

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 31, 2014

WELL WORK PLUGGING PERMIT Plugging

This permit, API Well Number: 47-10902016, 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 penalities 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

Operator's Well No: A-54

Farm Name: HEARTWOOD FORESTLAND FU

James Martin

API Well Number: 47-10902016

Permit Type: Plugging
Date Issued: 07/31/2014

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. 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.
- 3. Well work activities shall not constitute a hazard to the safety of persons.
- 4. Must follow attached Variance From Well Plugging Regulations for installation of monument.

WW-4B Rev. 2/01

1) Date	May 22		20
2) Oper			
Well	No. GI	bert & Plum	ley A-54
		0. 47-109	

STATE OF WE DEPARTMENT OF ENVIR OFFICE OF C	
. Application for a perm	IT TO PLUG AND ABANDON
842 Th 4400	injection/ Waste disposal/ erground storage) Deep/ Shallow X Watershed Righthand Fork of Pad Fork of Little Huff Creek off Guyandotte River
5) Location: Elevation 2,102.60 District Huff Creek	County Wyoming Quadrangle Balleysville
6) Well Operator Cabot Oil & Gas Corporation Address Five Penn Center West, Ste. 401	7) Designated Agent Whitney Johnson Address P.O. Box 450
Pittsburgh, PA 15276	Glasgow; Wv 25086
8) Oil and Gas Inspector to be notified Name Ross Eller Address 121 Brierhill Drive	9) Plugging Contractor Name Shrave's Well Service Address 3473 Triplett Road
Beckley, WV 25801	Spencer, WV 25276
10) Work Order: The work order for the mann See Attached Sheet	
	and the second
	RECEIVED Office of Oil and Gas
	JOE - O COLL
	WV Department of

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

Work order approved by inspector

Date

GILBERT & PLUMLEY A-54 API # 47 - 109 - 02016 PLUGGING PROCEDURE

Current Configuration

DTD @ 4627'

16 conductor @ 26' KB, NOT cemented

9 5/8" - 32.3# LS casing @ 846' KB, cemented & grouted to surface

7" - 20# LS casing @ 1991' KB, cemented to surface

4 ¹/₂" - 10.5# - J-55 casing @ 4613' KB w/ TOC @ 2550'

Berea perforations: 4471' - 4474', 4502' - 4512', & 4520' - 4532'

CIBP @ 4450'

Big Lime formation: 3460' - 3826' (not perforated) Maxton perforations: 2937' - 2947' & 2950' - 2960' Princeton formation: 2324' - 2360' (not perforated)

Coal @ 162' - 163', 275' - 279', 415' - 417', 545' - 546', 605' - 607', 682' - 686', 738' - 740',

769' - 772', 930' - 932', 993' - 994', 1200' - 1202', 1255' - 1256', 1299' - 1301',

1525' - 1526', & 1884' - 1886'

PROCEDURE

- 1. Contact Pineville District 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. TIH with 2³/₈" work string to CIBP @ 4450'.
- 7. MIRU Cementing Company.
- 8. Pump 5 barrels of 6% Gel.
- 9. Pump 10 sacks of Class A cement for Cement Plug 1 from 4450' to 4320'.
- 10. Displace with 16 1/2 bbls of 6% Gel.
- 11. Pull work string up to 3440' and pump 10 sks of Class A cement for plug 2 from 3440' to
- 12. Displace with 12 1/2 bbls of 6% Gel.
- 13. Pull work string up to 2970' and pump 20 sks of Class A cement for plug 3 from 2970' to 2710'. RECEIVED
- 14. Displace with 10 ½ bbls of water.
- 14. Displace with 10 ½ bbls of water.

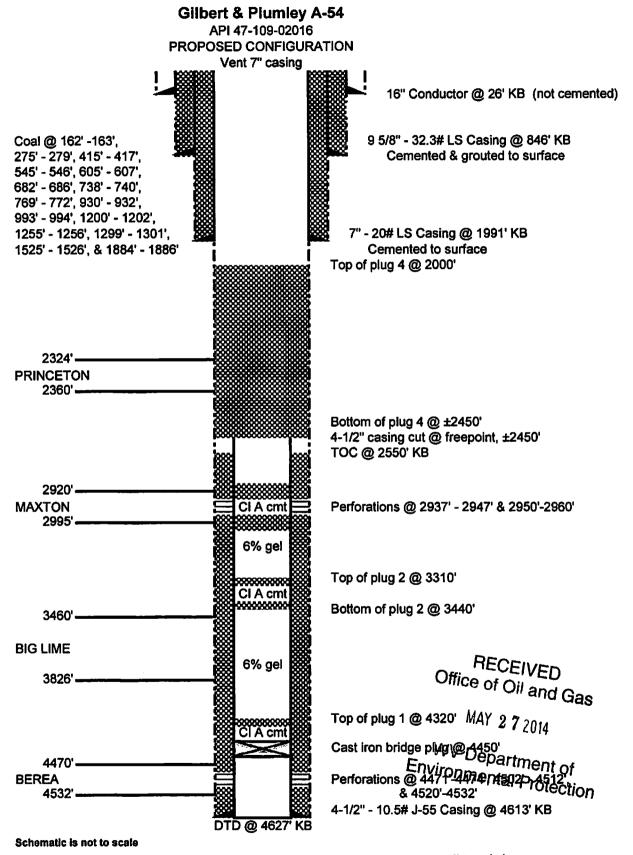
 15. POOH with work string and let cement plug set for a minimum of eight nours of Oil and Gas
- 16. Run freepoint and cut 4 1/2" casing where free. Estimate ±2450'. Pick up casing 1 jt and pump 105 cubic feet of expanding cement (88 sacks Class A cement with 10/A% salt added) for cement plug 4 from 2450' to 2000'.
- 17. Displace with 32 bbls of water.

