



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

July 23, 2014

WELL WORK PERMIT

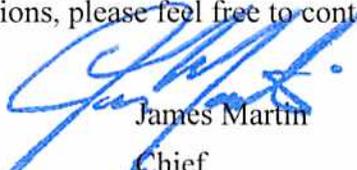
Horizontal Well

This permit, API Well Number: 47-1304744, issued to BUCKEYE OIL PRODUCING CO, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin

Chief

Operator's Well No: J.M. BENNETT 1H
Farm Name: TAYLOR, DOUGLAS E. & SHIRLI
API Well Number: 47-1304744
Permit Type: Horizontal Well
Date Issued: 07/23/2014

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

WW - 2B
(Rev. 8/10)

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

13 3 379

1) Well Operator: Buckeye Oil Producing Co. 306103 Calhoun Sheridan Grantsville 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Bennett #1H 3) Elevation: 1002'

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

5) Proposed Target Formation(s): Berea Proposed Target Depth: 2467' T.V.D.

6) Proposed Total Depth: 4840 TMD Feet Formation at Proposed Total Depth: Berea

7) Approximate fresh water strata depths: 61'

8) Approximate salt water depths: 2011'

9) Approximate coal seam depths: None

10) Approximate void depths, (coal, Karst, other): None

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

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Drill & set ^{30'} ~~60'~~ conductor. Drill & set 300' 9-5/8 casing & cement to surface. Drill to 1775 and set 7" casing & cement to surface. Drill to 1800' and start to build curve 8° - 100'. At 90° drill to T.D. Run 4-1/2 casing & set 8-10 packers. See attached sheet. Cement above K.O.P. Also see attached well bore schematic.

13) June 13 2014 **CASING AND TUBING PROGRAM** D. S. 6-13-14
S. T. 6-13-14

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor	11-3/4	J-55	38#	30 60	30	C.T.S. (grout)
Fresh Water	9-5/8	J-55	29#	300	300	C.T.S.
Coal						
Intermediate	7"	J-55	17#	1775	1775	C.T.S.
Production	4-1/2	J-55	11.6#	4840	4840	By rule 35 CSR 4-11.1
Tubing						
Liners						

H.S. 6-13-14

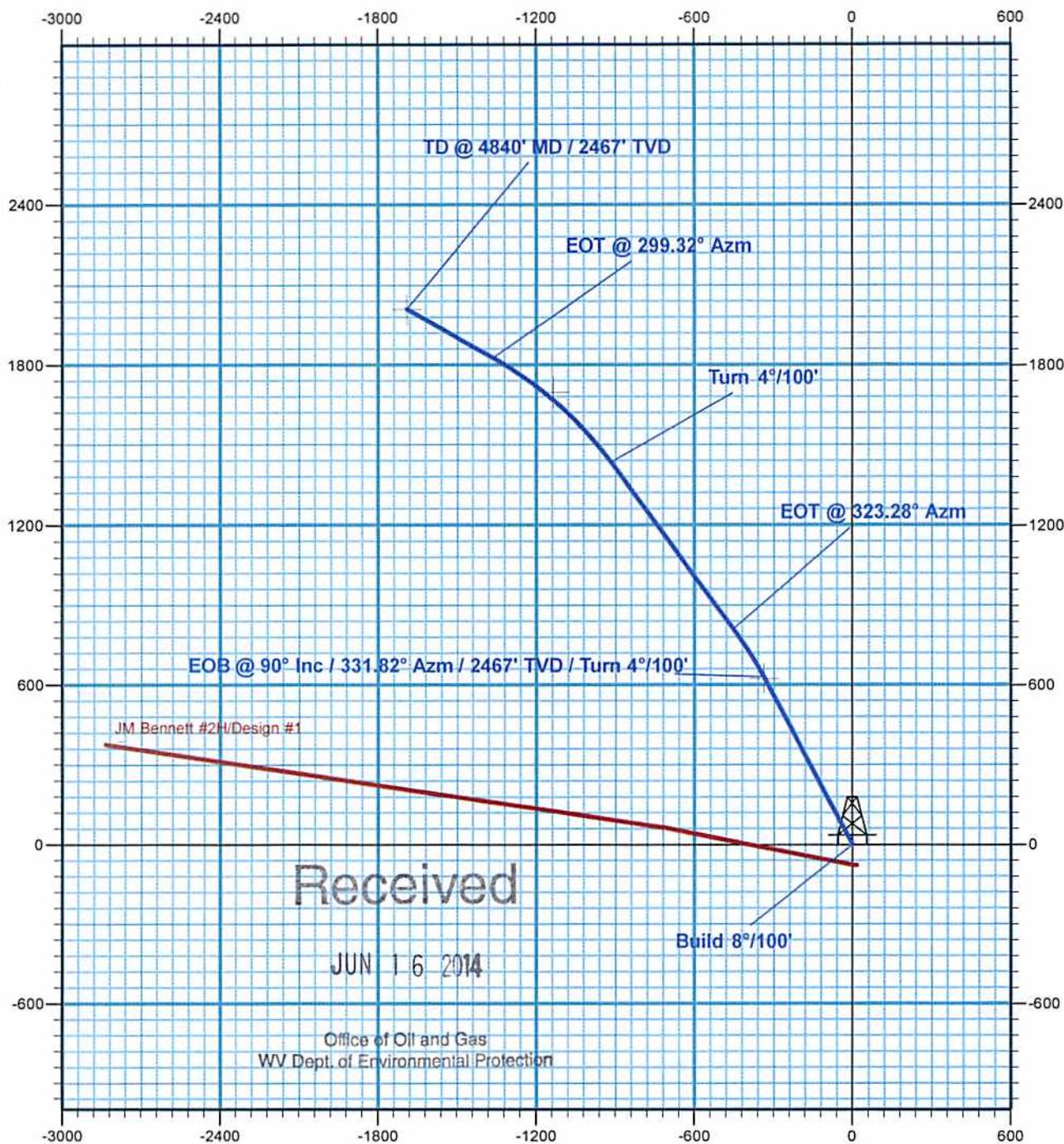
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Packers: Kind: Peak
 Sizes: 4-1/2 x 5.75" open hole packer
 Depths Set 1600 to 4840 setting 10 packers
 JUN 16 2014

