



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

September 02, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3902404, 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 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: MOLES, ERMA

API Well Number: 47-3902404

Permit Type: Plugging

Date Issued: 09/02/2015

Promoting a healthy environment.

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.

1) Date June 15, 2015
2) Operator's Well No. MOLES 1
3) API Well No. 47-039 - 02404

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 ____ or Underground storage ____) Deep ____ / Shallow X

5) Location: Elevation 981' Watershed Willis Creek
District Elk County Kanawha Quadrangle Clendenin

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

8) Oil and Gas Inspector to be notified Name Terry Urban
Address PO Box 1207
Clendenin, WV 25045
9) Plugging Contractor Name _____
Address _____

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

- Pull all tubing and rods**
- RIT to TD 2075', Gel hole**
- Cement 2075' - 1880' to cover perfs 23 sks**
- Pull tubing & cut 4 1/2 at 1200'. RIT cement 1250' - 1150' 25 sks**
- Pull tubing to 950'. Cement 950' - 850' 25 sks**
- Pull tubing to 300'. Cement 300' - 200' 28 sks**
- Pull tubing to 100'. Cement to surface 33 sks**
- Set monument with proper API #. Reclaim.**

Set all as one plug
Received
Office of Oil & Gas
AUG 20 2015

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

Work order approved by inspector *Terry Urban* Date *6-30-15*

39024044

Form OG-10



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary
Spudder
Cable Tools
Storage

Quadrangle Clendenin

Permit No. KAN-2404

WELL RECORD

Oil or Gas Well Oil
(KIND)

Company Mareve Oil Corp.
Address P. O. Box 1228, Parkersburg, W. Va.
Farm Erma Moles Acres 12-3/4
Location (waters) Wills Creek
Well No. 1 Elev. 981
District Elk County Kanawha
The surface of tract is owned in fee by C. Chapman
Address _____
Mineral rights are owned by _____
Address _____

Drilling commenced 5/28/69
Drilling completed 5/31/69
Date Shot _____ From _____ To _____
With _____

Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch

Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil Show _____ bbls., 1st 24 hrs.

WELL ACIDIZED (DETAILS) _____

WELL FRACTURED (DETAILS) 41,500 # 20/40 Sand & 41,500 gallons gelled fresh water

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 30 BOPD

ROCK PRESSURE AFTER TREATMENT _____ HOURS

Fresh Water _____ Feet _____ Salt Water _____ Feet _____

Producing Sand Big Injun _____ Depth 1934-1975

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10			Size of
<u>8-5/8"</u>	<u>240</u>	<u>240</u>	
6 3/4	<u>Cement</u>	<u>Circ.</u>	Depth set
5 3/16			
4 1/2			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Attach copy of cementing record.

CASING CEMENTED 4 1/2 SIZE 207 1/4 No. Ft. 6/1/69 Date

Amount of cement used (bags) 150

Name of Service Co. Howco

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Rock & Sand			0	25			
Rock & Shale			25	240			
Shale & Sand			240	1160			
Salt Sand			1160	1755			
Little Lime			1755	1790			
Pencil Cave			1790	1795			
Big Lime			1795	1934			
Big Injun			1934	1975			
Shale			1975	2075	(T.D.)		

Received
Office of Oil & Gas
AUG 20 1969



Handwritten note: 2404

CK#
256082
~~1000~~ \$100.00

1) Date: June 15, 2015
2) Operator's Well Number
MOLES 1
3) API Well No.: 47 - 039 - 02404 P

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: Thomas Livingston
Address: 67 Coco River
Elkview, WV 25071