18. TOOH with casing and lay down.

19. RDMO cement company.

- 20. Swab 7" casing to 1990' and leave as a vent string.
- 21. Install a vent on top of 7" casing to prevent liquids and solids from entering wellbore.
- 22. Erect Monument according to Law.
- 23. RDMO.

WV Department of **Environmental Protection**



T. Ott 02/26/14

Operations Manager

August 2, 2001 Date: WR-35 API# 47-109-020 \$ 6 State of West Virginia **Division of Environmental Protection** 1. Section of Oil and Gas Well Operator's Report of Well Work North American Timber Co. **Operator Well No.:** Gilbert & Plumley A-54 Farm name: 2100' LOCATION: Elevation: Quadrangle: Baileysville District: Huff Creek County: Wyoming 37° 32' 30" 8,100' DEG. MIN. SEC. Latitude: Feet South of 81° Longitude: 7,600 Feet West of DEG. 42' MIN. 30" SEC. Used Left Cement Company: Cabot Oil & Gas Corporation Casing 900 Lee Street East, Suite 500 & in in Fill up Charleston, WV 25301 Tubing Drilling Well Cu. Ft. Size Agent: John Abshire Ofie Helmick 16" 20' Inspector: Permit Issued: 3/19/01 300 sks Well Work Commenced: 4/28/01 9 5/8" 840' 5/31/01 Well Work Completed: **7**" Verbal Plugging 1985' 300 sks Permission granted on: X 4 1/2" 4607 160 sks • Rotary Cable Total Depth (feet) 4633' SET CIBP @ 4450' OVER BEREA Fresh Water Depths (ft) 2 3/8" 2954' Salt Water Depths (ft) Is coal being mined in area (Y/N)? 162'-163', 275'-279', 415'-417', 545'-546', 605'-607', 682'-686', 738'-740', 769'-772', Coal Depths (ft) 930'-932', 993'-994', 1200'-1202', 1255'-1256', 1299'-1301', 1525'-1526', 1884'-1886' OPEN FLOW DATA 4471' - 4474' 4502' - 4212' **Producing formation** BEREA Pay zone depth (ft) RECEIVED
Office of Oil & Gas 4520' - 4532' Gas: Initial open Permitting TSTM MCF/d Oil: Initial open flow Bbl/d flow AUG 2 2 2001 0 MCF/d BbV Final open flow Final open flow Time of open flow between initial and final tests 24 Hour WV Department of N/A psig (surface pressure after N/A Static rock pressure Hour Environmental Protection MAXTON Pay zone depth (ft) 2937' Second producing 29507E@ formation Gas: Initial open **TSTM** Oil: Initial open flow MCF/d flow MCF/d 21 Final open flow Final open flow 08/01/2014 Time of open flow between initial and final tests Depart Hours
Tenter yals, FRACTURING psig (surface pressure after Static rock pressure 75 NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED AND FERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEM TOP DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE. For: CABOT OIL & GAS CORPORATION

W40-2016

Perforated Berea at 4520'-4532', 25H; 4502'-4512', 21H; 4471'-4474', 7H. Perform 75 Q Foam Frac using 480,500SCF N2 at 9240scf/min. 81,400# of 20/40 sand, BD 980# ISIP after BD 50# ATP 1641# at 20BM/foam MTP 1904# ISIP 1625# 5-Min 1511# 10-Min 1474# Total fluid 252 bbls clean. Ramped sand concentrations to 16ppa. Set CIBP @ 4450' plugging off the Berea.

Perforate Maxton formation. 2950'-2960', 2937'-2947' using 3 1/8" HSC 2SPF 40 shots. Perform 75 Q Foam Frac using 250 gal of 15% HCL acid, 60,700# 20/40 sand,553,600SCF of N2 at 11,200scf/min. BD 1936# ISIP after BD 1543# ATP 1770# at 20BM/foam MTP 2289# ISIP 1705# 5-Min 1598# 10 min 1561# Total fluid 238 bbls clean. Ramp sand concentration to 12 ppa.

Set solid cast iron bridge plug at 4450'.

FORMATION	TOP	воттом	REMARKS
FORMATION SILT/SHALE SANDSTONE SHALE SANDSTONE SHALE SILT/SHALE SILT/SHALE PRINCETON SHALE RV SHALE AVIS SILT/SHALE MAXTON SILT/SHALE LITTLE LIME BIG LIME	TOP 0 1055 1120 1168 1295 1400 1622 2080 2324 2360 2380 2466 2480 2525 2920 2995 3280 3460	1055 1120 1168 1295 1400 1622, 2080 2324 2360 2380 2466 2480 2525 2920 2995 3280 3460	REMARKS Permitting:
POCONO SHALE BEREA SHALE	3460 3826 4120 4470 4532	3826 4120 4470 4532 4633	AUG 2 2 2001 WV Department of Environmental Protection
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Office of Oil and Gas