Signature President

Buckeye Oil Producing

Calhoun, West Virginia
 JM Bennett #1H
 Design #1



1304744H

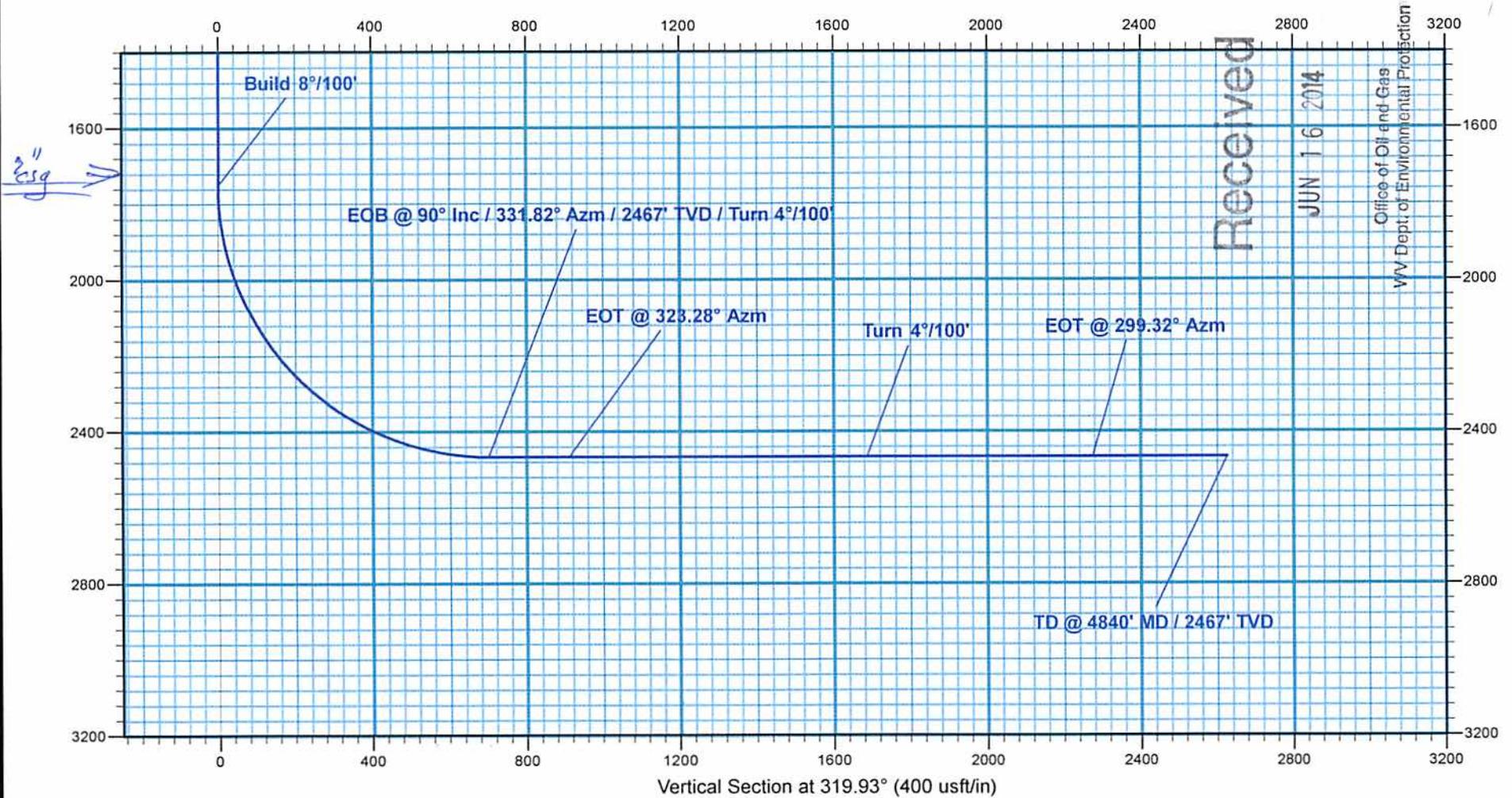
CROSS SECTION

Buckeye Oil Producing

Calhoun, West Virginia

JM Bennett #1H

Design # 1



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Office of Oil and Gas
WV Dept of Environmental Protection

1304744H

Buckeye Oil Producing

Calhoun, West Virginia

JM Bennett

JM Bennett #1H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

, 12 May, 2014

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Office of Oil and Gas
WV Dept. of Environmental Protection



DDC
Well Planning Report

1304744A

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well JM Bennett #1H
Company:	Buckeye Oil Producing	TVD Reference:	Mean Sea Level (Sys
Project:	Calhoun, West Virginia	MD Reference:	Mean Sea Level (Sys
Site:	JM Bennett	North Reference:	Grid
Well:	JM Bennett #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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Project Calhoun, West Virginia
Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: West Virginia Southern Zone

System Datum: Mean Sea Level
JUN 16 2014

Site JM Bennett
Site Position: Northing: 724,087.31 usft Latitude:
From: Lat/Long Easting: 1,936,322.61 usft Longitude:
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence:

Office of Oil and Gas
WV Dept. of Environmental Protection

Well JM Bennett #1H
Well Position +N/-S 0.0 usft Northing: 724,087.31 usft Latitude: 38° 59'
+E/-W 0.0 usft Easting: 1,936,322.61 usft Longitude: 81° 6'
Position Uncertainty 0.0 usft Wellhead Elevation: 0.0 usft Ground Level:

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination	Dip Angle	Fi
	IGRF2010	5/9/2014	(°)	(°)	
			-8.17	66.63	

Design Design #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.0

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	319.93

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00
1,750.8	0.00	0.00	1,750.8	0.0	0.0	0.00
2,875.8	90.00	331.82	2,467.0	631.3	-338.2	8.00
3,089.3	90.00	323.28	2,467.0	811.3	-452.7	4.00
3,866.3	90.00	323.28	2,467.0	1,434.1	-917.2	0.00
4,465.2	90.00	299.32	2,467.0	1,826.6	-1,363.9	4.00
4,840.1	90.00	299.32	2,467.0	2,010.1	-1,690.8	0.00

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vert Sec (us
0.0	0.00	0.00	0.0	0.0	0.0	0.0
100.0	0.00	0.00	100.0	0.0	0.0	0.0
200.0	0.00	0.00	200.0	0.0	0.0	0.0
300.0	0.00	0.00	300.0	0.0	0.0	0.0

