOR INJECTION

Signed _____ UIC PROGRAM DIRECTOR

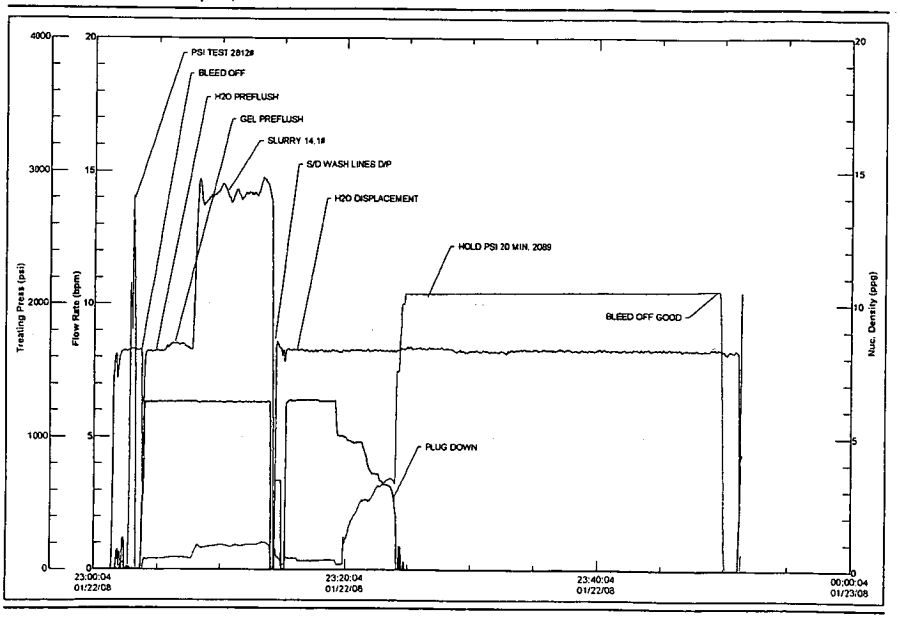
Date 5/15/08

[NOTE: That the mechanical integrity of this well must be demonstrated again within ninety (90) days of five years from this date in order for injection to continue. Please notify the state inspector 24 hours in advance of the test].

East Resources Inc.
Well Operator

By: _____
Its Project Engineer

BJ Services JobMaster Program Version 3.10
Job Number: 225043020
Customer: EAST KS
Well Name: LYNCH #10



BJ Services

Job Start: Tuesday, January 22, 2008

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AOR - Well Review Checklist

API Number: 47-033- 05040 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 9
Farm Name: A. Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2870
Completion Zones: 5th Sand Perforated Interval: 2670-2681

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 545096 Northing: 4349179
Elevation: 1131
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

02/26/2008

API # 47 33 05040

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: FREELAND, REBECCA & JEFF Operator Well No.: AJ WILLIAMS 9

LOCATION: Elevation: 1,131' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 375 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 5,350 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 02/26/08
Well work Commenced: 04/01/08
Well work Completed: 04/17/08
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2870'
Fresh water depths (ft) 280'

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	483'	483'	115 sks
4 1/2"	2769.9'	2769.9'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2668'-2681'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

RECEIVED
Office of Oil & Gas
NOV 12 2008
WV Department of Environmental Protection

For: EAST RESOURCES, INC.
By:
Date: 11/7/08

Treatment : Shot perforations 2670'-2681' w/ Gas Gun and treated w/.500 gals 15% HCl acid.

Well Log :

0	137	Sand and Shale
137	158	Sand
158	290	Shale
290	300	Sand
300	350	Shale
350	382	Sand
382	396	Shale
396	413	Sand
413	704	Shale
704	718	Sand
718	942	Shale
942	972	Sand
972	982	Shale
982	998	Sand
998	1030	Shale
1030	1152	Sand
1152	1320	Shale
1320	1353	Sand
1353	1640	Shale
1640	1658	Sand
1658	1688	Shale
1688	1762	Big Lime
1762	1826	Big Injun
1826	2244	Shale
2244	2258	Sand
2258	2354	Shale
2354	2372	Sand
2372	2386	Shale
2386	2516	Sand
2516	2668	Shale
2668	2681	Fifth Sand
2681	2870	Shale
2870		TD

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AOR - Well Review Checklist

API Number: 47-033- 05041 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: G7
Farm Name: Johnson, W M R
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2930
Completion Zones: 5th Sand Perforated Interval: 2794 - 2818'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 544435 Northing: 4349528
Elevation: 1176'
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	If No: Provide Depth:	No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
Office of Oil & Gas
NOV 07 2008
WV Department of
Environmental Protection

02/26/2008

API # 47 033 05041

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JOHNSON, WM. R. Operator Well No.: NATHAN GOFF 67

LOCATION: Elevation: 1,176' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 14,400 Feet south of 39 Deg 20 Min 0 Sec.
Longitude: 7,425 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 02/26/08
Well work Commenced: 03/25/08
Well work Completed: 04/08/08
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2930'
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	515'	515'	125 sks
4 1/2"	2898.5'	2898.5'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2794'-2810'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: Ben Belden
Date: 11/6/08

Treatment : Shot perforations 2794'-2810' w/ Gas Gun, and treated w/ 500 gals 15% HCl acid.

Well Log :

0	236	Sand and Shale
236	306	Sand
306	437'	Shale
437	447'	Sand
447	887'	Shale
887	905'	Sand
905	958'	Shale
958	969'	Sand
969	990	Shale
990	1022	Sand
1022	1168	Shale
1168	1238	Sand
1238	1384	Shale
1384	1420	Sand
1420	1442	Shale
1442	1460	Sand
1460	1480	Shale
1480	1518	Sand
1518	1748	Shale
1748	1792	Sand
1792	1805	Shale
1805	1816	Sand
1816	1922	Big Lime
1922	1948	Big Injun
1948	2384	Shale
2384	2392	Sand
2392	2484	Shale
2484	2503	Sand
2503	2516	Shale
2516	2525	Sand
2525	2531	Shale
2531	2632	Sand
2632	2773	Shale
2773	2779	Sand
2779	2794	Shale
2794	2810	Fifth Sand
2810	2927	Shale
2927		TD

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05042 Area Permit Number: 2R03301 AP
Operator Name: H G Energy
Operator's Well #: ~~WM Johnson~~ 68
Farm Name: WM Johnson
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3020
Completion Zones: 5th Sand Perforated Interval: ~~5th~~ 2840-2852'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541555.01 Northing: 4349232.76
Elevation: 1264
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10/20/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
Office of Oil & Gas
NOV 07 2008
WV Department of
Environmental Protection

02/26/2008

API # 47 033 05042

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JOHNSON, WM. R. Operator Well No.: NATHAN GOFF 68

LOCATION: Elevation: 1,264' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 200 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 7,125 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 02/26/08
Well work Commenced: 03/20/08
Well work Completed: 04/08/08
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3020'
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	611'	611'	150 sks
4 1/2"	2962.8'	2962.8'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2838'-2856'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: Roger Holden
Date: 11/6/08

Treatment : Shot perforations 2840'-2852' w/ Gas Gun, and treated w/ 500 gals 15% HCl acid.

Well Log :

0	280	Sand and Shale
280	296	Sand
296	302	Shale
302	354	Sand
354	357	Shale
357	370	Sand
370	485	Shale
485	495	Sand
495	582	Shale
582	596	Sand
596	936	Shale
936	960	Sand
960	1014	Shale
1014	1024	Sand
1024	1124	Shale
1124	1138	Sand
1138	1205	Shale
1205	1276	Sand
1276	1304	Shale
1304	1318	Sand
1318	1439	Shale
1439	1550	Sand
1550	1808	Shale
1808	1830	Sand
1830	1848	Shale
1848	1862	Sand
1862	1974	Big Lime
1974	2000	Big Injun
2000	2430	Shale
2430	2438	Sand
2438	2534	Shale
2534	2552	Sand
2552	2574	Shale
2574	2580	Sand
2580	2598	Shale
2598	2680	Sand
2680	2838	Shale
2838	2856	Fifth Sand
2856	2990	Shale
2990		TD

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AOR - Well Review Checklist

API Number: 47-033-05043 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 54
Farm Name: ~~Hoover Lynch~~ Johnson, Chel
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2960
Completion Zones: 5th Sand Perforated Interval: 2767-2779

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 544678 Northing: 4348940
Elevation: 1209
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☑ Yes ☐
Date of Last MIT: NA Passed? No ☐ Yes ☐

Open Hole Completion No ☑ Yes ☐
Well penetrates injection zone? No ☐ Yes ☑
Well perforated in injection zone? No ☐ Yes ☑
Cemented across injection zone? No ☐ Yes ☑
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 18 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

3305043W
2/26/08
API # 47 033 05043

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

COPY

Farm name: JOHNSON, CHAD W. Operator Well No.: HIRAM LYNCH 54

LOCATION: Elevation: 1,209' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 1,125 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 6,725 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 02/26/08
Well work Commenced: 03/28/08
Well work Completed: 04/08/08
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2960'
Fresh water depths (ft) 460'

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft):

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	547'	547'	135 sks
4 1/2"	2930.65'	2930.65'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2764'-2780'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

MAR 19 2008

For: EAST RESOURCES, INC.
By: Roger Holden
Date: 6/6/08

3305043W

Treatment : Shot perforations 2767'-2779' w/ Gas Gun, and treated w/ 500 gals 15% HCl acid.

Well Log :

0	156	Sand and Shale
156	278	Sand
278	337	Shale
337	348	Sand
348	413	Shale
413	426	Sand
426	508	Shale
508	532	Sand
532	862	Shale
862	884	Sand
884	1022	Shale
1022	1078	Sand
1078	1116	Shale
1116	1252	Sand
1252	1372	Shale
1372	1440	Sand
1440	1458	Shale
1458	1472	Sand
1472	1626	Shale
1626	1648	Sand
1648	1672	Sand
1672	1684	Sand
1684	1738	Sand
1738	1756	Sand
1756	1778	Sand
1778	1790	Sand
1790	1896	Big Lime
1896	1928	Big Injun
1928	2350	Shale
2350	2363	Sand
2363	2376	Shale
2376	2392	Sand
2392	2462	Shale
2462	2474	Sand
2474	2488	Shale
2488	2620	Sand
2620	2764	Shale
2764	2780	Fifth Sand
2780	2960	Shale
2960		TD

Received

MAR 18 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

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AOR - Well Review Checklist

API Number: 47-033- 05249 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 201
Farm Name: Norma Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3060
Completion Zones: 5th Sand Perforated Interval: 2881-2912 2902-2905 2909-2912

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543167 Northing: 4348235
Elevation: 1750
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev (8-10)

07/27/2012
API # 47-033-05249 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: BURNSIDE, WILLIAM Operator Well No.: HIRAM LYNCH 201

LOCATION: Elevation: 1,250' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,405 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 11,700 Feet west of 80 Deg 27 Min 30 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Tristan Jenkins				
Date Permit Issued:	07/27/2012				
Date Well Work Commenced:	08/01/2012				
Date Well Work Completed:	08/07/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable	Rig	7"	630'	630'	existing
Total vertical Depth (ft):	3060'				
Total Measured Depth (ft):	3060'				
Fresh Water Depth (ft):		4 ½"	2994.15'	2994.15'	existing
Salt Water Depth (ft):					
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	596'-603'				
Void(s) encountered (Y/N) depth(s):					

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2881'-2912'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

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Office of Oil & Gas

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

11/9/12
Date

Were core samples taken? No

Were cuttings caught during drilling? No

Were Y (Y/N) Electrical, N (Y/N) Mechanical, N (Y/N) or Geophysical logs recorded on this well?

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Treatment : Treated perfs 2881'-2912' w/ 300 gals 15% HCL, 171 bbls cross linked gel, & 5,000# 20/40 sand.

Well Log : See original WR35 report

WR-35

6/11/2009

API # 47 033 5249

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: BURNSIDE, WILLIAM Operator Well No.: HIRAM LYNCH 201

LOCATION: Elevation: 1,258' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,425 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 11,700 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 08/19/09
Well work Completed: 11/09/09
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3060'
Fresh water depths (ft)

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): 596'-603'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	630'	630'	160 sks
4 1/2"	2994.15'	2994.15'	150 sks

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Office of Oil & Gas
DEC 15 2009
WV Department of
Environmental Protection

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2881'-2882', 2902'-2905', 2909'-2912'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 12/14/09

Treatment : Treated perfs (2881'-2882', 2902'-2905', 2909'-2912') w/ 250 gals 15% HCl, 156 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	250	Sand and Shale
250	273	Sand
273	374	Shale
374	444	Sand
444	578	Shale
578	587	Sand
587	596	Shale
596	603	Coal
603	702	Shale
702	713	Sand
713	957	Shale
957	968	Sand
968	1298	Shale
1298	1361	Sand
1361	1670	Shale
1670	1700	Sand
1700	1793	Shale
1793	1806	Sand
1806	1869	Shale
1869	1878	Sand
1878	1886	Shale
1886	1902	Sand
1902	1930	Shale
1930	2008	Big Lime
2008	2072	Big Injun
2072	2502	Shale
2502	2501	Sand
2501	2583	Shale
2583	2612	Sand
2612	2622	Shale
2622	2688	Sand
2688	2697	Shale
2697	2744	Sand
2744	2903	Shale
2903	2913	Fifth Sand
2913	3060	Shale
3060		TD

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AOR - Well Review Checklist

API Number: 47-033- 05250 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 206
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2990
Completion Zones: 5th Sand Perforated Interval: 2765-2767 & 2784-2787

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541381.53 Northing: 4347975.46
Elevation: 1173
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:	No ☒	Yes ☐
Date of Last MIT: N/A Passed?	No ☐	Yes ☐
Open Hole Completion	No ☒	Yes ☐
Well penetrates injection zone?	No ☐	Yes ☒
Well perforated in injection zone?	No ☐	Yes ☒
Cemented across injection zone?	No ☐	Yes ☒
Packer immediately above injection zone (<100')?	No ☐	Yes ☐ No Packer ☐
	If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?	No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/11/2009

API # 47 033 5250

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: TURNER, DAVID & SANDRA Operator Well No.: HIRAM LYNCH 206

LOCATION: Elevation: 1,173' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 4,325 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 10,975 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 10/14/09
Well work Completed: 11/09/09
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 2990'
Fresh water depths (ft) 290'

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): 468'-475'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	532'	532'	135 sks
4 1/2"	2958.2'	2958.2'	150 sks

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Office of Oil & Gas
JAN 11 2010

WV Department of
Environmental Protection

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2765'-2767', 2784'-2797'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 1/7/2010

Treatment : Treated perfs (2765'-2767', 2784'-2797') w/ 250 gals. 15% HCl acid, 194 bbls gelled water, & 1000 # 20/40 sand.

