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 20, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8101006, issued to EXCO RESOURCES (PA), LLC, 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.

James Martin
Chief

Operator's Well No: NEW BEAVER 28B
Farm Name: BEAVER COAL COMPANY
API Well Number: 47-8101006
Permit Type: Plugging
Date Issued: 07/20/2016

Promoting a healthy environment.

8101006P

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.

8101006R

WW-4B
20
Rev. 2/01

1) Date 5/1/2016,
2) Operator's
Well No. New Beaver Coal 28-C
3) API Well No. 47- 081-01006

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____

5) Location: Elevation 2400 Watershed RICHARDSON BRANCH
District SLAB FORK County Releigh Quadrangle LESTER

6) Well Operator EXCO Resources (PA), LLC
Address PO Box 8.
Ravenswood, WV 26164

7) Designated Agent Diana Stampler/C.T.Corp.
Address 5400 D Big Tyler Road
Charleston, WV 25301

Oil and Gas Inspector to be notified
Name GARY KENNEDY
Address PO Box 268,
NimitZ, WV 25978
PHONE 304 382 8402

9) Plugging Contractor
Name R & R WELL SERVICE
Address 42 LYNCH RIDGE
WALTON, WV 25286

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

Check for Rock Pressure

Remove all equipment used to produce well, 2615of 41/2 PIPE CEMENTED IN PREVENTS REACHING TD
Run in tubing into +/-2615 or to TD
Gel hole
Set cement plug +/- 2615 to 2240 if possible reach TD across producing formations
Gel +/-2240 to 1580
Cut and pull 4/1/2 at +/-1530 Free Point
Set cement plug +/-1530 to 1430 into bottom of 7"csg
Gel+/-1430 to 1200
7'should be to surface if not cut and pull and set plug 100 cement at cut
Cement +/-1270 to 1100
Gel to +/- 1100 to 570
Cement +/-570 to 310 over coal and water
Gel to +/-310to100 ,
Cement 100' to surface
erect monument with API
gel between all plugs

WAIT 4 HRS. CHECK CEMENT TOP. ADD CEMENT IF NEEDED

OK JWM

SIGNATURE Randall D Lluts

DATE- 5/25/16

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WR-35

07-Jun-95
API # 47-81-01006

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

Well Operator's Report of Well Work

Farm Name: BEAVER COAL COMPANY Operator's Well No.: #28-C

Location: Elevation: 2,400.00 Quadrangle: LESTER
District: SLAB FORK County: RALEIGH

Latitude: 12250 feet south of 37 Deg. 45 Min. 00 Sec.
Longitude: 3500 feet west of 81 Deg. 20 Min. 00 Sec.

Company: PEAKE ENERGY, INC.
P.O. BOX 8
RAVENSWOOD, WV 26164

Agent : Thomas S. Liberatore

Inspector: RODNEY DILLON
Permit Issued: 06/09/95
Well Work Commenced: 07/07/95
Well Work Completed: 07/12/95
Verbal Plugging
Permission granted:_____
Rotary: _X_ Cable:____ Rig
Total Depth (ft): 3367'
Fresh Water Depths: 70'

Salt Water Depths:_____

Is Coal being mined ? No
Coal Depths: see log on back

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fillup (sx)
12 3/4	21	21	2 Class A
7	1531	1531	214 Class A
4 1/2	2615	2615	95 Pozmix

OPEN FLOW DATA

Producing Formation 1st Middle Maxon Sand Pay Zone Depth: 2307-2335
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 inital and final tests -- Hours
Static rock pressure * psig (surf. pressure) after -- Hours

2nd Producing Form: 2nd Middle Maxon Sand Pay Zone Depth: 2483-2508
Gas: Initial open flow -- Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 1,032* Mcf/d Final open flow 0 Bbl/d
Time of open flow between inital and final tests 12 Hours
Static rock pressure 255 * psig (surf. pressure) after 72 Hours
*Rock pressures & open-flows are combined.

