



**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 12, 2014

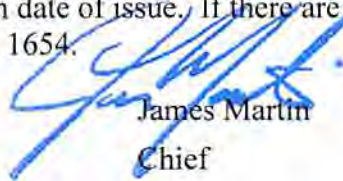
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-701351, issued to ROSS & WHARTON GAS CO INC, 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: 1  
Farm Name: HART, RICHARD LEE  
**API Well Number: 47-701351**  
**Permit Type: Plugging**  
Date Issued: 08/12/2014

## 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. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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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.

1) Date April 1, 2014  
2) Operator's  
Well No. Engel, Dana #1  
3) API Well No. 47-007 - 01351

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 X or Underground storage \_\_\_) Deep \_\_\_ / Shallow X

5) Location: Elevation 977 Watershed Left Fork Steer Creek  
District Otter County Braxton Quadrangle Gassaway (7.5')

6) Well Operator Ross & Wharton 7) Designated Agent Mike Ross  
Address Route 5 Box 29 Address PO Box 219  
Buckhannon, WV 26201 Coalton, WV 26257

8) Oil and Gas Inspector to be notified Name Bryan Harris  
Address: PO Box 157  
Volga, WV 26238  
9) Plugging Contractor Name Unknown  
Address \_\_\_\_\_

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

2229 - TD 5282'  
Run 6% Gel between each plug  
★ 2050 - 1900 Set Cement Plug (props.)  
1550 - 1450 Set Cement Plug  
1050 - 900 Set Cement Plug  
840' - 690' SET CEMENT PLUG (COAL)  
280' - 0 Set Cement Plug  
Set Monument with API Number

• PULL 11 3/4" CASING  
• RIN AND CHECK TD. GEL HOLE.  
• IF HOLE IS OPEN BELOW 2229',  
SET A 200' CLASS A PLUG  
AT TD. • COME UP HOLE TO  
4450' (BENSON) AND SET A  
MINIMUM OF 100' CLASS A CEMENT PLUG  
FROM 4450' - 4350'. PROCEED TO ★  
FREEPOINT 4 1/2" CASING AND  
REMOVE ALL FREE CASING. SET  
A MINIMUM 100' CEMENT PLUG  
ACROSS 4 1/2" CASING CUT.

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

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MAY 12 2014

Work order approved by inspector Bryan O'Hanrahan

Date 5-7-14  
Department of  
Environmental Protection  
08/13/2014



701351P

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

February 17, 1979

FORM IV-35  
(Obverse)

[08-78]

WELL OPERATOR'S REPORT #  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Operator's  
Well No. Dana S. Engel, et al, #1

API Well No. 27 - 007 - 1351  
State County Permit

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_  
(If "Gas", Production X / Underground storage \_\_\_ / Deep \_\_\_ / Shallow X)  
LOCATION: Elevation: 977.00 Watershed: Left Fork Steer Creek  
District: Otter County: Braxton Quadrangle: Cassaway (7.5')

WELL OPERATOR Texas International Petroleum Corp. DESIGNATED AGENT James M. Blanton  
Address Suite 300 - 3535 N.W. 58th Street Address Suite 740 - One Valley Square  
Oklahoma City, Oklahoma 73112 Charleston, West Virginia 25301

PERMITTED WORK: Drill X / Convert \_\_\_ / Drill deeper \_\_\_ / Re-drill \_\_\_  
Plug off old formation \_\_\_ / Perforate new formation \_\_\_  
Other physical change in well (specify) \_\_\_\_\_

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FEB 21 1979

PERMIT ISSUED ON August 31, 1978 OIL & GAS DIVISION  
OF MINES

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED)  
Name Robert Bates  
Address Weston, West Virginia 26452

GEOLOGICAL TARGET FORMATION: Benson Depth 4454  
Depth of completed well, 5282 feet Rotary X / Cable Tools \_\_\_  
Water strata depth: Fresh, 25 feet; salt, None feet.  
Coal seam depths: 249, 263, 665, 775, 840 Is coal being mined in the area? No  
Work was commenced September 8, 1978, and completed September 16, 1978.