Well Log :

0	138	Sand and Shale
138	155	Sand
155	218	Shale
218	236	Sand
236	248	Shale
248	260	Sand
260	266	Shale
266	318	Sand
318	450	Shale
450	464	Sand
464	468	Shale
468	475	Coal
475	545	Shale
545	552	Sand
552	570	Shale
570	590	Sand
590	792	Shale
792	808	Sand
808	906	Shale
906	936	Sand
936	988	Shale
988	1006	Sand
1006	1034	Shale
1034	1058	Sand
1058	1192	Shale
1192	1247	Sand
1247	1566	Shale
1566	1578	Sand
1578	1686	Shale
1686	1698	Sand
1698	1750	Shale
1750	1764	Sand
1764	1778	Shale
1778	1796	Sand
1796	1816	Shale
1816	1900	Big Lime
1900	1960	Big Injun
1960	2379	Shale
2379	2392	Sand
2392	2482	Shale
2482	2490	Sand
2490	2511	Shale
2511	2577	Sand
2577	2586	Shale
2586	2618	Sand
2618	2764	Shale
2764	2767	Sand
2767	2783	Shale
2783	2897	Fifth Sand
2897	2990	Shale
2990		TD

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AOR - Well Review Checklist

API Number: 47-033- 05251 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 209
Farm Name: Roxanne Myers Estate
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3011
Completion Zones: 5th Sand Perforated Interval: 2876 - 2887'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541925 Northing: 4348738
Elevation: 1268
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
WR-35 Office of Oil & Gas
JAN 14 2010
WV Department of Environmental Protection

6/11/2009

API # 47 33 5251

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: ROXANNE MYERS ESTATE Operator Well No.: NATHAN GOFF 204

LOCATION: Elevation: 1,268' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 1,725 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 9,200 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 08/09/09
Well work Completed: 10/02/09
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3011'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): 550'-557'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	590'	590'	150 sks
4 1/2"	2961.7'	2961.7'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2876'-2887'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 1/11/10

Treatment : Treated perfs (2876'-2887') w/ 250 gals. 15% HCl acid, 150 bbls gelled water and 1000 # 20/40 sand.

Well Log :

0	130	Sand and Shale
130	160	Sand
160	184	Shale
184	212	Sand
212	274	Shale
274	284	Sand
284	326	Shale
326	422	Sand
422	488	Shale
488	500	Sand
500	516	Shale
516	540	Sand
540	550	Shale
550	557	Coal
557	986	Shale
986	1000	Sand
1000	1054	Shale
1054	1068	Sand
1068	1234	Shale
1234	1320	Sand
1320	1336	Shale
1336	1360	Sand
1360	1480	Shale
1480	1577	Sand
1577	1839	Shale
1839	1848	Sand
1848	1858	Shale
1858	1874	Sand
1874	1899	Shale
1899	1980	Big Lime
1980	2038	Big Injun
2038	2462	Shale
2462	2482	Sand
2482	2558	Shale
2558	2706	Sand
2706	2872	Shale
2872	2887	Fifth Sand
2887	3011	Shale
3011		TD

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AOR - Well Review Checklist

API Number: 47-033- 05752 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 2077
Farm Name: Nicum Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3050
Completion Zones: 5th Sand Perforated Interval: 2850 - 2881.5

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541625.37 Northing: 4348158.34
Elevation: 1271
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/11/2009

API # 47 033 5252

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: GASKINS, KENNETH & DEBORA Operator Well No.: HIRAM LYNCH 207

LOCATION: Elevation: 1,271' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,725 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 10,175 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 10/02/09
Well work Completed: 10/30/09
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3050'
Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N) N
Coal Depths (ft): 540'-547'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	630'	630'	155 sks
4 1/2"	3023.65'	3023.65'	150 sks

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JAN 11 2010

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OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2850'-2852', 2869.5'-287 2877'-2881.5'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: Ben Holden
Date: 1/7/2010

Treatment : Treated perfs (2850'-2852', 2869.5'-2876', 2877'-2881.5')
w/ 250 gals. 15% HCl acid, 192 bbls gelled water, and 1000 # 20/40 sand.

Well Log :

0	135	Sand and Shale
135	156	Sand
156	193	Shale
193	223	Sand
223	285	Shale
285	310	Sand
310	320	Shale
320	390	Sand
390	522	Shale
522	532	Sand
532	540	Shale
540	547	Coal
547	618	Shale
618	672	Sand
672	863	Shale
863	880	Sand
880	980	Shale
980	1000	Sand
1000	1054	Shale
1054	1070	Sand
1070	1250	Shale
1250	1310	Sand
1310	1476	Shale
1476	1524	Sand
1524	1542	Shale
1542	1561	Sand
1561	1582	Shale
1582	1595	Sand
1595	1751	Shale
1751	1790	Sand
1790	1824	Shale
1824	1842	Sand
1842	1859	Shale
1859	1873	Sand
1873	1900	Shale
1900	1984	Big Lime
1984	2041	Big Injun
2041	2458	Shale
2458	2484	Sand
2484	2554	Shale
2554	2704	Sand
2704	2850	Shale
2850	2852	Sand
2852	2868	Shale
2868	2882	Fifth Sand
2882	3050	Shale
3050		TD

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AOR - Well Review Checklist

API Number: 47-033- 05253 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 203
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2864
Completion Zones: 5th Sand Perforated Interval: 2701 - 2739'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543686.33 Northing: 4348595.06
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

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Office of Oil & Gas
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WV Department of
Environmental Protection

6/11/2009

API # 47 033 5253

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Bob Feb 17/10

Farm name: GASKINS, KENNETH & DEBORA Operator Well No.: HIRAM LYNCH 203

LOCATION: Elevation: 1,105' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 2,325 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 9,975 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 08/14/09
Well work Completed: 10/09/09
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2864'
Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N) N
Coal Depths (ft): 391'-398'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	464'	464'	115 sks
4 1/2"	2828.75'	2828.75'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2700'-2702', 2704'-2706', 2726'-2732', 2734'-2739'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: _____
Date: 12/14/09

Treatment : Treated perfs (2700'-2702', 2704'-2706', 2726'-2732', 2734'-2739') w/ 250 gals 15% HCl, 184 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	170	Sand and Shale
170	264	Sand
264	373	Shale
373	384	Sand
384	391	Shale
391	398	Coal
398	506	Shale
506	516	Sand
516	710	Shale
710	730	Sand
730	826	Shale
826	850	Sand
850	903	Shale
903	921	Sand
921	1013	Shale
1013	1036	Sand
1036	1096	Shale
1096	1152	Sand
1152	1193	Shale
1193	1208	Sand
1208	1249	Shale
1249	1254	Sand
1254	1348	Shale
1348	1364	Sand
1364	1407	Shale
1407	1418	Sand
1418	1611	Shale
1611	1649	Sand
1649	1703	Shale
1703	1720	Sand
1720	1752	Shale
1752	1824	Big Lime
1824	1890	Big Injun
1890	2310	Shale
2310	2336	Sand
2336	2408	Shale
2408	2426	Sand
2426	2447	Shale
2447	2564	Sand
2564	2572	Shale
2572	2563	Sand
2563	2700	Shale
2700	2706	Sand
2706	2724	Shale
2724	2739	Fifth Sand
2739	2864	Shale
2864		TD

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AOR - Well Review Checklist

API Number: 47-033- 05254 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 202
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3020
Completion Zones: 5th Sand Perforated Interval: 2730 - 2747

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543434.87 Northing: 4348348.84
Elevation: 1102
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/11/2009

API # 47 033 5254

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: GASKINS, KENNETH & DEBORA Operator Well No.: HIRAM LYNCH 202

LOCATION: Elevation: 1,102' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,100 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 10,800 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 10/15/09
Well work Completed: 10/30/09
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3020'
Fresh water depths (ft) +

Salt water depths (ft) +

Is coal being mined in area (Y/N) N
Coal Depths (ft): 410'-417'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	522'	522'	120 sks
4 1/2"	2965.05'	2965.05'	150 sks

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OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2730'-2739', 2740.5'-274
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 12/14/09

Treatment : Treated perfs (2730'-2739', 2740.5'-2743') w/ 250 gals 15% HCl, 187 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	188	Sand and Shale
188	262	Sand
262	392	Shale
392	404	Sand
404	410	Shale
410	417	Coal
417	482	Shale
482	494	Sand
494	518	Shale
518	535	Sand
535	847	Shale
847	857	Sand
857	862	Shale
862	874	Sand
874	926	Shale
926	952	Sand
952	1046	Shale
1046	1060	Sand
1060	1125	Shale
1125	1178	Sand
1178	1506	Shale
1506	1526	Sand
1526	1684	Shale
1684	1696	Sand
1696	1714	Shale
1714	1729	Sand
1729	1755	Shale
1755	1823	Big Lime
1823	1902	Big Injun
1902	2320	Shale
2320	2337	Sand
2337	2416	Shale
2416	2438	Sand
2438	2452	Shale
2452	2520	Sand
2520	2529	Shale
2529	2569	Sand
2569	2730	Shale
2730	2744	Fifth Sand
2744	3020	Shale
3020		TD

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AOR - Well Review Checklist

API Number: 47-033-05256 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 205
Farm Name: Suttons, Earl & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3050
Completion Zones: 5th Sand Perforated Interval: 2835-2836 2855-2867

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543160 Northing: 4347762
Elevation: 1233
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/11/2009

API # 47 033 5256

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: W B CARPENTER 205

LOCATION: Elevation: 1,233' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 5,025 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 11,700 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 09/29/09
Well work Completed: 10/30/09
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3050'
Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N) N
Coal Depths (ft): 542'-549'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	602'	602'	150 sks
4 1/2"	3023.55'	3023.55'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2835'-2836', 2855'-2867'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: _____
Date: 12/8/09

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WV Department of
Environmental Protection

Treatment : Treated perfs (2835'-2836', 2855'-2867') w/ 250 gals. 15% HCl, 191 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	122	Sand and Shale
122	154	Sand
154	205	Shale
205	218	Sand
218	320	Shale
320	380	Sand
380	524	Shale
524	534	Sand
534	542	Shale
542	549	Coal
549	654	Shale
654	668	Sand
668	911	Shale
911	922	Sand
922	1118	Shale
1118	1128	Sand
1128	1250	Shale
1250	1316	Sand
1316	1562	Shale
1562	1602	Sand
1602	1628	Shale
1628	1644	Sand
1644	1690	Shale
1690	1708	Sand
1708	1744	Shale
1744	1758	Sand
1758	1809	Shale
1809	1830	Sand
1830	1844	Shale
1844	1860	Sand
1860	1880	Shale
1880	1968	Big Lime
1968	2030	Big Injun
2030	2448	Shale
2448	2459	Sand
2459	2547	Shale
2547	2564	Sand
2564	2579	Shale
2579	2646	Sand
2646	2654	Shale
2654	2695	Sand
2695	2855	Shale
2855	2868	Fifth Sand
2868	3050	Shale
3050		TD

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AOR - Well Review Checklist

API Number: 47-033- 5258 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 217
Farm Name: Sinking, Earl & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3140
Completion Zones: 5th Sand Perforated Interval: 3003 - 3012

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 5428594 Northing: 4347581
Elevation: 1365
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/11/2009

API # 47 033 5258

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: W.B. CARPENTER 217

LOCATION: Elevation: 1,365' Quadrangle: SALEM 7.5'

District: TEN MILE County: HARRISON
Latitude: 5,500 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 900 Feet west of 80 Deg 30 Min 0 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 09/24/09
Well work Completed: 10/09/09
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3140'
Fresh water depths (ft) 200'

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): 698'-705'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	773'	773'	190 sks
4 1/2"	3117.5'	3117.5'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 3003'-3004', 3005'-3006', 3008'-3012'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

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Office of Oil & Gas
DEC 9 2009
WV Department of Environmental Protection

For: EAST RESOURCES, INC.
By:
Date: 12/8/09

Treatment : Treated perfs (3003'-3004', 3005'-3006', & 3008'-3012')
w/ 250 gals. 15% HCl, 199 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	288	Sand and Shale
288	306	Sand
306	354	Shale
354	374	Sand
374	476	Shale
476	546	Sand
546	680	Shale
680	690	Sand
690	744	Shale
744	698	Coal
698	705	Shale
744	764	Sand
764	772	Shale
772	784	Sand
784	792	Shale
792	800	Sand
800	1064	Shale
1064	1074	Sand
1074	1395	Shale
1395	1478	Sand
1478	1725	Shale
1725	1755	Sand
1755	1899	Shale
1899	1934	Sand
1934	1962	Shale
1962	1978	Sand
1978	1996	Shale
1996	2008	Sand
2008	2046	Shale
2046	2140	Big Lime
2140	2180	Big Injun
2180	2593	Shale
2593	2604	Sand
2604	2693	Shale
2693	2702	Sand
2702	2720	Shale
2720	2790	Sand
2790	2799	Shale
2799	2838	Sand
2838	3008	Shale
3008	3012	Fifth Sand
3012	3140	Shale
3140		TD