NOTE: Details of Fracturing, Perforating, & Well Log on Back.

Thomas S. Liberatore

For: PEAKE ENERGY, INC.

By: Thomas S. Liberatore, General Manager
Date: September 25, 1995

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FORM WR-35
(Reverse)

PERMIT #: 47-081-1006
CO. WELL #: 28-C
ELEVATION: 2400 GL, 2405 KB

DETAILS OF PERFORATIONS, FRACTURING, OR PHYSICAL CHANGE, ETC.

7/26/95: PERFORATED THE 2nd M. MAX. FROM 2483-2508 USING 55 HOLES
7/26/95: FOAM-FRAC'D 2nd M. MAX. USING 60,000# OF SAND, 238 BBL OF WATER, AND 471,500 SCF OF NITROGEN.
PERFORATED THE MID. MAX. FROM 2307-2335 WITH 70 HOLES.
FOAM-FRAC'D THE MID. MAX. USING 35,000# SAND,
200 BBL OF WATER, 331,725 SCF OF NITROGEN.

WELL LOG (all depths taken from KB)

ROCK TYPE OR FORMATION	TOP	BOTTOM	REMARKS
SANDY SHALE	0	97	WTR.@70'
COAL	97	98	
SAND	98	145	
SHALE	145	262	
SAND	262	316	
SHALE	316	428	WTR. @ 360'
COAL	428	429	
SAND	429	515	
COAL	515	516	
SAND	516	674	
SAND & SHALE	674	910	
SALT SANDS	910	1200	
SHALE & SAND	1200	1560	
PRINCETON SAND	1560	1614	
SHALE	1614	1778	
RAVENCLIFF SAND	1778	1818	
AVIS LIME	1818	1838	
SHALE	1838	2198	
MIDDLE MAXON STRAY	2198	2216	
SHALE	2216	2290	
MIDDLE MAXON SAND	2290	2344	S/GAS
SHALE	2344	2472	
2nd MID. MAXON SAND	2472	2521	S/GAS*
SHALE & LIME	2521	2580	
LOWER MAXON SILTSTONE	2580	2684	
LITTLE LIME (REYNOLDS)	2684	2774	
BIG LIME (GREENBRIER)	2774	3250	
SHALE	3250	3367	
TOTAL DEPTH	3367		

*NOTE: Well was making approx. 26 Mcf/d, natural.
Gas at T.D. was too small to measure.

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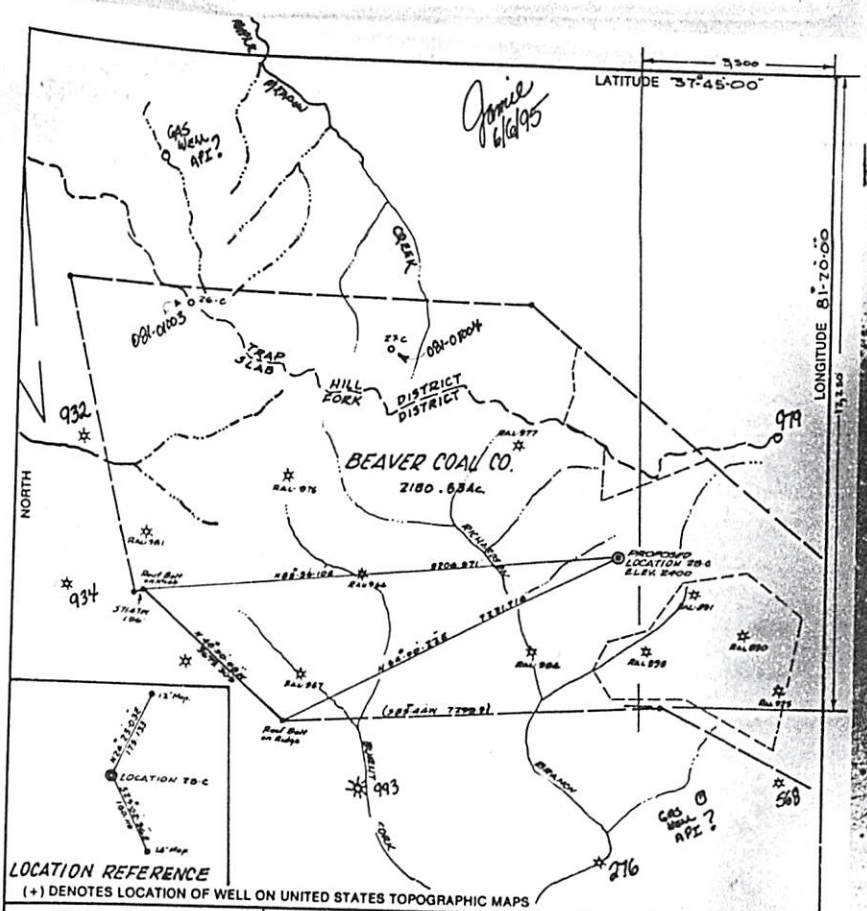

