



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

August 07, 2013

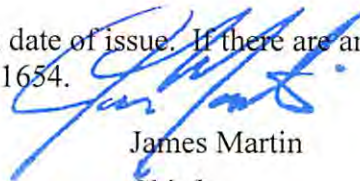
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-9900761, issued to CABOT OIL & GAS CORPORATION, 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: WILSON COAL 55
Farm Name: STATE OF WEST VIRGINIA
API Well Number: 47-9900761
Permit Type: Plugging
Date Issued: 08/07/2013

99 00761P

I

WW-4B
Rev. 2/01

- 1) Date May 22, 2013
- 2) Operator's Well No. Wilson Coal #55
- 3) API Well No. 47-099 -00761

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1,169.55' Watershed West Fork of Twelvepole Creek
District Lincoln County Wayne Quadrangle Webb

6) Well Operator Cabot Oil & Gas Corporation 7) Designated Agent Brian D. Hall
Address Five Penn Center West, Ste. 401 Address 6804 Lick Creek Road
Pittsburgh, PA 15276 Danville, WV 25053

8) Oil and Gas Inspector to be notified Name Jeremy James
Address P.O. Box 147
Ona, WV 25545

9) Plugging Contractor Name Petty Oilfield Services, Inc.
Address P.O. Box 437
Hamlin, WV 25523

10) Work Order: The work order for the manner of plugging this well is as follows:

See Attached Procedure

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector _____



Received

JUL 25 2013

Date 5-31-13
Office of Oil and Gas
WV Dept. of Environmental Protection

08/09/2013

Wilson Coal #55
API # 47 – 099 – 00761
PLUGGING PROCEDURE

Current Configuration

DTD @ 3314'

8-5/8" 24# casing @ 337' set on packer (could not be pulled prior to shooting)

7" – 20# casing @ 1637' set on shoe with 2 sx Cal-seal on bottom

No coal reported

Fresh water @ 340'

Salt water @ 1074', 1182', & 1217'

Oil show @ 2426'

Gas shows @ 2385', 2818', 2929', 2969', 3004', 3179', & 3253'

Devonian Shale shot from 2502' to 3314'

Maxton formation @ 1565' – 1590'

Big Lime formation @ 1616' – 1816'

Injun formation @ 1875' – 1921'

Berea formation @ 2378' – 2471'

