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

June 23, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8101271, 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 RIVER 32
Farm Name: WHITE OAK LAND CO.
API Well Number: 47-8101271
Permit Type: Plugging
Date Issued: 06/23/2016

Promoting a healthy environment.

8101271P

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 under the terms of that agreement.

81 01271 P

WW-4B
20
Rev. 2/01

1) Date 5/1/2016,

2) Operator's
Well No. New River 32
API Well No. 47- 081-01271
-

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 2409 Watershed Cramberry Creek
District Town County Releigh Quadrangle Beckley

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

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 Rock Pressure Put up plenty of Ribbon

Remove all equipment used to produce well including 1 ½

Gel hole at +/- td2350

Cement 2350 to 2250

Gel 2250 to 1850

Cement 1850 to 1700 over 4 ½ seat

Cement 1700 to 1500 PERFORATIONS

Cut and pull 4 ½ at +/- 1200'

Cement 100'across cut

Cement 1250 to1050 0r across cut

~~Gel 1050 to 700'~~

Cement 700 to 310'across water and 95/8 seat

gel 310 to 210

cement 210 to surface

set monument with Api

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Sinature Gary Kennedy Date 6/7/2016

8101271P

WR-35
Rev (5-01)

DATE: 11/03/2004
API #: 47-8101271

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

GAS

Farm name: New River Operator Well No: #32

LOCATION: Elevation: GL 2409 Quadrangle: Beckley 7.5'

District: Town County: Raleigh
Latitude: 2840' Feet South of 37 Deg. 50 Min. 00 Sec.
Longitude: 6080' Feet West of 81 Deg. 10 Min. 00 Sec.

Company: Energy Search, Inc

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 88 Products Lane	13 3/8"	22'	22'	
Marietta, Ohio 45750				
Agent: Mike McCown	9 5/8"	512'	512'	90 sks
Inspector: Rick Campbell				
Date Permit Issued: 5/28/2002	7"	1167'	1167'	175 sks 175
Date Well Work Commenced: 6/13/2002				
Date Well Work Completed: 6/16/2002	4 ½"	1823'	1823'	115 sks
Verbal Plugging:				
Date Permission granted on:	1 ½"		1624'	
Rotary XX Cable Rig				
Total Depth (feet): 2350'				
Fresh Water Depth (ft.): 240' wet; 360' 1" stream				
640' 7" stream				
Salt Water Depth (ft.):				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): Open Mine 360'				

115
17.4
460
115
115
1210
600'
175
2.8
1400
1225
1345
1365 7"

OPEN FLOW DATA

Producing formation Ravencliff Pay zone depth (ft) 1624-1627 –10 shots
Gas: Initial open flow TSTM MCF/d Oil: Initial open flow_____Bbl/d
Final open flow water + 60 MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure 175 psig (surface pressure) after 14 Hours

Second producing formation_____ Pay zone depth (ft)_____
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 pressure) after _____Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: _____
By: _____
Date: 11-03-2004

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Office of Chief
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Formation Tops (from KB 2415)

Pride Hot Shale	1541 – 1555
Ravencliff Sand	1615 – 1659
Avis Lime	1669 – 1705
Maxton Sands	Not Present
TD	2350