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	REMARKS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor	11-3/4"		42	X		42	42	None	Stops
Fresh water	8-5/8"	K-55	24	X		922	922	237 Sacks Cement to surf.	
Coal									Sizes
Intermediate									
Production	4 1/2"	K-55	10.5	X		2229	2229	125 Sacks	Double set
Tubing									
Liners									Perforations:
									Top Bottom

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 1973 feet  
Gas: Initial open flow, N/M Mcf/d Oil: Initial open flow, \_\_\_ bbl/d  
Final open flow, 32 Mcf/d Final open flow, \_\_\_ bbl/d  
Time of open flow between initial and final tests, 4 hours  
Static rock pressure, 515 psig (surface measurement) after 336 hours shut in.  
If applicable for multiple completion--  
Second producing formation None Pay zone depth \_\_\_ feet  
Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ bbl/d  
Final open flow, \_\_\_ Mcf/d Final open flow, \_\_\_ bbl/d  
Time of open flow between initial and final tests, \_\_\_ hours  
Static rock pressure, \_\_\_ psig (surface measurement) after \_\_\_ hours shut in.

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FORM IV-35  
(Reverse)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.  
 Perforated Squaw @ 2032-2035', 7 shots, and 2041-2045', 9 shots. Spotted 500 gallons 15% HCl. Loaded hole, broke Squaw w/900 PSI. Fraced with 562 bbls. gelled water, 15,000# 80/100 sand and 55,000# 20/40 sand. AIP - 1200 PSI, AIR - 24 BPM, ISIP - 600 PSI. Swabbed down. Recovered loaded water. Show oil and gas. Set CIBP @ 2003'. Perforated Big Injun @ 1973-1978', 21 shots. Spotted 500 gallons 15% HCl. Loaded hole. Broke Big Injun with 500 PSI. Fraced with 574 bbls. gelled water, 10,000# 80/100 sand, 40,000# 20/40 sand. AIP - 1050, AIR - 19 BPM, ISIP - 600 PSI.

WELL LOG

FORMATION	Color	Hard or Soft	4		Remarks Including indication of all fresh and salt water, coal, oil and gas
			Top Feet	Bottom Feet	
Top Soil			0	5	
Sand & Shale			5	20	
Sand			20	45	
R.R.			45	50	1/2" stream water @ 25'.
Sand & Shale			50	63	
Sand			63	84	
Shale & R.R.			84	124	
Sand			124	147	
Sand & Shale			147	191	
Shale & R.R.			191	249	
Coal			249	254	
Sand & Shale			254	263	
Coal			263	266	
Shale & Sand			266	312	
Sand			312	340	
Shale & Sand			340	363	
Sand			363	410	
Shale			410	414	
Sand & Shale			414	454	
Sand			454	519	
Sand & Shale			519	595	
Sand			595	665	
Coal			665	669	
Sand			669	775	
Coal			775	777	
Sand			777	840	
Coal & Shale			840	847	
Sand			847	861	
Sand & Shale			861	883	
Sand			883	1014	
Sand & Shale			1014	1067	
Sand			1067	1115	
Shale			1115	1123	
Sand & Shale			1123	1198	Hole damp @ 1125'.
Sand & Shale			1198	1397	
Sand			1397	1438	
Sand & Shale			1438	1580	
Sand			1580	1689	

(Attach separate sheets to complete as necessary)

Texas International Petroleum Corporation

Well Operator  
*James M. Blanton*  
 By James M. Blanton,

its Division Manager

**NOTE:** Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

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WELL LOG (Continued)

<u>FORMATION</u>	<u>TOP FEET &amp; BOTTOM FEET</u>	
Sand & Shale	1689	1710
Shale	1710	1717
Little Lime	1717	1753
Shale	1753	1775
Big Lime	1775	1917
Big Injun	1917	2060
Sand & Shale	2060	2109
Shale	2109	2567
Sand & Shale	2567	2600
Sand	2600	2612
Sand & Shale	2612	4300
Light Brown Shale	4300	4330
Sand & Shale	4330	4410
Light Brown Shale	4410	4440
Sand & Shale	4440	4450
Brown Sand	4450	4470
Sand & Shale	4470	5282

T.D.