400.0	0.00	0.00	400.0	0.0	0.0
500.0	0.00	0.00	500.0	0.0	0.0
600.0	0.00	0.00	600.0	0.0	0.0
700.0	0.00	0.00	700.0	0.0	0.0
800.0	0.00	0.00	800.0	0.0	0.0
900.0	0.00	0.00	900.0	0.0	0.0
1,000.0	0.00	0.00	1,000.0	0.0	0.0
1,100.0	0.00	0.00	1,100.0	0.0	0.0
1,200.0	0.00	0.00	1,200.0	0.0	0.0
1,300.0	0.00	0.00	1,300.0	0.0	0.0
1,400.0	0.00	0.00	1,400.0	0.0	0.0
1,500.0	0.00	0.00	1,500.0	0.0	0.0
1,600.0	0.00	0.00	1,600.0	0.0	0.0
1,700.0	0.00	0.00	1,700.0	0.0	0.0
Build 8°/100'					
1,750.8	0.00	0.00	1,750.8	0.0	0.0
1,800.0	3.94	331.82	1,800.0	1.5	-0.8
1,900.0	11.94	331.82	1,898.9	13.6	-7.3
2,000.0	19.94	331.82	1,995.0	37.8	-20.3
2,100.0	27.94	331.82	2,086.3	73.6	-39.4
2,200.0	35.94	331.82	2,171.1	120.2	-64.4
2,300.0	43.94	331.82	2,247.7	176.7	-94.7
2,400.0	51.94	331.82	2,314.7	242.1	-129.7
2,500.0	59.94	331.82	2,370.6	315.0	-168.8
2,600.0	67.94	331.82	2,414.5	394.2	-211.2
2,700.0	75.94	331.82	2,445.5	477.9	-256.0
2,800.0	83.94	331.82	2,463.0	564.6	-302.5
EOB @ 90° Inc / 331.82° Azm / 2467' TVD / Turn 4°/100'					
2,875.8	90.00	331.82	2,467.0	631.3	-338.2
2,900.0	90.00	330.85	2,467.0	652.5	-349.8
3,000.0	90.00	326.85	2,467.0	738.1	-401.5
EOT @ 323.28° Azm					
3,089.3	90.00	323.28	2,467.0	811.3	-452.7
3,100.0	90.00	323.28	2,467.0	819.9	-459.1
3,200.0	90.00	323.28	2,467.0	900.0	-518.9
3,300.0	90.00	323.28	2,467.0	980.2	-578.6
3,400.0	90.00	323.28	2,467.0	1,060.3	-638.4
3,500.0	90.00	323.28	2,467.0	1,140.5	-698.2
3,600.0	90.00	323.28	2,467.0	1,220.7	-758.0
3,700.0	90.00	323.28	2,467.0	1,300.8	-817.8
3,800.0	90.00	323.28	2,467.0	1,381.0	-877.6
Turn 4°/100'					
3,866.3	90.00	323.28	2,467.0	1,434.1	-917.2
3,900.0	90.00	321.93	2,467.0	1,460.9	-937.7
4,000.0	90.00	317.93	2,467.0	1,537.4	-1,002.1
4,100.0	90.00	313.93	2,467.0	1,609.2	-1,071.6
4,200.0	90.00	309.93	2,467.0	1,676.1	-1,146.0
4,300.0	90.00	305.93	2,467.0	1,738.5	-1,224.5
4,400.0	90.00	301.93	2,467.0	1,796.3	-1,307.8
EOT @ 299.32° Azm					

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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	Office +E/-W and Gas	Vert Sec (us)
4,465.2	90.00	299.32	2,467.0	1,826.6	Office of Environmental Protection	-1,363.9
4,500.0	90.00	299.32	2,467.0	1,843.6		-1,394.2
4,600.0	90.00	299.32	2,467.0	1,892.6		-1,481.4
4,700.0	90.00	299.32	2,467.0	1,941.5		-1,568.6
4,800.0	90.00	299.32	2,467.0	1,990.5		-1,655.8
TD @ 4840' MD / 2467' TVD						
4,840.1	90.00	299.32	2,467.0	2,010.1		-1,690.8

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Eas (us)
- hit/miss target							
- Shape							

LP JM Bennett #1H	0.00	360.00	0.0	625.1	-334.9	724,712.38	1.9
- plan misses target center by 709.2usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)							
- Point							
T2 JM Bennett #1H	0.00	0.00	0.0	1,698.0	-1,135.2	725,785.31	1.9
- plan misses target center by 2042.5usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)							
- Point							
PBHL JM Bennett #1H	0.00	360.00	2,467.0	2,010.1	-1,690.8	726,097.44	1.9
- plan hits target center							
- Point							

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,750.8	1,750.8	0.0		0.0 Build 8°/100'
2,875.8	2,467.0	631.3		-338.2 EOB @ 90° Inc / 331.82° Azm / 2467' TVL
3,089.3	2,467.0	811.3		-452.7 EOT @ 323.28° Azm
3,866.3	2,467.0	1,434.1		-917.2 Turn 4°/100'
4,465.2	2,467.0	1,826.6		-1,363.9 EOT @ 299.32° Azm
4,840.1	2,467.0	2,010.1		-1,690.8 TD @ 4840' MD / 2467' TVD

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Office of Oil and Gas
WV Dept. of Environmental Protection

BENNETT #1H**Frac well -**

Stage 1	Pump end of 4-1/2" with 550 Bbl. total water and 25,000# 20/40 sand
Stage 2	Frac with 500 Bbls. total water and 25,000# 20/40 sand
Stage 3	Frac with 500 Bbls. total water and 25,000# 20/40 sand
Stage 4	Frac with 500 Bbls. total water and 25,000# 20/40 sand
Stage 5	Frac with 500 Bbls. total water and 25,000# 20/40 sand
Stage 6	Frac with 500 Bbls. total water and 25,000# 20/40 sand
Stage 7	Frac with 500 Bbls. total water and 25,000# 20/40 sand
Stage 8	Frac with 500 Bbls. total water and 25,000# 20/40 sand
Stage 9	Frac with 600 Bbls. total water and 25,000# 20/40 sand

Received**JUN 16 2014**

Permit Addendum

J. M. Bennett #1H

There remains question as to the whereabouts and identity of old well bores on the J. M. Bennett lease.

According to our records the J. M. Bennett #20 was drilled in 1922 to the Berea with no shows and plugged back to the Big Injun. After extensive field work this well has not been located and is assumed plugged.

The J. M. Bennett #21 Permit #013-30087 and located 685' northeast of our projected Bennett #1H borehole was drilled on 5-30-1922 to a TD of 2085' and never penetrated the Berea Sandstone and is assumed plugged.