Devonian Shale @ 2471' - TD

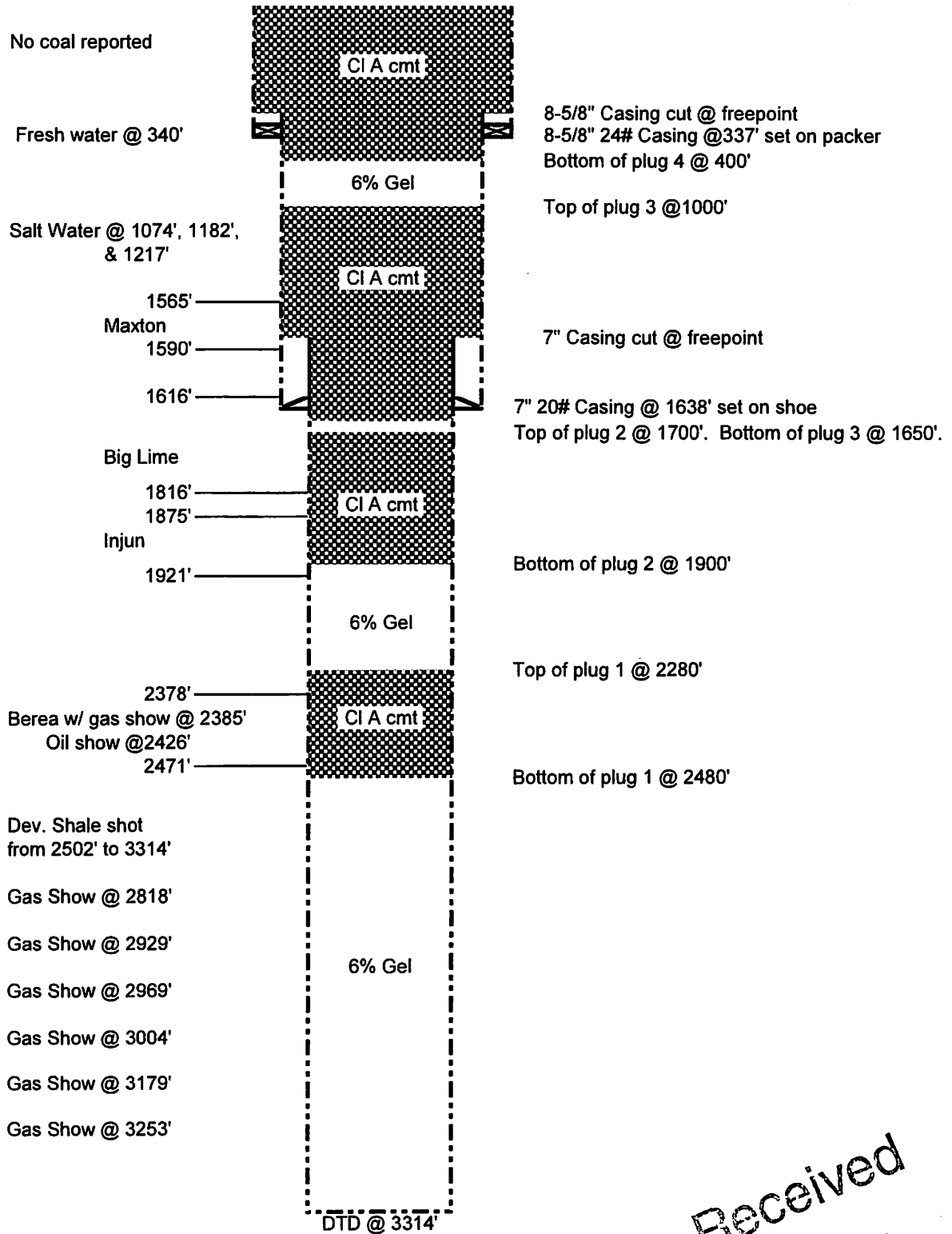
PROCEDURE

1. Contact Danville Office a minimum of 48 hours prior to starting work.
2. Contact State Inspector a minimum of 24 hours prior to starting work.
3. Lay 2" line from wellhead to pit/tank and stake down securely.
4. MIRU service rig and blow down well. Have vacuum truck available to catch any fluids circulated from well.
5. Unpack wellhead.
6. Run in hole with sand line to check TD.
7. TIH with 2 3/8" work string to TD.
8. MIRU Cement Company and pump 80 bbls 6% Gel.
9. Pull work string up to 2480' and pump 35 sks of Class A cement for plug 1 from 2480' to 2280'.
10. Displace w/ 9 bbls of 6% Gel.
11. Pull work string up to 1900' and pump 35 sks of Class A cement for plug 2 from 1900' to 1700'.
12. Displace w/ 6 bbls of 6% Gel.
13. TOOH with work string. Let cement plug set for a minimum of eight hours.
14. Run freepoint on 7" casing.
15. Cut 7" casing above freepoint and POOH. *Must set 100 ft plug over 7" in cut*
16. Run freepoint on 8-5/8" casing. *~~to be set 100 ft below~~ and ~~at least~~ all other*
17. Cut 8-5/8" casing above freepoint and POOH. *plugs beneath 8 5/8" before*
18. TIH with work string to 1650' and pump 30 bbls of 6% Gel. *Pulling 8 5/8"*
19. Pump 180 sks of Class A cement for plug from 1650' to 1000'. *50 ft below 7" cut to 1000 ft*
20. Displace w/ 4 bbls of 6% Gel.
21. Pull work string up to 400'.
22. Pump 200 sks of Class A cement for plug from 400' to surface.
23. TOOH with work string and lay down.
24. RDMO Cementing Company.
25. Place monument as required by law on top of well bore.
26. Reclaim well site.

Received 13

JUL 25 2013

Wilson Coal #55
API 47-099-00761
PROPOSED CONFIGURATION



Schematic is not to scale

Received

T. OU 02/19/13
JUL 25 2013

Office of Oil and Gas
WV Dept. of Environmental Protection
08/09/2013

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Wayne-761
Naugatuck Quad.

Company Owens, Libbey-Owens Gas Dept.
Address Box 4158, Charleston 4, W.Va.
Farm Wilson Coal Land Co. Acres 9,937
Location Twelve Pole Creek
Well No. 55 (OLO No. 800) Elev. 1155.18
District - Lincoln, County - Wayne
Coal Rts. Conservation Commission
Commenced 5-22-51
Completed 7-11-51
Date Shot 7-12-51 From 2502 to 3314
With 7,800# Detonite
Volume Berea & Shale 50 M
Pressure 360# 65 hours

Gas
CASING & TUBING
8 1/2 337' 337'
6 5/8 1637' 1637'

Surface		0	12	Sand	Light	1378	1396
Sand	Yellow	12	55	Slate	Dark	1396	1406
Slate	Dark	55	60	Sand	Grey	1406	1426
Sand	Yellow	60	180	Sand	White	1426	1432
Sand	Dark	180	231	Sand	Light	1432	1544
Sand	Grey	231	251	Red Rock	Red	1544	1565
Slate	Dark	251	262	Maxton Sand	Grey	1565	1590
Sand	Light	262	282	Little Lime	Dark	1590	1616
Slate	Grey	282	312	Big Lime	White	1616	1669
Sand	Light	312	373	Big Lime	Yellow	1669	1672
Slate	Dark	373	380	Big Lime	White	1672	1816
Sand	Light	380	405	McCrary	Red	1816	1825
Sand	White	405	425	McCrary	Red	1825	1875
Slate	Light	425	480	Big Injun	Grey	1875	1921
Sand	Light	480	515	Slate	Light	1921	1928
Slate	Light	515	540	Slate & Shells	Light	1928	1963
Slate	Dark	540	580	Shell	Light	1963	1971
Sand	Light	580	640	Slate & Shls.	Light	1971	2351
Slate	Dark	640	645	Brown Shale	Brown	2351	2378
Slate	Light	645	665	Berea Sand	Grey	2378	2471
Sand	Light	665	706	Slate & Shls.	Light	2471	2486
Slate	Dark	706	716	Brown Shale	Brown	2486	2561
Sand	Grey	716	746	Slate	Light	2561	2606
Slate	Dark	746	797	Slate & Shls.	Light	2606	2621
Sand	Light	797	844	Slate	Light	2621	2643
Slate	Light	844	859	Slate & Shls.	Light	2643	2745
Sand	Light	859	889	Slate	Light	2745	2751
Slate	Dark	889	913	Slate & Shls.	Light	2751	2780
Sand	Light	913	923	Slate	Light	2780	2818
Slate	Dark	923	951	Brown Shale	Brown	2818	2944
Sand	Light	951	959	Slate	Light	2944	2999
Slate	Dark	959	1024	Brown Shale	Brown	2999	3039
Sand	Light	1024	1098	Slate	Light	3039	3054
Sand	Light	1098	1105	Brown Shale	Brown	3054	3304
Broken Sand	Dark	1105	1140	Slate	Light	3304	3314
Sand	Light	1140	1182	Total Depth			3314
Broken Sand	Grey	1182	1202				
Settling Sand	Light	1202	1217	Water	340'	1 1/2 BPH	
Settling Sand	Light	1217	1227	Water	1073-1120	2 BPH	
Sand	White	1227	1241	Water	1182	Hole filling	
Slate	Dark	1241	1257			with salt water	
Sand	Grey	1257	1287	Water	1217-27	Hole filling	
Sand	White	1287	1297	Gas	2385-90	16M	
Sand	Light	1297	1358	Oil	2426-34	Show	
Slate	Dark	1358	1378	Gas	2818	Show	
				Gas	2929	Show	
				Gas	2969	Show	
				Gas	3004	Show	
				Gas	3179	Show	
				Gas	3253	Show	