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GAS DIVISION  
DEPT. OF MINES

Pg 2  
47-007-1351

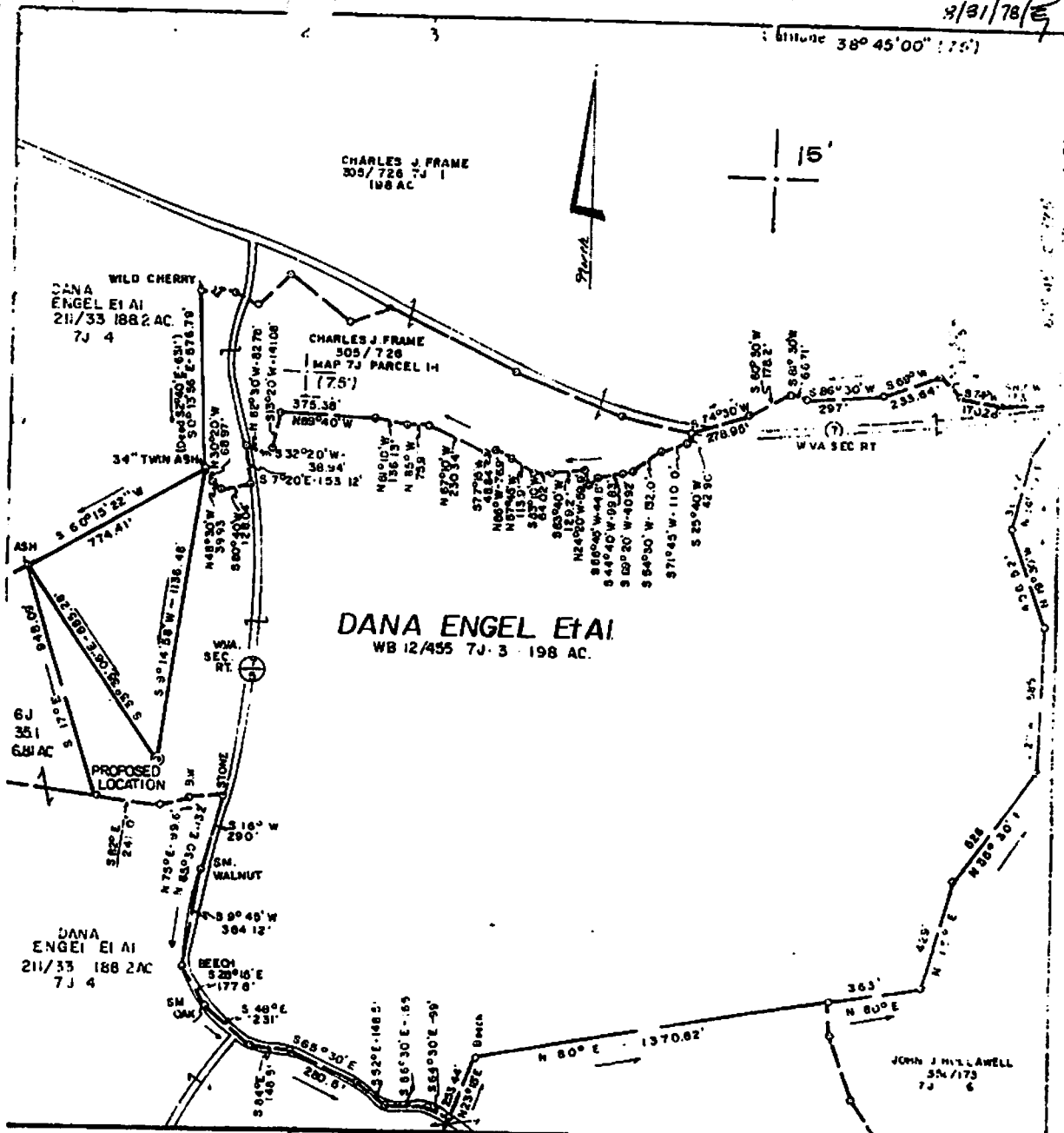
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05/15/2014

9/21/78/E



Minimum Error of Closure 1" in 7919'  
 Source of Elevation BM US DEPT of INTERIOR GEOLOGICAL SURVEY  
 JEA 1963 ELEV 10090

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 1 of the title and request and of the act and app section of the mining laws of West Virginia.

**TIPCO TEXAS INTERNATIONAL PETROLEUM COMPANY**  
 SUITE 740 VALLEY SQUARE  
 CHARLESTON, WEST VIRGINIA  
**DANA ENGEL ET AL**

ACRES 198

QUADRANGLE GASSAWAY (75), 15

COUNTY DRAXTON DISTRICT OTTER

ENGINEER'S REGISTRATION NO. 3994

FILE NO. 391

DATE 8/9/78 SCALE 1" = 500'

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

**WELL LOCATION MAP**  
 FILE NO. BRAX-1351 RECEIVED  
 Office of Oil and Gas

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WV Department of  
 47 - Environmental Protection