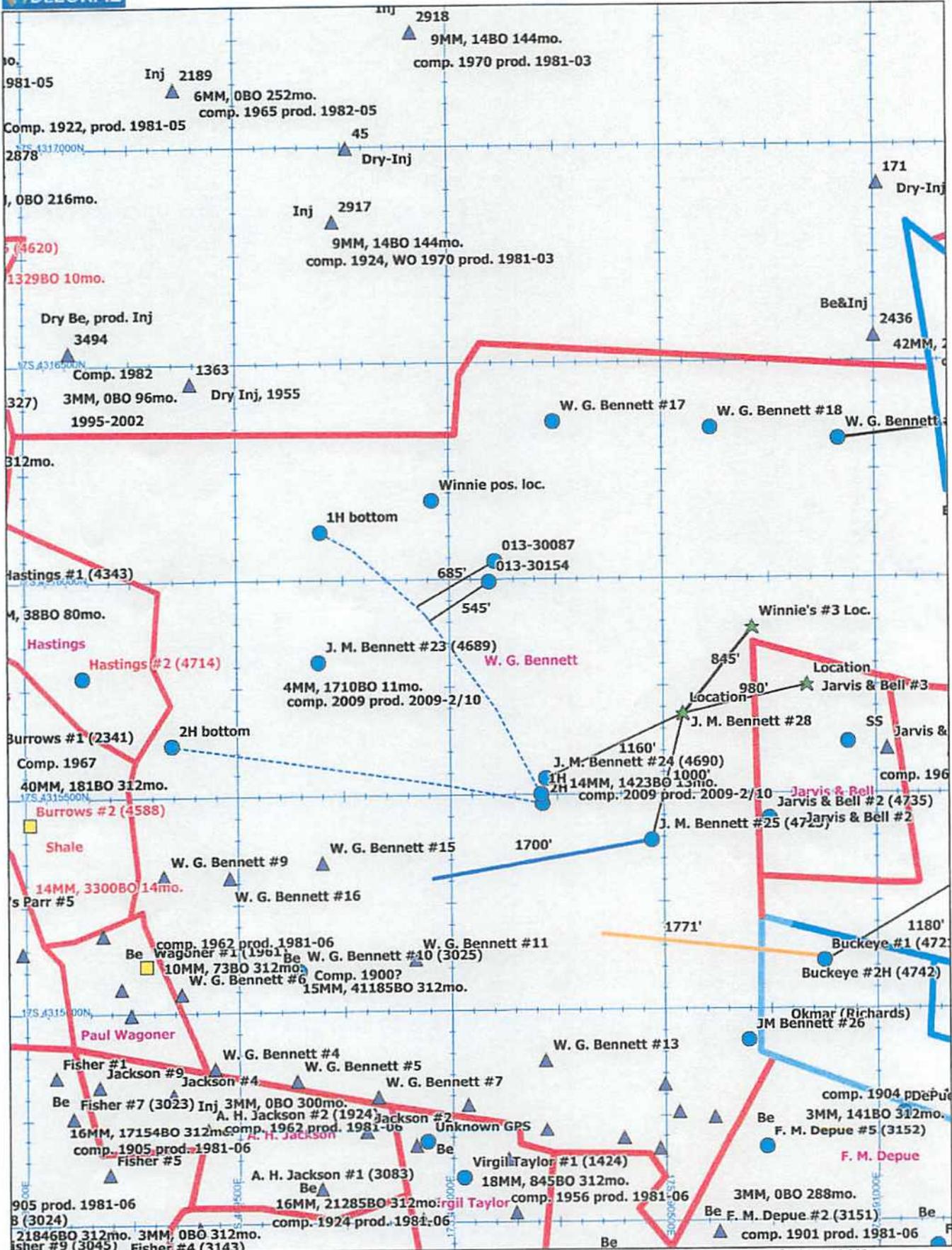
The J. M. Bennett #22 permit # 013-30154 and located 545' northeast of our projected Bennett #1H borehole was drilled on 1-10-1923 to a TD of 2450' and shot with 30 quarts of nitroglycerine. The well has not been located after extensive field work and is assumed plugged.

The J. M. Bennett #1H was designed to best avoid any geological hazards such as the wells noted above and as such precautions are being taken to avoid any issues that could occur.

The J. M. Bennett #1H will be completed using a packer system, and as such questionable portions of the wellbore can be isolated. WILL JMM 7/22/14

A distance of 545' is believed to be adequate distance from a shot hole using 500 barrels of total fluid per stage in a 300' staged frac.

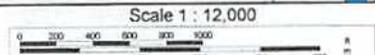
Since the #21 and #22 wells are non-existent from a surface perspective and assumed plugged the general area in which the wells once existed will be monitored daily throughout the drilling and completion process.



Data use subject to license.

© DeLorme. XMap® 6.

TN
MN (8.1"W)



WR-35

DATE: 2/19/09

API #: 47-130-~~690~~

13.04690

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

Well Operator's Report of Well Work

Farm name: J. M. BENNETT Operator Well No.: 24

LOCATION: Elevation: 1024 Quadrangle: GRANTSVILLE

District: SHERIDAN County: CALHOON

Latitude: _____ Feet South of _____ Deg. _____ Min. _____ Sec.

Longitude _____ Feet West of _____ Deg. _____ Min. _____ Sec.

Company: BUCKEYE OIL PRODUCING CO.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. BOX 129	9 5/8			
WOOSTER, OH 44691	7	251	251	CMT TO SURFACE
Agent: WINNIE SINNETT	4 1/2	2945	2945	1600'
Inspector: ED GAINER				
Date Permit Issued: 9/8/08				
Date Well Work Commenced: 9/17/08				
Date Well Work Completed: 10/16/08				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable Rig				
Total Depth (feet): 2950				
Fresh Water Depth (ft.): 90'				
Salt Water Depth (ft.): 1000'				
Is coal being mined in area (N/Y)? NO				
Coal Depths (ft.): _____				

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Office of Oil & Gas

MAR 02 2009

WV Department of Environmental Protection

OPEN FLOW DATA

Producing formation GORDAN-GANTZ Pay zone depth (ft) 2568-2830
 Gas: Initial open flow - MCF/d Oil: Initial open flow - Bbl/d
 Final open flow 50 MCF/d Final open flow 1 Bbl/d
 Time of open flow between initial and final tests - Hours
 Static rock Pressure 400 psig (surface pressure) after 18 Hours

Second producing formation BEREA Pay zone depth (ft) 2446-2462
 Gas: Initial open flow - MCF/d Oil: Initial open flow - Bbl/d
 Final open flow 20 MCF/d Final open flow 1 Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 400 psig (surface pressure) after 18 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: Mark S. Lytle
 By: MARK S. LYTLE, PRESIDENT
 Date: 2/19/09

Permit No. CAL-154-A

WELL RECORD

Oil or Gas Well
(circle)

Company H.W. Russell, Trustee Under Morrow Trusts
 Address Parkersburg, W. Va.
 Farm Bennett Heirs Acres 69
 Location (waters) _____
 Well No. 20 Elev. 1005
 District Sheridan County Calhoun
 The surface of tract is owned in fee by J.S. Fortney
 Address _____
 Mineral rights are owned by See Above
 Address _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer _____
18			<u>Gas</u>
10			Size of <u>6-5/8 X 8</u>
8 3/4			Depth set <u>2085</u>
6 3/4		<u>1990</u>	
5 3/16			
3			Perf. top _____
2		<u>2085</u>	Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