Well appears to be wet with a show of gas

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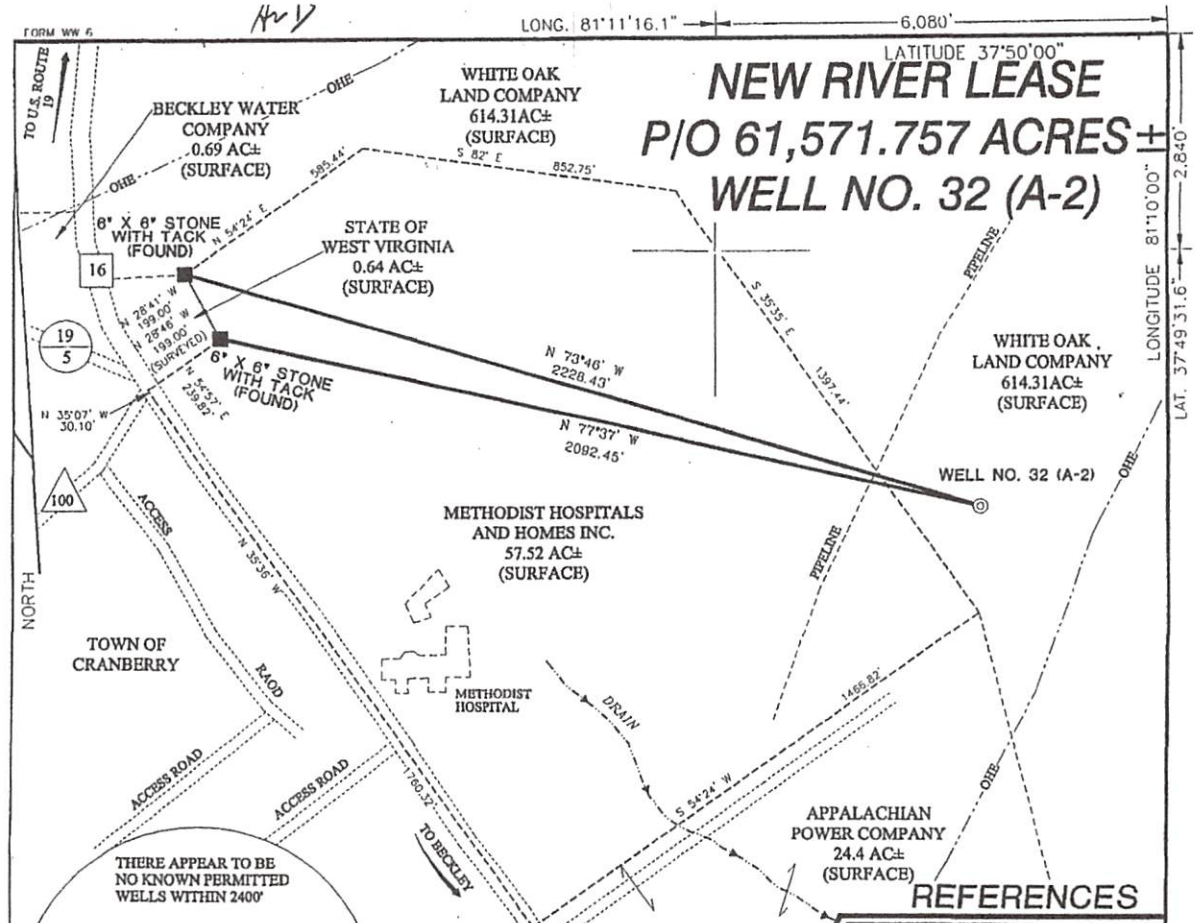
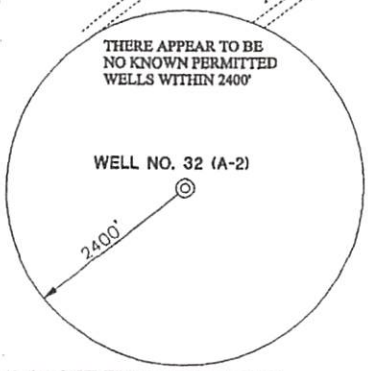
FORM WW 6

Av 1

8101271P
New River
92

NEW RIVER LEASE
P/O 61,571.757 ACRES±
WELL NO. 32 (A-2)

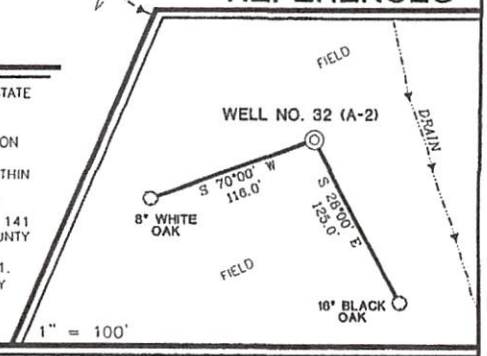




NOTES ON SURVEY

1. TIES TO CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11/14/01.
3. LEASE BOUNDARY IS NOT SHOWN WITHIN THE PARAMETERS OF THIS PLAT.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM ROLL BOOK 141 PAGE 2255 IN THE ASSESSOR AND COUNTY CLERKS OFFICE OF RALEIGH COUNTY IN NOVEMBER, 2001.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



