



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Earl Ray Tomblin , Governor
Randy C. Huffman , Cabinet Secretary
www.dep.wv.gov

Tuesday, September 13, 2016
WELL WORK PERMIT
Vertical / Plugging - 2

EXCO RESOURCES (PA), LLC
260 EXECUTIVE DRIVE

CRANBERRY TOWNSHIP, PA 16066

Re: Permit approval for 2
47-035-00644-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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- 0450.

James A. Martin
Chief

Operator's Well Number: 2
Farm Name: SUCK, E. F.
U.S. WELL NUMBER: 47-035-00644-00-00
Vertical / Plugging - 2
Date Issued: 9/13/2016

Promoting a healthy environment.

09/16/2016

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. 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. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

1) Date _____, 20____
2) Operator's
Well No. Siv 12
3) API Well No. 47-035 - 00644

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 x / Gas _____ / Liquid injection _____ / Waste disposal _____ /
(If "Gas, Production x or Underground storage _____) Deep _____ / Shallow x

5) Location: Elevation 755 Watershed Straight Fork
District Ravenswood County Jackson ✓ Quadrangle Ripley

6) Well Operator EXCO Resources (PA), LLC 7) Designate Agent Diana Stampler/C.T. Corp. ✓
Address PO Box 8, Ravenswood WV Address 5400 D Big Tyler Road
26164 Charleston, WV 25301

Oil and Gas Inspector to be notified:
Jamie Stevens
105 Kentuck Rd.
8) Kenna WV 25248

9) Plugging Contractor
Name R&R Well Service
Doug Rexford
Address 42 Lynch Ridge, Walton WV
25286

Phone 304 290 7775
206

10) Work Order: The work order for
manner of plugging this well is as
follows:
Remove all Equipment used in production
Pull 2322' of tubing set on midjet packer
Run Tubing to TD =/-2317

- Cement with 100' 2317 to 2217
- Gel 2217 to 2040
- Cement 2040 to 1940 across seat 65/8
- Gel 1940' to 1440'
- Cement 1440' to 1340 across 8 1/2 csg ✓
- Gel 1340' to 770
- Cement 770 to 540 over coal & 10 1/2 csg
- Gel to 540' to 270'
- Cement 270' to surface
- Set Monument with API

or if packer can't be pulled set plug cut full pipe
Pull all pipe possible
Plug Hole or Rip & set
Plugs.

** CUT & PULL 6 5/8"*
SET 100' PLUG ACROSS CUT.
gmm

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Office of Oil and Gas

JUL 05 2016

WV Department of
Environmental Protection

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

Work order approved by inspector Jamie Stevens Date 6/22/2016

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

7/12/16
3500644P

OIL WELL
CASING & TUBING

Mount No. Inc 614
Company
Address
Farm
Location
Well No.
District
Surface
Mineral
Commenced
Completed
Date shot

Columbian Carbon Company
Box 873, Charleston 23, W.Va. 16 65# 13'9 Same
E.F. Suck Acres 97 10 40# 720'6 pld. Cove?
Straight Work. 8 2 2# 1387 pld.
2 GW 1105 Elev. 753.2 G 6 5/8 2 2# 1990'4 1990'4
Ravenswood Jackson County 2 3/8 2322'6 2322'6
E.F. Suck, R.F.D. #2, Millwood, W.Va. with 2" tubing ?
Same cago
11-19-43 Kidgot B.H. Packer
1-7-49 Size 6 5/8
1-11-49 Depth 2274 SLM to 2284 SLM Depth 1976 SLM
with 6 7/8 gelatin Coal 583' 24" ?
Approx. 28 bbls. daily
220' 2-13" blr. per hr.; 322' 2 1/2-13" blr. per hr.
670' H.F.; 1080' 2-10" blr. per hr. Salt Water;
1275' 5-10" blr. per hr.; 1322' 8-10" blr. per hr.