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AOR - Well Review Checklist

API Number: 47-033- 05260 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: Zero
Farm Name: W.B. Carpenter
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3025
Completion Zones: 5th Sand Perforated Interval: 2916-2922, 2925-2929

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542950.57 Northing: 4348023.32
Elevation: 1250
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient ($H_2 0$)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/11/2009

API # 47 033 05260

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: W.B. CARPENTER 200

LOCATION: Elevation: 1,250' Quadrangle: SALEM 7.5'

District: TEN MILE County: HARRISON
Latitude: 4,100 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 600 Feet west of 80 Deg 30 Min 0 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 08/28/09
Well work Completed: 10/09/09
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3025'
Fresh water depths (ft)

Salt water depths (ft)

Is coal being mined in area (Y/N) N
Coal Depths (ft): 607'-614'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	596'	596'	150 sks
4 1/2"	2995.15'	2995.15'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2916'-2922', 2925'-2929'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

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DEC 9 2009
WV Department of
Environmental Protection

For: EAST RESOURCES, INC.
By:
Date: 12/8/09

Treatment : Treated perfs (2916'-2922', 2925'-2929') w/ 250 gals 15% HCl, 197 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	190	Sand and Shale
190	220	Sand
220	224	Shale
224	233	Sand
233	381	Shale
381	398	Sand
398	414	Shale
414	455	Sand
455	500	Shale
500	508	Sand
508	590	Shale
590	600	Sand
600	607	Shale
607	614	Coal
614	961	Shale
961	976	Sand
976	1321	Shale
1321	1398	Sand
1398	1690	Shale
1690	1701	Sand
1701	1810	Shale
1810	1840	Sand
1840	1869	Shale
1869	1887	Sand
1887	1904	Shale
1904	1920	Sand
1920	1950	Shale
1950	2050	Big Lime
2050	2094	Big Injun
2094	2510	Shale
2510	2522	Sand
2522	2640	Shale
2640	2670	Sand
2670	2674	Shale
2674	2704	Sand
2704	2714	Shale
2714	2747	Sand
2747	2914	Shale
2914	2929	Fifth Sand
2929	3025	Shale
3025		TD

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AOR - Well Review Checklist

API Number: 47-033- 05257 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 211
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3016
Completion Zones: 5th Sand Perforated Interval: 2853 - 2870

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 544158.77 Northing: 4348303.12
Elevation: 1080
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

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Office of Oil & Gas
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WV Department of
Environmental Protection

6/12/2009

API # 47 033 5257

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: HIRAM LYNCH 211

LOCATION: Elevation: 1,080' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,250 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 8,425 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/12/09
Well work Commenced: 09/18/09
Well work Completed: 10/09/09
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3016'
Fresh water depths (ft) 73'

Salt water depths (ft) 112'

Is coal being mined in area (Y/N) N
Coal Depths (ft): 308'-315'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	442'	442'	105 sks
4 1/2"	2998.2'	2998.2'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

* This well drilled directionally S77E @ a distance of 827'

Producing formation Fifth Sand Pay zone (ft) 2853'- 2864', 2868'- 287(
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: _____
Date: 3/31/10

Treatment : Treated perfs (2853'- 2864', 2868'- 2870') w/ 250 gals. 15% HCl acid, 176 bbls gelled water, and 1000 # 20/40 sand.

Well Log :

0	290	Sand and Shale
290	300	Sand
300	308	Shale
308	315	Coal
315	393	Shale
393	414	Sand
414	756	Shale
756	774	Sand
774	848	Shale
848	864	Sand
864	1012	Shale
1012	1140	Sand
1140	1242	Shale
1242	1290	Sand
1290	1336	Shale
1336	1348	Sand
1348	1550	Shale
1550	1600	Sand
1600	1628	Shale
1628	1658	Sand
1658	1660	Shale
1660	1700	Sand
1700	1726	Shale
1726	1822	Big Lime
1822	1896	Big Injun
1896	2387	Shale
2387	2402	Sand
2402	2494	Shale
2494	2664	Sand
2664	2850	Shale
2850	2870	Fifth Sand
2870	3016	Shale
3016		TD

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AOR - Well Review Checklist

API Number: 47-033- 05262 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 218
Farm Name: Sinking, Ford & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3140
Completion Zones: 5th Perforated Interval: 2911 – 2925'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541668 Northing: 4347840
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/11/2009

API # 47 033 5262

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: W.B. CARPENTER 218

LOCATION: Elevation: 1,231' Quadrangle: SALEM 7.5'

District: TEN MILE County: HARRISON
Latitude: 4,700 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 1,525 Feet west of 80 Deg 30 Min 0 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/11/09
Well work Commenced: 10/12/09
Well work Completed: 10/30/09
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3140'
Fresh water depths (ft) 15'

Salt water depths (ft) 2030'

Is coal being mined in area (Y/N) N
Coal Depths (ft): 607'-614'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	655'	655'	155 sks
4 1/2"	3061.95'	3061.95'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2911'-2921', 2922'-2925'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 12/18/09

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Environmental Protection

Treatment : Treated perfs (2911'-2921', 2922'-2925') w/ 250 gals. 15% HCl, 193 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	188	Sand and Shale
188	224	Sand
224	352	Shale
352	373	Sand
373	383	Shale
383	454	Sand
454	590	Shale
590	600	Sand
600	607	Shale
607	614	Coal
614	653	Shale
653	667	Sand
667	1306	Shale
1306	1392	Sand
1392	1630	Shale
1630	1660	Sand
1660	1668	Shale
1668	1678	Sand
1678	1800	Shale
1800	1814	Sand
1814	1868	Shale
1868	1886	Sand
1886	1900	Shale
1900	1918	Sand
1918	1946	Shale
1946	2060	Big Lime
2060	2088	Big Injun
2088	2501	Shale
2501	2510	Sand
2510	2593	Shale
2593	2608	Sand
2608	2634	Shale
2634	2697	Sand
2697	2706	Shale
2706	2744	Sand
2744	2910	Shale
2910	2926	Fifth Sand
2926	3140	Shale
3140		TD

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AOR - Well Review Checklist

API Number: 47-033- 05264 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 208
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3020
Completion Zones: 1264 5th Sand Perforated Interval: 2816' - 2852'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541246.55 Northing: 4348287.88
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
Office of Oil & Gas
JAN 14 2010
WV Department of Environmental Protection

WR-35

6/18/2009

API # 47 033 5264

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: HIRAM LYNCH 208

LOCATION: Elevation: 1,264' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,300 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 9,275 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/18/09
Well work Commenced: 06/17/09
Well work Completed: 11/09/09
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3020'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): 515'-522'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	640'	640'	160 sks
4 1/2"	2999.5'	2999.5'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2816'-2817', 2820'-2822', 2841'-2852'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 1/11/10

Treatment : Treated perfs (2816'-2817', 2820'-2822', 2841'-2852') w/ 250 gals. 15% HCl acid, 193 bbls gelled water, and 1000 # 20/40 sand.

Well Log :

0	234	Sand and Shale
234	242	Sand
242	298	Shale
298	394	Sand
394	485	Shale
485	512	Sand
512	515	Shale
515	522	Coal
522	590	Shale
590	604	Sand
604	631	Shale
631	652	Sand
652	830	Shale
830	840	Sand
840	942	Shale
942	960	Sand
960	1026	Shale
1026	1037	Sand
1037	1144	Shale
1144	1158	Sand
1158	1215	Shale
1215	1280	Sand
1280	1476	Shale
1476	1486	Sand
1486	1518	Shale
1518	1848	Sand
1848	1716	Shale
1716	1760	Sand
1760	1792	Shale
1792	1806	Sand
1806	1822	Shale
1822	1839	Sand
1839	1860	Shale
1860	1946	Big Lime
1946	2008	Big Injun
2008	2426	Shale
2426	2448	Sand
2448	2532	Shale
2532	2672	Sand
2672	2814	Shale
2814	2822	Sand
2822	2840	Shale
2840	2852	Fifth Sand
2852	3020	Shale
3020		TD

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AOR - Well Review Checklist

API Number: 47-033- 05265 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 212
Farm Name: A. Shrestest
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3247
Completion Zones: 5th Sand Perforated Interval: 3096 - 3105

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 541907.31 Northing: 4347830.68
Elevation: 1231
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 12 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

6/18/2009

API # 47 033 5265

COPY

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: CURRY, KEITH & BRENDA Operator Well No.: A. STONESTREET 212

LOCATION: Elevation: 1,231' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON

Latitude: 4,800 Feet south of 39 Deg 17 Min 30 Sec.

Longitude: 9,250 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT

Permit Issued: 06/18/09

Well work Commenced: 09/08/09

Well work Completed: 07/27/10

Verbal plugging permission granted on: _____

Rotary X Cable _____ Rig

Total Depth (feet) 3247'

Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N) N

Coal Depths (ft): NA

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	590.2'	590.2'	150 sks
4 1/2"	3204.5'	3204.5'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

This well drilled directionally a distance of 1020 ft at orientation of N 47 ° 30' E

Producing formation Fifth Sand Pay zone depth (ft) 3096'-3105'

Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d

Final open flow * MCF/d Final open flow * Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

RECEIVED
Office of Oil & Gas
OCT 06 2010
WV Department of
Environmental Protection

For: EAST RESOURCES, INC.

By: _____

Date: 9/14/10

Treatment : Treated perfs (3096'-3105') w/ 250 gals 15% HCl acid, 180 bbls gelled water, and 1100# 20/40 sand.

Well Log :

0	118	Sand and Shale
118	142	Sand
142	238	Shale
238	336	Sand
336	436	Shale
436	448	Sand
448	464	Shale
464	471	Coal
471	541	Shale
541	558	Sand
558	904	Shale
904	920	Sand
920	972	Shale
972	982	Sand
982	1025	Shale
1025	1050	Sand
1050	1180	Shale
1180	1236	Sand
1236	1424	Shale
1424	1467	Sand
1467	1500	Shale
1500	1526	Sand
1526	1742	Shale
1742	1786	Sand
1786	1825	Shale
1825	1856	Sand
1856	1877	Shale
1877	1899	Sand
1899	1918	Shale
1918	1929	Sand
1929	2022	Big Lime
2022	2099	Big Injun
2099	2588	Shale
2588	2612	Sand
2612	2720	Shale
2720	2888	Sand and Shale
2888	3094	Shale
3094	3106	Fifth Sand
3106	3247	Shale
3247		TD

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AOR - Well Review Checklist

API Number: 47-033- 05266 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 213
Farm Name: Curry, Keith & Brenda
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2966
Completion Zones: 5th Sand Perforated Interval: 2802 - 2809

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543892 Northing: 4347838
Elevation: 1234
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

VR-35

6/18/2009

API # 47 033 5266

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: CURRY, KEITH & BRENDA Operator Well No.: A. STONESTREET 213

LOCATION: Elevation: 1,234' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 4,775 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 9,300 Feet west of 800 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/18/09
Well work Commenced: 09/02/09
Well work Completed: 11/09/09
Verbal plugging
permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2966'
Fresh water depths (ft) _____

Salt water depths (ft) 1850'

Is coal being mined in area (Y/N) N
Coal Depths (ft): 467'-474'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	591'	591'	140 sks
4 1/2"	2911.9'	2911.9'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2802'-2809'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By: _____
Date: 5/30/10

Treatment : Treated perfs (2802'-2809") w/ 250 gals 15% HCl acid, 165 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	118	Sand and Shale
118	146	Sand
146	170	Shale
170	180	Sand
180	244	Shale
244	312	Sand
312	328	Shale
328	339	Sand
339	450	Shale
450	459	Sand
459	467	Shale
467	474	Coal
474	544	Shale
544	560	Sand
560	907	Shale
907	923	Sand
923	974	Shale
974	985	Sand
985	1026	Shale
1026	1054	Sand
1054	1184	Shale
1184	1236	Sand
1236	1397	Shale
1397	1443	Sand
1443	1472	Shale
1472	1498	Sand
1498	1680	Shale
1680	1710	Sand
1710	1744	Shale
1744	1772	Sand
1772	1786	Shale
1786	1799	Sand
1799	1820	Shale
1820	1904	Big Lime
1904	1970	Big Injun
1970	2388	Shale
2388	2414	Sand
2414	2493	Shale
2493	2508	Sand
2508	2522	Shale
2522	2638	Sand
2638	2799	Shale
2799	2814	Fifth Sand
2814	2966	Shale
2966		TD

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AOR - Well Review Checklist

API Number: 47-033- 05267 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 214
Farm Name: Curry, Keith & Brenda
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3070
Completion Zones: 5th Sand Perforated Interval: 2832-2845

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543549 Northing: 4347663
Elevation:
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
Office of Oil & Gas
APR 07 2010
WV Department of
Environmental Protection

(41)

6/18/2009

API # 47 033 5267

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: CURRY, KEITH & BRENDA Operator Well No.: A. STONESTREET 214

LOCATION: Elevation: 1,280' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 5,350 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 10,425 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 06/18/09
Well work Commenced: 10/21/09
Well work Completed: 11/09/09
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3070'
Fresh water depths (ft)

Salt water depths (ft) 1940'

Is coal being mined in area (Y/N) N
Coal Depths (ft): 513-519

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	611'	611'	150 sks
4 1/2"	3018.15'	3018.15'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone depth (ft) 2832'-2845'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 4/5/10

Treatment : Treated perfs (2832'-2845') w/ 250 gals. 15% HCL acid, 194 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	170	Sand and Shale
170	202	Sand
202	238	Shale
238	245	Sand
245	293	Shale
293	362	Sand
362	495	Shale
495	505	Sand
505	513	Shale
513	519	Coal
519	591	Shale
591	602	Sand
602	628	Shale
628	638	Sand
638	836	Shale
836	850	Sand
850	962	Shale
962	978	Sand
978	1033	Shale
1033	1044	Sand
1044	1080	Shale
1080	1098	Sand
1098	1218	Shale
1218	1294	Sand
1294	1722	Shale
1722	1756	Sand
1756	1794	Shale
1794	1817	Sand
1817	1830	Shale
1830	1843	Sand
1843	1863	Shale
1863	1945	Big Lime
1945	2010	Big Injun
2010	2427	Shale
2427	2442	Sand
2442	2522	Shale
2522	2675	Sand
2675	2832	Shale
2832	2846	Fifth Sand
2846	3070	Shale
3070		TD

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AOR - Well Review Checklist

API Number: 47-033- 05269 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 223
Farm Name: Myers, Roxanne Estate
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3050'
Completion Zones: 5th Sand Perforated Interval: ≈ 2780 - 2795'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543724 Northing: 4348912
Elevation: 1138
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35 Office of Oil & Gas

JAN 22 2010

WV Department of Environmental Protection

7/29/2009

API # 47 033 5269

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Bob 2 ech 2/1/10

Farm name: MYERS, ROXANNE ESTATE Operator Well No.: NATHAN GOFF 223

LOCATION: Elevation: 1,138' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 1,250 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 9,850 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 07/29/09
Well work Commenced: 10/06/09
Well work Completed: 10/30/09
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3050'
Fresh water depths (ft) N/A

Salt water depths (ft) 1910'

Is coal being mined in area (Y/N) N
Coal Depths (ft): 451'-458'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	544'	544'	135 sks
4 1/2"	2959.25'	2959.25'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay (ft) 2780.5'-2786', 2790'-2794.5'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 1/20/10

Treatment : Treated perfs (2780.5'-2786', 2790'-2794.5') w/ 250 gals. 15% HCl acid, 174 bbls gelled water, and 1000 # 20/40 sand.