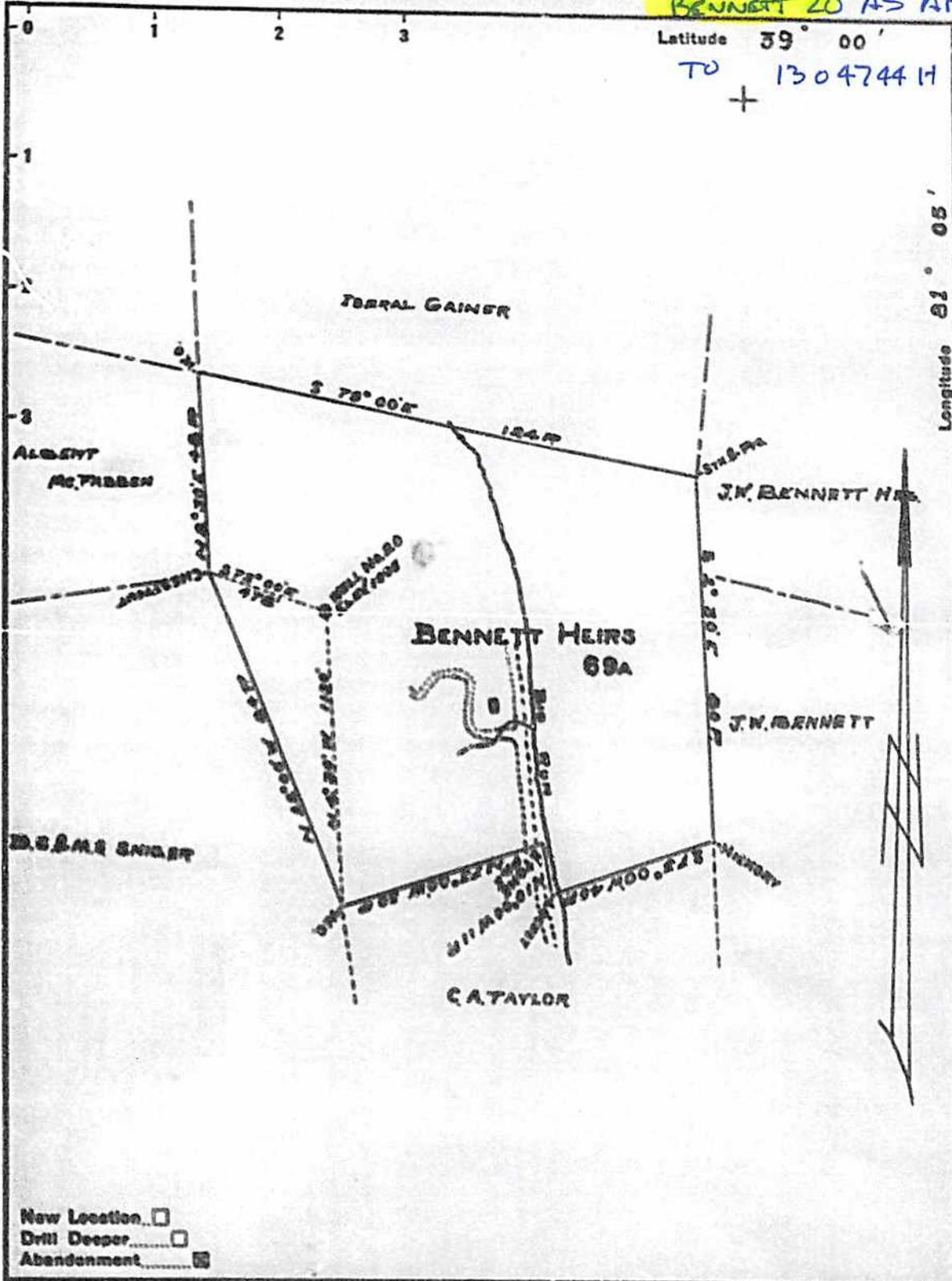
Drilling commenced _____
 Drilling completed _____
 Date Shot From _____ To _____
 With _____
 Open Flow /10ths Water in _____ Inch
 /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock Pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet
 Salt water _____ feet

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES
 _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Big Injun				2100	Gas		



BENNETT 20 AS APPLICABLE



New Location
 Drill Deeper
 Abandonment

Company H.M. RUSSELL TRUSTEE FOR MORTGAGE
 Address FAIRVIEW, West Virginia
 Farm BENNETT HEIRS
 Tract _____ Acres 69 Lease No. _____
 Well (Farm) No. 20 Serial No. _____
 Elevation (Spirit Level) 1005'
 Quadrangle ARNOLDSBURG
 County CALHOUN District SHEPHERD
 Engineer Dale Riddell
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date 5-7-42 Scale 1 IN = 200 FT

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

WELL LOCATION MAP
 FILE NO. CAL-154-A

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

Bennett Heirs No. 20

69-A.

Leading Creek

Chem Oil

Completed 9-18-22 to 2036

Big Line	1950 - 2008	8 1/4	1020'	✓
Big Injin	2020 - 2036	6 5/8	1960'	✓
Gas	2024 - 2036			

Gas test: 18/10 Marc 2" Opg. in Injin 2036

Remarks: Old well Drilled Deeper

Drilled down 2nd time
6-17-30
Square 2069-2076
Gas 2074-2076
2500 No Brea.
4/10 W 2" gas 1 hr after
shot 30qt in
Square sand.
Drilled through Brea.
Dry below Square.

Bennett Heirs No 21

S 31 W 27

Leading Creek

Chem Oil

Completed 5-30-22 to 2085'

Big Line	1925 - 2045	6 5/8	1990'
Injin	2045 - 2075		
Gas	2048 - 2068		

Gas test: 19/10 Marc 2" Opg. in Injin 2068

Note: This well is No 20 on
the Mtn Top. Co. plat record.
Shot May 22, 1922 40qt
Sand 2040 - 2075
Shot 2050 - 2070, 1st shot
Shot May 22, 1930 30qt
Sand 2040 - 2089
Shot 2073 - 2083
3rd shot

Bennett Heirs No 22

S. 32 W 17

Leading Creek

Chem Oil

Completed 1-10-23 to 2450'

Mason	1775 - 1855	10"	235'
Sho gas	1780	8 1/4	1025'
Injin	2021 - 2027	6 5/8	1941'
Sho gas	2021 - 2024		
Brea	2438 - 2444		
Sho oil	2444		

Note: This well is No 21 on
the Mtn Top. Co. plat record.
Shot Jan. 23, 1923 30qt.
Sand 2025 - 2071
Shot 2025 - 2035
1937 shot: 6 5/8

NOTICE OF INTENTION TO PLUG AND ABANDON WELL

(REQUIRED BY SECTION 9, ARTICLE 4, CHAPTER 22 OF THE CODE)

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

No Coal
COAL OPERATOR OR COAL OWNER

ADDRESS

COAL OPERATOR OR COAL OWNER

ADDRESS

Hunter M. Bennett, et. al.
LEASE OR PROPERTY OWNER

Weston, W. Va.
ADDRESS

M. G. & G. E. Rogers Co.
NAME OF WELL OPERATOR

Mail all correspondence to
T. W. Henley, Mannington, W. Va.
COMPLETE ADDRESS

Sept. 6 1938

WELL TO BE ABANDONED

Sheridan District

Calhoun County

Well No. Twenty 39° 00'
81° 45'

Joseph Fortney Farm

Bennett Heirs

*See Cal-84
for original
record*

Gentlemen:—

The undersigned well operator is about to abandon the above described well and will commence the

work of plugging and abandoning said well on the.....day of....., 19....., (which date shall not be less than five days after the day on which this notice so mailed is received, or in due course should be received by the Department of Mines).

This notice is given you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not represented the undersigned will proceed on that date, or shortly thereafter, to plug and fill said well in the manner required by Section 10, Article 4, Chapter 22 of the Code and given in detail on the reverse side of this notice, in "Work Order."

This notice is being mailed by registered mail to each of you at the above addresses on the above date.

Very truly yours,

T. W. Henley
Well Operator.



NOTE: Upon the abandonment of all wells drilled prior to June 1, 1929, a plat prepared by a competent engineer, showing the district and county in which the tract of land is located, the name and acreage of same, the names of the owners of adjacent tracts, and the location of the about to be abandoned well, determined by survey, and the courses and distances of such well from two permanent points or landmarks on said tract, shall be submitted with this notice.