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WV Departmental Protection

02016

WW-4A	
Revised	6-07

1) Date:	May 22, 2014	
2) Operator	r's Well Number	
Gilbert & Plur	mley A-54	

109

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

3) API Well No.: 47 -

4) Surfac	e Owner(s) to be served: 5) (a)	Coal Operato	r
(a) Nai	ne Heartwood Forestland Fund IV LP	Name	See Attached Sheet
Addres	s 19045 Stone Mountain Rd.	Address	
	Abingdon, VA 24210		
(b) Nai	me Augustine Wimmer	(b) Coal Ov	vner(s) with Declaration
Addres	B HC 68 Box 261	Name	Lasher LLC c/o Carl Geupel
	laeger, WV 24844	Address	Four Crescent Street
			Northampton, MA 01060
(c) Nar	ne Teddy E. & Rachel Katherine Morgan	Name	
Addres	HC 68 Box 262	Address	
	laeger, WV 24844		
6) Inspecto	or Ross Eller	(c) Coal Le	ssee with Declaration
Addres	121 Brierhill Drive	Name	Riverside Energy Company, LLC
	Beckley, WV 25801	Address	208 Business Street
Teleph	one (304) 9316844		Beckley, WV 25801

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 Cabot Oil & Gas Corporation By: Kenneth L. Marcum Regulatory Supervisor Its: COMMONWEALTH OF PENNSYLVANIA Five Penn Center West, Suite 401 M Notarial Seal Address Constance C. Carden, Notary Public Pittsburgh, PA 15276 McDonald Boro, Washington County My Commission Expires Nov. 16, 2017 (4412) 249-3850 Telephone MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES Subscribed and sworn before me this November 16. My Commission Expires

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 depprivacyoffier@wv.gov.

Coal Operator Gilbert & Plumley A-54 47-109-02016

Cobalt Coal Corp Mining, Inc. P.O. Box 191 Premier, WV 24878

Rock "N" Roll Coal Co., Inc. 4641 Greenbrier Mt. Rd. Panther, WV 24874

Pinnacle Mining Co., LLC P.O. Box 338 Pineville, WV 24874

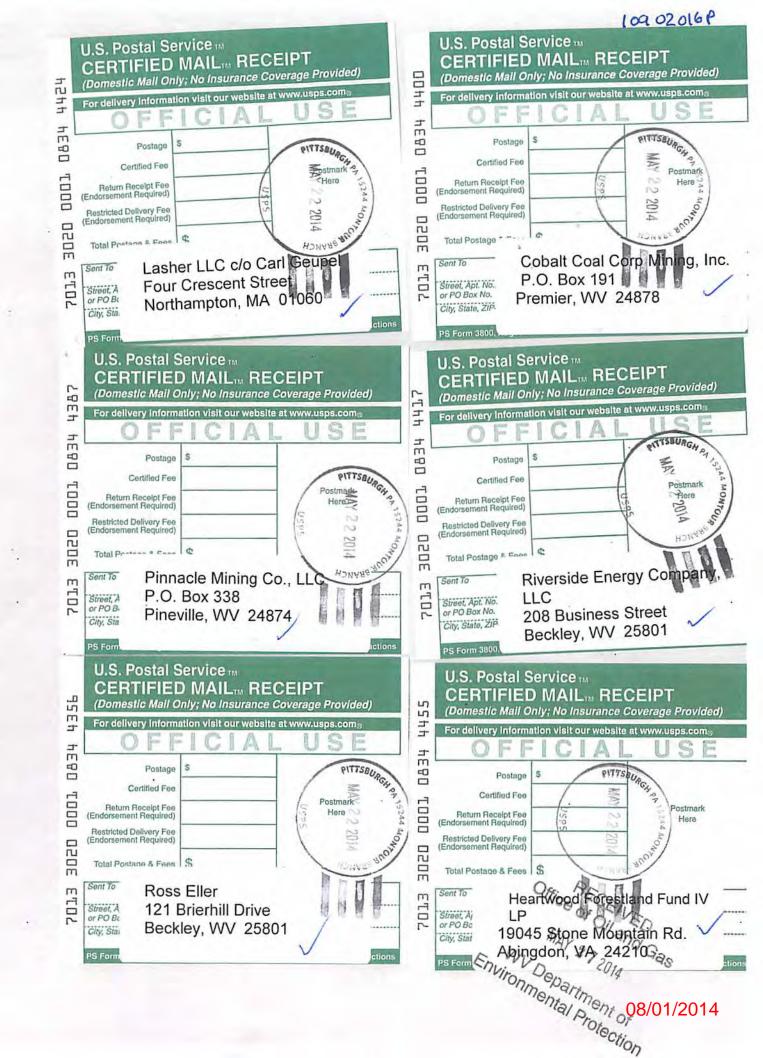
Selwyn Coal Corporation P.O. Box 293 Ikes Fork, WV 24845