FILE NO. ____
DRAWING NO. ____
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1:10000
PROVEN SOURCE OF ELEVATION PT. ON KNOB ELEV. 2563

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 ENERGY.
(SIGNED) Frank H. Barker
R.P.E. ____ L.L.S. 289

FRANK H. BARKER LICENSED No. 289 STATE OF WEST VIRGINIA LAND SURVEYOR
PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE MAY 11, 1995
OPERATOR'S WELL NO. 28-C NEW BEAVER
API WELL NO. 47 - 081 - 01006
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 2400 WATER SHED RICHARD, ON BRANCH
DISTRICT SLAB FORK COUNTY RALEIGH
QUADRANGLE LESTER
SURFACE OWNER BEAVER COAL CO. ACREAGE 2180.63
OIL & GAS ROYALTY OWNER BEAVER COAL CO LEASE ACREAGE 2180.63
LEASE NO. ____
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ____
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION KNOX, MAXTON, BIG LINE ESTIMATED DEPTH 3400 ft
WELL OPERATOR PEAKE ENERGY INC. DESIGNATED AGENT TOM LIBERATORE
ADDRESS P.O. BOX 8 RAVENSWOOD, WV 26164 ADDRESS P.O. BOX 8 RAVENSWOOD, WV 26164

FORM WW-6 HALLS INC.

COUNTY NAME RAL. PERMIT

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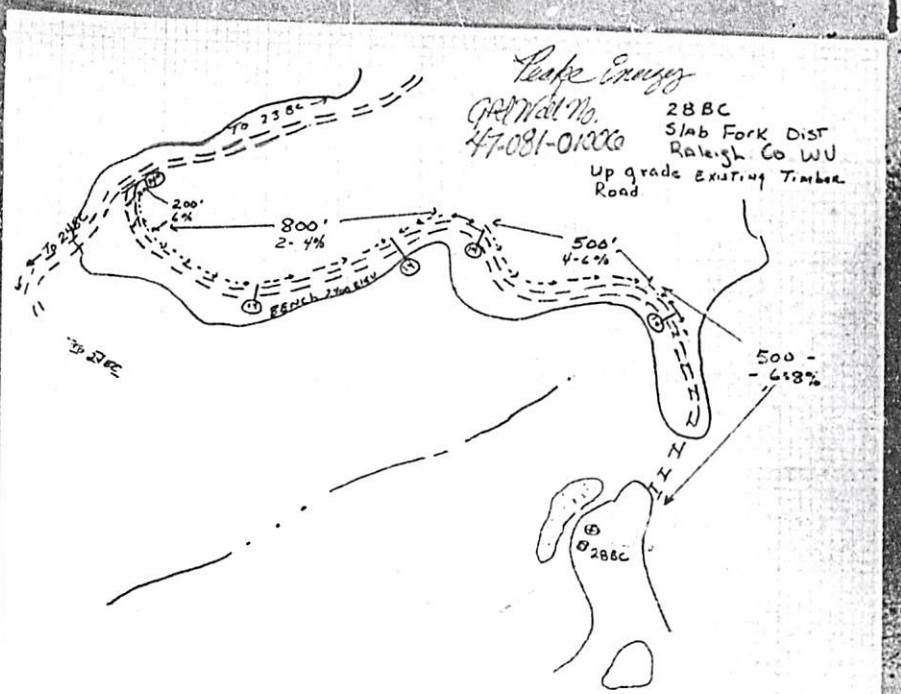