Test before shot 15 M
14 hours after shot 61 M

Received
JUL 25 2013
08/09/2013

9900761P

WW-4A
Revised 6-07

1) Date: May 22, 2013
2) Operator's Well Number
Wilson Coal #55

3) API Well No.: 47 - 099 - 00761

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>WV Division of Natural Resources</u>	Name <u>None</u>
Address <u>Office of Land & Streams</u>	Address _____
<u>324 Fourth Ave., Room 200</u>	_____
(b) Name <u>South Charleston, WV 25303</u>	(b) Coal Owner(s) with Declaration
Address _____	Name <u>WV Division of Natural Resources</u>
_____	Address <u>Office of Land & Streams</u>
(c) Name _____	<u>324 Fourth Ave., Room 200</u>
Address _____	Address <u>South Charleston, WV 25303</u>
_____	_____
6) Inspector <u>Jeremy James</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 147</u>	Name <u>Vantage Mining Co.</u> <u>Pen Coal</u>
<u>Ona, WV 25545</u>	Address <u>Route 49</u> <u>5110 Maryland Way</u>
Telephone <u>(304) 951-2596</u>	<u>Lobata, WV 25678</u> <u>Brentwood, TN 37027</u>

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

	Well Operator	<u>Cabot Oil & Gas Corporation</u>
	By:	<u>Kenneth L. Marcum</u> <i>Kenneth L. Marcum</i>
	Its:	<u>Regulatory Supervisor</u>
	Address	<u>Five Penn Center West, Ste. 401</u>
	Telephone	<u>Pittsburgh, PA 15276</u>
		<u>(412) 249-3850</u>

Subscribed and sworn before me this 22nd day of May
Constance C. Carden Notary Public
My Commission Expires November 16, 2013

Received

MAY 23 2013

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

08/09/2013

9900761P

WW-9
Rev. 5/10

Page 1 of _____
API Number 47 - 099 - 00761
Operator's Well No. Wilson Coal #55

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Cabot Oil & Gas Corporation OP Code _____

Watershed West Fork of Twelvepole Creek Quadrangle Webb

Elevation 1,169.55' County Wayne District Lincoln

Description of anticipated Pit Waste: None - no cuttings produced during plugging operation

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

Will a synthetic liner be used in the pit? N/A If so, what mil.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain no treated pit wastes will be produced)

ALL WELL EFFLUENT MUST BE CONTAINED IN TANKS

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. no drilling proposed

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. No cuttings produced during plugging operation

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust _____

-Landfill or offsite name/permit number? _____

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 Kenneth L. Marcum

Company Official (Typed Name) Kenneth L. Marcum

Company Official Title Regulatory Supervisor

Subscribed and sworn before me this 22nd day of May, 2013

Constance C. Carden Notary Public

My commission expires November 16, 2013

Received

JUL 25 2013

Office of Oil and Gas
Dept. of Environmental Protection

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Constance C. Carden, Notary Public
McDonald Boro, Washington County
My Commission Expires Nov. 16, 2013
Member, Pennsylvania Association of Notaries

08/09/2013

LEGEND

- Property Boundary
- Road
- Existing Fence
- Planned Fence
- Stream
- Open Ditch
- Rock
- North
- Buildings
- Water wells
- Drill site

- Diversion
- Spring
- Wet Spot
- Drain Pipe with size in inches
- Waterway
- Cross Drain
- Artificial Filter Strip
- Pit: cut walls
- Pit: compacted fill walls
- Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

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

Mulch Pulp Fiber at 1000 to 1500 Tons/acre

Seed Mixtures

Area I	
Seed Type	lbs/acre
Grain Rye - 100	Red Clover - 5 Fescue - 40
Annual Rye - 20	White Clover - 5
Perennial Rye - 10	Alta Sweet Clover - 5
Yellow Clover - 5	Birdsfoot Trefoil - 10

Area II		
Seed Type	lbs/acre	
Grain Rye - 100	Red Clover - 5	Fescue - 40
Annual Rye - 20	White Clover - 5	
Perennial Rye - 1	Alta Sweet Clover - 5	
Yellow Clover - 5	Birdsfool Trefoil - 10	

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: _____

Title: OOG inspector

Date: 7-16-13

Field Reviewed? Yes

No

Received

JUL 25 2013
Office of Oil and Gas
WV Dept. of Environmental Protection
08/09/2013

GENERAL NOTES:

THIS DRAWING REPRESENTS A SCHEMATIC REPRESENTATION OF THE PROPOSED WELL SITE AND ACCESS ROAD. PROPOSED STRUCTURES SUCH AS THE DRILLING PIT, ROADWAY, CULVERTS, SEDIMENT BARRIERS, ETC. ARE SHOWN IN THEIR APPROXIMATE PREPLANNING CONFIGURATION. GIVEN UNFORESEEN CIRCUMSTANCES, THE AS-BUILT LOCATION OF THESE STRUCTURES MAY VARY SLIGHTLY FROM THE LOCATION SHOWN ON THE ATTACHED DRAWINGS.

ALL ROADS SHOWN THEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH GUIDELINES AND REQUIREMENTS OF WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL.

ALL CULVERTS SHOWN ON THIS DRAWING ARE PROPOSED AND WILL BE A MINIMUM OF 15" IN DIAMETER UNLESS OTHERWISE NOTED.

DITCH LINES AND CULVERTS WILL BE INSTALLED WHENEVER PRACTICAL. HOWEVER PORTIONS OF THE EXISTING/ PROPOSED ROADS WHICH ARE LOCATED IN SOLID ROCK SHALL NOT REQUIRE DITCHES OR CROSS DRAINS, UNLESS OTHERWISE WARRANTED BY FIELD CIRCUMSTANCES.

SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL STRUCTURES MEASURES IN ADDITION TO THOSE SHOWN ON THE ATTACHED DRAWINGS WILL BE INSTALLED WHEN AND WHERE DEEMED NECESSARY. SUCH ADDITIONAL MEASURES MAY CONSIST OF EITHER STRAW BALES, SILT FENCES OR OTHER MEASURES OUTLINED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

SEDIMENT BASINS (TRAPS) WILL BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAINS INLETS AS REQUIRED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL. FIELD CONDITIONS SUCH AS 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.

A SEDIMENT BARRIERS OF EITHER BRUSH, STRAW BALES, FILTER FENCE, ETC. WILL BE INSTALLED AND MAINTAINED BELOW THE OUT FALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DRAINAGE POINTS FROM EITHER THE ROADWAY OR THE LOCATION.

ALL NECESSARY TIMBER OR BRUSH WILL BE REMOVED FROM ROUTE OF THE ROADWAY AND LOCATION BY CLEANING AND GRUBBING ACTIVITIES. ANY SALVAGEABLE TIMBER WILL BE CUT AND STACKED TO THE SIDE OF THE ROADWAY OR REMOVED TO A STOCKPILE AREA. THE REMAINING TIMBER OR BRUSH WILL BE CUTUP AND WIND ROWED BELOW THE OUTSLOPE OF THE CONSTRUCTION AREAS TO BE UTILIZED AS A SEDIMENT BARRIER.

SEPARATE PERMITS WILL BE OBTAINED FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ALL POINTS OF INGRESS AND EGRESS FROM COUNTY AND STATE ROADS. THESE INGRESS AND EGRESS POINTS WILL BE MAINTAINED IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS. A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 8" OF CRUSHED STONE WILL BE CONSTRUCTED FOR A MINIMUM DISTANCE OF 50' FROM THE INGRESS AND EGRESS POINTS OF ALL PUBLIC ROADWAYS IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS.

ALL CULVERTS SHOWN ON THE ATTACHED DRAWINGS ARE TO BE CONSIDERED PERMANENT AND WILL REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE. A STABILIZED OUTLET CONTROL DEVICE SUCH AS RIP RAP, NATURAL STONE, BRUSH, ETC. WILL BE INSTALLED BELOW THE OUT FALL OF ANY ROADWAY CULVERT(S) WHICH ARE NOT LOCATED IN A STREAM OR CREEK.

PERMANENT CROSS DRAINS OR WATER BARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH AS-BUILT ROADWAY SLOPES AND TABLE 11-4 OF THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

TEMPORARY SEEDING AND MULCHING WILL BE UTILIZED TO PROVIDE A VEGETATIVE COVER ON ALL DISTURBED AREAS I.E. ROADWAYS, LOCATION, ROAD/LOCATION SLOPES AND ANY OTHER AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES.

THE LOCATION OF DRILLING PIT(S) MAY BE ADJUSTED TO THE MOST ENVIRONMENTAL SAFE SITE TO MEET THE REQUIREMENTS OF THE WVDEP.

CONTRACTORS NOTE:

IT IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND CONDITION OF ALL UNDERGROUND UTILITIES, SANITARY SEWERS, STORM SEWERS, ETC. PRIOR TO THE COMMENCEMENT OF ANY/OR CONSTRUCTION ACTIVITIES. DIG WITH C.A.R.E. CALL MISS UTILITY 1-800-245-4848.

ROAD GRADE (%)	DISTANCE (FT)
1	400
2	250
5	135
10	80
15	60
20	45

ROAD GRADE (%)	DISTANCE (FT)
2-5	500-300
6-10	300-200
11-15	200-100
16-20	100



1-800-245-4848

DRAWING LEGEND

- PROPOSED ROAD -----
- EXISTING ROAD _____
- STRAW BALES [Symbol]
- SILT FENCE [Symbol]
- BRUSH BARRIER [Symbol]
- TREE LINE [Symbol]
- ROCK RIP RAP [Symbol]
- CROSS DRAIN [Symbol]
- CULVERT [Symbol]
- DRILLING PIT [Symbol]
- ROAD DITCH [Symbol]
- GAS LINE [Symbol]
- FENCE LINE [Symbol]
- ROCK OUTCROP [Symbol]
- WATER WELL [Symbol]
- HOUSE/STRUCTURE [Symbol]
- UTILITY POLE [Symbol]
- SPRING [Symbol]
- WET SPOT [Symbol]
- PIT WASTE APP. AREA [Symbol]

DRIVING DIRECTIONS FOR WILSON COAL 55

- 1.) FROM WAYNE, W.VA DRIVE SOUTH ON STATE ROUTE 52 FOR 24.4 MILES± TO STATE ROUTE 35.
- 2.) TURN LEFT ONTO STATE ROUTE 35 AND DRIVE SOUTH 0.8 MILES± TO THE ENTRANCE OF A HAUL ROAD LOCATED ON THE LEFT-HAND SIDE OF THE ROAD.
- 3.) TURN LEFT ONTO THE EXISTING HAUL ROAD AND DRIVE APPROXIMATELY 1.1 MILES± TO THE EXISTING ACCESS ROAD LOCATED ON THE RIGHT-HAND SIDE OF THE ROAD.
- 4.) FROM THE AFOREMENTIONED SITE, FOLLOW THE EXISTING ACCESS ROAD APPROXIMATELY 0.4 MILE± TO THE EXISTING WELL LOCATION AS SHOWN ON THE "CONSTRUCTION AND RECLAMATION PLAN".

08/09/2013

Office of Oil and Gas
WV Dept. of Environmental Protection



WILSON COAL 55
LINCOLN DISTRICT, WAYNE COUNTY, W.VA
WEBB 7.5' QUADRANGLE

9900761P



CABWAYLINGO STATE PARK

1300

Surface Owner
TM 25, TP 1
State of West Virginia
8,500 Ac.