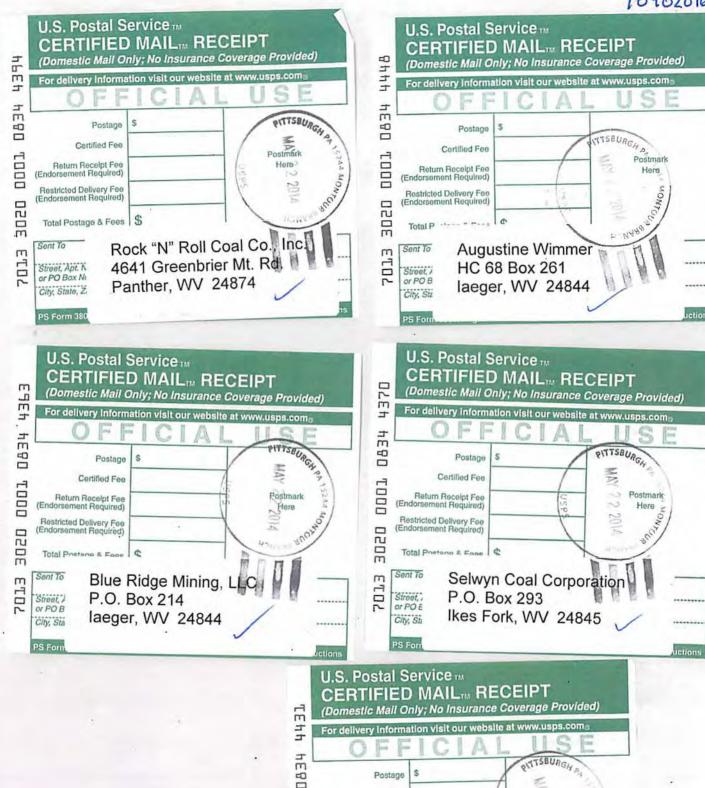
Blue Ridge Mining, LLC P.O. Box 214 laeger, WV 24844

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Office of Oil and Gas

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WV Department of Environmental Protection







SURFACE OWNER WAIVER

Operator's Well Number

Gilbert & Plumley A-54

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (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 FIVE (5) 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 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.

<u>Comments must be in writing.</u> 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.

I hereby state that I have read and Application For A Permit To Plug A	the instruction and Abandon		rs and that I have received conies of DNotice and WW-4B, and a survey plate. Office of Oil and Gas
I further state that I have no objection to a permit being issued on the FOR EXECUTION BY A NATURAL PRETC.	ose materials	the planned work	described in these materials, and I have no MAY 2.7 2014 FOR EXECUTION BY A CORPORATION, WV Department of
Signature	Date	Name By	Environmental Protection
Bigliature		Its _	Date

08/01/2014

WW-4B

API No.	47-109-02016
Farm Name	Gilbert & Plumley
Well No.	A-54

INSTRUCTIONS TO COAL OPERATORS OWNERS AND LESSEE

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less then five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to 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 the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

•	VAIVER	
The undersigned coal operator/ own has examined this proposed plugging work order. done at this location, provided, the well operator Virginia Code and the governing regulations.	he undersigned ha	s no objection to the work proposed to be
Date:	Ву:	
	Its	
		MAY 27 2014
		WV Department of Environmental Protection

WW-9 Rev. 5/10

	Page	1	of	
API Number 47 -	109	-	02016	
Operator's Well No	. Gilb	ert &	Plumley A	-54

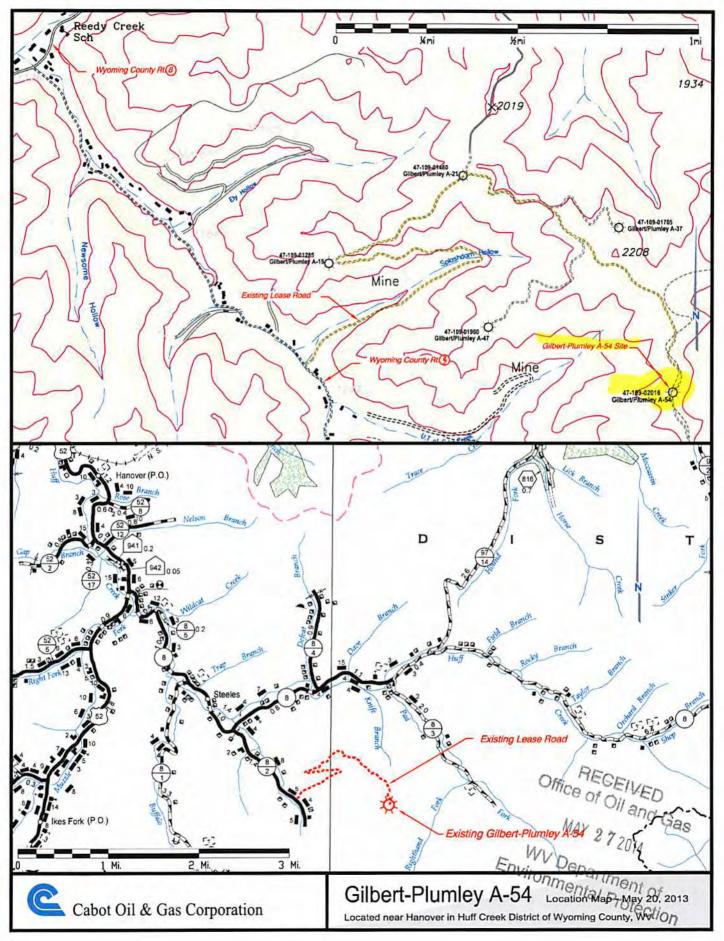
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