(b) Name: _____
Address: _____

(c) Name: _____
Address: _____

5) (a) Coal Operator

Name: _____
Address: _____

(b) Coal Owner(s) with Declaration

Name: _____
Address: _____

(c) Coal Lessee with Declaration

Name: _____
Address: _____

6) Inspector

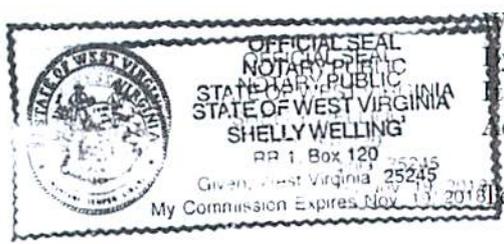
Name: Terry Urban
Address: PO Box 1207
Clendenin, WV 25045
Telephone: 304-549-5915

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: Mike Scarbrough *Mike Scarbrough*
 Title: Surface Landman
 Address: PO Box 8
 Ravenswood, WV 26164
 Telephone: 304-273-5371

Received
Office of Oil & Gas
AUG 20 2015

Subscribed and sworn before me this 6 day of July
Shelly Welling
My Commission Expires 11/19/18 Notary Public

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.

3902404P

WW-9
(2/15)

API Number 47 - 039 - 02404
Operator's Well No. MOLES 1

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) Willis Creek Quadrangle Clendenin

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

If so, please describe anticipated pit waste: surface tank will be used

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

Proposed Disposal Method For Treated Pit Wastes: 146-30-15

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

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

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

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

-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.

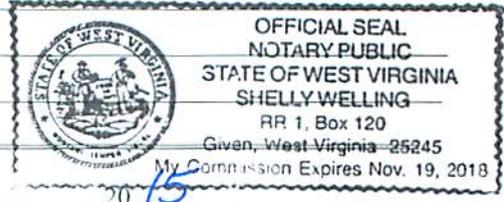
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations 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 Mike Scarbrough

Company Official (Typed Name) Mike Scarbrough

Company Official Title Surface Landman



Subscribed and sworn before me this 6 day of July, 2015

Shelly Welling Notary Public

My commission expires 11/19/18

3902404P

EXCO Resources (PA), LLC

Proposed Revegetation Treatment: Acres Disturbed >1 Prevegetation pH _____

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type _____

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

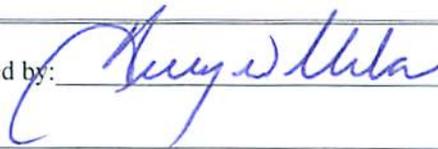
Seed Type	lbs/acre	Seed Type	lbs/acre
KY 31 Fescue	40	same as Area I	
Alsike Clover	5		
Annual Rye	16		

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: _____



Comments: _____

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Office of Oil & Gas
JUL 20 2015