Well Log :

0	38	Sand and Shale
38	62	Sand
62	112	Shale
112	132	Sand
132	204	Shale
204	298	Sand
298	316	Shale
316	328	Sand
328	392	Shale
392	404	Sand
404	432	Shale
432	444	Sand
444	452	Shale
451	458	Sand
458	471	Shale
471	483	Sand
483	528	Shale
528	587	Sand
587	773	Shale
773	784	Sand
784	964	Shale
964	980	Sand
980	1058	Shale
1058	1093	Sand
1093	1140	Shale
1140	1216	Sand
1216	1246	Shale
1246	1262	Sand
1262	1392	Shale
1392	1419	Sand
1419	1458	Shale
1458	1479	Sand
1479	1731	Shale
1731	1790	Sand
1790	1797	Shale
1797	1880	Big Lime
1880	1940	Big Injun
1940	2368	Shale
2368	2387	Sand
2387	2500	Shale
2500	2612	Sand
2612	2779	Shale
2779	2795	Fifth Sand
2795	3050	Shale
3050		TD

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AOR - Well Review Checklist

API Number: 47-033- 05270 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 215
Farm Name: Hoffman, B Nat
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3080
Completion Zones: 5th Sand Perforated Interval: 2907-2911 2912-2916

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 513274. Northing: 4347518
Elevation: 1315
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
Office of Oil & Gas
MAR 30 2010
WV Department of
Environmental Protection

9/1/2009

API # 47 33 5270

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: HUFFMAN, BRIAN V. Operator Well No.: W.F. WILLIAMS 215

LOCATION: Elevation: 1,315' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 5,825 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 11,325 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 09/01/09
Well work Commenced: 09/20/09
Well work Completed: 10/02/09
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3080'
Fresh water depths (ft) 50'

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): 594'-601'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	675'	675'	165 sks
4 1/2"	3056.25'	3056.25'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2907'-2911', 2912'-2916'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 3/29/10

Treatment : Treated perfs (2907'-2911', 2912'-2916') w/ 250 gals. 15% HCl acid, 159 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	246	Sand and Shale
246	274	Sand
274	371	Shale
371	444	Sand
444	577	Shale
577	588	Sand
588	594	Shale
594	601	Coal
601	668	Shale
668	685	Sand
685	702	Shale
702	720	Sand
720	914	Shale
914	932	Sand
932	1032	Shale
1032	1044	Sand
1044	1052	Shale
1052	1059	Sand
1059	1112	Shale
1112	1133	Sand
1133	1154	Shale
1154	1178	Sand
1178	1310	Shale
1310	1383	Sand
1383	1617	Shale
1617	1627	Sand
1627	1640	Shale
1640	1658	Sand
1658	1900	Shale
1900	1914	Sand
1914	1938	Shale
1938	2018	Big Lime
2018	2084	Big Injun
2084	2501	Shale
2501	2522	Sand
2522	2594	Shale
2594	2753	Sand
2753	2907	Shale
2907	2918	Fifth Sand
2918	3080	Shale
3080		TD

Treatment : Treated perfs (2907'-2911', 2912'-2916') w/ 250 gals. 15% HCl acid, 159 bbls gelled water, and 1000# 20/40 sand.

Well Log :

0	246	Sand and Shale
246	274	Sand
274	371	Shale
371	444	Sand
444	577	Shale
577	588	Sand
588	594	Shale
594	601	Coal
601	668	Shale
668	685	Sand
685	702	Shale
702	720	Sand
720	914	Shale
914	932	Sand
932	1032	Shale
1032	1044	Sand
1044	1052	Shale
1052	1059	Sand
1059	1112	Shale
1112	1133	Sand
1133	1154	Shale
1154	1178	Sand
1178	1310	Shale
1310	1383	Sand
1383	1617	Shale
1617	1627	Sand
1627	1640	Shale
1640	1658	Sand
1658	1900	Shale
1900	1914	Sand
1914	1938	Shale
1938	2018	Big Lime
2018	2084	Big Injun
2084	2501	Shale
2501	2522	Sand
2522	2594	Shale
2594	2753	Sand
2753	2907	Shale
2907	2918	Fifth Sand
2918	3080	Shale
3080		TD

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AOR - Well Review Checklist

API Number: 47-033- 05271 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 222
Farm Name: Myers, Roxane Estate
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☑ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 3110
Completion Zones: 5th Sand Perforated Interval: 2848 - 296'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 543455 Northing: 4348807
Elevation: 1210
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 20 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

RECEIVED
Office of Oil & Gas
JAN 22 2010
WV Department of Environmental Protection

8/4/2009
API # 47 033 5271

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: MYERS, ROXANNE ESTATE Operator Well No.: NATHAN GOFF 222

LOCATION: Elevation: 1,210' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 1,525 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 10,750 Feet west of 80 Deg 27 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 08/04/09
Well work Commenced: 09/24/09
Well work Completed: 10/09/09
Verbal plugging permission granted on:
Rotary X Cable ____ Rig
Total Depth (feet) 3110'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): 523'-530'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	611'	611'	155 sks
4 1/2"	3023.25'	3023.25'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay (ft) 2848'-2849', 2850.5'-2853.5', 2855'-2856', 2859'-2860'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock pressure ____ psig (surface pressure) after ____ Hours

Second producing formation ____ Pay zone depth (ft) ____
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow ____ MCF/d Final open flow ____ Bbl/d
Time of open flow between initial and final tests ____ Hours
Static rock pressure ____ psig (surface pressure) after ____ Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 1/20/10

Treatment : Treated perfs (2848'-2849', 2850.5'-2853.5', 2855'-2856', & 2859'-2860') w/ 250 gals 15% HCl acid, 192 bbls gelled water, and 1000 # 20/40 sand.

Well Log :

0	106	Sand and Shale
106	148	Sand
148	300	Shale
300	382	Sand
382	412	Shale
412	428	Sand
428	491	Shale
491	514	Sand
514	523	Shale
523	530	Coal
530	628	Shale
628	654	Sand
654	841	Shale
841	858	Sand
858	1130	Shale
1130	1163	Sand
1163	1206	Shale
1206	1288	Sand
1288	1316	Shale
1316	1336	Sand
1336	1446	Shale
1446	1464	Sand
1464	1506	Shale
1506	1540	Sand
1540	1606	Shale
1606	1618	Sand
1618	1740	Shale
1740	1750	Sand
1750	1802	Shale
1802	1864	Sand
1864	1876	Shale
1876	1948	Big Lime
1948	2010	Big Injun
2010	2432	Shale
2432	2458	Sand
2458	2531	Shale
2531	2680	Sand
2680	2848	Shale
2848	2860	Fifth Sand
2860	3110	Shale
3110		TD

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AOR - Well Review Checklist

API Number: 47-033- 05280 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 219
Farm Name: Hiram Lynch
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3110
Completion Zones: 5th Sand Perforated Interval: 2508 – 2922

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542447.65 Northing: 4348180.96
Elevation: 1188
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

7/29/2009

API # 47 33 5280

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: LAKE FLOYD CLUB, INC. Operator Well No.: HIRAM LYNCH 219

LOCATION: Elevation: 1,188' Quadrangle: SALEM 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,550 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 2,250 Feet west of 80 Deg 30 Min 0 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 07/29/09
Well work Commenced: 09/14/09
Well work Completed: 10/02/09
Verbal plugging
permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3110'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): 510'-515'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	578'	578'	140 sks
4 1/2"	3054.5'	3054.5'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay zone (ft) 2908'-2910', 2911'-2915', 2916'-2917', 2920.5'-292
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 3/29/10

Treatment : Treated perfs (2908'-2910', 2911'-2915', 2916'-2917', and 2920.5'-2921.5') w/ 250 gals 15% HCl acid, 157 bbls gelled water, and 1000 # 20/40 sand.

Well Log :

0	188	Sand and Shale
188	227	Sand
227	329	Shale
329	336	Sand
336	380	Shale
380	448	Sand
448	574	Shale
574	600	Sand
600	608	Shale
608	614	Coal
614	632	Shale
632	643	Sand
643	654	Shale
654	662	Sand
662	925	Shale
925	936	Sand
936	1112	Shale
1112	1120	Sand
1120	1302	Shale
1302	1368	Sand
1368	1440	Shale
1440	1464	Sand
1464	1540	Shale
1540	1550	Sand
1550	1798	Shale
1798	1812	Sand
1812	1855	Shale
1855	1922	Sand
1922	1934	Shale
1934	2042	Big Lime
2042	2075	Big Injun
2075	2493	Shale
2493	2502	Sand
2502	2586	Shale
2586	2603	Sand
2603	2640	Shale
2640	2695	Sand
2695	2704	Shale
2704	2738	Sand
2738	2908	Shale
2908	2922	Fifth Sand
2922	3110	Shale
3110		TD

Treatment : Treated perfs (2908'-2910', 2911'-2915', 2916'-2917', and 2920.5'-2921.5') w/ 250 gals 15% HCl acid, 157 bbls gelled water, and 1000 # 20/40 sand.

Well Log :

0	188	Sand and Shale
188	227	Sand
227	329	Shale
329	336	Sand
336	380	Shale
380	448	Sand
448	574	Shale
574	600	Sand
600	608	Shale
608	614	Coal
614	632	Shale
632	643	Sand
643	654	Shale
654	662	Sand
662	925	Shale
925	936	Sand
936	1112	Shale
1112	1120	Sand
1120	1302	Shale
1302	1368	Sand
1368	1440	Shale
1440	1464	Sand
1464	1540	Shale
1540	1550	Sand
1550	1798	Shale
1798	1812	Sand
1812	1855	Shale
1855	1922	Sand
1922	1934	Shale
1934	2042	Big Lime
2042	2075	Big Injun
2075	2493	Shale
2493	2502	Sand
2502	2586	Shale
2586	2603	Sand
2603	2640	Shale
2640	2695	Sand
2695	2704	Shale
2704	2738	Sand
2738	2908	Shale
2908	2922	Fifth Sand
2922	3110	Shale
3110		TD

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AOR - Well Review Checklist

API Number: 47-033- 05281 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 221
Farm Name: Nathan Goff
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3200
Completion Zones: 5th Sand Perforated Interval: 2997 - 3003'

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542927.71 Northing: 4134854.1
Elevation: 1292
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 17 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35

RECEIVED
Office of Oil & Gas
JAN 22 2010
WV Department of
Environmental Protection

7/29/2009

API # 47 33 5281

Bob Pollard 1/10

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: LAKE FLOYD CLUB, INC. Operator Well No.: NATHAN GOFF 221

LOCATION: Elevation: 1,292' Quadrangle: SALEM 7.5'

District: TEN MILE County: HARRISON
Latitude: 2,375 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 675 Feet west of 80 Deg 30 Min 0 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT
Permit Issued: 07/29/09
Well work Commenced: 09/18/09
Well work Completed: 10/02/09
Verbal plugging permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3200'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N) N
Coal Depths (ft): 675'-682'

Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	739'	739'	180 sks
4 1/2"	3150.8'	3150.8'	150 sks

OPEN FLOW DATA * WATERFLOOD PRODUCER

Producing formation Fifth Sand Pay (ft) 2992'-2995', 2996.5'-2997.5' 2999'-3000', 3002'-3003'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.
By:
Date: 1/20/10

Treatment : Treated perfs (2992'-2995', 2996.5'-2997.5', 2999'-3000', 3002'-3003') w/ 250 gals. 15% HCl acid, 160 bbls gelled water and 1000# 20/40 sand.