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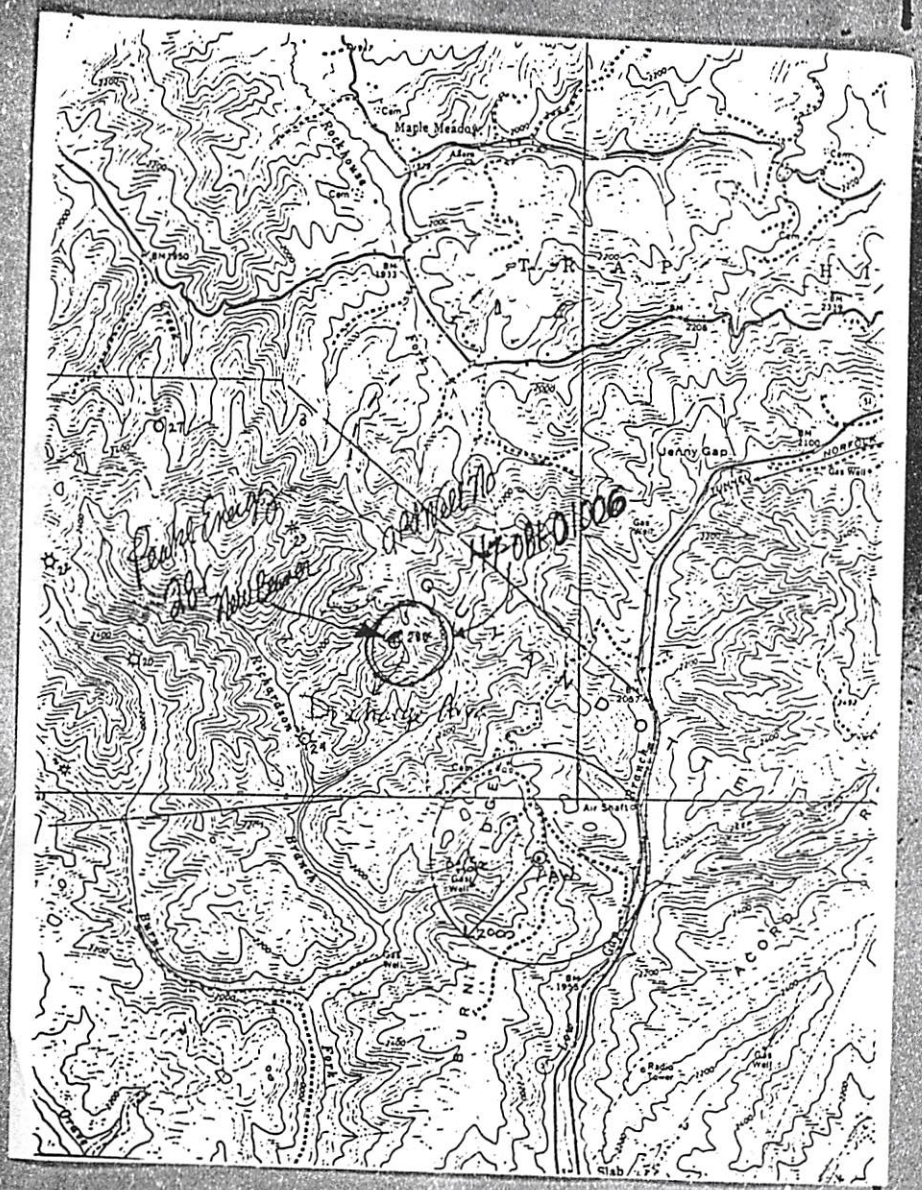