(Over)

(RULES AND REGULATIONS)
WEST VIRGINIA DEPARTMENT OF MINES
OIL AND GAS DIVISION
WORK ORDER

C.A. HOWARD
87 A

Well to be plugged and filled as follows:

WORK ORDER ARRANGED BY THE DEPARTMENT OF MINES

Total depth **2085'**
Pull tubing
Fill with red clay from bottom 2085' - 2020' - 20' above Big Injun sand.
Wood Plug 2020' - 2019' 2017'
Cement 2010' - 2009' - sealing producing sand.
2017'
Full 6-5/8" casing as balance of hole is filled and plugged.
Continue to fill with red clay from 2000' - 1550'
Cement 1550' - 1540'
Red Clay 1540' - 1250'
Cement 1250' - 1240' - sealing hole above Big Dunkard Sand.
Continue to fill with clay to 900'
Set a permanent bridge at 350'
1 sack cement on bridge.
Red Clay 350' - to surface.
Erect Marker such as is required by Rule 18, 1931 regulations.

NOTE: CEMENT FOR MAKING CEMENT PLUGS BE MIXED WITH WATER ONLY--APPROXIMATELY FIVE GAL WATER TO ONE SACK CEMENT.

To the Department of Mines,
Coal Owner or Operator,
Lease or Property Owner.

Gentlemen:

This "work order" is submitted for your approval and concurrence and unless notified of your disapproval or non-concurrence, the undersigned will proceed with the plugging and filling of said well in the above described manner on the date stated in the notice of intention to plug and abandon the said well on opposite side of this sheet.

Very truly yours,

Thos. H. Handley

Well Operator.

No objections have been filed by the coal owner or coal operator, or any available adjacent lease or property owners or interposed by the Department of Mines to the manner herein described for the plugging and filling of the well above mentioned. Therefore, the same is hereby approved this _____ day

of _____, 193_____

September

3

DEPARTMENT OF MINES
Oil and Gas Division

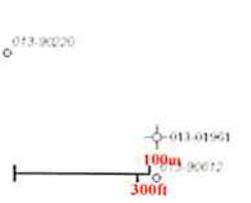
By: _____

NOTE: This "work order" must be filed in duplicate, one copy for the files of the Department of Mines and the other to be approved or corrected and returned to the well operator as his authority for plugging said well.

1304744



- oil & gas permits
 - mining permits
 - underground mines
- Map Layers**
- ESRI street map
 - ESRI aerial
 - simplified
 - topo
 - hillshade
 - 1996 aerial
 - 2003 aerial
 - 2007 aerial
 - 2009 aerial
 - 2011 aerial



Measurement
Feet
Measurement Result
250.7 Feet

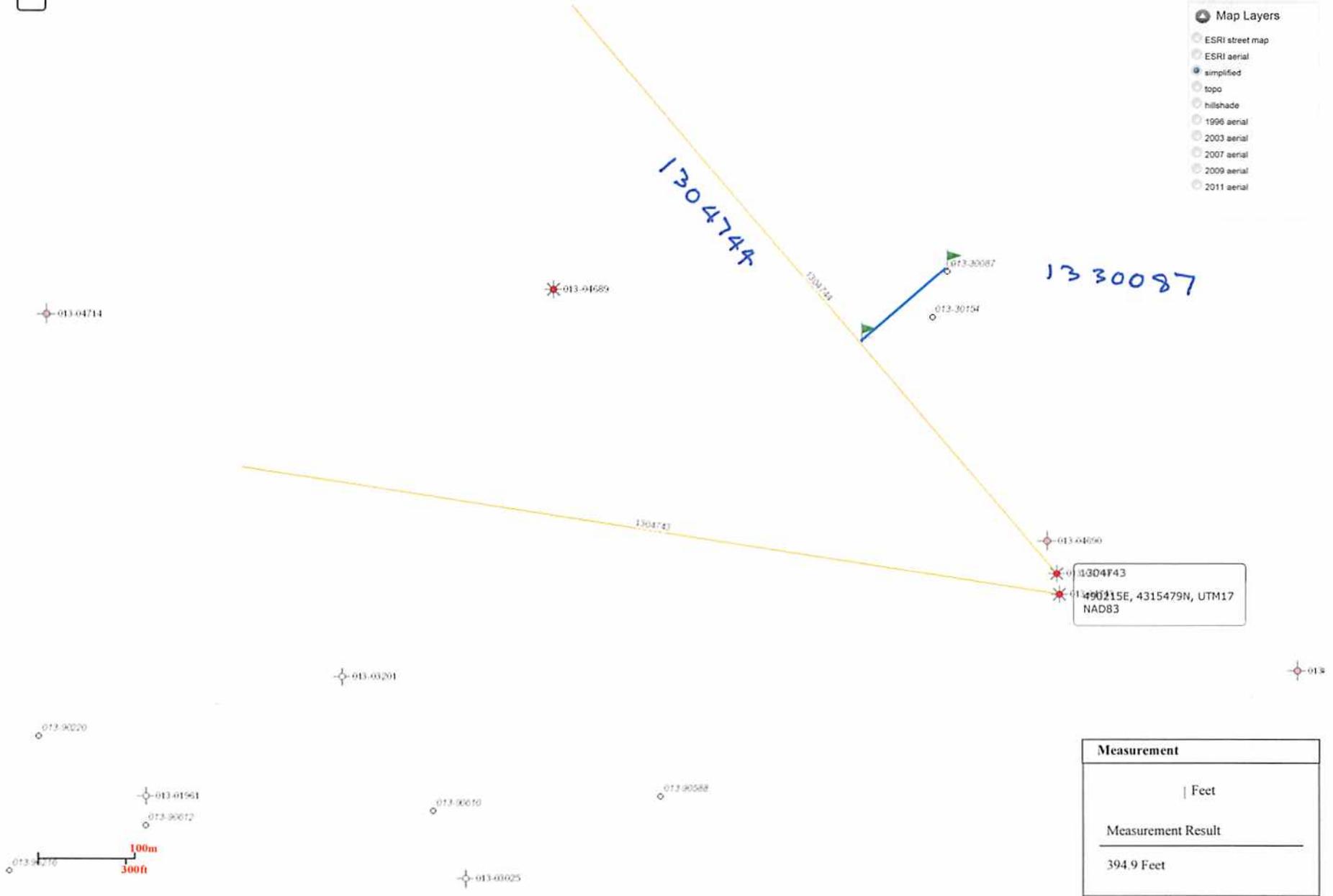
1304744-H



oil & gas permits
 mining permits
 underground mines

Map Layers

- ESRI street map
- ESRI aerial
- simplified
- topo
- hillshade
- 1996 aerial
- 2003 aerial
- 2007 aerial
- 2009 aerial
- 2011 aerial



013-04650
 01304743
 490215E, 4315479N, UTM17
 NAD83

Measurement
Feet
Measurement Result
394.9 Feet

1304744A



oil & gas permits
 mining permits
 underground mines

Map Layers

- ESRI street map
- ESRI aerial
- simplified
- topo
- hillshade
- 1996 aerial
- 2003 aerial
- 2007 aerial
- 2009 aerial
- 2011 aerial