Title: _____

Insp Field O&G

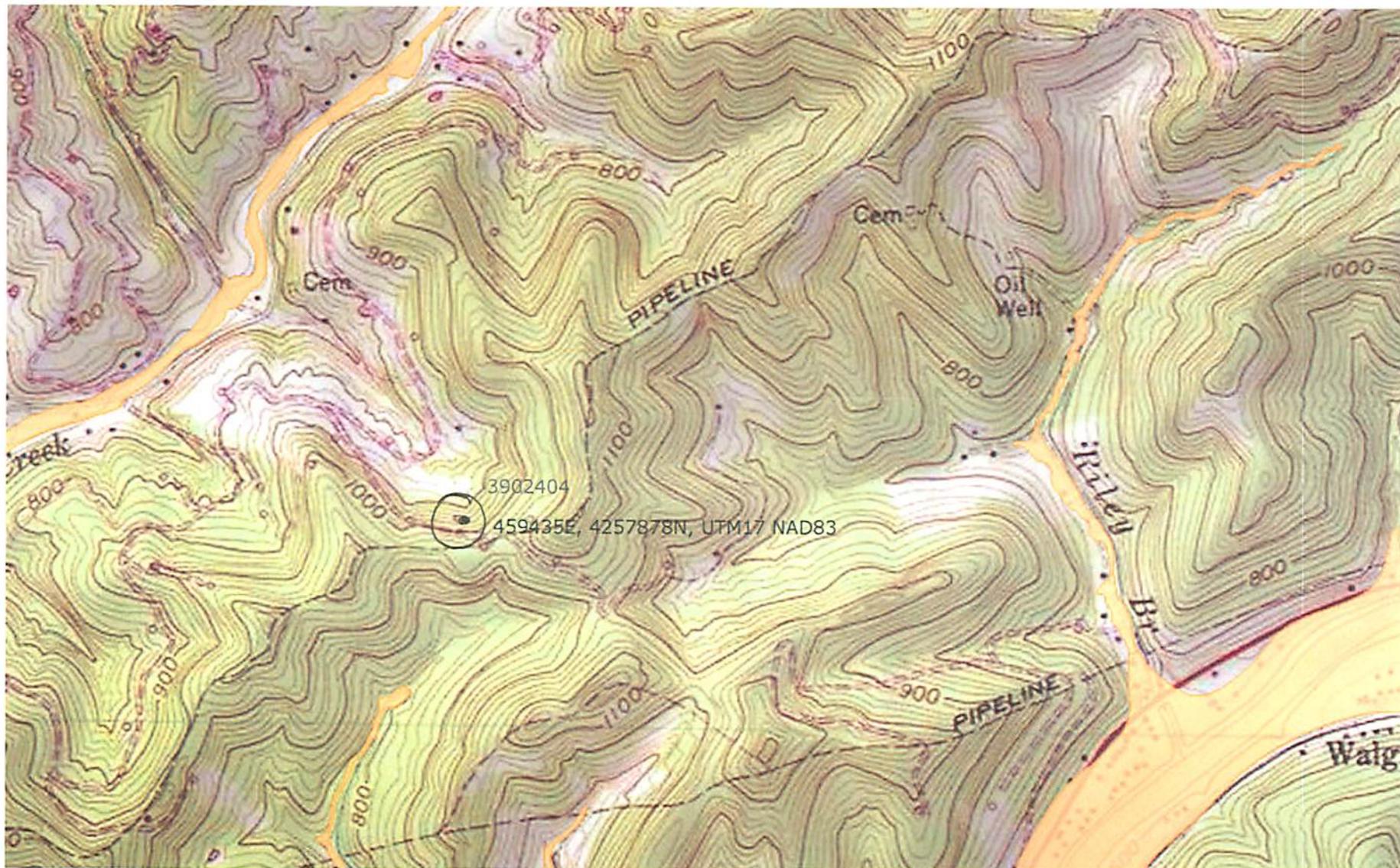
Date: _____

6-30-15

Field Reviewed?

Yes

No



3902404 P

WW-7
8-30-06



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

API: 47-039-02404 WELL NO.: MOLES

FARM NAME: ERMA MOLES

RESPONSIBLE PARTY NAME: EXCO RESOURCES (PA), LLC

COUNTY: KANAWHA DISTRICT: ELK

QUADRANGLE: CLENDENIN

SURFACE OWNER: THOMAS LIVINGSTON

ROYALTY OWNER: PHYLLIS ROWE ET AL

UTM GPS NORTHING: 4257878

UTM GPS EASTING: 459435 GPS ELEVATION: 906'