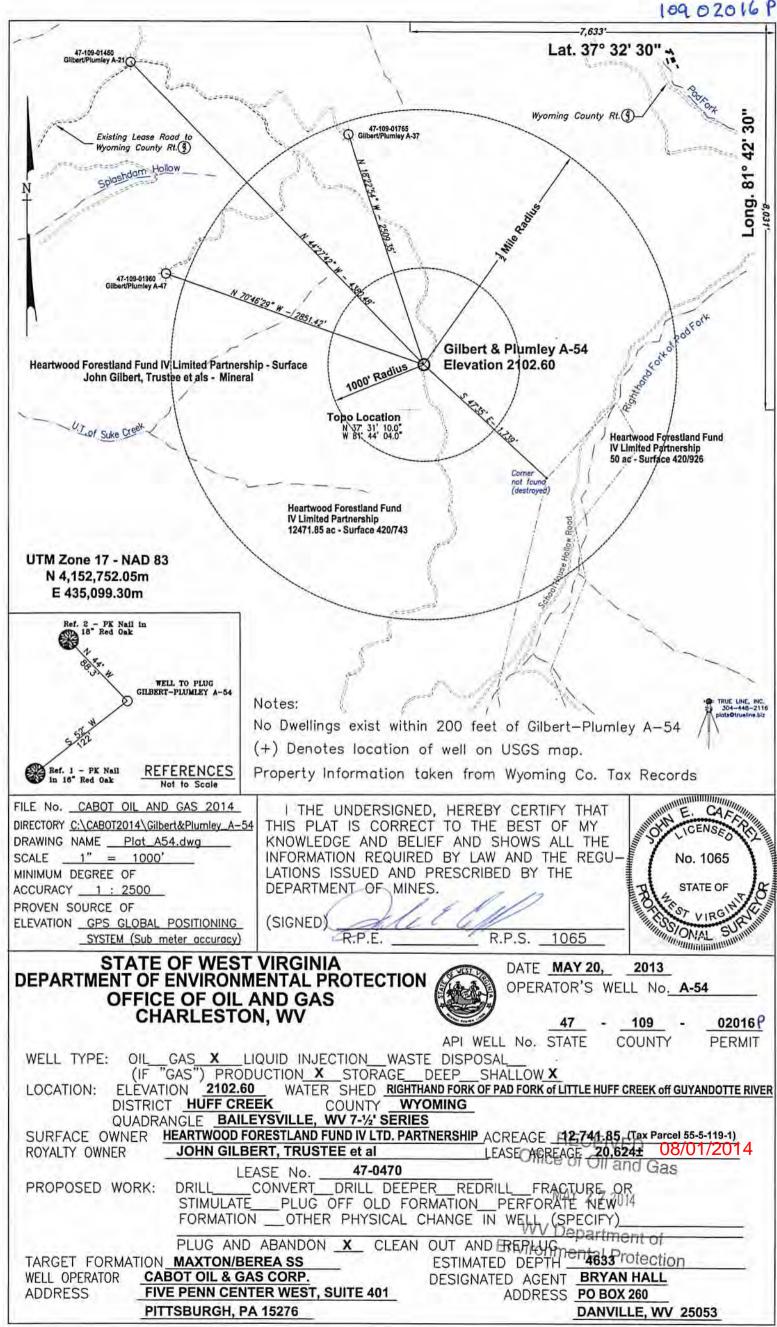
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