DRAWING LEGEND			
PROPOSED ROAD		ROAD DITCH	
EXISTING ROAD		GAS LINE	
STRAW BALES		FENCE LINE	
SILT FENCE		ROCK OUTCROP	
BRUSH BARRIER		WATER WELL	
TREE LINE		HOUSE/STRUCTURE	
ROCK RIP RAP		UTILITY POLE	
CROSS DRAIN		SPRING	
CULVERT		WET SPOT	
DRILLING PIT		PIT WASTE APP. AREA	

EXISTING HAUL ROAD

EXISTING ROAD
-1% TO -3%
235'±

15" C.P.P.

EXISTING ROAD
+6% TO +9%
185'±

EXISTING ROAD
-6% TO -9%
195'±

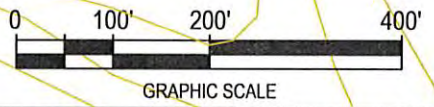
EXISTING ROAD
+3% TO +6%
240'±

15" C.P.P.

NOTE:
ADD CULVERTS AS NEEDED.

TM 24, TP 91
Hobart & Mary Ann Crum
45.39 Acres

MATCH LINE SHEET 2



Cabot Oil & Gas Corporation

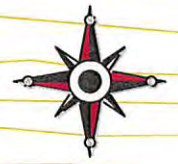
WILSON COAL NO. 48
CONSTRUCTION & RECLAMATION SITE PLAN

WATERS OF MOSES FORK OF WEST FORK OF TWELVEPOLE CREEK
LINCOLN DISTRICT, WAYNE COUNTY, W.VA
WEBB QUADRANGLE

SHEET NUMBER 1 OF 3	SCALE: 1"=200'	DRAWN BY: J.M.JONES	DATE: 04/11/13	CHK'D. BY: DKC
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9900761P

DRAWING LEGEND		
PROPOSED ROAD	ROAD DITCH	
EXISTING ROAD	GAS LINE	
STRAW BALES	FENCE LINE	
SILT FENCE	ROCK OUTCROP	
BRUSH BARRIER	WATER WELL	
TREE LINE	HOUSE/STRUCTURE	
ROCK RIP RAP	UTILITY POLE	
CROSS DRAIN	SPRING	
CULVERT	WET SPOT	
DRILLING PIT	PIT WASTE APP. AREA	

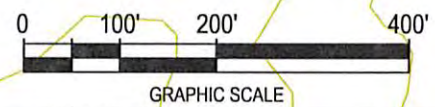


TM 20, TP 68

Surface Owner
 TM 25, TP 1
 State of West Virginia
 8,500 Ac.

TM 24, TP 91
 Hobart & Mary Ann Crum
 45.39 Acres

NOTE:
 ADD CULVERTS AS NEEDED.