Well Log :

0	260	Sand and Shale
260	303	Sand
303	450	Shale
450	523	Sand
523	563	Shale
563	586	Sand
586	643	Shale
643	652	Sand
652	658	Shale
658	668	Sand
668	675	Shale
675	682	Coal
682	778	Shale
778	800	Sand
800	988	Shale
988	1010	Sand
1010	1302	Shale
1302	1312	Sand
1312	1368	Shale
1368	1470	Sand
1470	1516	Shale
1516	1548	Sand
1548	1620	Shale
1620	1630	Sand
1630	1768	Shale
1768	1776	Sand
1776	1864	Shale
1864	1903	Sand
1903	1953	Shale
1953	2003	Sand
2003	2114	Big Lime
2114	2154	Big Injun
2154	2576	Shale
2576	2597	Sand
2597	2670	Shale
2670	2819	Sand
2819	2991	Shale
2991	3004	Fifth Sand
3004	3200	Shale
3200		TD

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AOR - Well Review Checklist

API Number: 47-033-05531 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 117
Farm Name:
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☒ Producer (Waterflood) ☐ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☐ Plugged ☒ Never Drilled
TD of well:
Completion Zones: Perforated Interval:

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: Northing:
Elevation:
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations: No ☐ Yes ☐
Date of Last MIT: Passed? No ☐ Yes ☐

Open Hole Completion No ☐ Yes ☐
Well penetrates injection zone? No ☐ Yes ☐
Well perforated in injection zone? No ☐ Yes ☐
Cemented across injection zone? No ☐ Yes ☐
Packer immediately above injection zone (<100')? No ☐ Yes ☐ No Packer ☐
If No: Provide Depth:

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW? No ☐ Yes ☐

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Well Never Drilled
Cancelled on 3/31/2016

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 11/30/2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

April 04, 2016

FINAL INSPECTION REPORT

Secondary Recovery Well Permit Cancelled

HG ENERGY, LLC.

The FINAL INSPECTION REPORT for the CANCELLED permit, API Well Number: 47-3305531, issued to HG ENERGY, LLC, and listed below has been received in this office. The permit has been cancelled as of 3/31/2016.

James Martin
Chief

Operator: HG ENERGY, LLC
Operator's Well No: J. M. FULTZ 117
Farm Name: MYERS, EDGAR LEE JR.
API Well Number: 47-3305531
Date Issued: 03/28/2013

Date Cancelled: 03/31/2016

Promoting a healthy environment.

WVDEP OOG Internal Use Only
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AOR - Well Review Checklist

API Number: 47-033-05610 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 226
Farm Name: Fullerton, Tim & Susan
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2952
Completion Zones: 5th Sand Perforated Interval: 2805 - 2808, 2816 - 2821

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 514874 Northing: 4347894
Elevation: 1298
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev (8-10)

05/31/2012
API # 47-033-05610

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: FULLERTON, TIMOTHY & SUSAN Operator Well No.: HIRAM LYNCH 226

LOCATION: Elevation: 1,298' Quadrangle: WOLF SUMMIT 7.5'
District: TEN MILE County: HARRISON
Latitude: 4,560 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 6,105 Feet west of 80 Deg 27 Min 30 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Tristan Jenkins				
Date Permit Issued:	05/31/2012				
Date Well Work Commenced:	07/23/2012				
Date Well Work Completed:	09/11/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable Rig		7"	483.75'	483.75'	500-sks
Total vertical Depth (ft):	2934'				
Total Measured Depth (ft):	2952'				
Fresh Water Depth (ft):	20', 80', 360'	4 ½"	2909'	2909'	200 sks
Salt Water Depth (ft):	none				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	none				
Void(s) encountered (Y/N) depth(s): Y 440'-450' 9" mine liner installed over 7" casing, depth mine liner installed 435'-455', Mine liner grouted in w/ cement.					

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DEC 10 2012

WV Department of Environmental Protection

OPEN FLOW DATA * Waterflood Producer
This well drilled directionally 81° NW a distance of 250'
Producing formation Fifth Sand Pay zone depth (ft) 2805.5'-2807.5' 2816'-2820.5'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

11/19/12
Date

Were core samples taken? No Were cuttings caught during drilling? No

Were Y Electrical, N Mechanical, N or Geophysical logs recorded on this well?
Y/N Y/N Y/N

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Treatment : Treated perfs 2806.5'-2807.5', 2809'-2813.5', & 2816'-2820.5' w/ 500 gals 15% HCL acid, 232 bbls cross linked gel, and 5,000# 20/40 sand.

Well Log : All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	440
void	440	-	450
Shale w/ sand streaks	450	-	974
Sand	974	-	1028
shale	1028	-	1156
sand	1156	-	1248
shale	1248	-	1259
sand	1259	-	1267
shale	1267	-	1383
sand	1383	-	1484
shale	1484	-	1641
sand	1641	-	1649
shale	1649	-	1748
sand	1748	-	1790
shale	1790	-	1812
Big Lime	1812	-	1874
Big Injun	1874	-	1966
shale	1966	-	2383
sand	2383	-	2497
shale	2497	-	2493
sand	2493	-	2652
shale	2652	-	2806
Fifth Sand	2806	-	2822
shale	2822	-	2952
TD	2952		
T.D. -Logger	2944	KB	
T.D. -Driller	2952	KB	

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Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05512 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 225
Farm Name: Curry, Keith & Brenda
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2930
Completion Zones: Gordon/5th Perforated Interval: 2804 - 2810, 2816 - 2818

Well Location (UTM NAD83)
Easting: 544501 Coordinates Match?: No ☐ Yes ☒
Elevation: 1301 Northing: 4347730
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev (8-10)

03/17/2011
API # 47-033-05512

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: CURRY, KEITH & BRENDA Operator Well No.: ALEX. STONESTREET 225

LOCATION: Elevation: 1,301' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 5,130 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 7,300 Feet west of 80 Deg 27 Min 30 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Tristan Jenkins				
Date Permit Issued:	03/17/2011				
Date Well Work Commenced:	02/13/2012				
Date Well Work Completed:	02/24/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable	Rig	7"	547.4'	547.4'	135 sks
Total vertical Depth (ft):	2930'				
Total Measured Depth (ft):	2930'				
Fresh Water Depth (ft):	none	4 ½"	2894'	2894'	150 sks
Salt Water Depth (ft):	none				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	452'-460'				
Void(s) encountered (Y/N) depth(s):	NONE				

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OPEN FLOW DATA * Waterflood Producer

Producing formation Gordon Pay zone depth (ft) 2804'-2810' 2816.5'-2817.5'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

11/19/12
Date

33.05512

Were core samples taken? No Were cuttings caught during drilling? No

Were Y (Y/N) Electrical, N (Y/N) Mechanical, N (Y/N) or Geophysical logs recorded on this well?

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Treatment : Treated perfs 2804'-2810' and 2816.5'-2817.5' w/ 500 gals 15% HCL, 230 bbls cross linked gel, and 10,800# 20/40 sand.

Well Log : All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	452
Coal	452	-	460
Shale w/ sand streaks	460	-	997
Sand	997	-	1043
shale	1043	-	1176
sand	1176	-	1253
shale	1253	-	1272
sand	1272	-	1319
shale	1319	-	1380
sand	1380	-	1452
shale	1452	-	1464
sand	1464	-	1492
shale	1492	-	1779
sand	1779	-	1797
shale	1797	-	1818
Big Lime	1818	-	1888
Big Injun	1888	-	1972
shale	1972	-	2393
sand	2393	-	2404
shale	2404	-	2498
sand	2498	-	2638
shale	2638	-	2804
Fifth Sand	2804	-	2818
shale	2818	-	2930
TD	2930		
T.D. -Logger	2935	KB	
T.D. -Driller	2930	KB	

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AOR - Well Review Checklist

API Number: 47-033- 05664 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 227
Farm Name: ~~Alice Sloan~~ England, Wayne & Beatrice
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☒ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2660
Completion Zones: 5th Sand Perforated Interval: 2555 - 2558, 2565 - 2569

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 544255 Northing: 4347456
Elevation: 1036
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev (8-10)

08/06/2012
API # 47-033-05664

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: ENGLAND, WAYNE & BEATRICE Operator Well No.: ALEX. STONESTREET 227

LOCATION: Elevation: 1,036' Quadrangle: WOLF SUMMIT 7.5'

District: TEN MILE County: HARRISON
Latitude: 5,980 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 8,145 Feet west of 80 Deg 27 Min 30 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Tristan Jenkins				
Date Permit Issued:	08/06/2012				
Date Well Work Commenced:	08/24/2012				
Date Well Work Completed:	09/11/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable Rig		7"	258'	258'	80 sks
Total vertical Depth (ft):	2660'				
Total Measured Depth (ft):	2660'				
Fresh Water Depth (ft):	60', 90'	4 ½"	2637.6'	2637.6'	150 sks
Salt Water Depth (ft):	none				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	205'-214'				
Void(s) encountered (Y/N) depth(s):	NONE				

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DEC 10 2012

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Environmental Protection

OPEN FLOW DATA * Waterflood Producer

Producing formation Fifth Sand Pay zone depth (ft) 2555'-2558' 2565.5'-2568.5'
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

11/19/12
Date

Were core samples taken? No Were cuttings caught during drilling? No

Were Y (Y/N) Electrical, N (Y/N) Mechanical, N (Y/N) or Geophysical logs recorded on this well?

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Treatment : Treated perfs 2555'-2558', 2559.5'-2561', 2563'-2564', & 2565.5'-2568.5' w/ 500 gals 15% HCL, 222 bbls cross linked gel, and 10,000# 20/40 sand.

Well Log : All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	205
Coal	205	-	214
Shale w/ sand streaks	214	-	760
Sand	760	-	792
shale	792	-	932
sand	932	-	1012
shale	1012	-	1144
sand	1144	-	1183
shale	1183	-	1232
sand	1232	-	1246
shale	1246	-	1500
sand	1500	-	1519
shale	1519	-	1535
sand	1535	-	1558
shale	1558	-	1579
Big Lime	1579	-	1648
Big Injun	1648	-	1730
shale	1730	-	2148
sand	2148	-	2159
shale	2159	-	2250
sand	2250	-	2388
shale	2388	-	2554
Fifth Sand	2554	-	2570
shale	2570	-	2660
TD	2660		
T.D. -Logger	2650	KB	
T.D. -Driller	2660	KB	

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AOR - Well Review Checklist

API Number: 47-033- 05684 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 10
Farm Name: Mike Ross Inc & IL Morris
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ ? Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☐ Abandoned ☑ Plugged ☐
TD of well: 2810
Completion Zones: 5th Perforated Interval: 2600 - 2603, 2592 - 2593, 2578 - 2581

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 547702 Northing: 4353331
Elevation: 1152
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		? No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 05684 County HARRISON District SARDIS
Quad WOLF SUMMIT 7.5' Pad Name C.L. GRIFFIN Field/Pool Name WOLF SUMMIT
Farm name MIKE ROSS, INC. & I.L. MORRIS Well Number 10
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,353,331 M Easting 547,702 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1,152' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type □ Deviated □ Horizontal □ Horizontal 6A ■ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas □ Oil ■ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■Air □ Mud ■Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

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JUN 18 2014
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Date permit issued 10/24/12 Date drilling commenced 1/31/14 Date drilling ceased 2/3/14
Date completion activities began 5/19/14 Date completion activities ceased 5/22/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 190'-200' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 033 - 05684 Farm name MIKE ROSS, INC. & I.L. MORRIS Well number 10

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	17 1/2'	13 3/8"	30'	Used	LS		Sand In
Surface	12 1/4"	9 5/8"	253'	New	LS	64'	Y
Coal							
Intermediate 1	8 3/4"	7"	450'	New	LS	64'	N
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	2731.6'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Grouted surface on 7" surface cement job w/ 45 sks. Circulated Est. 50 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	165	15.6	1.18	195	Surface	8
Coal							
Intermediate 1	Reg Neat	110	15.6	1.18	130	Surface	8
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/60	14.2/11.8	1.27/2.93	254/176	25'	8
Tubing							

Drillers TD (ft) 2810' Loggers TD (ft) 2778'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) N/A

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

6 Centralizers every 64' from bottom on 4 1/2", Centralizer placed mid string on 7", Centralizer placed mid string on 9 5/8"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

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JUN 18 2014
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WV Dept. of Environmental Protection

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Rev. 8/23/13

API 47- 033 - 05684 Farm name MIKE ROSS, INC. & I.L. MORRIS Well number 10

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	5/19/14	2600'	2603'	12	Fifth Sand
1	5/22/14	2592'	2593'	4	
1	5/22/14	2578'	2581'	12	

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	5/22/14	10	1740	2227	1667	40,000	862	

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JUN 18 2014

Please insert additional pages as applicable.

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WV Dept. of Environmental Protection

WR-35
Rev. 8/23/13

API 47- 033 - 05684 Farm name MIKE ROSS, INC. & I.L. MORRIS Well number 10

PRODUCING FORMATION(S)	DEPTHS		
Fifth Sand	2581'-2603	TVD	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	190	0		
Pittsburgh Coal	190	200			
Sand/Shale	200	1596			
Big Lime	1596	1678			
Big Injun	1678	1755			
Shale	1755	2178			
Fifty Foot	2178	2200			
Shale	2200	2254			
Sand	2254	2444			
Shale	2444	2581			
Fifth Sand	2581	2603			
Shale	2603	2810			
TD	2810				

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701
Please insert additional pages as applicable.