1 050701010501 LIT of		OP Code 08145
Vatershed 030701010301 - 01 0	f Right Fork of Pad Fork Quadra	ngle Baileysville WV USCG 7-1/2' Series
Elevation 2102.30	County_Wyoming	District Huff Creek
Description of anticipated Pit Waste:	None - no cuttings produced of	during plugging operation
Do you anticipate using more than 5.	,000 bbls of water to complete the pro	posed well work? Yes No X
Vill a synthetic liner be used in the p	pit? N/A . If so, what	mil.?
Proposed Disposal Method For Trea	ted Pit Wastes:	BE CONTRINED IN TANK
Land App		A DISCUSSION OF TROPE
	und Injection (UIC Permit Number_ API Number	
	Disposal (Supply form WW-9 for disp	oosal location)
XX Other (E:	xplain no treated pit wastes will I	be produced
almi a marka a	100 At 6 A 100 TH	no drilling proposed
	well? Air, freshwater, oil based, etc ynthetic, petroleum, etc	
additives to be used?	ynthetic, petroleum, etc	
Orill cuttings disposal method? Lea	ve in nit_landfill_removed offsite_etc	No cuttings produced during plugging operation
-If left in pit and plan to sol	idify what medium will be used? Cer	nent, lime, sawdust
on August 1, 2005, by the Office of	Oil and Gas of the West Virginia Dep	artment of Environmental Protection. I understand
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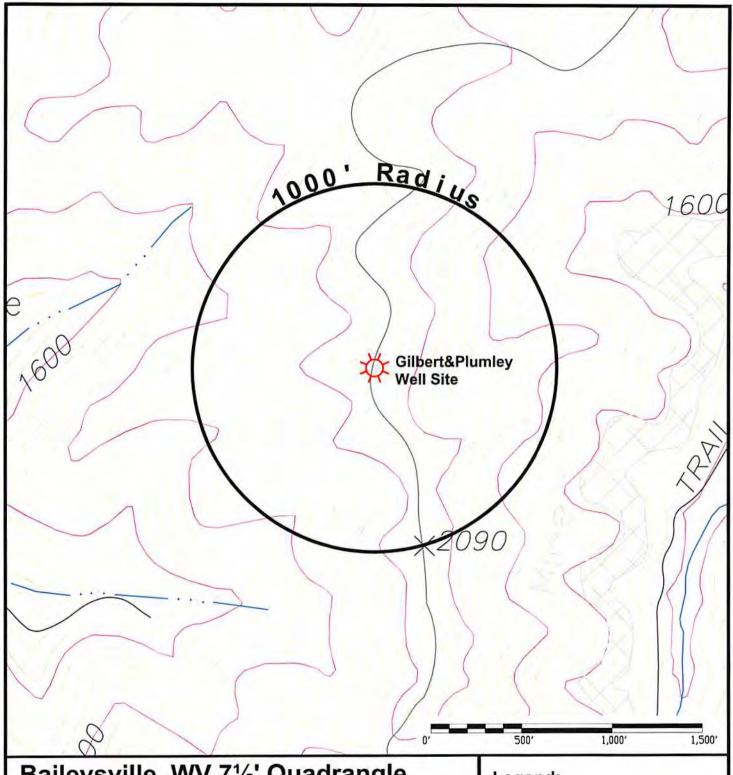
roposed Revegetation Treatme	nt: Acres Disturbed	8.89	Prevegetation pH	6.9
Lime2	_Tons/acre or to cor	rect to pH	7.0	
Fertilizer (10-20-20 or	equivalent) 500	lbs/scr	e (500 lbs minimum)	SECTION IN
Mulch pulp fibe	er at 1/2 to 3/4	Tons/acre	107e4 words	
	1159 (%)	Seed M	ixtures	
Area l		10 500 215	Are	A CONTRACT OF THE PROPERTY OF THE PARTY OF T
Tall Fescue	lbs/acre	THE WAY	Tall Fescue	lbs/acre 40
Ladino Clover	5	MODE OVER	Ladino Clover	5
Laulio Ciovei		137	Eddillo Clovel	
	4.100		The state of the s	
	and proposed area for	r land applics	ion.	
Attach: Prawing(s) of road, location,pit hotocopied section of involved lan Approved by:	Charles Commence Control	TOTAL PARTY SE	ion.	RECEI\ Office of Oil
rewing(s) of road, location,pit hotocopied section of involved	Charles Commence Control	TOTAL PARTY SE		RECEIN Office of Oil
rawing(s) of road, location,pit hotocopied section of involved	Charles Commence Control	et.		RECEIN Office of Oil JUL 3 0 WV Depar
rawing(s) of road, location,pit hotocopied section of involved	7.5' topographic shee	et.		Office of Oil

recognition to the first plant









Baileysville, WV 71/2' Quadrangle

Notes:

No water wells or other sources of groundwater currently being used for human consumption, domestic animals or other general uses were identified within 1000' of the proposed well site.

Legend:

Water Well Spring Wet Spot House/Structure

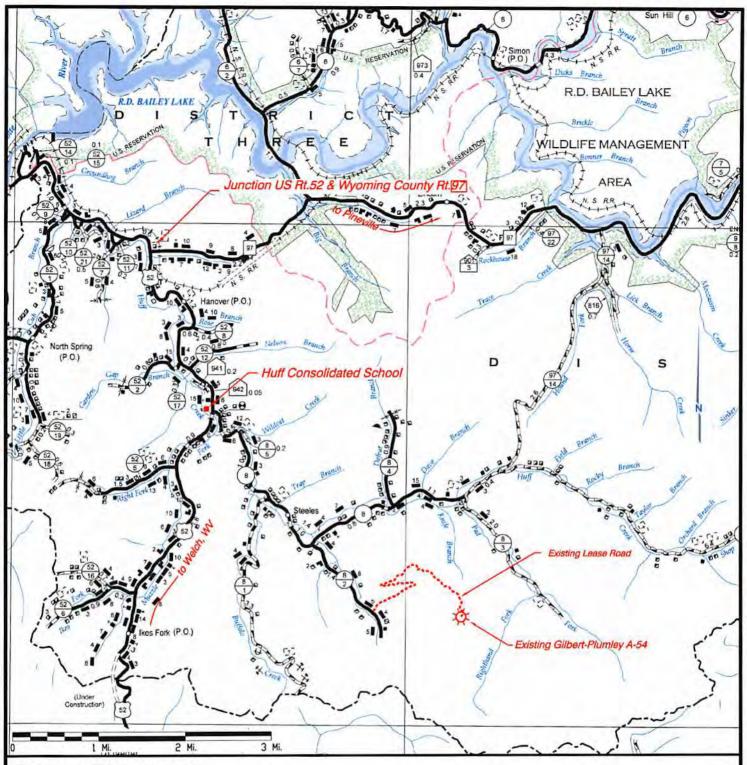


Cabot Oil & Gas Corporation

Gilbert & Plumley A-54

Located near Hanover in Huff Creek District of Wyoming County, West Virginia

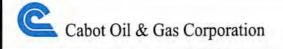
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Driving Directions:

- 1. Beginning at the Huff Consolidated School near Hanover on US 52 South, take Wyoming County Rt. (8) (Steeles) opposite the school.
- 2. Proceed up Little Huff Creek on Wyoming Rt (8) a distance of 2.3± miles to the intersection with Wyoming Rt. (8) on the right up Suke Creek (Wyoming Rt. (8)) for 1.2± mile to Splashdam Hollow Road on the left. Leave the county road and turn up Splashdam Hollow.
- Take the existing lease road up Splashdam Hollow for about 11/2 miles to a gas well (G&P A-21) on the left at a fork. Beer right at the fork. Continue on the lease road 0.3± miles to a fork, bear right. Proceed another 0.1± miles and bear right at the fork. Keep to the miles on the existing lease road.