0300' B0113011

08/15/2014



701351P

WW-4A  
Revised 6-07

1) Date: April 1, 2014  
2) Operator's Well Number  
Engel, Dana #1  
3) API Well No.: 47 - 007 - 01351

**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>Richard Lee Hart</u>	Name <u>N/A</u>
Address <u>5252 Chapel Road</u>	Address _____
<u>Gassaway, WV 26624</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>N/A</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Bryan Harris</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 157</u>	Name <u>N/A</u>
<u>Volga, WV 26238</u>	Address _____
Telephone <u>304-553-6087</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>Ross &amp; Wharton (Mike Ross Inc.)</u>
	By	<u>Mike Ross</u>
	Its	President
	Address	<u>PO Box 219</u>
	Telephone	<u>Coaltton, WV 26257</u> <u>304-472-4289</u>

Subscribed and sworn before me this 22nd day of April, 2014  
Brenda K. Bush Notary Public  
My Commission Expires September 27, 2020

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**Office of Oil and Gas**

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 the use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).  
MAY 12 2014  
WV Department of Environmental Protection  
08/19/2014



701351A

# Mike Ross Inc.

(304) 472-4289 (Office) Box 219 Coalton, WV 26257 (304) 472-7405 (Fax)

May 7, 2014

Richard Lee Hart  
5252 Chapel Road  
Gassaway, WV 26624

Re: Engel, Dana #1 Plugging Permit

Dear Richard:

Mike Ross Inc. is in the process of applying for a permit to plug the above referenced well. Enclosed are copies of the Notice and Application for well plugging permits and the location plats.

Please note the instructions on the surface owner waiver. If you have no objection to the plugging being done, please sign the waiver and return it to our office.

If you have any questions, please do not hesitate to contact this office.

Thank you,

Mike Ross Inc.

2000 9952 1000 0000 0000 7011 2000

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Certified Fee	3.30	
Return Receipt Fee (Endorsement Required)	2.70	
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$ 6.90</b>	

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Sent To: Richard Lee Hart  
 Street, Apt. No.; or PO Box No.: 5252 Chapel Rd.  
 City, State, ZIP+4: Gassaway WV 26624

PS Form 3800, August 2006

ENVIRONMENTAL PROTECTION  
 See Reverse for Instructions

08/15/2014

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 Ross & Wharton (Mike Ross Inc.) OP Code 305680

Watershed Left Fork Steer Creek Quadrangle Gassaway (7.5)

Elevation 977 County Braxton District Otter

Description of anticipated Pit Waste: Plugging Fluid

Will a synthetic liner be used in the pit? ~~No~~ YES 20 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 \_\_\_\_\_)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain \_\_\_\_\_)
- Swabbing
- Plugging

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 *Mike Ross*

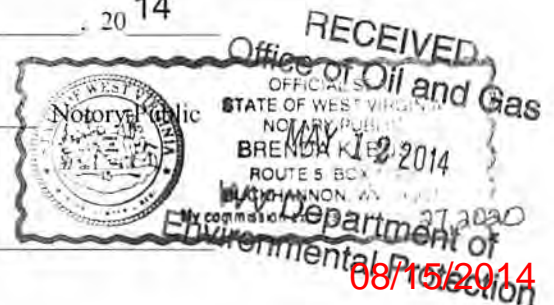
Company Official (Typed Name) Mike Ross

Company Official Title President

Subscribed and sworn before me this 22nd day of April, 2014

*Brenda K Bush*

My commission expires September 27, 2020



**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 1 Acre Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 50% lbs/acre (500 lbs minimum)