Received
JUN 18 2014

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Opoerations Manager Date 06/17/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

Office of Oil and Gas
WV Dept. of Environmental Protection

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AOR - Well Review Checklist

API Number: 47-033- 05750 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 134
Farm Name: Sunkins, Earl & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 2988 MD
Completion Zones: 5th Sand Perforated Interval: 2848 - 2856 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542655 Northing: 4347640
Elevation: 1160
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

JK

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 05750 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name W.B. CARPENTER Field/Pool Name WOLF SUMMIT
Farm name JUNKINS, EARL & BELVA Well Number 134
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,640 M Easting 542,655 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,573 M Easting 542,688 M

Elevation (ft) 1,160' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas □ Oil ■ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 5/17/13 Date drilling commenced 5/9/14 Date drilling ceased 5/14/14
Date completion activities began 5/19/14 Date completion activities ceased 5/22/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 200' Open mine(s) (Y/N) depths N
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths N
Coal depth(s) ft 532'-539' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

RECEIVED
Office of Oil and Gas
JAN 07 2015
WV Department of
Environmental Protection

Reviewed by: _____

WR-35
Rev. 8/23/13

API 47- 033 - 05750 Farm name JUNKINS, EARL & BELVA Well number 134

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	633'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	2933.55'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 25 sks to surface on 7" surface cement job. Circulated Est. 10 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	200	15.6	1.18	236	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/75	14.2/11.8	1.27/2.93	254/220	50'	8
Tubing							

Drillers TD (ft) 2988' Loggers TD (ft) 2956'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 650'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

20 Centralizers every 68' from bottom on 4 1/2". Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

WR-35
Rev. 8/23/13

API 47- 033 - 05750 Farm name JUNKINS, EARL & BELVA Well number 134

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	5/19/14	2848'	2856'	32	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	5/22/14	10	1823	2507	1745	20,000	362	

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 - 05750 Farm name JUNKINS, EARL & BELVA Well number 134

PRODUCING FORMATION(S)	DEPTHS		
Fifth Sand	2836'-2843' TVD	2848'-2856' MD	

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	532	0	532	
Pittsburgh Coal	532	539	532	539	
Sand/Shale	539	1875	539	1880	
Big Lime	1875	1968	1880	1975	
Big Injun	1968	2014	1975	2021	
Shale	2014	2424	2021	2435	
Fifty Foot	2424	2456	2435	2468	
Shale	2456	2535	2468	2546	
Sand	2535	2670	2546	2682	
Shale	2670	2836	2682	2848	
Fifth Sand	2836	2843	2848	2856	Drilled directional S 47° E a distance of 224'
Shale	2843	2975	2856	2988	
TD	2975		2988		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations manager Date 06/18/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-05751 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 242
Farm Name: Sinking, Earl & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3362 MD
Completion Zones: 5th Sand Perforated Interval: 3204-3206 MD, 3210-3212

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542415 Northing: 4347673
Elevation: 1307
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

pm

API 47 - 033 - 05751 - Rev. County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name W.B. CARPENTER Field/Pool Name WOLF SUMMIT
Farm name JUNKINS, EARL & BELVA Well Number 242
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,673 M Easting 542,415 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,494 M Easting 542,217 M

Elevation (ft) 1,307' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

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Office of Oil
MAR 28

Date permit issued 5/17/13 Date drilling commenced 9/3/13 Date drilling ceased 9/7/13
Date completion activities began 9/26/13 Date completion activities ceased 10/7/13
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

WV Department of Environmental Protection

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Office of Oil and Gas
MAR 28 2014
WV Department of Environmental Protection

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1300' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 696'-703' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 033 - 05751 Farm name JUNKINS, EARL & BELVA Well number 242

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	803'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3345'	New	J-55		N
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 10 bbls to surface on 7" surface cement job. Circulated Gel spacer to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	200	15.6	1.18	236	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/75	14.2/11.8	1.27/2.93	254/220	350'	8
Tubing							

Drillers TD (ft) 3362' Loggers TD (ft) 3358'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 830'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

15 Centralizers every 64' from bottom on 4 1/2". Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

WR-35
Rev. 8/23/13

API 47- 033 - 05751 Farm name JUNKINS, EARL & BELVA Well number 242

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	10/1/13	3204'	3206'	8	Fifth Sand
1	10/1/13	3210'	3212'	8	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	10/7/13	10	1996	2775	1624	10,000	267	

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 . 05751 Farm name JUNKINS, EARL & BELVA Well number 242

PRODUCING FORMATION(S)	DEPTHS		
Fifth Sand	3018'-3029' TVD	3203'- 3215' MD	

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	696	0	696	
Pittsburgh Coal	696	703	696	703	
Sand/Shale	703	2042	703	2116	
Big Lime	2042	2131	2116	2214	
Big Injun	2131	2190	2214	2284	
Shale	2190	2606	2284	2743	
Fifty Foot	2606	2629	2743	2768	
Shale	2629	2696	2768	2840	
Sand	2696	2852	2840	3018	
Shale	2852	3018	3018	3203	
Fifth Sand	3018	3029	3203	3215	Drilled directional S 45 degrees W a distance of 829'
Shale	3029	3165	3215	3362	
TD	3165		3362		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Universal Services Inc.
Address 2489 Baumen Rd City Wooster State OH Zip 44691
Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Mgr Date 3/24/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 5756 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 131
Farm Name: WF Williams
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3100 MD
Completion Zones: 5th Sand Perforated Interval: 2744 – 2750

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543327 Northing: 4347052
Elevation: 1173
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

33057565

WW-3B
10/07

1) Date May 15, 2013
2) Operator's Well No. W. F. Williams No. 131
3) API Well No. 47 - 033 - (State / County / Permit)
4) UIC Permit No. UIC2R03301AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) WELL TYPE: Liquid Injection X Gas Injection (not storage) ____ Waste Disposal ____

6) LOCATION: Elevation 1173' Watershed Branch of Lick Run
District Tenmile 04 County Harrison 33 Quadrangle Wolf Summit 7.5 692

7) WELL OPERATOR: HG Energy, LLC 494497948
5260 Dupont Road
Parkersburg, WV 26101

8) DESIGNATED AGENT: Mike Kirsch
5260 Dupont Road
Parkersburg, WV 26101

9) OIL & GAS INSPECTOR TO BE NOTIFIED:
Name Sam Ward
Address P. O. Box 2327
Buckhannon, WV 26201

10) DRILLING CONTRACTOR:
Name
Address

11) PROPOSED WELL WORK: Drill X Drill Deeper ____ Redrill ____ Stimulate X
Plug Off Old Formation ____ Perforate New Formation ____ Convert ____
Other Physical Change in Well (specify) ____

12) Geological target formation Fifth Sand Depth 2,744 Ft. (Top) to 2,750 Ft. (Bottom)

13) Estimated depth of completed well (or actual depth of existing well) 2875' TVD 3100' TMD Ft.

14) Approximate water strata depths: Fresh 80 Ft. Salt 1,270 Ft.

15) Approximate coal seam depths: 425 Ft.

16) Is coal being mined in the area? Yes ____ X No

17) Virgin reservoir pressure in target formation: 1,250 psig. Source Estimated

18) Estimated reservoir fracture pressure: 2,650 psig.

19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom Hole Pressure 2,400 psi

20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES and other chemicals as needed to maintain water quality and improve oil recovery. Fresh water, produced water, bactericides

21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters

22) SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

23) CASING AND TUBING PROGRAM

SDW
5/23/2013

CASING OR TUBING TYPE	SPECIFICATIONS Size	Grade	Weight	New	Used	FOOTAGE INTERVALS For Drilling	Left in Well	CEMENT FILLUP OR SACKS (CU. FT.)	PACKERS
Conductor									Kinds
Fresh Water	7"	L.S.	17#	X		500'	500'	Cement to Surface	Tension
Coal									Sizes
Intermediate									2.375" x 4.5"
Production	4 1/2"	J-55	10.5#	X		3100'	3100'	150 sacks CTS	Depths Set
Tubing	2 3/8"	J-55	4.6#	X		2800'	2800'		2700' Oil & Gas
Liners									Perforations
									Top Bottom

24) APPLICANTS OPERATING RIGHTS were acquired from Williams, W. F. et ux
by Deed ____ Lease X Other Contract ____ Dated August 15, 1896 of record in the
Harrison County Clerk's Office in ____ Book 92 at Page 49

33057565

No. 1

SOUTH PENN OIL COMPANY—COMPLETION

SERIAL No _____ FARM W. F. Williams WELL No. 7

ELEVATION _____ N. _____ S. 13 E. 6 W. _____

LEASE No. 23876 - 29202 ACRES 102 - 27½

WATERS OF Lick Run

DISTRICT Ten Mile COUNTY Harrison STATE West Va.

DRILLING COMMENCED May 17, 1900. COMPLETED June 23, 1900. DEPTH 2772

SANDS	TOP	BOTTOM	ELEV. TOP	CASING
Pgh. Coal or Big Lime				
Pgh Coal	424	429		
Big Injun	1840	1895		
Gordon	2475	2520		
Fifth	2744	2750		PACKERS AND DEPTH SET

INITIAL PROD. 12 Bbls. SAND Fifth DEPTH 2744

GAS TEST _____ " _____ " _____

SHOT June 23, 1900 QUARTS No Data. " _____ " _____

REMARKS _____

REPORTED BY W. F. Delano ABANDONED Oct. 3, 1900.

ABANDONED 10/03/1908

IT IS SOUTH PENN OIL COMPANY THAT ABANDONED WELL IN 1908 AND BOTTOM HOLE OF W.F. WILLIAMS 131 WILL BE ≈ 360' FROM MR HUFFMAN'S RESIDENCE AND 380' FROM WFW #7

JWM

33057565

016789 98477

SOUTH PENN OIL COMPANY.

HOPE NATURAL GAS COMPANY.
VANDERGRIFT BUILDING,
PITTSBURG, PA.

PITTSBURG, PA. April 21 1905

DEAR SIRS:

You are hereby notified that the SOUTH PENN OIL COMPANY has decided to abandon Well No. 7 on W. F. Williams farm 102 acres, Ten Mile District Harrison County W. Va. covered by Lease No. 23876 and located in squares 135 6-7 E. A recent test of said well showed a production of

In accordance with the terms of agreement bearing date 190, between South Penn Oil Company and this Company, you have until the day of 190 to notify this Company should you desire to purchase the said well.

HOPE NATURAL GAS COMPANY

You will please note your wishes as to the purchase of the above on the notice below and return this paper.

Yours truly,

SOUTH PENN OIL COMPANY.

By

We have this 21st day of April 1905, investigated the above and desire that the above well be not transferred to South Penn Oil Company.

HOPE NATURAL GAS COMPANY

By

We own 1/8 abd.

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05757 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 136
Farm Name: Williams, Clyde et al.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3047 MD
Completion Zones: 5th Sand, 4th Sand, 50ft, Big Injun Perforated Interval: see WR-35 1942 - 2644 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543083 Northing: 4347017
Elevation: 1153
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

Page 1 of 4

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 05757 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name WF WILLIAMS 136 Field/Pool Name WOLF SUMMIT
Farm name WILLIAMS, CLYDE ET AL. Well Number 136
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,017 M Easting 543,083 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,144 M Easting 543,018 M

Elevation (ft) 1,155' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas □ Oil ■ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

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Date permit issued 7/3/13 Date drilling commenced 8/5/14 Date drilling ceased 8/7/14
Date completion activities began 8/21/14 Date completion activities ceased 9/4/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 580 Open mine(s) (Y/N) depths N
Salt water depth(s) ft NA Void(s) encountered (Y/N) depths N
Coal depth(s) ft 448'-455' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 033 - 05757 Farm name WILLIAMS, CLYDE ET AL. Well number 136

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	548'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	2978.9'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 35 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft^3/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	135	15.6	1.18	115	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	150/135	14.2/11.8	1.27/1.64	191/221	Surface	8
Tubing							

Drillers TD (ft) 3047' Loggers TD (ft) 3050'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 650'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

20 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7"

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WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

WR-35
Rev. 8/23/13

API 47- 033 - 05757 Farm name WILLIAMS, CLYDE ET AL. Well number 136

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	8/21/14	2842'	2844'	8	Fifth Sand
2	9/3/14	2552'	2556'	32	Fourth Sand
2	9/3/14	2604'	2614'	40	Fourth Sand
2	9/3/14	2654'	2656'	8	Fifty Ft
3	9/3/14	2422'	2426'	16	Fifty Ft
4	9/3/14	1942'	1946'	16	Big Injun

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	8/25/14	10	1915	2498	1640	15,000	332	
2	9/3/14	10	1828	2424	2128	15,000	266	
3	9/3/14	0		4188		N/A	N/A	
4	9/3/14	5	2439	2171	1762	4,000	171	

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Please insert additional pages as applicable.

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API 47- 033 - 05757 Farm name WILLIAMS, CLYDE ET AL. Well number 136

PRODUCING FORMATION(S)	DEPTHS	
Fifth Sand	TVD	2842'-2844' MD
Fourth Sand		2552'-2656'
Fifty ft		2422'-2426'
Big Injun		1942'-1946'

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	448	0	448	
Pittsburgh Coal	448	455	448	455	
Sand/Shale	455	1808	455	1842	
Big Lime	1808	1894	1842	1930	
Big Injun	1894	1948	1930	1986	
Shale	1948	2365	1986	2416	
Fifty Foot	2365	2398	2416	2452	
Shale	2398	2457	2452	2514	
Fourth Sand	2457	2616	2514	2666	
Shale	2616	2776	2666	2842	
Fifth Sand	2776	2778	2842	2844	Drilled directional N 18° W a distance of 507'
Shale	2778	2979	2844	3047	
TD	2979		3047		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services
Address Hall Rd City Buckhannon State WV Zip 26201

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date 9/28/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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Office of Oil and Gas
OCT 07 2014
WV Department of
Environmental Protection

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AOR - Well Review Checklist

API Number: 47-033- 05776 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 234
Farm Name: Hoffman, Bryan
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3089 MD
Completion Zones: 5th Sand Perforated Interval: 2918 - 2928 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 543322 Northing: 4347052
Elevation: 1168
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47- 033 - 05776 County HARRISON District TEN MILE
Quad WOLF SUMMIT 7.5' Pad Name W.F. WILLIAMS Field/Pool Name WOLF SUMMIT
Farm name HUFFMAN, BRIAN V. Well Number 234
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,052 M Easting 543,322 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,235M Easting 543,437 M

Elevation (ft) 1,168' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate

Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 7/9/13 Date drilling commenced 11/19/14 Date drilling ceased 12/7/14
Date completion activities began 12/12/14 Date completion activities ceased 12/23/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 250' Open mine(s) (Y/N) depths N
Salt water depth(s) ft N Void(s) encountered (Y/N) depths N
Coal depth(s) ft 425'- 432' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Received
Office of Oil & Gas
JAN 26 2015

Reviewed by: _____

API 47- 033 - 05776 Farm name HUFFMAN, BRIAN V. Well number 234

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	507'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	3069.7'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 27 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft^3/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	110	15.6	1.18	130	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	140/150	13.2/14.2	1.64/1.27	230/186	Surface	8
Tubing							

Drillers TD (ft) 3089' Loggers TD (ft) 3106'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 650'

Check all wireline logs run ☒ caliper ☒ density ☒ deviated/directional ☒ induction ☒ neutron ☒ resistivity ☒ gamma ray ☒ temperature ☐ sonic

Well cored ☐ Yes ☒ No Conventional Sidewall Were cuttings collected ☒ Yes ☐ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

20 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ☒ No DETAILS

WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS

WERE TRACERS USED ☐ Yes ☒ No TYPE OF TRACER(S) USED

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JAN 26 2015

WR-35
Rev. 8/23/13

API 47- 033 - 05776 Farm name HUFFMAN, BRIAN V. Well number 234

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/12/14	2918'	2928'	40	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/23/14	10	1683	2382	1920	14,900	253	

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Please insert additional pages as applicable.