 The Gilbert & Plumley well A-54 will be 0.6± miles further on the left side of the lease road.
- 4. The Gilbert & Plumley well A-54 will be 0.6± miles further on the left side of the lease road.

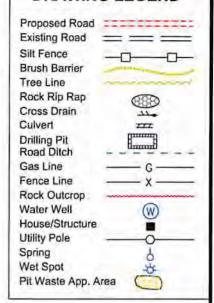


Gilbert & Plumley A-54 Prote Diving Directions
Located near Nanover in Huff Creek District of Wyoming County (West Virginia.

GENERAL NOTES:

- THESE DRAWINGS ARE A SCHEMATIC REPRESENTATION OF THE PROPOSED WELL SITE 1.) AND ACCESS ROAD. PROPOSED STRUCTURES SUCH AS THE DRILLING PIT, ROADWAY, CULVERTS, SEDIMENT BARRIERS, ETC. ARE SHOWN IN THEIR APPROXIMATE PREPLANNING CONFIGURATION. GIVEN UNFORSEEN 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 2.) MAINTAINED IN ACCORDANCE WITH THE GUIDELINES AND REQUIREMENTS OF THE WV DEP OIL & GAS EROSION AND SEDIMENT CONTROL MANUAL.
- 3.) ALL CULVERTS SHOWN ON THESE DRAWINGS ARE PROPOSED AND WILL BE A MINIMUM OF 15" IN DIAMETER UNLESS OTHERWISE NOTED.
- DITCHLINES AND CULVERTS WILL BE INSTALLED WHENEVER PRACTICAL; HOWEVER, POR-4.) TIONS OF THE EXISTING ROADS WHICH ARE LOCATED IN SOLID ROCK SHALL NOT REQUIRE DITCHES OR CROSS DRAINS, UNLESS OTHERWISE WARRANTED BY FIELD CIRCUMSTANCES.
- 5.) SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL STRUCTURES/MEASURES IN ADDITION TO THOSE SHOWN ON THE ATTACHED DRAWINGS WILL BE INSTALLED WHERE AND WHEN DEEMED NECESSARY. SUCH ADDITIONAL MEASURES MAY CONSIST OF SILT FENCES OR OTHER MEASURES AS OUTLINED IN THE EROSION AND SEDIMENT CONTROL MANUAL.
- SEDIMENT BASINS (TRAPS) WILL BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAIN 6.) INLETS AS REQUIRED IN THE WV-DEP OIL & 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 MEA-SURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.
- SEDIMENT BARRIERS OF EITHER WINDROWED BRUSH, FILTER FENCE ET CETERA WILL BE 7.) INSTALLED AND MAINTAINED BELOW THE OUTFALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DISCHARGE POINTS FROM EITHER THE ROADWAY OR SITE LOCATIONS.
- ALL NECESSARY TIMBER AND BRUSH WILL BE REMOVED FROM THE PROPOSED ROADWAY 8.) AND SITE LOCATIONS BY CLEARING AND GRUBBING ACTIVITIES. ANY MARKETABLE TIMBER WILL BE CUT AND STACKED TO THE SIDE OF THE ROADWAY OR REMOVED TO A STOCKPILE AREA. THE REMAINING TIMBER AND BRUSH WILL BE CUT AND WINDROWED BELOW THE OUTSLOPE OF THE CONSTRUCTION AREAS, TO BE UTILIZED AS A SEDIMENT BARRIER.
- 9.) SEPARATE PERMITS WILL BE OBTAINED FROM THE WV-DOT FOR ALL POINTS OF INGRESS-EGRESS FROM COUNTY/STATE ROADS. THESE INGRESS-EGRESS POINTS WILL BE MAIN-TAINED INACCORDANCE WITH CURRENT WY-DOT REGULATIONS. A STABILIZED CONSTRUC-TION ENTRANCE CONSISTING OF 8" OF CRUSHED STONE WILL BE CONSTRUCTED FOR A MINIMUM DISTANCE OF 50' FROM THE INGRESS-EGRESS POINTS OF ALL PUBLIC ROADWAYS INACCORDANCE WITH CURRENT WV-DOT REGULATIONS.
- ALL CULVERTS SHOWN ON THESE DRAWINGS ARE TO BE CONSIDERED PERMANENT AND 10.) WILL REMAIN IN PLACE AFTER THE COMPLETION OF CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE. A STABILIZED OUTLET CONTROL DEVICE SUCH AS RIPRAP, NATURAL STONE, BRUSH, ETC. WILL BE INSTALLED BELOW THE OUTFALL OF ANY ROADWAY CUL-VERT(S) WHICH ARE NOT LOCATED IN A STREAM CHANNEL OR CREEK.
- PERMANENT CROSS DRAINS OR WATERBARS WILL BE INSTALLED AS AN INTEGRAL PART OF 11.) THE RECLAMATION PROCESS AND SHALL BE SPACED INACCORDANCE WITH THE AS-BUILT ROADWAY GRADES AND TABLE II-4 OF THE SEDIMENT AND EROSION CONTROL FIELD MANUAL.
- 12.) TEMPORARY SEEDING AND MULCHING WILL BE UTILIZED TO PROVIDE A VEGETATIVE COVER ON ALL DISTURBED AREAS I.E. ROADWAYS, STIE LOCATIONS, ROAD OR SITE OUTSLOPES AND ANY OTHER AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES RESULTING FROM THE PROPOSED WELL.
- THE LOCATION OF DRILLING PIT(S) MAY BE ADJUSTED TO MINIMIZE ENVIRONMENTAL IMPACTS STAGE 13.) AND MEET THE REQUIREMENTS OF THE WV-DEP.