Mulch \_\_\_\_\_ Tons/acre

**Seed Mixtures**

	Area I	Area II
Seed Type	lbs/acre	lbs/acre
Fescue		
Contractors Mix		

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Dwight O'Brien 5-7-14

Comments: \_\_\_\_\_

Title: President

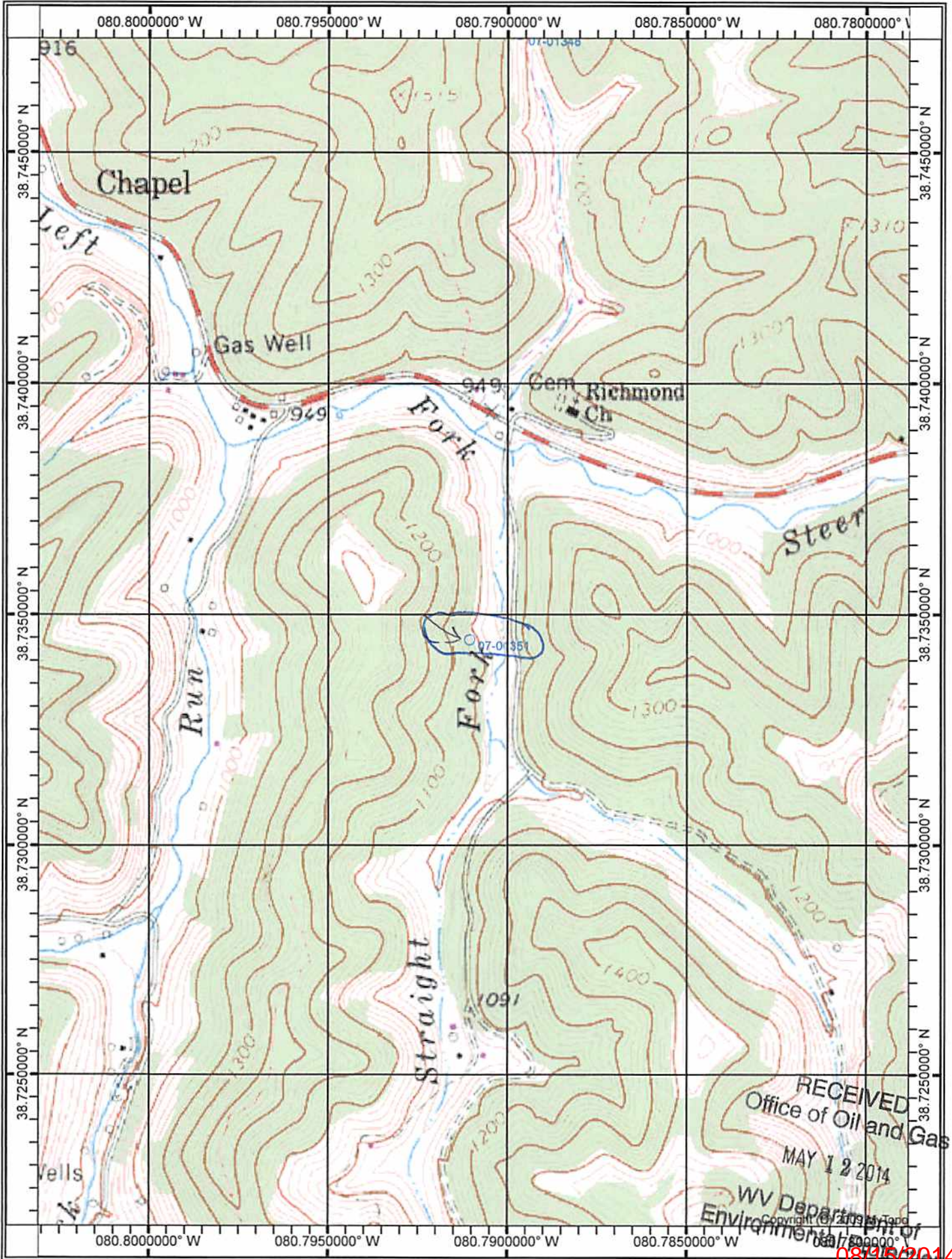
Date: April 1, 2014

Field Reviewed? ( ) Yes (  ) No

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MAY 12 2014  
WV Department of  
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08/15/2014



701351P



1351

08/15/2014



701351 P

WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas

**WELL LOCATION FORM: GPS**

API: 47-007-01351 WELL NO.: 1

FARM NAME: Engel, Dana

RESPONSIBLE PARTY NAME: Mike Ross

COUNTY: Braxton DISTRICT: Otter 3

QUADRANGLE: Gassaway (7.5') 360

SURFACE OWNER: Richard Lee Hart

ROYALTY OWNER: Richard Lee Hart

UTM GPS NORTHING: 4287334

UTM GPS EASTING: 518153.8 GPS ELEVATION: 977

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

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

Survey grade GPS \_\_\_\_ : Post Processed Differential \_\_\_\_  
Real-Time Differential \_\_\_\_

Mapping Grade GPS \_\_\_\_ : Post Processed Differential \_\_\_\_  
Real-Time Differential \_\_\_\_

4. Letter size copy of the topography map showing the well location  
I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Mike Ross  
Signature

President  
Title

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Office of Oil and Gas  
MAY 12 2014  
WV Department of Environmental Protection  
April 1, 2014  
Date

08/15/2014