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Rev. 8/23/13

API 47- 033 - 05776 Farm name HUFFMAN, BRIAN V. Well number 234

PRODUCING FORMATION(S)	DEPTHS		
Fifth Sand	2740'- 2752' TVD	2916'- 2928' MD	

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	425	0	425	
Pittsburgh Coal	425	432	425	432	
Sand/Shale	432	1782	432	1850	
Big Lime	1782	1854	1850	1930	
Big Injun	1854	1922	1930	2008	
Shale	1922	2336	2008	2474	
Fifty Foot	2336	2369	2474	2510	
Shale	2369	2430	2510	2578	
Sand	2430	2576	2578	2738	
Shale	2576	2740	2738	2916	
Fifth Sand	2740	2752	2916	2928	Drilled directional N 33° E a distance of 795'
Shale	2752	2905	2928	3089	
TD	2905		3089		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services
Address Hall Rd City Buckhannon State WV Zip 26201

Stimulating Company Universal Services
Address Hall Rd City Buckhannon State WV Zip 26201

Please insert additional pages as applicable.

Received
Office of Oil & Gas
JAN 26 2015

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date 1/20/15

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-05778 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 124
Farm Name: Curry, Keith & Brenda
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 3200
Completion Zones: 5th Perforated Interval: 2968-2975' MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 543894 Northing: 4347811
Elevation: 1228
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Josh Westbrook Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

JR

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47- 033 - 5778 -Rev. County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name A. STONESTREET Field/Pool Name WOLF SUMMIT
Farm name CURRY, KEITH A. & BRENDA S. Well Number 124
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,811 M Easting 543,894 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,562 M Easting 543,863 M

Elevation (ft) 1,228' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 8/29/13 Date drilling commenced 11/22/13 Date drilling ceased 12/5/13
Date completion activities began 12/11/13 Date completion activities ceased 12/19/13
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths _____
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 460'-467' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

RECEIVED
Office of Oil and Gas
MAR 28 2014
WV Department of
Environmental Protection

Reviewed by: _____

API 47- 033 - 5778 Farm name CURRY, KEITH A. & BRENDA S. Well number 124

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	580'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3147.5'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 1 bbls to surface on 7" surface cement job. Circulated Est. 15 bbls to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	140	15.6	1.18	165	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/80	14.2/11.8	1.27/2.93	254/234	Surface	8
Tubing							

Drillers TD (ft) 3200' Loggers TD (ft) 3182'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 900'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

15 Centralizers every 64' from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

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Rev. 8/23/13

API 47- 033 - 5778 Farm name CURRY, KEITH A. & BRENDA S. Well number 124

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/11/13	2968'	2975'	28	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/19/13	10	1888	1995	2186	10,000	310	

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 - 5778 Farm name CURRY, KEITH A. & BRENDA S. Well number 124

PRODUCING FORMATION(S)	DEPTHS			
Fifth Sand	2785'-2796'	TVD	2965'-2978'	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	460	0	460	
Pittsburgh Coal	460	467	460	467	
Sand/Shale	467	1824	467	1846	
Big Lime	1824	1898	1846	1928	
Big Injun	1898	1964	1928	2002	
Shale	1964	2374	2002	2481	
Fifty Foot	2374	2413	2481	2528	
Shale	2413	2457	2528	2580	
Sand	2457	2639	2580	2795	
Shale	2639	2785	2795	2965	
Fifth Sand	2785	2796	2965	2978	Drilled directional S 3 degrees W a distance of 759'
Shale	2796	2990	2978	3200	
TD	2990		3200		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date 1/24/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05780 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 237
Farm Name: Junkins, Earl & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3291 MD
Completion Zones: 5th Perforated Interval: 3098-3110 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542622 Northing: 4347315
Elevation: 1390
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

Revised

API 47 - 033 - 5780 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name W.B. CARPENTER Field/Pool Name WOLF SUMMIT
Farm name JUNKINS, EARL & BELVA Well Number 237
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,315 M Easting 542,622 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,412 M Easting 542,646 M

Elevation (ft) 1,390' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate

Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine

Mud Type(s) and Additive(s)
N/A

Date permit issued 8/08/13 Date drilling commenced 11/1/13 Date drilling ceased 11/7/13
Date completion activities began 11/21/13 Date completion activities ceased 12/5/13
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

RECEIVED
Office of Oil and Gas

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 740'-747' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Department of Environmental Protection

Reviewed by:

API 47- 033 - 5780 Farm name JUNKINS, EARL & BELVA Well number 237

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	837'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3204.05'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 20 bbls to surface on 7" surface cement job. Circulated Est. 10 bbls to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft^3/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	215	15.6	1.18	254	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/80	14.2/11.8	1.27/2.93	254/234	Surface	8
Tubing							

Drillers TD (ft) 3291' Loggers TD (ft) 3255'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 850'

Check all wireline logs run ☒ caliper ☒ density ☒ deviated/directional ☒ induction ☒ neutron ☒ resistivity ☒ gamma ray ☒ temperature ☐ sonic

Well cored ☐ Yes ☒ No Conventional Sidewall Were cuttings collected ☒ Yes ☐ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

15 Centralizers every 64' from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ☒ No DETAILS

WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS

WERE TRACERS USED ☐ Yes ☒ No TYPE OF TRACER(S) USED

WR-35
Rev. 8/23/13

API 47- 033 - 5780 Farm name JUNKINS, EARL & BELVA Well number 237

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/3/13	3098'	3110'	48	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/5/13	10	1508	3495	1606	10,000	304	

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 - 5780 Farm name JUNKINS, EARL & BELVA Well number 237

PRODUCING FORMATION(S)	DEPTHS		
Fifth Sand	3052'-3067'	TVD	3014'-3029' MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	740	0	740	
Pittsburgh Coal	740	747	740	747	
Sand/Shale	747	2090	747	2112	
Big Lime	2090	2176	2112	2202	
Big Injun	2176	2230	2202	2260	
Shale	2230	2640	2260	2680	
Fifty Foot	2640	2680	2680	2720	
Shale	2680	2733	2720	2774	
Sand	2733	2890	2774	2932	
Shale	2890	3052	2932	3096	
Fifth Sand	3052	3067	3096	3110	Drilled directional N 20 degrees E a distance of 399'
Shale	3067	3246	3110	3291	
TD	3246		3291		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date 1/31/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033-05781 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 238
Farm Name: Dunkins, Earl & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 3410 MD
Completion Zones: 5th Perforated Interval: 3182-3196 MD

Well Location (UTM NAD83)
Coordinates Match?: No ☐ Yes ☐
Easting: 542632 Northing: 4347315
Elevation: 1390
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 5781 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name J.M. FULTZ Field/Pool Name WOLF SUMMIT
Farm name JUNKINS, EARL & BELVA Well Number 238
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,315 M Easting 542,632 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,183 M Easting 542,805 M

Elevation (ft) 1,390' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 8/28/13 Date drilling commenced 11/14/13 Date drilling ceased 11/21/13
Date completion activities began 12/2/13 Date completion activities ceased 12/5/13
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 740'-747' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 033 - 5781 Farm name JUNKINS, EARL & BELVA Well number 238

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	840'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3361'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 10 bbls to surface on 7" surface cement job. Circulated Est. 10 bbls to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	215	15.6	1.18	254	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/85	14.2/11.8	1.27/2.93	254/250	Surface	8
Tubing							

Drillers TD (ft) 3410' Loggers TD (ft) 3381'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 850'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction
■ neutron ■ resistivity ■ gamma ray ■ temperature □sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING
15 Centralizers every 64' from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

API 47- 033 - 5781 Farm name JUNKINS, EARL & BELVA Well number 238

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/3/13	3184'	3196'	48	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/5/13	10	1625	2190	1484	10,000	317	

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 - 5781 Farm name JUNKINS, EARL & BELVA Well number 238

PRODUCING FORMATION(S)	DEPTHS			
Fifth Sand	3024'-3038'	TVD	3182'-3196'	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	740	0	740	
Pittsburgh Coal	740	747	740	747	
Sand/Shale	747	2090	747	2122	
Big Lime	2090	2170	2122	2212	
Big Injun	2170	2222	2212	2273	
Shale	2222	2625	2273	2735	
Fifty Foot	2625	2646	2735	2758	
Shale	2646	2698	2758	2818	
Sand	2698	2864	2818	3006	
Shale	2864	3024	3006	3182	
Fifth Sand	3024	3038	3182	3196	Drilled directional S 65 degrees E a distance of 729'
Shale	3038	3239	3196	3410	
TD	3239		3410		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Holdman Telephone 304 420 1107
Signature _____ Title Operations Mgr Date 1/22/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05782 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 2413
Farm Name: Edgar Myers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3258 MD
Completion Zones: 5th Sand Perforated Interval: 3114 - 3118 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542479 Northing: 4347110
Elevation: 1347
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 05782 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name SARAH E. ADAMS Field/Pool Name WOLF SUMMIT
Farm name MYERS, EDGAR LEE JR. Well Number 243
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,110 M Easting 542,479 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,032 M Easting 542,389 M

Elevation (ft) 1,347' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

Received
JUN 18 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

Date permit issued 8/29/13 Date drilling commenced 5/6/14 Date drilling ceased 5/8/14
Date completion activities began 5/12/14 Date completion activities ceased 5/15/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft N/A Open mine(s) (Y/N) depths N
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths N
Coal depth(s) ft 703'-711' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 033 - 05782 Farm name MYERS, EDGAR LEE JR. Well number 243

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	802'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3205.65'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 25 sks to surface on 7" surface cement job. Circulated Est. 25 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	200	15.6	1.18	236	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/85	14.2/11.8	1.27/2.93	254/250	Surface	8
Tubing							

Drillers TD (ft) 3258' Loggers TD (ft) 3246'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 850'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

20 Centralizers every 88' from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

Received
JUN 18 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

API 47- 033 - 05782 Farm name MYERS, EDGAR LEE JR. Well number 243

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	5/12/14	3114'	3118'	16	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	5/15/14	10	1811	3519	1872	10,000	383	

Received
JUN 18 2014

Please insert additional pages as applicable.

Office of Oil and Gas
WV Dept. of Environmental Protection

WR-35
Rev. 8/23/13

API 47- 033 - 05782 Farm name MYERS, EDGAR LEE JR. Well number 243

PRODUCING FORMATION(S)	DEPTHS		
Fifth Sand	3042'-3045' TVD	3114'-3118' MD	

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	703	0	703	
Pittsburgh Coal	703	711	703	711	
Sand/Shale	711	2066	711	2100	
Big Lime	2066	2146	2100	2182	
Big Injun	2146	2202	2182	2242	
Shale	2202	2618	2242	2672	
Fifty Foot	2618	2640	2672	2695	
Shale	2640	2710	2695	2767	
Sand	2710	2869	2767	2932	
Shale	2869	3042	2932	3114	
Fifth Sand	3042	3045	3114	3118	Drilled directional N 27° W a distance of 532'
Shale	3045	3181	3118	3258	
TD	3181		3258		

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Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date 6/17/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05784 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 244
Farm Name: Edgar Myers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3228 MD
Completion Zones: 5th Sand Perforated Interval: 3054 - 3060 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542485 Northing: 4347103
Elevation: 1342
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: NA	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47- 033 - 05784 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name J.M. FULTZ Field/Pool Name WOLF SUMMIT
Farm name MYERS, EDGAR LEE JR. Well Number 244
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,103 M Easting 542,485 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,346,798 M Easting 542,547 M

Elevation (ft) 1,342' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate

Well Type □ Brinc Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine

Mud Type(s) and Additive(s)
N/A

Date permit issued 8/28/13 Date drilling commenced 4/24/14 Date drilling ceased 4/27/14
Date completion activities began 5/12/14 Date completion activities ceased 5/15/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

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Freshwater depth(s) ft 360'
Salt water depth(s) ft N/A
Coal depth(s) ft 703'-711'
Is coal being mined in area (Y/N) N

Open mine(s) (Y/N) depths _____
Void(s) encountered (Y/N) depths N
Cavern(s) encountered (Y/N) depths N

Reviewed by:

API 47- 033 - 05784 Farm name MYERS, EDGAR LEE JR. Well number 244

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	802'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3179.55'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 45 sks to surface on 7" surface cement job. Circulated Est. 29 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	200	15.6	1.18	236	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/85	14.2/11.8	1.27/2.93	254/250	Surface	8
Tubing							

Drillers TD (ft) 3228' Loggers TD (ft) 3232'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 850'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

20 Centralizers every 84' from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

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API 47- 033 - 05784 Farm name MYERS, EDGAR LEE JR. Well number 244

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	5/12/14	3054'	3060'	24	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	5/15/14	10	1695	2974	2033	20,000	382	

Please insert additional pages as applicable.