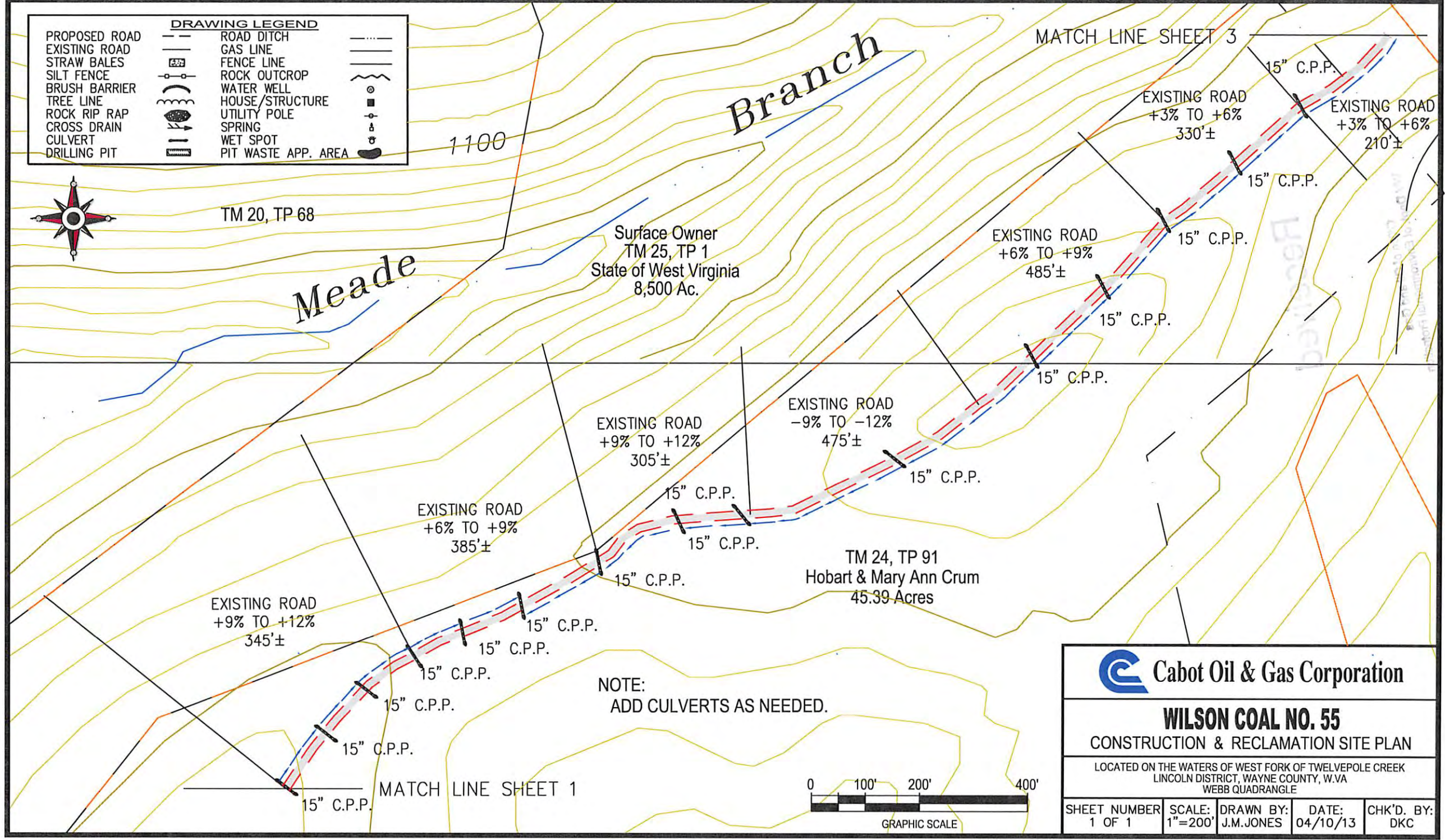


Cabot Oil & Gas Corporation

WILSON COAL NO. 55
 CONSTRUCTION & RECLAMATION SITE PLAN

LOCATED ON THE WATERS OF WEST FORK OF TWELVEPOLE CREEK
 LINCOLN DISTRICT, WAYNE COUNTY, W.VA
 WEBB QUADRANGLE

SHEET NUMBER 1 OF 1	SCALE: 1"=200'	DRAWN BY: J.M.JONES	DATE: 04/10/13	CHK'D. BY: DKC
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9900761P



MATCH LINE SHEET 3

Note:
Tanks will be used instead of drilling pit(s),
and may be adjusted to the most
environmental safe site to meet the
requirements of the WVDEP.

TM 24, TP 91
Hobart & Mary Ann Crum
45.39 Acres

EXISTING ROAD
-12% TO -15%
150'±

EXISTING ROAD
-1% TO -3%
395'±

EXISTING ROAD
-9% TO -12%
340'±

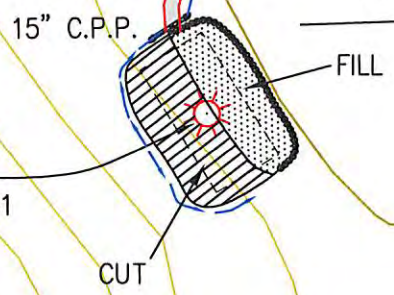
EXISTING ROAD
-9% TO -12%
185'±

EXISTING ROAD
-1% TO -3%
355'±

EXISTING ROAD
-1% TO -3%
470'±

Surface Owner
TM 25, TP 1
State of West Virginia
8,500 Ac.

NOTE:
ADD CULVERTS AS NEEDED.



WILSON COAL 48
API #47-099-00761

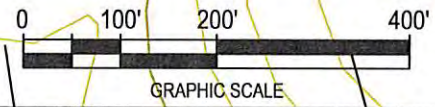
STATE
FOREST

DRAWING LEGEND		
PROPOSED ROAD		ROAD DITCH
EXISTING ROAD		GAS LINE
STRAW BALES		FENCE LINE
SILT FENCE		ROCK OUTCROP
BRUSH BARRIER		WATER WELL
TREE LINE		HOUSE/STRUCTURE
ROCK RIP RAP		UTILITY POLE
CROSS DRAIN		SPRING
CULVERT		WET SPOT
DRILLING PIT		PIT WASTE APP. AREA