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

Received

AUG 24 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

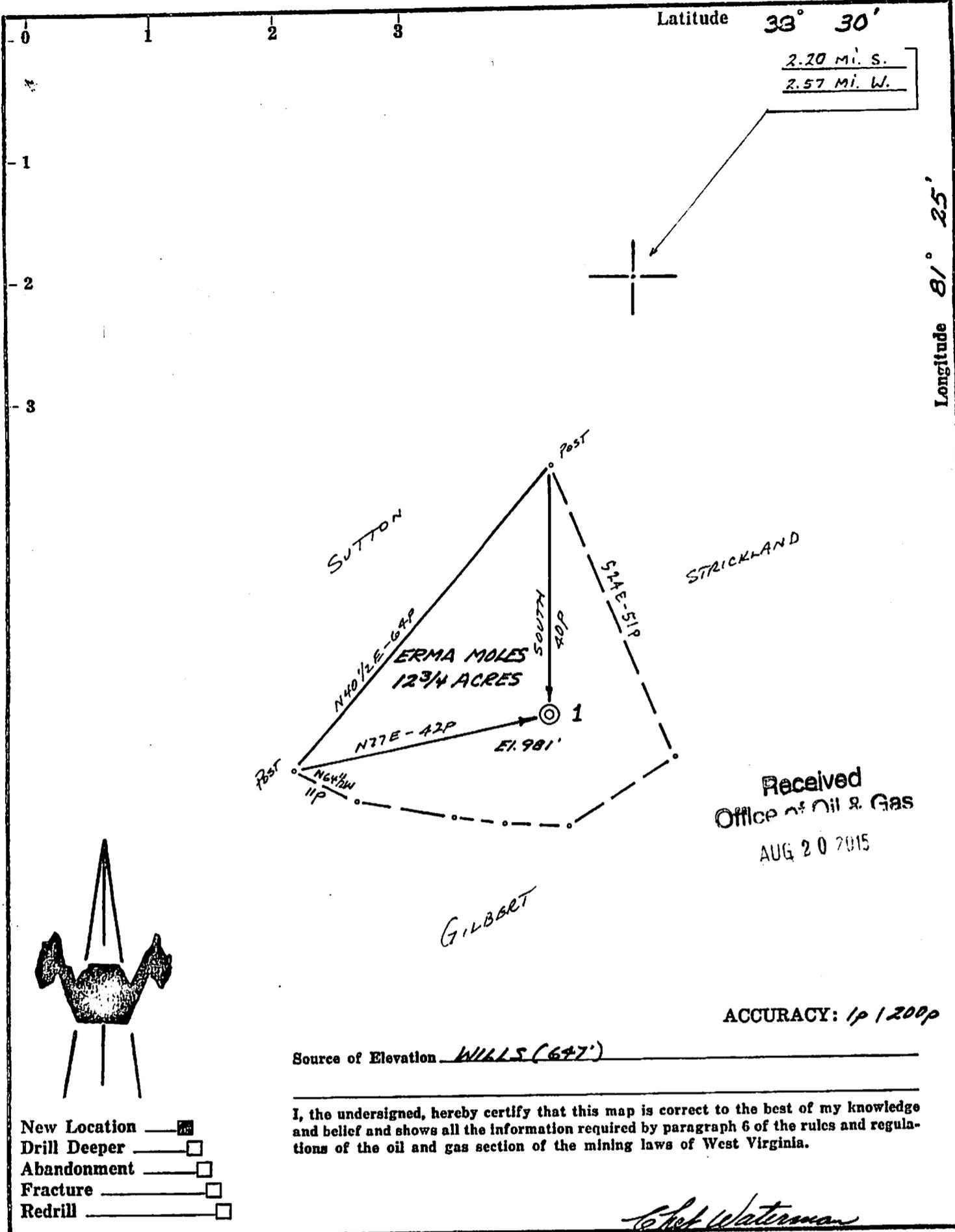
4. Letter size copy of the topography map showing the well location.

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.

Miba Seabrook
Signature

Surface Landman
Title

8/24/15
Date



Latitude 33° 30'

2.20 Mi. S.
2.57 Mi. W.

Longitude 81° 25'

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Office of Oil & Gas
AUG 20 2015

ACCURACY: 1p / 200p

Source of Elevation WILLS (647')

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 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Chet Waterman

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill

Company MAREVE OIL CORP.
 Address PARKERSBURG, W. VA.
 Farm ERMA MOLES
 Tract Acres 12 3/4 Lease No. 393 101-K
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 981'
 Quadrangle CLENDENIN T4N 12E
 County KANAWHA District ELK
 Engineer CHET WATERMAN
 Engineer's Registration No. 3788
 File No. 69003-141 Drawing No. _____
 Date 5/7/69 Scale 1" = 200'

H-27

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

WELL LOCATION MAP
 FILE NO. KAN-2404

+ Denotes location of well on United States Topographic Maps, 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.