SLS

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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 Gregory A. Smith

GREGORY A. SMITH LICENSED No. 677 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE NOVEMBER 27, 20 01

OPERATORS WELL NO. 32 (A-2)

API WELL NO. 47 — 81 — 01271
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 4143P32(107-72)

SCALE 1"=400'

PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEVATION 2472'

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

WELL TYPE : OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION :

ELEVATION 2409' WATERSHED TRIBUTARY OF CRANBERRY CREEK

DISTRICT TOWN COUNTY RALEIGH QUADRANGLE BECKLEY 7.5'

SURFACE OWNER WHITE OAK LAND COMPANY ACREAGE 614.31±

ROYALTY OWNER NEW RIVER COMPANY LEASE ACREAGE P/O 61,571.757±

PROPOSED WORK : LEASE NO. ___

DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION WEIR

ESTIMATED DEPTH 3000'

COUNTY NAME

PERMIT

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WELL OPERATOR ENERGY SEARCH, INC. DESIGNATED AGENT FRANK ROTUNDA

ADDRESS 280 SANDERS W. BLVD. SUITE 200 ADDRESS 1608 GREENMONT HILLS DR.

KNOXVILLE, TN 37922 VIENNA, WV 26105

8101271P

WW-4A
Revised 6-07

1) Date: 5/1/2016
2) Operator's Well Number
New River 32

3) API Well No.: 47 - 081-01271

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

4) Surface Owner(s) to be served:
(a) Name White Oak Land Company
Address 63 White Oak Road, Beckley, WV 25801

(b) Name
Address

(c) Name
Address

5) (a) Coal Operator
Name Beaver Coal co.
Address 115 ½ Kanawha St. Beckley, WV 25801

(b) Coal Owner(s) with Declaration Beaver Coal Co LTD
Name
Address
P.O.
Address

(c) Coal Lessee with Declaration
Name
Address

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

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

Official Seal
Notary Public, State of West Virginia
Kathryn Shafer
4427 Charleston Road
Ripley WV 25271
My Commission Expires May 9, 2024

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

Subscribed and sworn before me this 7th day of June 2016
Kathryn Shafer Notary Public
My Commission Expires 5/9/24

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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.

8101271P

WW-9
(2/15)

API Number 47 - 081 - 1271
Operator's Well No. New River 32

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name _____ OP Code _____

Watershed (HUC 10) _____ Quadrangle _____

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 ✓ GK

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:

ANY WELL EFFLUENT MUST BE PUT IN TANKS & DISPOSED OF PROPERLY. gwm

_____ Land Application
_____ Underground Injection (UIC Permit Number _____)
_____ Reuse (at API Number _____)
_____ Off Site Disposal (Supply form WW-9 for disposal location)
X Other (Explain NO FLUIDS EXPECTED ON RETURN

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.

Company Official Signature Randall D Sheets

Company Official (Typed Name) RENDALL SHEETS

Company Official Title Supervisor

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Subscribed and sworn before me this 7th day of June, 2016

Kathryn Shafer
Notary Public

My commission expires 5/9/24

Official Seal
Notary Public, State of West Virginia
Kathryn Shafer
4427 Charleston Road
Hipley WV 25271
My Commission Expires May 9, 2024

8101271P

Form WW-9

Operator's Well No. New River 32

Proposed Revegetation Treatment: Acres Disturbed 0.5 Prevegetation Ph 6.0

Lime _____ 2Tons/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: Amy Kennedy

Comments:

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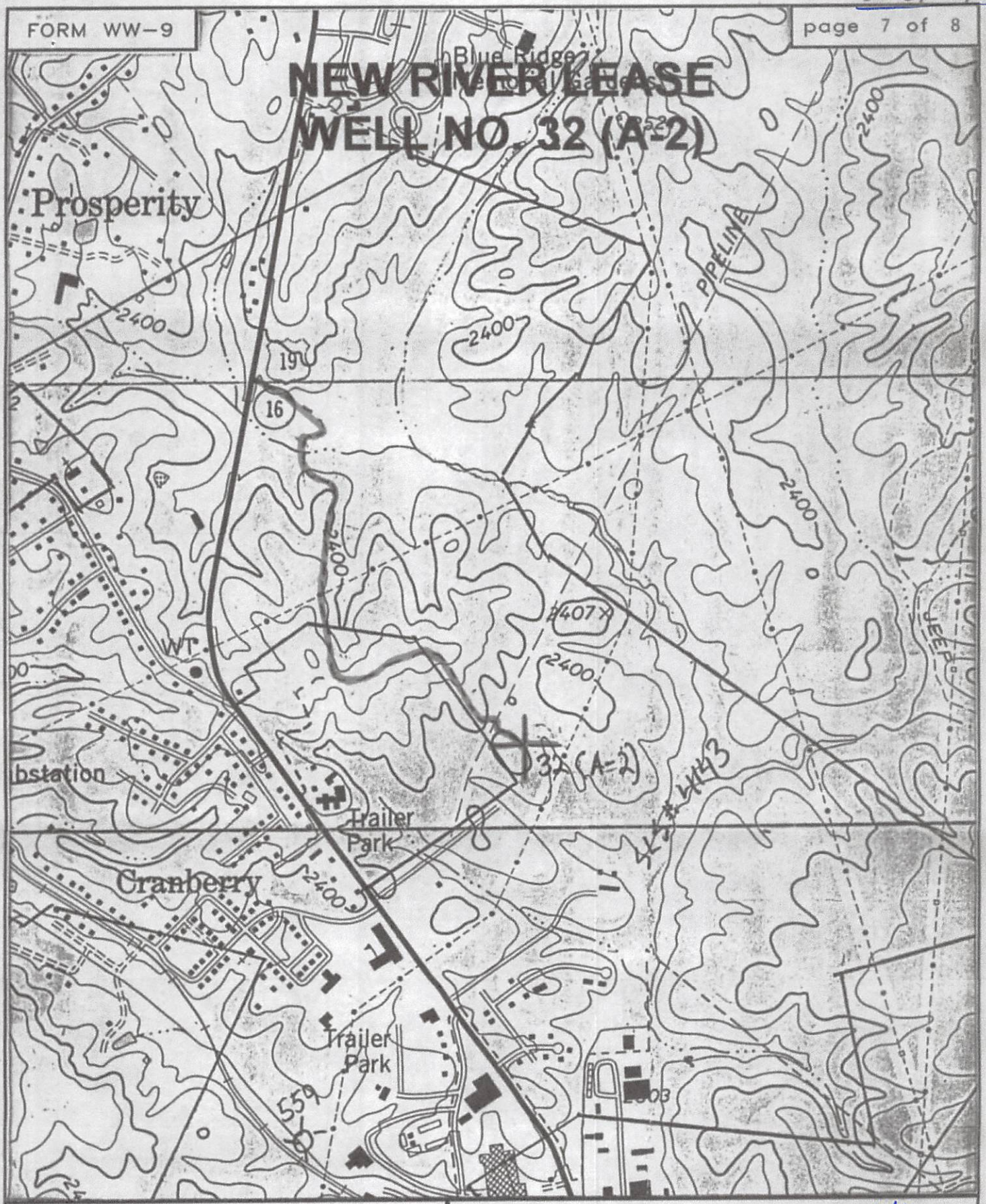
Title: Inspector Date: 6/7/2016

Field Reviewed? (✓) Yes ( ) No

81-0127 P

FORM WW-9



SLS

SMITH LAND SURVEYING
P.O.BOX 150 GLENVILLE, WV. 26351

TOPO SECTION OF Beckley 7.5'

FILE NO. 4143 DATE 4/26/02 SCALE 1"=1000'

8101271P

WW-7
8-30-06

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

API: 47 081 01271 **WELL NO.:** New River 32

FARM NAME: Western Pocahontas Properties

RESPONSIBLE PARTY NAME: Exco Resources (PA), LLC

COUNTY: Releigh **DISTRICT:** Trap Hill

QUADRANGLE: Lester 7.5

SURFACE OWNER: White Oak Land

ROYALTY OWNER: Beaver Coal

UTM GPS NORTHING: 4186483.4

UTM GPS EASTING: 483497.4 **GPS ELEVATION:** 2409

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 _____

4. **Letter size copy of the topography map showing the well location.**

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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. [signature] Supervisor 6/7/16

Signature Title Date