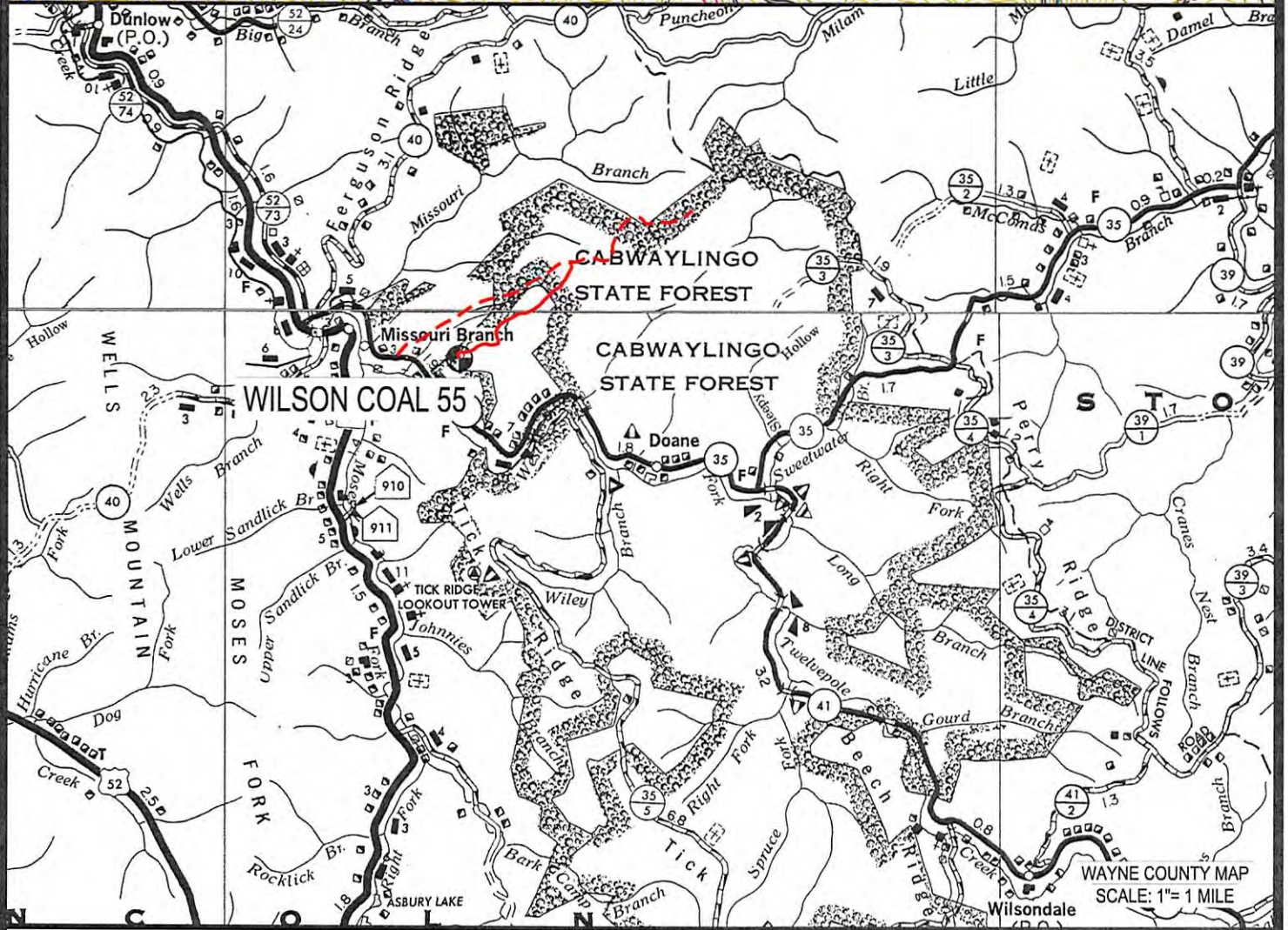
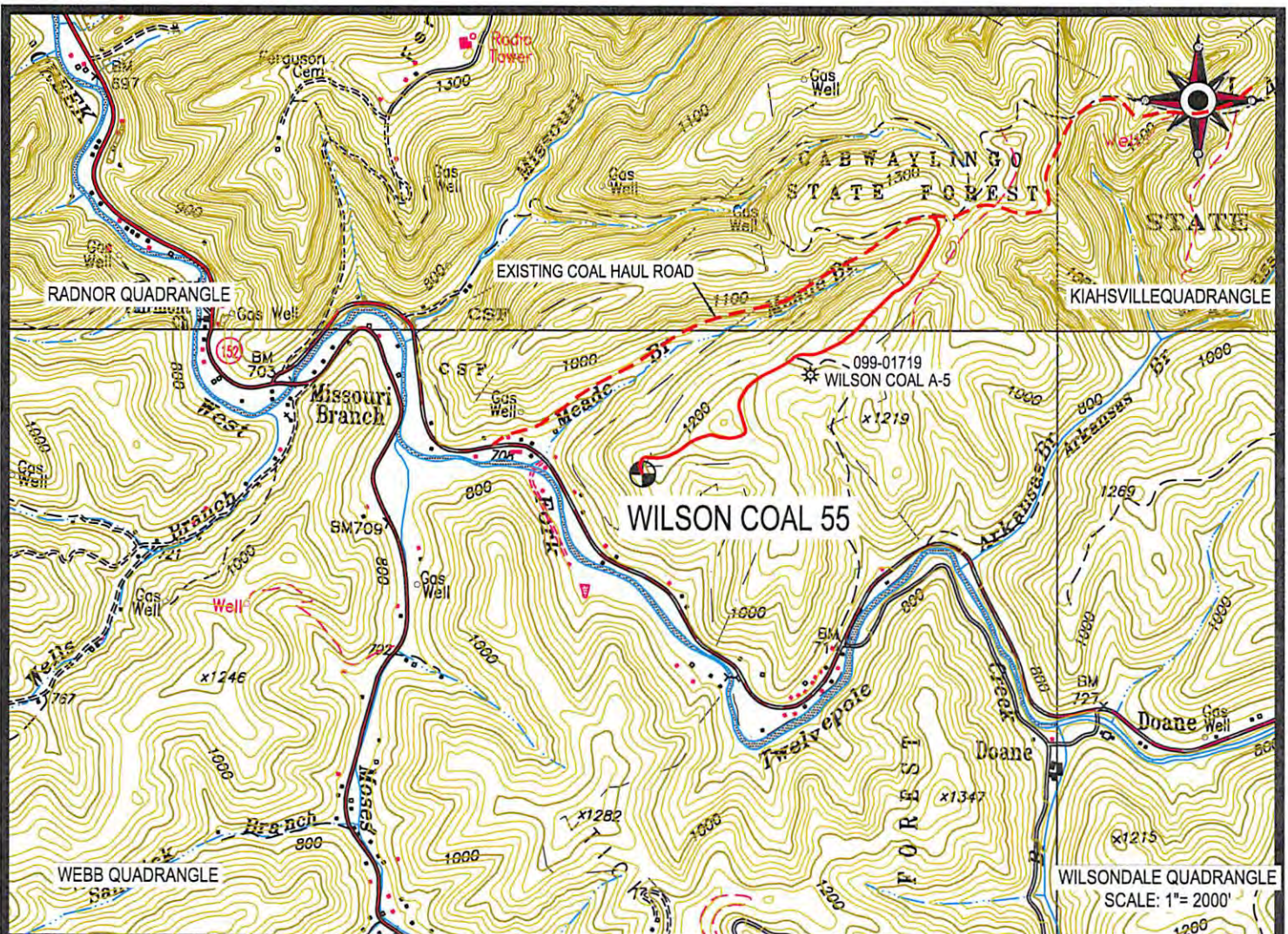
Cabot Oil & Gas Corporation

WILSON COAL NO. 55
CONSTRUCTION & RECLAMATION SITE PLAN

LOCATED ON THE WATERS OF WEST FORK OF TWELVEPOLE CREEK
LINCOLN DISTRICT, WAYNE COUNTY, W.VA
WEBB QUADRANGLE



SHEET NUMBER 1 OF 1	SCALE: 1"=200'	DRAWN BY: J.M.JONES	DATE: 04/11/13	CHK'D. BY: DKC
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 Cabot Oil & Gas Corporation