013-04714

013-04689

013-30087

013-30154

1304744

1304744

1304743

13 04690

013-04690

013-04743
 490215E, 4315479N, UTM17
 NAD83

013-04388

013-03291

013-00220

013-01961

013-90012

013-90010

013-90088



Measurement
Feet
Measurement Result
49.6 Feet

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Calhoun

Operator
Operator well number

Buckeye Oil Producing Co.
Bennett #1H

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure a adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Douglas Taylor
Signature

Date 6-12-14

Company Name
By
Its

Received

Date

DOUGLAS TAYLOR

Print Name

JUN 16 2014

Signature

Office of Oil and Gas

WV Dept. of Environmental Protection

Shirley Taylor

Date 6-12-14

Printed Name: Shirley Taylor

WW-2A1
(Rev. 1/11)

Operator's Well Number Bennett #1H

**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
Okmar Oil Company	Buckeye Oil Producing Co.	1/8th	229 / 543

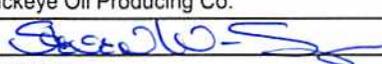
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:
By: Its:

Buckeye Oil Producing Co.

President

Received

JUN 16 2014

1304744H

WW-2B1
(5-12)

Well No. Bennett #1H

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contractor chosen to collect sample.

Certified Laboratory Name Microboc Lab
Sampling Contractor Buckeye Oil Producing Co.

Well Operator Buckeye Oil Producing Co.
Address PO Box 129
Wooster, OH 44691
Telephone 330-264-8847

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

Doug & Shirley Taylor (1)
3868 YELLOW CREEK ROAD
BIG BEAR, WV 26136

Received

JUN 16 2014

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Buckeye Oil Producing Co. OP Code 306103

Watershed (HUC 10) Unnamed drain & Big Run of Yellow Creek Quadrangle Grantsville

Elevation 1002 County Calhoun District Sheridan

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes _____ No X

Will a pit be used for drill cuttings? Yes X No _____

If so, please describe anticipated pit waste: rock cuttings/drilled solids, drilling & completion fluids

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 30

Proposed Disposal Method For Treated Pit Wastes:

H.S.
6-13-14
D.F. 6-13-14
S.T. 6-13-14

- Land Application
- Underground Injection (UIC Permit Number 34-167-2-9395) 4/13/14
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain En link will haul to disposal) 4/13/14

Will closed loop system be used? air drilling operations, no fluid drilling (if necessary) - Yes

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. air, foam/soap, fresh water, water base polymer mud

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? drilling mud - sodium/calcium/potassium chlorides, starch, xanthan gum, sodium bicarbonate, caustic soda, biocide.

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. primary plan - leave in pits; alternate plan - landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) cement

-Landfill or offsite name/permit number? if necessary, haul to Meadowfill Landfill

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

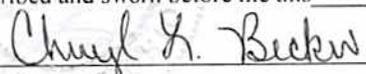
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature 

Company Official (Typed Name) Steven W. Sigler

Company Official Title President

Subscribed and sworn before me this 11th day of June, 20 14

 Notary Public

My commission expires 11/04/2017

Received

JUN 16 2014

Proposed Revegetation Treatment: Acres Disturbed 2.3 +/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 ton lbs/acre (500 lbs minimum)

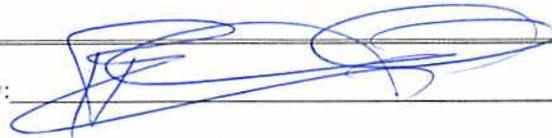
Mulch straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
KY - 31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

Comments: Sediment protection in place at all times.
temporary seed & mulch on all slopes before rig
starts drilling

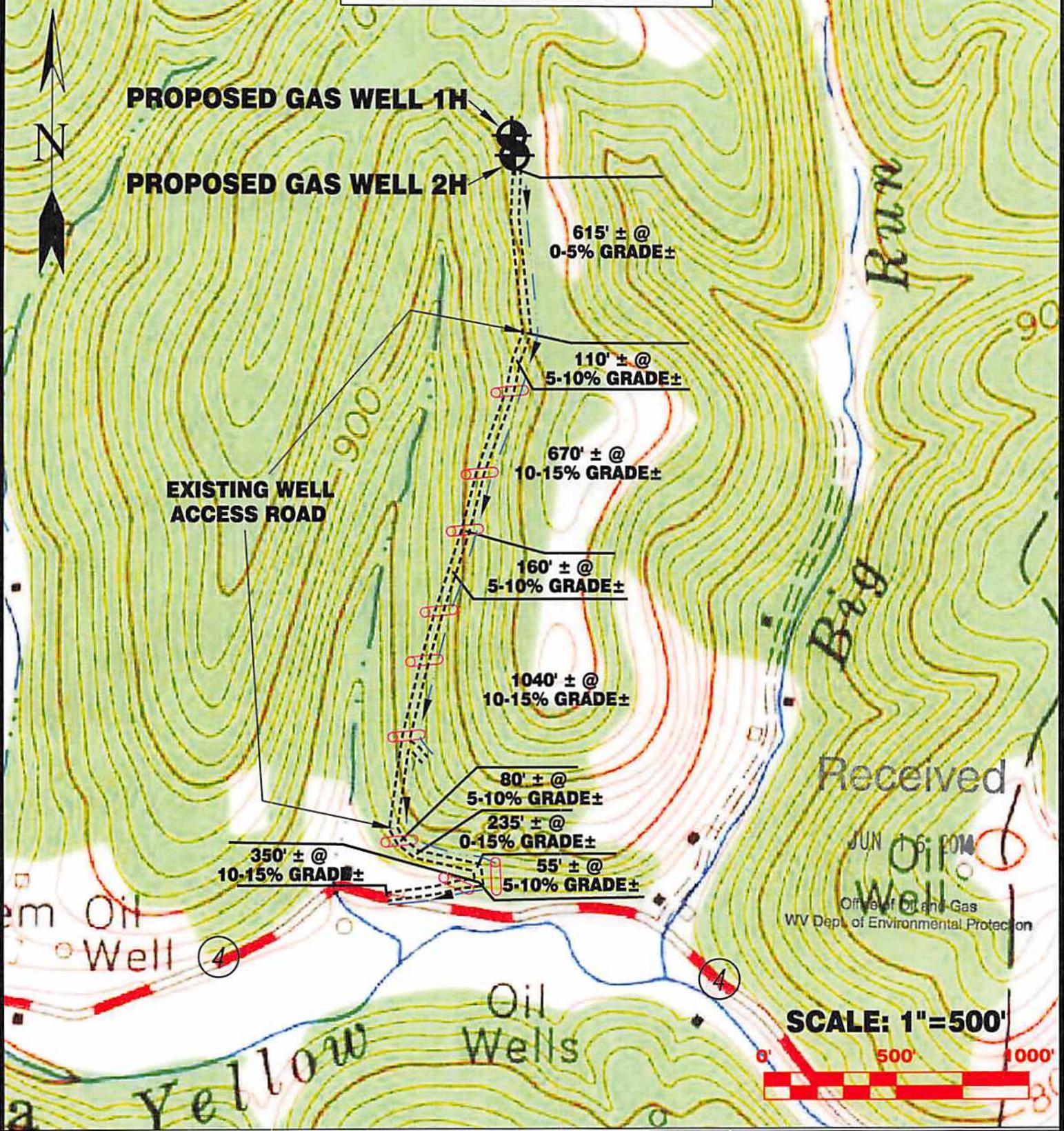
Title: Inspector Date: June 13, 2014

Field Reviewed? Yes No

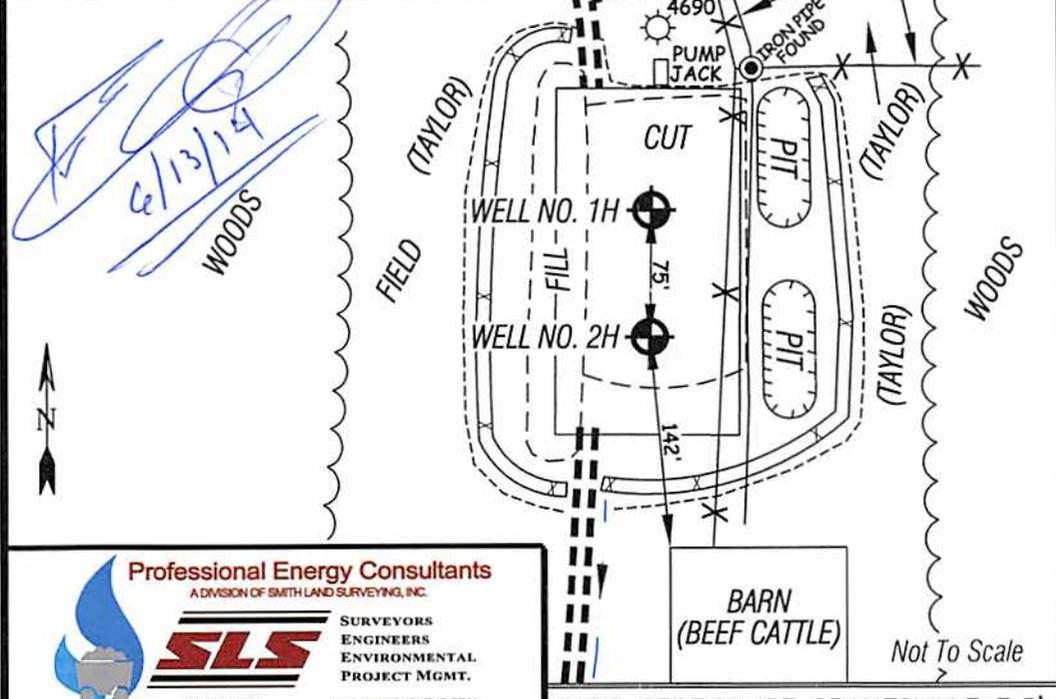
Received

JUN 16 2014

J.M. BENNETT LEASE WELL NO.S 1H & 2H



Detail Sketch for Proposed Wells 1H & 2H



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

- EXISTING CULVERT
- PROPOSED CULVERT 15" MIN. UNLESS OTHERWISE NOTED
- PROPOSED STREAM CROSSING
- APPROXIMATE LIMITS OF DISTURBANCE

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.

SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

(304) 462-5634
WWW.SLSURVEYS.COM

DRAWN BY K.D.W.	FILE NO. 8040	DATE 06/09/14	CADD FILE: 8040REC.1H2H.dwg
--------------------	------------------	------------------	--------------------------------

TOPO SECTION OF GRANTSVILLE 7.5' USGS TOPO QUADRANGLE

POSSIBLE 109 ACRES± TRACT

NAD'27 GRID NORTH

BUCKEYE OIL PRODUCING 34.25 ACRES±

HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP 199.15 ACRES± TM 08-07

DOUGLAS & SHIRLEY TAYLOR 69 ACRES±

DOUGLAS TAYLOR 105.59 ACRES±

DOUGLAS E. & SHIRLEY TAYLOR 62 ACRES± TM 08-12

DOUGLAS & SHIRLEY TAYLOR 99.44 ACRES± TM 08-15

BOTTOM HOLE WELL NO. 1H

WELL NO. 1H

WELL NO. 1H

LEGEND

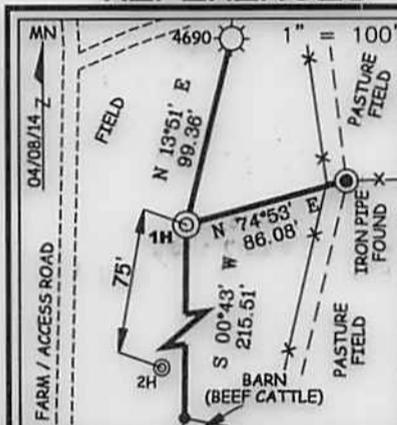
LEASE LINE	---
SURFACE LINE	----
WELL LATERAL	-----
OFFSET LINE	- - - - -
TIE LINE	=====
CREEK	~~~~~
FENCE	* * * * *
PROPOSED WELL	⊙
EXISTING WELL	⊙
PERMITTED WELL	⊙
TAX MAP-PARCEL	00-00

J.M. BENNETT LEASE 700 ACRES± WELL NO. 1H

(S.P.C. SOUTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C.(FT)	N. 724,075	E. 1,967,825
NAD'27 GEO.	LAT-(N) 38.98837	LONG-(W) 81.11318
NAD'83 UTM (M)	N. 4,315,501	E. 490,212
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 726,085	E. 1,966,135
NAD'27 GEO.	LAT-(N) 39.99388	LONG-(W) 81.11914
NAD'83 UTM (M)	N. 4,316,113	E. 489,697

REFERENCES



NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL.

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.

SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

(304) 482-6434 WWW.SLSURVEYS.COM



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*

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

DATE JUNE 09 , 20 14

REVISED _____ , 20 _____

OPERATORS WELL NO. J.M. BENNETT 1H

API WELL NO. 47 - 13 - 047444

STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 8040P1H(493-53)

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (MAPPING GRADE TIE TO CORS NETWORK) SCALE 1" = 500'

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

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X

LOCATION: ELEVATION 1,002' WATERSHED UNNAMED DRAIN & BIG RUN OF YELLOW CREEK

DISTRICT SHERIDAN COUNTY CALHOUN QUADRANGLE GRANTSVILLE 7.5'

SURFACE OWNER DOUGLAS E. AND SHIRLEY TAYLOR ACREAGE 62±

ROYALTY OWNER J.M. BENNETT HEIRS AND/OR ASSIGNS ACREAGE 700±

PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____ OTHER _____

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION BEREA

ESTIMATED DEPTH TVD 2,467' TMD 4,840'

WELL OPERATOR BUCKEYE OIL PRODUCING CO. DESIGNATED AGENT HENRY W. SINNETT

ADDRESS P.O. BOX 129 ADDRESS RT. 1 BOX 150A

WOOSTER, OH 44691 BIG BEN, WV 26136

COUNTY NAME PERMIT