DRAWING LEGEND



RTS BY GRADE
DISTANCE
500-300
300-200
200-100
100

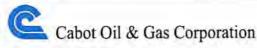
RAINS BY GRADE
DISTANCE
400
250
135
80
60
45

CONTRACTOR NOTE:

IT IS THE RESPONSIBILITY OF THE CON-STRUCTION CONTRACTOR TO FIELD VERIFY THE SIZE/CONDITION OF ALL UNDERGROUND UTILITIES, SANITARY SEWERS, STORM SEW-ERS, ETC. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION AND/OR EXCAVATION **ACTIVITIES**

WEST VIRGINIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS NOTICE IN DESIGN

STAGE OF 24548387d Gas



Gilbert-Plumley A-54 tal Protect May 20, 2013
Located near Hanover in Huff Creek District of Wyoming County, West Virginia

Cabot Oil & Gas Corporation Well No. Gilbert-Plumley A-54

TOPO SECTION OF:

United States Department of the Interior Geological Survey - Gilbert & Baileysville - 71/2' Quadrangles

PROPOSED CULVERT INVENTORY (For Bid Purposes Only)

15" (Minimum) Culverts

none proposed

Additional Culverts and/or other drainage structures and sediment control devices may be required by the WVDEP Oil & Gas Inspector. Operator is responsible for coordination with contractor and True Line regarding any changes or additions the State may require.

PROJECTED EARTHEN DISTURBANCE

Well Location Site	0.95 Acres
Access Road	8.94 Acres
Approximate Total Disturbance	9.89 Acres

All roads shown hereon are existing unless otherwise noted and shall be maintained in accordance with the WDEP best management practices contained in the Erosion and Sediment Control Field Manual.

Entrances at County/State roads shall be maintained in accordance with WDOT regulations. Separate permits may be required by the WDOT.

Sediment basins (sumps) and appropriate erosion control barriers are to be constructed at all culvert and cross drain inlets and outlets as required in the WVDEP Oil & Gas Erosion and Sediment Control Field Manual. Field conditions (rock outcrops or bedrock) may prohibit inlet sumps (traps) being installed. When these conditions exist, additional erosion control measures shall be evaluated and employed as needed.

Earthwork contractors are responsible for notification to the operator and Oil & Gas Inspector prior to any deviation from this plan.

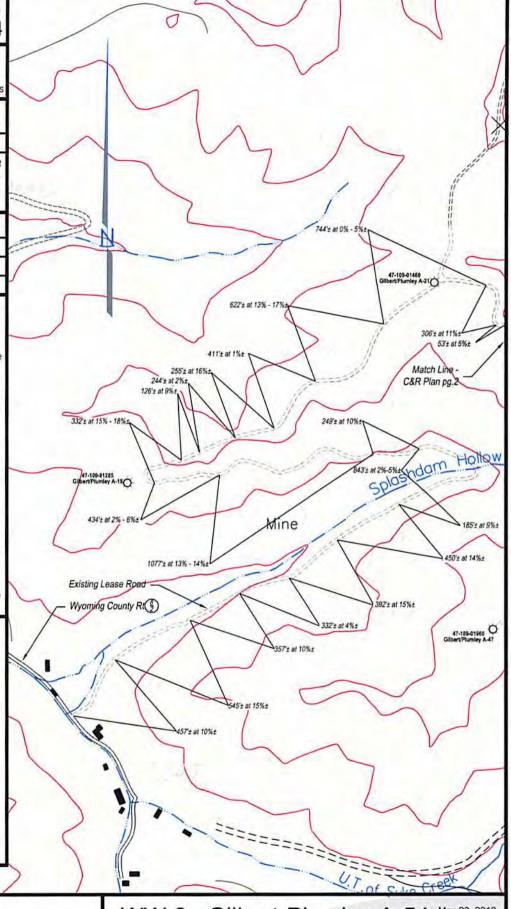
All slopes shall be seeded and mulched after site construction is complete. All slopes created during road construction will receive temporary seeding and mulch immediately following completion.

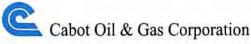
Marketable timber shall be cut and stacked at an accessible location.

Stacked or windrowed brush may be used for sediment control.

Applications for separate Public Lands Corporation permits on the access road stream crossings (if any) have been provided where applicable.

LEGEND		
Proposed Road	======	====
Existing Road		=====
Existing Culvert		OTTO
Proposed Culvert (1:	5' Min. unless noted)	-
Proposed Stream	Crossing	777
Cross Drain		-11-
Diversion Ditch		-
Silt Fence	0 0 0	0-0-
Brush Barrier	Subaccacacacacacac	ennononno
Tree Line	~~~~	~~
Road Ditch		
Gas Line	CAS CAS	GAS
Fence Line		-0
Water Well		W
House/Structure		
Spring		4
Wet Spot		-8-





1200

WW-9: Gilbert-Plumley A-54 May 20, 2013 Construction and Reclamation Plan pg.1