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WW-4A
Revised 6-07

1) Date: 5/1/2016
2) Operator's Well Number
New Beaver Coal 28-C

3) API Well No.: 47 - 081-01006

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served: ✓
(a) Name Beaver Coal Co.
Address 1151/2 Kanawha St., Beckley WV 25801

(b) Name
Address

(c) Name
Address

Address Gary
PO
Telephone

Gary Kennedy
P.O. Box 268
Nimitz, WV 25978
Ph. (304) 382 8402

5) (a) Coal Operator ✓
Name Beaver Coal
Address 115 1/2 Kanawha St. Beckley WV 25801

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

Address

Coal Lessee with Declaration

dress

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 Chie

Well Operator EXCO RESOURCES (PA), LLC
By: Randall Sheets
Its: Supervisor
Address P O BOX 8
RAVENSWOOD, WV 26164
Telephone 304-273-5371

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Subscribed and sworn before me this 24th day of May 2016
Notary Public

My Commission Expires June 11, 2018

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JERRY M. TEPHABOCK
RT. 1, BOX 101A
RIPLEY, WV 25271
My commission expires June 11, 2018

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 depprivacyoffier@wv.gov.

8101006P

WW-9
(2/15)

API Number 47 - 081 - 01006
Operator's Well No. New Beaver 28C

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) Richardson Branch Quadrangle Lester

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

Will a pit be used? Yes _____ No X

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes _____ No _____ 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)
X Other (Explain Any fluids will be collected in a tank and Hauled)

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. _____

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

Additives to be used in drilling medium? _____

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

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

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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.

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Company Official Signature Randall D Sheets

Company Official (Typed Name) RANDALL SHEETS

Company Official Title Supervisor

Subscribed and sworn before me this 24th day of May 2016

Notary Public

My commission expires June 11, 2018

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JERRY M. TEPHABOCK
RT. 1, BOX 101A
RIPLEY, WV 25271
My commission expires June 11, 2018

8101006 P

Form WW-9

Operator's Well No. New Beaver #28C

Proposed Revegetation Treatment: Acres Disturbed 0.5 Prevegetation Ph 6.0

Lime 2 Tons/acre or to correct to pH

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KENTUCKY FESCUE	4	SAME	
ALSIKE CLOVER	5		
ANNUAL RYE	16		

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Jimmy Kennedy

Comments:

Title: Inspector Date: 5/25/16

Field Reviewed? (X) Yes ( ) No

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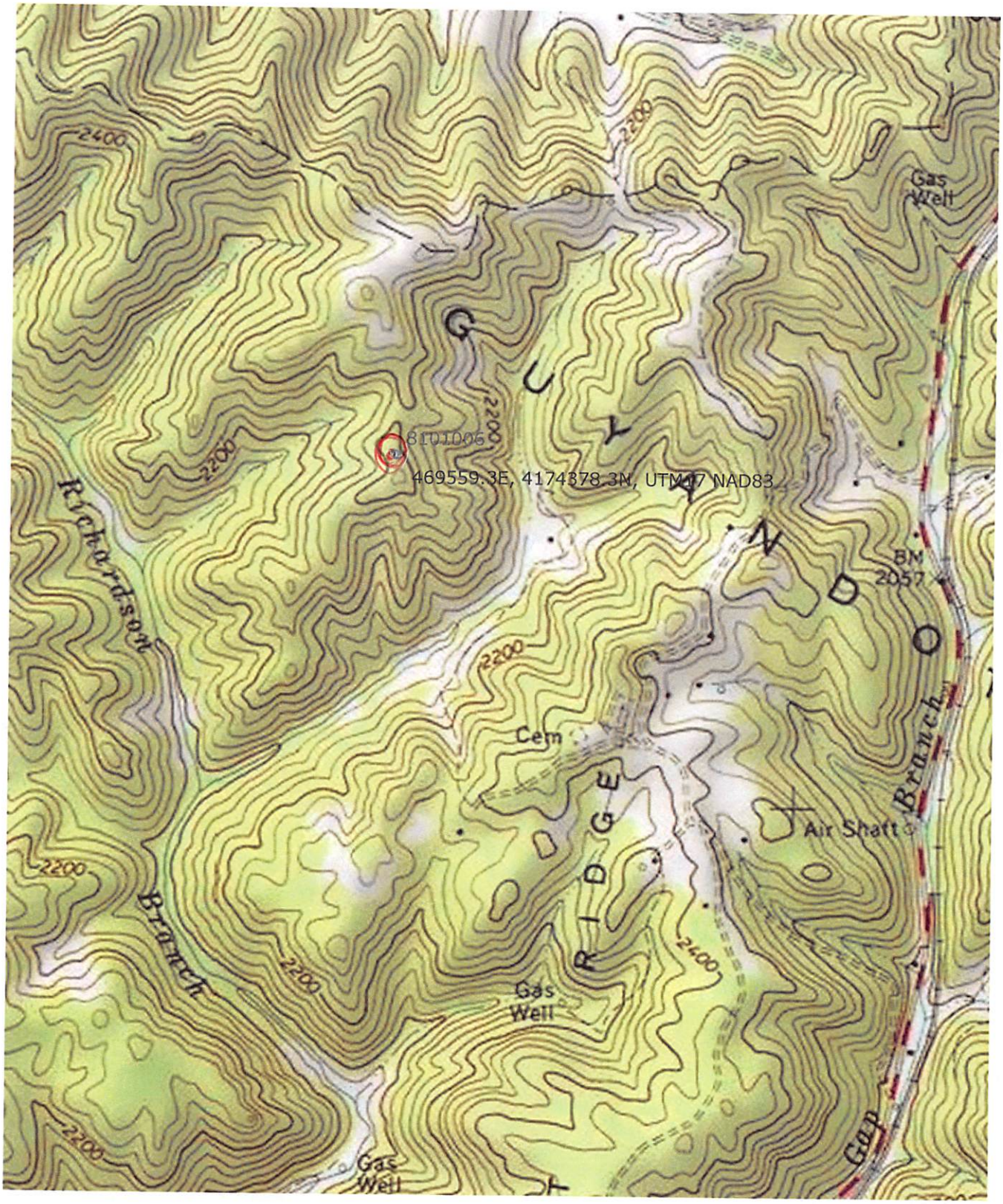
2400
2200
Gas Well
G U Y A N D O
8101006
469559.3E, 4174378.3N, UTM17 NAD83
Richardson
BM 2057
Cem
R I D G E
Air Shaft
Branch
Gap
Gas Well

81 01006P

WW-7
8-30-06

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

API: 47 081 01006 **WELL NO.:** New Beaver Coal 28C

FARM NAME: Beaver Coal

RESPONSIBLE PARTY NAME: EXCO Resources (PA), LLC

COUNTY: Releigh **DISTRICT:** Slab Fork

QUADRANGLE: Lester

SURFACE OWNER: Beaver Coal Company

ROYALTY OWNER: Beaver Coal Company

UTM GPS NORTHING: ~~417550.7~~ 4174378.3 N

UTM GPS EASTING: ~~474366.7~~ 469559.3 E **GPS ELEVATION:** 2400

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 X : Post Processed Differential _____

Real-Time Differential _____

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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.

Randall D. Slater — Signature
Supervisor — Title
5/26/16 — Date