| | | | | | |
|---------------------------------------|---------------|----------|--|------|------|
| Surface | 0 | 10 | Slate & Shells | 2284 | 2317 |
| Sand | 10 | 39 | Total depth | | 2317 |
| Red Rock | 39 | 80 | | | |
| Slate | 80 | 116 | Gas 2274 SLM show | | |
| Red Rock | 116 | 180 | Oil pay 2274' SLM | | |
| Slate | 180 | 195 | | | |
| Red Rock | 195 | 235 | CEMENT RECORD: | | |
| Slate | 235 | 254 | 12-2-48 10 1/2" casing ran 11 sacks of | | |
| Red Rock | 254 | 265 | aquagel. Circulation and returns. | | |
| Sand | 265 | 360 | | | |
| Slate & Shells | 360 | 383 | 12-9-48 8 5/8" casing ran 16 sacks of | | |
| Red Rock | 383 | 400 | aquagel. Circulation and returns. | | |
| Slate & Shells | 400 | 425 | | | |
| Red Rock | 425 | 445 | 12-23-48 6 5/8" casing ran 16 sacks | | |
| Slate & Shells | 445 | 477 | of aquagel. Circulation and returns. | | |
| Red Rock | 477 | 500 | | | |
| Slate | 500 | 515 | C.C.Co. Crow | | |
| Red Rock | 515 | 550 | | | |
| Sand | 550 | 585 | | | |
| Slate | 585 | 588 | | | |
| Coal | 588 | 590 | | | |
| Slate | 590 | 664 | | | |
| Sand | 664 | 705 | | | |
| Slate | 705 | 725 | | | |
| Red Rock 708 DLM-712 SLM | 725 | 756 | | | |
| Slate | 756 | 785 | | | |
| Red Rock | 785 | 823 | | | |
| Slate | 823 | 1028 | | | |
| Sand | 1028 | 1115 | | | |
| Slate | 1115 | 1145 | | | |
| Sand | 1145 | 1163 | | | |
| Slate | 1163 | 1240 | | | |
| Sand | 1240 | 1283 | | | |
| Black Slate | 1283 | 1290 | | | |
| Slate & Shells | 1290 | 1308 | | | |
| Sand | 1308 | 1340 | | | |
| Slate & Shells 1363 DLM-1374 SLM 1340 | 1340 | 1445 | | | |
| Black Slate | 1445 | 1455 | | | |
| Slate & Shells | 1455 | 1493 | | | |
| Sand | 1493 | 1512 | | | |
| Slate | 1512 | 1554 | | | |
| Sand | 1554 | 1575 | | | |
| Slate | 1575 | 1622 | | | |
| Sand | 1622 | 1653 | | | |
| Gravel | 1653 | 1659 | | | |
| Big Time | 1659 | 1805 | | | |
| Big Injun Sand | 1805 | 1920 | | | |
| Slate & Shells 1965 DLM-1976 SLM 1920 | 1920 | 2244 | | | |
| Brown Shale | 2244 | 2260 DLM | | | |
| | | 2274 SLM | | | |
| Brown Sand | 2260 DLM | | | | |
| | 2274 SLM 2284 | | | | |

CEMENT RECORD:
12-2-48 10 1/2" casing ran 11 sacks of aquagel. Circulation and returns.
12-9-48 8 5/8" casing ran 16 sacks of aquagel. Circulation and returns.
12-23-48 6 5/8" casing ran 16 sacks of aquagel. Circulation and returns.

Janie
6/22/2016

add.
27-035-00 644-P
Now Plugging
EXCO Resources

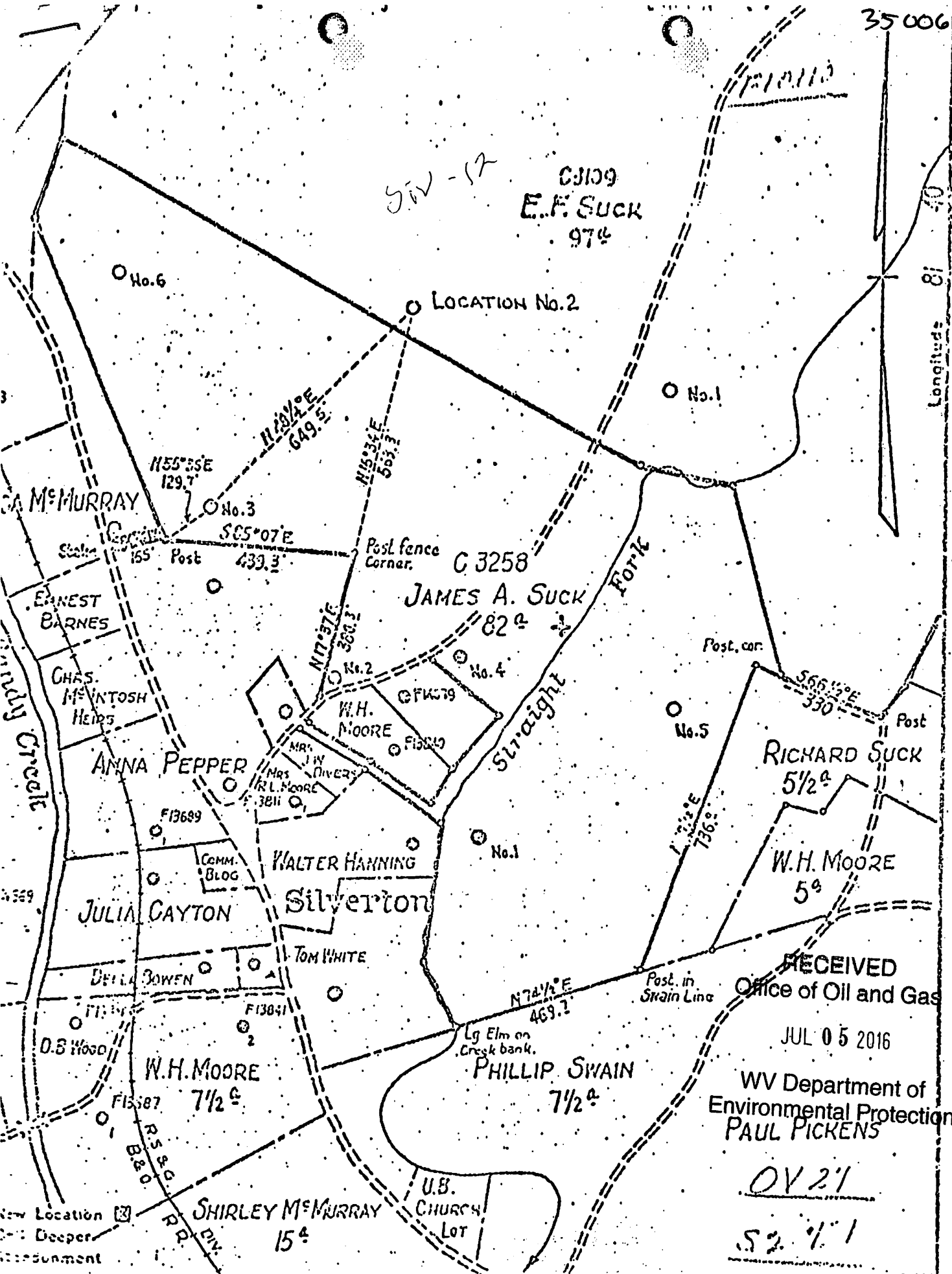
09/16/2016

SIV #12
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WV Department of
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was



COLUMBIAN CARBON COMPANY
 Box 873 CHARLESTON, W.VA.
 E.F. Suck
 Acres 97 Lease No. C3109
 (Farm) No. 2 Serial No. _____
 Location (Spirit Level) 753.2'
 Township RIPLEY 3 S49.1 W 29.1
 Range JACKSON District RAVENSWOOD
 C. C. [Signature]
 Surveyor's Registration No. 5285
 Drawing No. 1153/43
 Date 22, 1943. Scale 1" = 300'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES &
 OIL AND GAS DIVISION
 CHARLESTON ✓
 WELL LOCATION MAP
 FILE NO. J.A.C. 644
 09/16/2016
 * Denotes location of well on United States Topographic Map, 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.

3500644

WW-4A
Revised 6-07

1) Date: 6/20/16
2) Operator's Well Number
Siv 12
3) API Well No.: 47 - 035 -00644

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: (a) Name James Suck, Jr.
Address 468 Wilding RD., Ravenswood WV 26164

5) (a) Coal Operator Name None
Address _____

(b) Name _____ (b) Coal Owner(s) with Declaration Name _____
Address _____ Address _____

(c) Name _____ Address _____

6) Inspector JAMIE STEVENS (c) Coal Lessee with Declaration Name _____
Address 105 Kentuck Rd. Address _____
Kenna WV 25248
Telephone 304 206 7775

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.

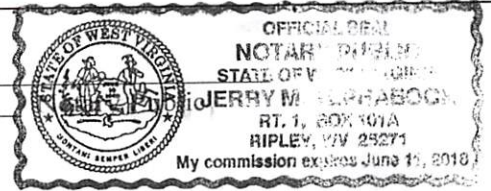
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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 EXCO Resources (PA) LLC
By: Randall Sheets *Randall P. Sheets*
Its: Supervisor
Address POBox 8, Ravenswood WV 26164
Telephone 304 273 5371

Subscribed and sworn before me this 22nd day of June, 2016

My Commission Expires 6/11/18
Jerry M. Tephelbeck
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.

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WW-9
(5/13)

Page _____ of _____
API Number 47 - 035 - 00644
Operator's Well No. Siv - 12

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EXCO Resources (Pa), LLC OP Code 307860

Watershed (HUC 10) Straight Fork Quadrangle Ripley

Elevation 755 County Jackson District Ravenswood

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 _____ No x

If so, please describe anticipated pit waste: _____

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

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 All waste will be capured and Disposed)

OFF SITE
gum

Will closed loop system be used? no

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Salt Water

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

Additives to be used in drilling medium? none

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. properly Disposed

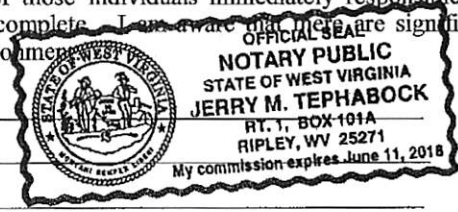
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) no pit

-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 Randall Sheets
Company Official (Typed Name) Randall Sheets
Company Official Title Supervisor



Subscribed and sworn before me this 12th day of Sept, 2016

Jerry M. Tephobock Notary Public

My commission expires 6/11/18

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SEP 12 2016

47-035-00644-T

Operator's Well No. Siv 12 Jack 644

Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH 6.0
1.0 _____

Lime _____ Tons/acre or to correct to pH 6,5
2

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

Mulch _____ Tons/acre
2.0

Seed Mixtures

| Area I | | Area II | |
|---------------|----------|-----------|----------|
| Seed Type | lbs/acre | Seed Type | lbs/acre |
| Fescue 40 | _____ | _____ | _____ |
| Alsike 5 | _____ | _____ | _____ |
| Annual Rye 16 | _____ | Same | _____ |

Attach:
Drawing(s) of road, location, pit and proposed area for land application.
Photocopied section of involved 7.5' topographic sheet.

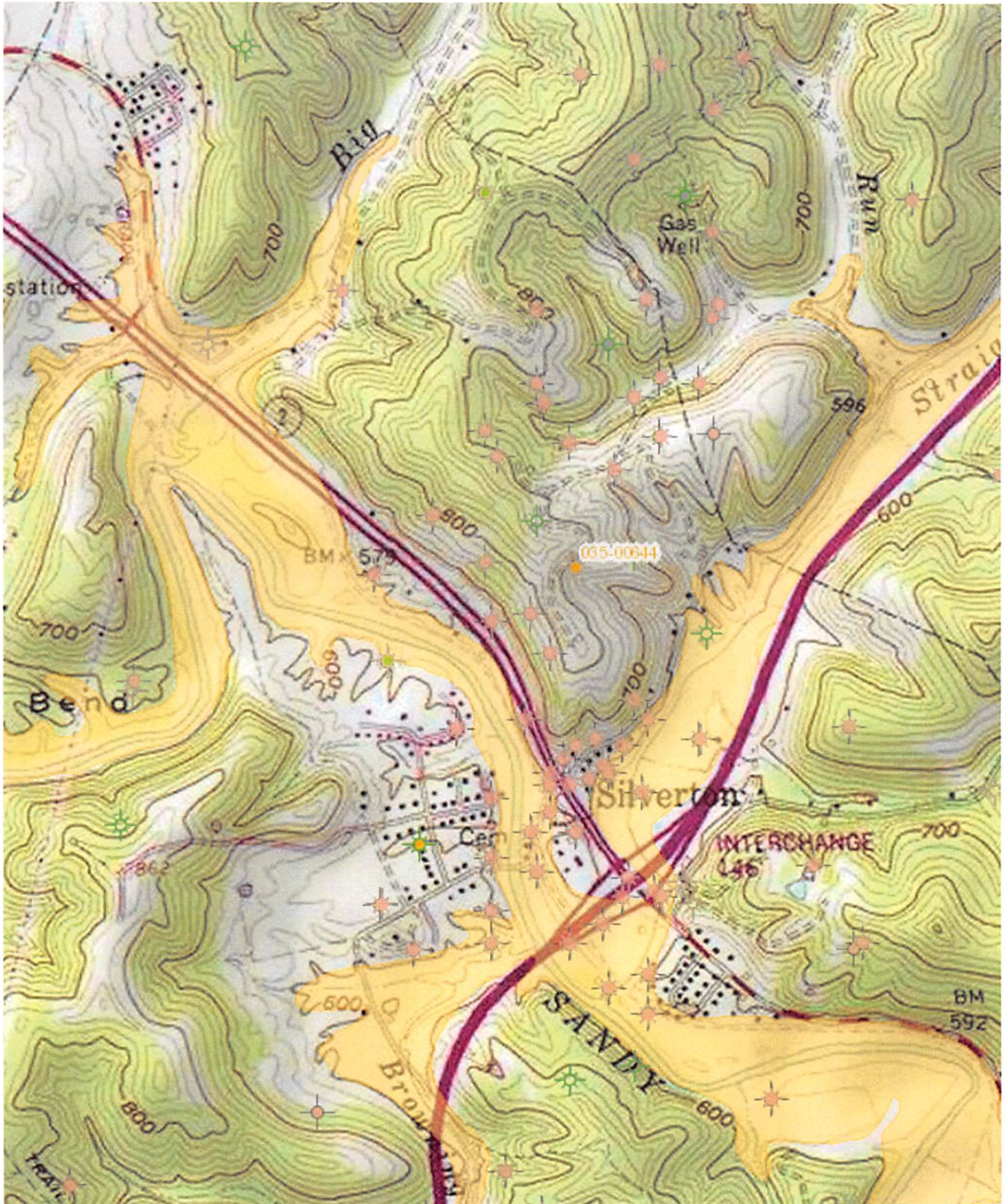
Plan Approved by: James S. Stevens, Jr.

Comments: _____

Title: Inspector Date: 6/22/2016

Field Reviewed? () Yes () No

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WV Department of
Environmental Protection
09/16/2016



09/16/2016

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47 035 0644 WELL NO.: Siv 12

FARM NAME: Suck

RESPONSIBLE PARTY NAME: EXCO Resources (PA)LLC

COUNTY: Jackson DISTRICT: Ravenswood

QUADRANGLE: Ripley

SURFACE OWNER: James Suck

ROYALTY OWNER: James Suck

UTM GPS NORTHING: ~~4309175~~ 4309319.6

UTM GPS EASTING: ~~0437550~~ 437442 GPS ELEVATION: 742

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:

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

Survey grade GPS ____: Post Processed Differential ____
Real-Time Differential ____

Mapping Grade GPS : Post Processed Differential ____
Real-Time Differential ____

- 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.

Randall D. Stewart
Signature

Supervisor
Title

6/22/16
Date

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