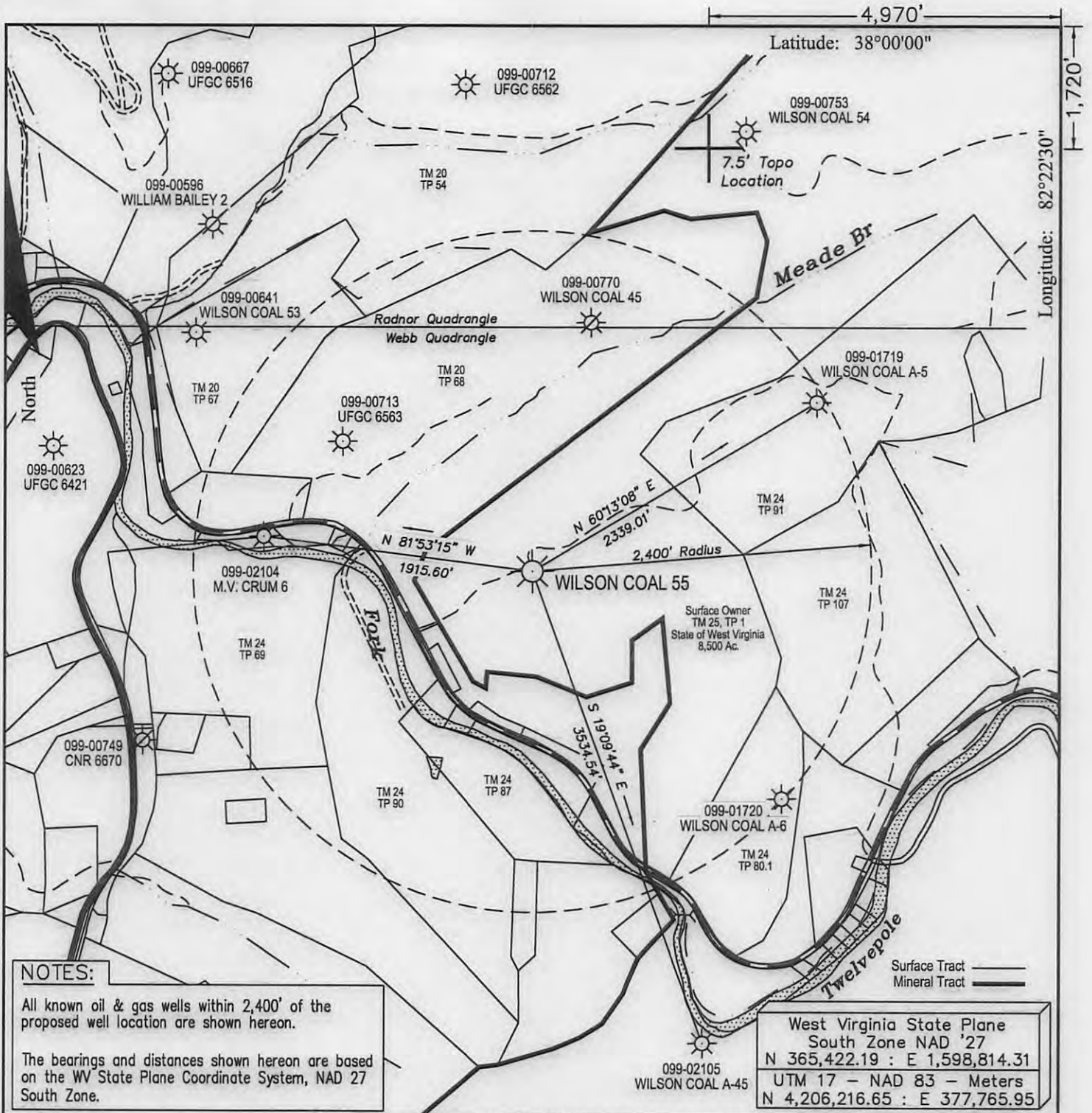
WILSON COAL 55
LOCATION MAP 08/09/2013

 **CUNNINGHAM**
LAND SURVEYING & MAPPING SERVICES, LLC

LOCATED ON THE WATERS OF THE WEST FORK
OF TWELVEPOLE CREEK
LINCOLN DISTRICT, WAYNE COUNTY, W.VA
WEBB QUADRANGLE

• 5213 STEPHEN WAY •
• CROSS LANES, WEST VIRGINIA 25313 •
• VOICE (304) 561-4129 • FAX (304) 776-0703 •
• E-MAIL ADDRESS • DKCUNNINGHAM@SUDDENLINK.NET •

PROJECT NO. CABOT	DWG. NO. WILSON COAL 55 LOC.DWG
DATE: 04-05-13	SCALE: AS NOTED
DRAWN BY: G. PERKINS	CHK'D BY: D.K.C.
FILE: C:\PROJECT FOLDER\CABOT	



NOTES:

All known oil & gas wells within 2,400' of the proposed well location are shown hereon.
 The bearings and distances shown hereon are based on the WV State Plane Coordinate System, NAD 27 South Zone.

West Virginia State Plane
 South Zone NAD '27
 N 365,422.19 : E 1,598,814.31
 UTM 17 - NAD 83 - Meters
 N 4,206,216.65 : E 377,765.95

FILE #:
 DRAWING #: Wilson Coal 55 ww6
 SCALE: 1" = 1000'
 MINIMUM DEGREE OF ACCURACY: 1 : 12,729
 PROVEN SOURCE OF ELEVATION: Global Positioning System (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 ENVIROMENTAL PROTECTION.
 Signed: Don K. Cunningham
 R.P.E.: _____ L.L.S.: 701



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: April 5, 2013
 OPERATOR'S WELL #: Wilson Coal 55
 API WELL #: 47 099 00761P
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: West Fork of Twelvepole Creek ELEVATION: 1,169.55'
 COUNTY/DISTRICT: Wayne / Lincoln QUADRANGLE: Webb
 SURFACE OWNER: State of West Virginia ACREAGE: 8,500
 OIL & GAS ROYALTY OWNER: Cabot Oil & Gas Corp. ACREAGE: 8,749
 LEASE #: 47-1460M DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: _____ ESTIMATED DEPTH: _____
 WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT Brian Hall
 Address Five Penn Center West, Suite 401 Address P.O. Box 260
 City Pittsburgh State PA Zip Code 15276 City Danville State WV Zip Code 25053