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API 47- 033 - 05784 Farm name MYERS, EDGAR LEE JR. Well number 244

PRODUCING FORMATION(S)	DEPTHS	
Fifth Sand	3016'-3022' TVD	3054'-3060' MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	703	0	703	
Pittsburgh Coal	703	711	703	711	
Sand/Shale	711	2062	711	2083	
Big Lime	2062	2140	2083	2162	
Big Injun	2140	2192	2162	2216	
Shale	2192	2600	2216	2633	
Fifty Foot	2600	2624	2633	2656	
Shale	2624	2691	2656	2725	
Sand	2691	2845	2725	2881	
Shale	2845	3016	2881	3054	
Fifth Sand	3016	3022	3054	3060	Drilled directional S 47 degrees E a distance of 386'
Shale	3022	3188	3060	3228	
TD	3188		3228		

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Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701
Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date 06/17/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05791 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 251
Farm Name: Sunkins, Earl & Belva
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3204 MD
Completion Zones: 5th Sand Perforated Interval: 3016 - 3028 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542416 Northing: 4347683
Elevation: 1307
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: _____	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 5791 Rev1 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name W.B. CARPENTER Field/Pool Name WOLF SUMMIT
Farm name JUNKINS, EARL & BELVA Well Number 251
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,683 M Easting 542,416 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,639 M Easting 542,460 M

Elevation (ft) 1,307' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 8/29/13 Date drilling commenced 9/17/13 Date drilling ceased 9/19/13
Date completion activities began 9/26/13 Date completion activities ceased 10/7/13
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

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MAR 28 2014
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Environmental Protection

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1300' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 696'-703' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 033 - 5791 Farm name JUNKINS, EARL & BELVA Well number 251

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	805'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3148.25'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 10 bbls to surface on 7" surface cement job. Circulated Est. 10 bbls to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft^3/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	200	15.6	1.18	236	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/90	14.2/11.8	1.27/2.93	254/264	24'	8
Tubing							

Drillers TD (ft) 3204' Loggers TD (ft) 3196'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 830'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

15 Centralizers every 64' from bottom on 4 1/2". Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

API 47- 033 - 5791 Farm name JUNKINS, EARL & BELVA Well number 251

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	10/1/13	3016'	3028'	48	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	10/7/13	10	1712	2639	1678	10,000	250	

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 . 5791 Farm name JUNKINS, EARL & BELVA Well number 251

PRODUCING FORMATION(S)	DEPTHS			
Fifth Sand	3002'-3017'	TVD	3014'-3029'	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	696	0	696	
Pittsburgh Coal	696	703	696	703	
Sand/Shale	703	2044	703	2050	
Big Lime	2044	2122	2050	2129	
Big Injun	2122	2184	2129	2190	
Shale	2184	2593	2190	2602	
Fifty Foot	2593	2622	2602	2632	
Shale	2622	2684	2632	2695	
Sand	2684	2839	2695	2850	
Shale	2839	3002	2850	3014	
Fifth Sand	3002	3017	3014	3029	Drilled directional S 67 degrees E a distance of 218'
Shale	3017	3192	3029	3204	
TD	3192		3204		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Universal Services Inc.
Address 2489 Baumen Rd City Wooster State OH Zip 44691

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Mgr Date 3/24/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
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AOR - Well Review Checklist

API Number: 47-033-05807 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 248
Farm Name: Edgar Myers
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: 3138 MD
Completion Zones: 5th Sand Perforated Interval: 2970 -2975 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☒
Easting: 542 312 Northing: 4346930
Elevation: 1281
Inside Field Boundary? ☒ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☒	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☒	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☒
Well perforated in injection zone?		No ☐	Yes ☒
Cemented across injection zone?		No ☐	Yes ☒
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☒

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 5 / 2016

** Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 05807 County HARRISON District TEN MILE
Quad SALEM 7.5' Pad Name J.M FULTZ Field/Pool Name WOLF SUMMIT
Farm name MYERS, EDGAR LEE JR. Well Number 248
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,346,930 M Easting 542,312 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,346,861 M Easting 542,328 M

Elevation (ft) 1,281' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate

Well Type □ Brine Disposal □ CBM □ Gas □ Oil ■ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine

Mud Type(s) and Additive(s)
N/A

Date permit issued 2/4/14 Date drilling commenced 4/13/14 Date drilling ceased 4/17/14
Date completion activities began 4/25/14 Date completion activities ceased 5/8/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 646'-654' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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JUN 13 2014
WV Department of
Environmental Protection

Reviewed by: _____

API 47- 033 - 05807 Farm name MYERS, EDGAR LEE JR. Well number 248

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	727'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	3086.9'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 45 sks to surface on 7" surface cement job. Circulated Est. 25 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft^3/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	185	15.6	1.18	218	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo,	200/80	14.2/11.8	1.27/2.93	254/235	28'	8
Tubing							

Drillers TD (ft) 3138' Loggers TD (ft) 3133'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 850'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

20 Centralizers every 64' from bottom on 4 1/2". Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

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WR-35
Rev. 8/23/13

API 47- 033 - 05807 Farm name MYERS, EDGAR LEE JR. Well number 248

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	4/25/14	2970'	2975'	20	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	5/8/14	10	1710	2240	1579	20,000	372	

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Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 - 05807 Farm name MYERS, EDGAR LEE JR. Well number 248

PRODUCING FORMATION(S)	DEPTHS			
Fifth Sand	2958'-2964'	TVD	2968'-2975'	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	646	0	646	
Pittsburgh Coal	646	654	646	654	
Sand/Shale	654	2007	654	2013	
Big Lime	2007	2089	2013	2094	
Big Injun	2089	2136	2094	2142	
Shale	2136	2545	2142	2554	
Fifty Foot	2545	2569	2554	2578	
Shale	2569	2634	2578	2644	
Sand	2634	2790	2644	2800	
Shale	2790	2958	2800	2968	
Fifth Sand	2958	2964	2968	2975	Drilled directional S 34 degrees E a distance of 192'
Shale	2964	3127	2975	3138	
TD	3127		3138		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Baker Hughes
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Mgr Date 6/9/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

RECEIVED
Office of Oil and Gas
JUN 13 2014
WV Department of
Environmental Protection

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AOR - Well Review Checklist

API Number: 47-033- 05839 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 55
Farm Name: Johnson, William
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☐ Producer (NonWaterflood) ☒ Observation ☐ Other ☐
Well Status: Active ☒ Abandoned ☐ Plugged ☐
TD of well: ~~2990~~ 2980 MD
Completion Zones: 5th Sand Perforated Interval: 2833 - 2847 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☑
Easting: 521435 Northing: 4349039
Elevation: 1176
Inside Field Boundary? ☐ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT: N/A	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?		No ☐	Yes ☑

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = 0
Bottom Hole Injection Pressure 0
Hydrostatic Pressure 0

Comments:

Reviewer Name: Joshua Westbrook Signature:
Date Reviewed: 10 / 18 / 2016

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

JK

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 05839 County HARRISON District TEN MILE
Quad WOLF SUMMIT 7.5' Pad Name HIRAM LYNCH 55 Field/Pool Name WOLF SUMMIT
Farm name JOHNSON, WILLIAM R. ET UX Well Number 55
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,349,039 M Easting 544,354 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,348,881 M Easting 544,350 M

Elevation (ft) 1,176' GL Type of Well ■New □ Existing Type of Report □Interim ■Final
Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____
Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 10/13/14 Date drilling commenced 12/10/14 Date drilling ceased 12/15/14
Date completion activities began 12/22/14 Date completion activities ceased 12/23/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft N Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1100' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 440'- 447' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

Received
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WR-35
Rev. 8/23/13

API 47- 033 - 05839 Farm name JOHNSON, WILLIAM R. ET UX Well number 55

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	507'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2947.45'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 40 sks to surface on 7" surface cement job. Circulated Est. 30 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	120	15.6	1.18	142	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	150/135	14.2/11.8	1.27/1.64	191/221	Surface	8
Tubing							

Drillers TD (ft) 2990' Loggers TD (ft) 2971'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 650'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction ■ neutron ■ resistivity ■ gamma ray ■ temperature □ sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

20 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

Received
Office of Oil & Gas
FEB 04 2015

API 47- 033 - 05839 Farm name JOHNSON, WILLIAM R. ET UX Well number 55

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/22/14	2833'	2847'	56	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/23/14	10	1669	2418	1669	15,000	249	

Please insert additional pages as applicable.

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Rev. 8/23/13

API 47- 033 - 05839 Farm name JOHNSON, WILLIAM R. ET UX Well number 55

PRODUCING FORMATION(S)	DEPTHS			
Fifth Sand	2765- 2784'	TVD	2828- 2848'	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	440	0	440	
Pittsburgh Coal	440	447	440	447	
Sand/Shale	447	1792	447	1820	
Big Lime	1792	1870	1820	1902	
Big Injun	1870	1932	1902	1968	
Shale	1932	2356	1968	2408	
Fifty Foot	2356	2378	2408	2438	
Shale	2378	2450	2438	2502	
Sand	2450	2620	2502	2678	
Shale	2620	2765	2678	2828	
Fifth Sand	2765	2784	2828	2848	Drilled directional S 5° E a distance of 457'
Shale	2784	2923	2848	2990	
TD	2923		2990		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services
Address Hall Rd City Buckhannon State WV Zip 26201

Stimulating Company Universal Services
Address Hall Rd City Buckhannon State WV Zip 26201

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date _____

Received
Office of Oil & Gas
FEB 04 2015

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WVDEP OOG Internal Use Only
Rev. 6/14/16

AOR - Well Review Checklist

API Number: 47-033- 05867 Area Permit Number: 2R03301 AP
Operator Name: HG Energy
Operator's Well #: 232
Farm Name: Huffman, Brian V.
Field Name: Wolf Summit Field Injection Zone: Fifth Sand

Well Type: Injector ☐ Producer (Waterflood) ☑ Producer (NonWaterflood) ☐ Observation ☐ Other ☐
Well Status: Active ☑ Abandoned ☐ Plugged ☐
TD of well: 2940 MD
Completion Zones: 5th Perforated Interval: 2792 - 2802 MD

Well Location (UTM NAD83) Coordinates Match?: No ☐ Yes ☐
Easting: 543316 Northing: 4347054
Elevation: 1168
Inside Field Boundary? ☑ Outside Field Boundary? (1320' or less) ☐

Outstanding Violations:		No ☑	Yes ☐
Date of Last MIT:	Passed?	No ☐	Yes ☐
Open Hole Completion		No ☑	Yes ☐
Well penetrates injection zone?		No ☐	Yes ☑
Well perforated in injection zone?		No ☐	Yes ☑
Cemented across injection zone?		No ☐	Yes ☑
Packer immediately above injection zone (<100')?		No ☐	Yes ☐ No Packer ☐
		If No: Provide Depth:	
		No ☐	Yes ☑

Documents indicate this well appears to be adequately constructed/plugged to prevent fluid migration into USDW?

MIP Calculation:

	Top Perf Depth
0.8	Fracture Gradient
0.433	Hydrostatic Fluid Pressure Gradient (H_20)
1.1	Specific Gravity of Injection Fluid *(1.1 default if exact is not known)*

MIP = **0**
Bottom Hole Injection Pressure **0**
Hydrostatic Pressure **0**

Comments:

Reviewer Name: Signature:
Date Reviewed: 7/12/17

* *Attach WR-35's and WR-38's for all wells and WR-37's for injection wells.*

WR-35
Rev. 8/23/13

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

#44

API 47 - 033 - 05867 County HARRISON District TEN MILE
Quad WOLF SUMMIT 7.5' Pad Name WILLIAMS, W.F. Field/Pool Name WOLF SUMMIT
Farm name HUFFMAN, BRIAN V. Well Number 232
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,347,054 M Easting 543,316 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,173 M Easting 543,237 M

Elevation (ft) 1168' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type ■ Deviated □ Horizontal □ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate

Well Type □ Brine Disposal □ CBM □ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine □Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud ■Fresh Water Intermediate hole ■ Air □ Mud ■ Fresh Water □ Brine
Production hole ■ Air □ Mud ■ Fresh Water □ Brine

Mud Type(s) and Additive(s)
N/A

Date permit issued 3/9/15 Date drilling commenced 4/1/15 Date drilling ceased 4/9/15
Date completion activities began 4/27/15 Date completion activities ceased 4/29/15
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 428'- 435' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 033 - 05867 Farm name HUFFMAN, BRIAN V. Well number 232

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	506'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2895.8'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 25 sks to surface on 7" surface cement job. Circulated Est. 20 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft^3/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	110	15.6	1.18	130	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	110/150	13.2/14.2	1.64/1.27	180/186	Surface	8
Tubing							

Drillers TD (ft) 2940' Loggers TD (ft) 2938'

Deepest formation penetrated Fifth Sand Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 550'

Check all wireline logs run ■ caliper ■ density ■ deviated/directional ■ induction
■ neutron ■ resistivity ■ gamma ray ■ temperature □sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes □ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING
20 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

API 47- 033 - 05867 Farm name HUFFMAN, BRIAN V. Well number 232

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	4/27/15	2773'	2836'	40	Fifth Sand

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	4/29/15	10	1759	1405	1820	15,000	254	

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 033 - 05867 Farm name HUFFMAN, BRIAN V. Well number 232

PRODUCING FORMATION(S)	DEPTHS		
Fifth Sand	2756'- 2765' TVD	2792'- 2802' MD	

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☐ Open Flow OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY ☐ Estimated ☐ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
Sand/Shale	0	428	0	428	
Pittsburgh Coal	428	435	428	435	
Sand/Shale	435	1780	435	1802	
Big Lime	1780	1858	1802	1888	
Big Injun	1858	1932	1888	1960	
Shale	1932	2346	1960	2380	
Fifty Foot	2346	2382	2380	2422	
Shale	2382	2440	2422	2476	
Sand	2440	2608	2476	2644	
Shale	2608	2756	2644	2792	
Fifth Sand	2756	2765	2792	2802	Drilled directional N 39° W a distance of 356'
Shale	2765	2903	2802	2940	
TD	2903		2940		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 11000 Performance PL City Youngstown State OH Zip 44502

Cementing Company Universal Services
Address 14 Sewer Plant Rd City Buckhannon State WV Zip 26201

Stimulating Company Producers Service Corp.
Address 109 South Graham Street City Zanesville State OH Zip 43701
Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature _____ Title Operations Manager Date 12/11/15

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry