



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

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

PERMIT MODIFICATION APPROVAL

February 17, 2010

CHESAPEAKE APPALACHIA, L.L.C.
P O BOX 6070
CHARLESTON, WV 25362

Re: Permit Modification Approval for API Number 9703708 , Well #: 831679
Expanded Location Pad

Oil and Gas Operator:

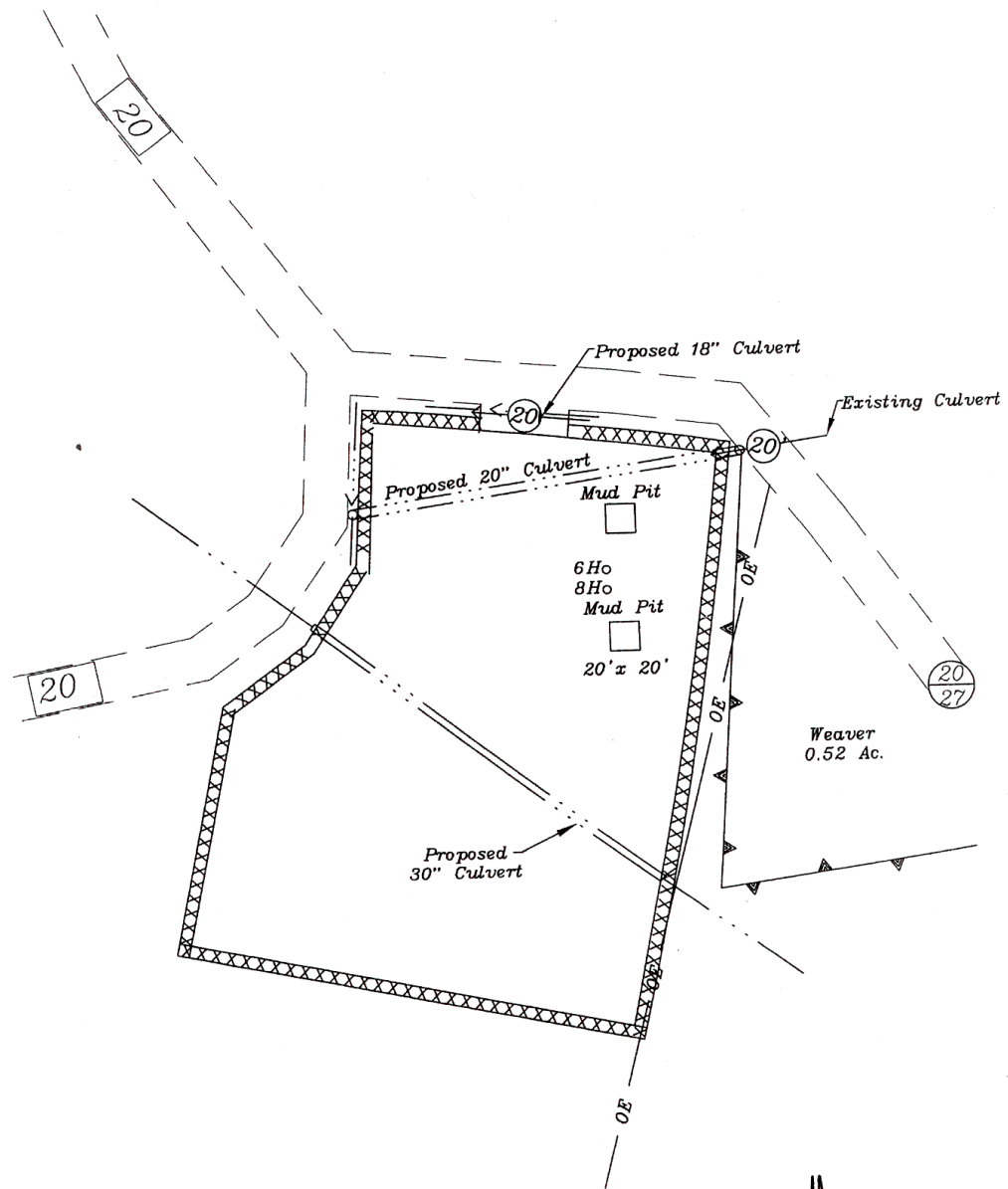
The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas

for



GENERAL NOTES

I. This drawing is a schematic representation of the proposed well site and access road. Proposed structures such as well site, drilling pit, roadway, culverts, sediment barriers, etc. are shown in approximate pre-planning configurations.

II. Trees and slash will be cleared as necessary before any proposed road, site, or pipeline construction begins. If sufficient residue materials are available from clearing, this material will be windrowed below the anticipated fill outslope(s) to intercept and retain sediment from disturbed areas. All marketable timber will be cut and stacked in areas adjacent to operations.

III. All culvert pipes will be a minimum of 12" in diameter. All culvert pipes installed will be accompanied by an entrance sump with dimensions no less than 3 ft. (width) x 3 ft (length) x 4 ft (deep). Culverts will be installed at an angle to ensure proper flow. The out fall of culverts will be protected from erosion and sedimentation using, large rocks or other sediment controls deemed necessary in the prevention of erosion and sedimentation. Storm water from the ditches to the culverts will be directed to stable natural vegetative areas. Where culverts are not practical, Chesapeake Appalachia, LLC will have other sediment control in place to minimize erosion and sedimentation.

IV. See attachment "A" for detail of drill pit dimensions.

Rafel W. Beckwith
✓
Don Bennett
OG&I Insp.
2-9-10
Appended loc. only

Chesapeake Appalachia, L.L.C.
Location:
Tall Trees & Land LLC 6H & 8H
November 11, 2009
Sheet 1 of 1



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
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Joe Manchin III, Governor
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PERMIT MODIFICATION APPROVAL

April 08, 2010

CHESAPEAKE APPALACHIA, L.L.C.
POST OFFICE BOX 6070
CHARLESTON, WV 25362

Re: Permit Modification Approval for API Number 9703708 , Well #: 831679
Noticed Additional Surface Owners

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Gene Smith".

Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas

1) Date: March 17, 2010
2) Operator's Well #: 831679 Tall Trees 8H
Operator's Well Name: _____
3) API Well #: 047 97
State County Permit

State of West Virginia
Department of Environmental Protection, Office of Oil and Gas
Well Work Permit Application

4) Surface Owners to be served:
a) Name Tall Trees & Land LLC.
Address P.O. Box 39
City Slaty Fork State WV Zip Code 26291

5)(a) Coal Operator:
Name _____
Address _____
City _____ State _____ Zip Code _____

b) Name _____
Address _____
City _____ State _____ Zip Code _____

b) Coal Owner with Out Declaration:
Name _____
Address _____
City _____ State _____ Zip Code _____

6) Inspector:
Name Bill Hatfield
Address P.O. Box 522
City Buckhannon State WV Zip Code 26201

c) Coal Lessee with Out Declaration:
Name _____
Address _____
City _____ State _____ Zip Code _____

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas.

OR

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents on the above named parties by:

Personal Service (Affidavit attached) Certified Mail (Postmarked postal receipt attached) Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Chesapeake Appalachia, L.L.C.

Signed By: _____

Its: Manager - Regulatory, Eastern Division

Address P.O. Box 18496
City Oklahoma City State OK Zip Code 73154-0496
Phone Number: 405-935-4073

Subscribed and sworn before me this MAR 18 2010 day of _____, 2009

RECEIVED
Office of Oil & Gas

WV Department of
Environmental Protection

My Commission Expires: _____

Notary Public

Operator: Chesapeake Appalachia, L.L.C.

Operator's Well #: 831679 Tall Trees 8H

Operator's Well Name:

API Well #: 047 97 03708-H
State County Permit

West Virginia Department of Environmental Protection
Office of Oil and Gas

ADDITIONAL SURFACE OWNERS TO BE NOTICED

Name: Connie L. Gmuer
Address: [Redacted]
City: Rock Cave State: WV Zip Code: 26234

Name _____
Address _____
City _____ State _____ Zip Code _____

Name: Marguerite W. Layman C/O James H. Woodford
Address: [Redacted]
City: Freedom State: PA Zip Code: 15042

Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
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City _____ State _____ Zip Code _____

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Address _____
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Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
Address _____
City _____ State _____ Zip Code _____

Name _____
Address _____
City _____ State _____ Zip Code _____



Dee Swiger
Regulatory Compliance Specialist

July 11, 2010

Ms. Laura Adkins
WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Re: Proposed New Well 831679 Tall Trees 8H API# 047-097-03708
Permit Modification Request to Extend Lateral

Dear Ms. Adkins:

Enclosed please find a revised survey plat, WW-2B signed by the inspector and a revised WW-2A-1 with the additional lease information. We would like to extend the lateral leg approximately 1400' the surface hole will not move.

This well is situated on Tall Tree's property in Banks District, Upshur County, West Virginia.

If you have any questions or require additional information, please do not hesitate to contact me at (304) 517-1416 ext 86017.

Sincerely,

A handwritten signature in black ink, appearing to read "Dee Swiger".

Dee Swiger
Compliance and Regulations Specialist
Chesapeake Appalachia, LLC

/djs

Enclosures

RECEIVED
Office of Oil & Gas

JUL 15 2010

WV Department of
Environmental Protection

Top Hole 4,196'

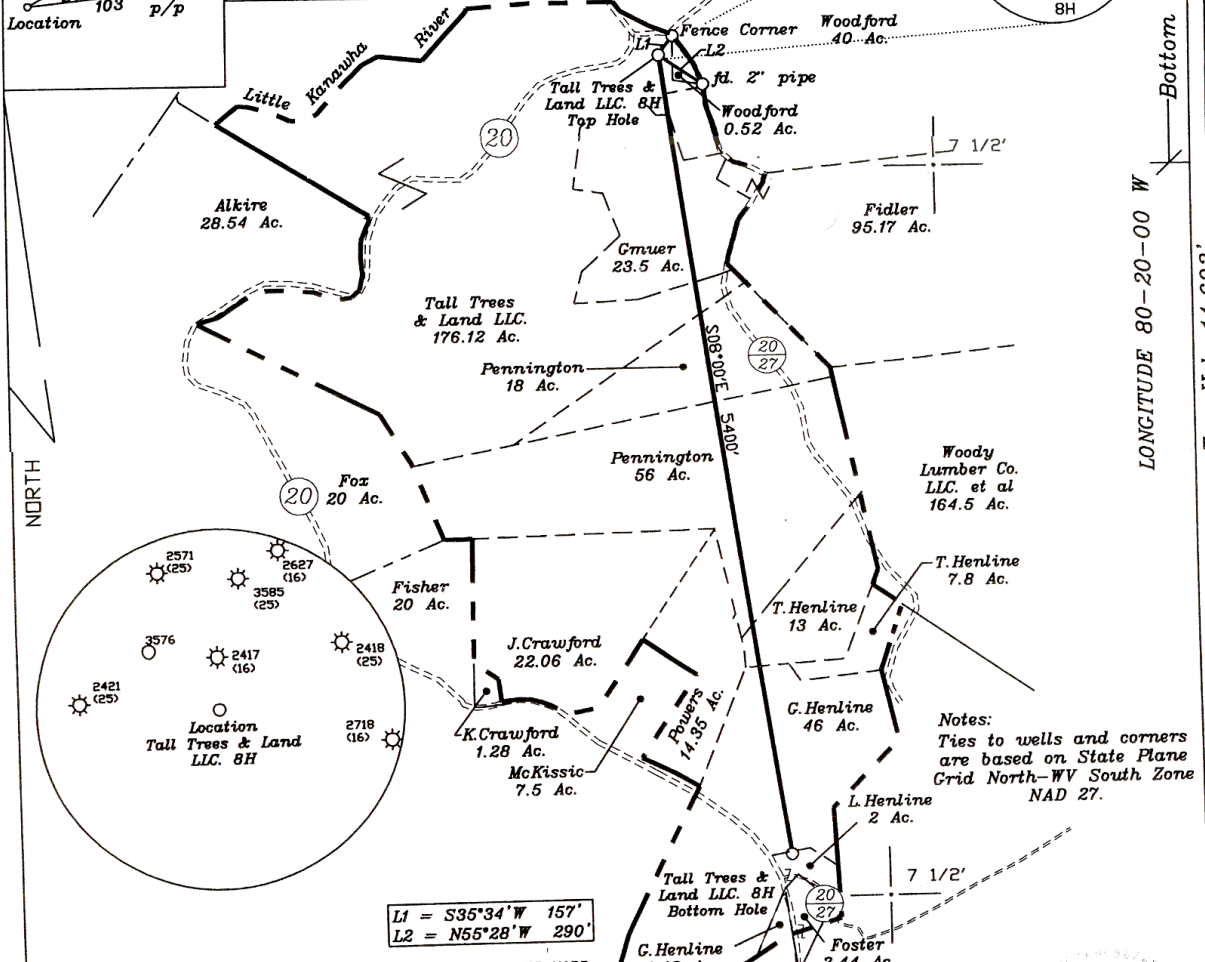
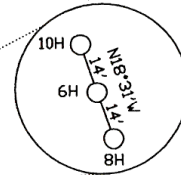
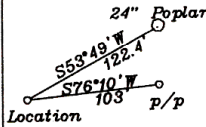
Bottom Hole 3,405'

LATITUDE 38-50-00 N (TH) LATITUDE 38-47-30 N (BH)

References

Top Hole
 NAD 27-38.792857 N, 80.347906 W
 NAD 83-38.792958 N, 80.347711 W
 State Plane NAD 27-653502.7 N, 2185868.7 E

Bottom Hole
 NAD 27-38.778159 N, 80.345401 W
 NAD 83-38.778261 N, 80.345206 W
 State Plane NAD 27-648155 N, 2186620 E



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

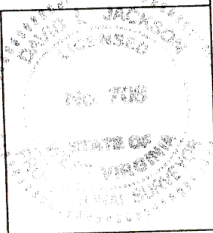
L1 = S35°34'W 157'
 L2 = N55°28'W 290'

Notes:
 Ties to wells and corners
 are based on State Plane
 Grid North-WV South Zone
 NAD 27.

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF
 ACCURACY 1 in 200
 PROVEN SOURCE OF
 ELEVATION GPS
submeter unit

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) David L Jackson
 R.P.E. _____ L.L.S. 708



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS

DATE July 14 2010
 OPERATOR'S WELL NO. Tall Trees & Land LLC 8H
 API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL STATE COUNTY 47 097 PERMIT 03708H
 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW Revised

LOCATION: ELEVATION 1,664' WATER SHED Little Kanawha River
 DISTRICT Banks COUNTY Upshur

QUADRANGLE Rock Cave 7 1/2'
 SURFACE OWNER Tall Trees & Land LLC ACREAGE 176.12 ac.
 OIL & GAS ROYALTY OWNER James Michael McKisic LEASE ACREAGE 281 ac
 LEASE NO. 1-265868, 1-264856, 1-265868 & 1-264856

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
 FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Marcellus ESTIMATED DEPTH 6,974'+ Horizontal leg
 WELL OPERATOR Chesapeake Appalachia, L.L.C. DESIGNATED AGENT Eric B. Gillespie
 ADDRESS P.O. Box 18496 Oklahoma City, OK 73154-0496 ADDRESS P.O. Box 6070 Charleston, WV 25362

Operator: Chesapeake Appalachia, L.L.C.

Operator's Well #: 831679 Tall Trees 8H

Operator's Well Name:
 API Well #: 047 97 03708 -H
 State County Permit *Revised*

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
 Chapter 22, Article 6, Section 8(d)
 IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
James Michael McKisic	Chesapeake Appalachia, L.L.C.	1/8	87@158
Gilbert T Pennington et ux	Chesapeake Appalachia, L.L.C.	1/8	87@89
James Michael McKisic et ux	Chesapeake Appalachia, L.L.C.	1/8	84@760
Richard Hudson Demastes et ux	Chesapeake Appalachia, L.L.C.	1/8	82@338
Timandra Jane Lindsey	Chesapeake Appalachia, L.L.C.	1/8	83@214
Joseph Ruzs et ux	Chesapeake Appalachia, L.L.C.	1/8	82@631
Jimmy W Demastes et ux	Chesapeake Appalachia, L.L.C.	1/8	82 @628
Robert G Demastes et ux	Chesapeake Appalachia, L.L.C.	1/8	82@625
ConsolEnergy Holdings, LLC	Chesapeake Appalachia, L.L.C.	1/8	395@801
Consol Energy Holdings, LLC	Chesapeake Appalachia, L.L.C.	1/8	81@283

Well Operator: Chesapeake Appalachia, L.L.C.

Signed by (print): _____

Its: Manager - Regulatory, Eastern Division

Signature: _____

Date: _____

RECEIVED
 Office of Oil & Gas
 JUL 15 2010
 WV Department of
 Environmental Protection



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
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Randy C. Huffman, Cabinet Secretary
dep.wv.gov

PERMIT MODIFICATION APPROVAL

July 23, 2010

CHESAPEAKE APPALACHIA, L.L.C.
POST OFFICE BOX 6070
CHARLESTON, WV 25362

Re: Permit Modification Approval for API Number 9703708 , Well #: 831679
Modified Lateral for a MD of 12,400',

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Gene Smith".

Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas

MON



Dee Swiger
Regulatory Compliance Specialist

July 19, 2010

Ms. Laura Adkins
WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Re: Proposed New Well 831679 Tall Trees 8H API# 047-097-03708

Dear Ms. Adkins:

Enclosed please find a revised casing program extending the 9 5/8" casing, this has been approved by the oil and gas inspector.

This well is situated on Tall Tree's property in Banks District, Upshur County, West Virginia.

If you have any questions or require additional information, please do not hesitate to contact me at (304) 517-1416 ext 86017.

Sincerely,

A handwritten signature in black ink, appearing to read "Dee Swiger", written over a circular scribble.

Dee Swiger
Compliance and Regulations Specialist
Chesapeake Appalachia, LLC

/djs

Enclosures

RECEIVED
Office of Oil & Gas

JUL 21 2010

WV Department of
Environmental Protection

Revised

State of West Virginia
Department of Environmental Protection, Office of Oil and Gas
Well Work Permit Application

- 1) Well Operator: Chesapeake Appalachia, L.L.C. 2) Operator ID #: 494477557
- 3) Operator's Well #: 831679 Tall Trees 8H 4) Elevation: 1,664'
- 5) County/District: 097-Upshur / 1-Banks 6) Quadrangle: 582 - ROCK CAVE
- 7) Well Type: Oil Production Deep (More than 20 feet into Onondaga Group)
 Gas Storage Shallow (Less than 20 feet into Onondaga Group)
- 8) Proposed Target Formation(s): Marcellus
- 9) Proposed Total Depth: 6934' TVD 12400' TMD
- 10) Approximate fresh water depths: 350' ✓
- 11) Approximate coal seam depths: None
- 12) Approximate salt water depths: None
- 13) Does land contain coal seams tributary to active mine? YES NO
- 14) Describe proposed well work: Drill and stimulate any potential producing zones between the Fifth Sand and
and the Marcellus

15) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	Used For Drilling	Left in Well	Fill-Up (Cu. Ft.)
Conductor	20"	LS		40'	40'	
Fresh Water	13 3/8"	J-55	55#	450'	450' ✓	cts
Intermediate	9 5/8"	J-55	40#	2150'	2150'	cts
Intermediate	7"	P110	29#	if needed	if needed	if needed/as needed
Production	5 1/2"	P110	11.6#		12400'	
				<i>Bill Hatfield</i>		
					7-19-10	

RECEIVED
 Office of Oil & Gas
 JUL 21 2010

Check #: _____
 Amount: _____

Packers: Kind: _____
 Sizes: _____
 Depths Set: _____

WV Department of
 Environmental Protection

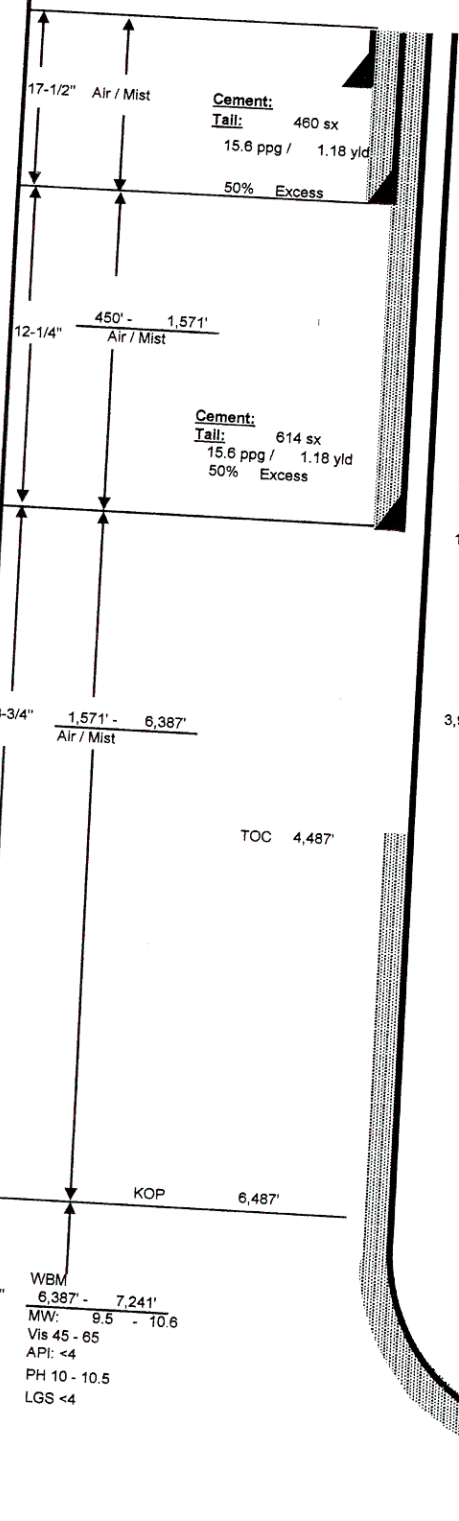
97-03708H
Revised



Well Name: **Tall Trees 8H**
 Formation: Marcellus
 County, State: Upshur County, WV
 Surface Latitude: 38.792857
 KB Elevation: 1679'
 Surface Longitude: 80.347906
 Ground Elevation: 1664'

Drilling Rig: **Nomac 25**
 AFE #: 151805
 Directional Drilling: Scientific
 Drilling Mud: Nova
 Cement Surface: BJ Services
 Cement Longstrings: BJ Services
 Wellhead: Cameron

Drilling Engineer: Kevin Ashley
 Superintendent: Stacey Tubbs
 Asset Manager: John Adcock
 Geologist: Chris Gardner
 Land: Todd McGinley



Wellhead Equipment	
Tree Description	Blanking Cap
Tubing Head **	11" 5M x 7-1/16" 10M
'B' Section	9-5/8" SOW x 11" 5M
'A' Section	

Casing Detail						
	Size	Wt	Grd	Conn.	From:	To:
Surface	13 3/8"	54.5 #	J-55	LTC	0'	450'
Int	9 5/8"	40. #	J-55	LTC	0'	1,571'
Int	5 1/2"	20. #	P-110	GBCD	0'	12,159'

Casing Design						
	Size	ID	Coll	Burst	Tens	MU torq
Surface	13 3/8"	12.615	1130	2730	514	5140
Int	9 5/8"	8.835	2570	3950	520	5200
Prod	5 1/2"	4.778	11100	12640	641	8530

Run	Log Type	Interval
1	NA	NA NA
2	0	0' - 0'

Mudlogger operational at 1,820'

GeoProg Date:	6/17/2010	Plat Date:	11/18/2009
GeoProg BH Lat:	38.78197	Plat BH Lat:	38.78197
GeoProg BH Long:	80.348051	Plat BH Long:	80.348051
GeoProg TD:	10759		

Directional Drilling Details								
Section	TMD	Inc.	Azimuth	TVD	BUR	DLS	+N/-S	+E/-W
Surf	0'	0.00	0.00	0'	0.00	0.00		
Surf Casing	1,571'	0.00	0.00	1,571'	0.00	0.00	0.0'	0.0'
Hold	1,700'	0.00	0.00	1,700'	0.00	0.00	0.0'	0.0'
KOP1	3,000'	0.00	0.00	3,000'	0.00	0.00	0.0'	0.0'
Hold	5,000'	0.00	0.00	5,000'	0.00	0.00	0.0'	0.0'
Hold	6,000'	0.00	0.00	6,000'	0.00	0.00	0.0'	0.0'
Hold	6,500'	0.00	0.00	6,500'	0.00	0.00	0.0'	0.0'
KOP2	6,487'	0.00	0.00	6,487'	0.00	0.00	0.0'	0.0'
Landing Pt	7,241'	90.50	172.00	6,964'	12.00	12.00	-477.0'	67.0'
TD	12,159'	90.50	172.00	6,921'	0.00	0.00	-3,960.6'	556.6'
VS Plane	172.00						VS Length	5,400.00'
							Lateral Length ==>	4,918.00'

Formation Depths (TVD)

Genesee	6,754'
Tully	6,796'
Hamilton	6,814'
Marcellus	6,898'

AFE Date:	12/2/2009
AFE TD:	10759
AFE TVD:	6964

Cement:
 Tail: 1,170 sx
 14.4 ppg / 1.58 yld
 20% Excess

Geologic Target: 6,968' TVD @ 0° VS w/ 0.50 degrees Up-dip

MW: 10.6 - 10.8
 PBHL: 5.5"
 TMD: 12,159'
 TVD: 6,921'
 Inclination: 90.50 deg



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Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

PERMIT MODIFICATION APPROVAL

October 27, 2010

CHESAPEAKE APPALACHIA, L.L.C.
POST OFFICE BOX 6070
CHARLESTON, WV 25362

Re: Permit Modification Approval for API Number 9703708 , Well #: 831679
Modified Casing Program

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Gene Smith".

Gene Smith
for Regulatory/Compliance Manager
Office of Oil and Gas



97-03908

Dee Swiger
Regulatory Compliance Specialist

*need
Gene's
approval
on
casing*

September 9, 2010

Ms. Laura Adkins
WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Re: Proposed New Well 831679 Tall Trees 10H

Dear Ms. Adkins:

Enclosed please find a modified casing program – we are extending the 9 5/8 from 1571 to 2150. I do not show any coal or a coal owner.

This well is situated on Tall Tree's property in Banks District, Upshur County, West Virginia.

If you have any questions or require additional information, please do not hesitate to contact me at (304) 517-1416 ext 86017.

Sincerely,

Chesapeake Appalachia, L.L.C.

Dee Swiger
Regulatory Compliance Specialist

/djs

Enclosures

RECEIVED
Office of Oil & Gas
SEP 18 2010
WV Department of
Environmental Protection

WW - 2B
(Rev. 8/09)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator Chesapeake Appalachia, LLC

494477557	097	01	582
-----------	-----	----	-----

Operator ID County District Quadrangle

2) Operator's Well Number: 832004 Tall Trees 10H 3) Elevation: 1664

4) Well Type: (a) Oil _____ or Gas XX
(b) If Gas: Production XX / Underground Storage _____
Deep _____ / Shallow XX

5) Proposed Target Formation(s): Marcellus Proposed Target Depth: 6932

6) Proposed Total Depth: 11,100 Feet Formation at Proposed Total Depth: Marcellus

7) Approximate fresh water strata depths: 350'

8) Approximate salt water depths: None

9) Approximate coal seam depths: None

10) Does land contain coal seams tributary to active mine? No

11) Describe proposed well work in detail Drill and Stimulate any potential producing zones between the Fifth Sand and the Marcellus.

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	20"	LS		40'	40'	
Fresh Water	13 3/8"	J-55	55#	450'	450'	CTS
Coal Intermediate	9 5/8"	J-55	40#	2150	2150	CTS
Intermediate	7"	P110	29#	if needed	if needed	if needed/as needed
Production	5 1/2"	P110	20#	11,100	11,100	as needed
Tubing						
Liners						

Packers: Kind _____
Sizes _____
Depths Set _____

GCS
10/26/10

RECEIVED
Office of Oil & Gas
SEP 28 2010
West Virginia Department of Environmental Protection