



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

October 21, 2013

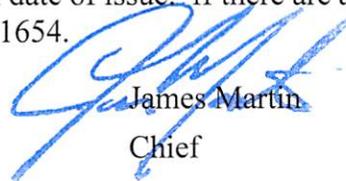
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8504346, issued to DEEM, J. F. OIL & GAS, 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: 4-A
Farm Name: SOUTHFORK SPORTSMAN ASSC
API Well Number: 47-8504346
Permit Type: Plugging
Date Issued: 10/21/2013

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.

1) Date August 29, 20 13
2) Operator's
Well No. C Leeson 4-A
3) API Well No. 47-085-04346

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

5) Location: Elevation 787 Watershed Otterslide Run
District Union 04 County Ritchie 85 Quadrangle Auburn 224

6) Well Operator J F DEEM Oil & Gas Co 7) Designated Agent J F Deem
Address 4541 Emerson Ave Address 4541 Emerson Ave
Parkersburg WV 26104 Parkersburg, WV 26104

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name David Cowan Name Lucas Well Service, Inc
Address Rt 1, Box 202 Address P O Box 4652
Harrisville WV 26362 Parkersburg, WV 26104

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

See Attached

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

Work order approved by inspector OK JFW

Date

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Office of Oil and Gas
SEP 20 2013
WV Department of
Environmental Protection

FLW 787'
SALTWATER 1730'

C Leeson 4-A

Manner of Plugging

47-085-04346

↓	Cement	2290 - 2100
	Gel	2100 - 2000
↓	Cement	2000 - 1800
	Gel	1800 - 1000
	Cut 4 1/2" casing @ 1000 (or free point) and pull	
↓	Cement	1000 - 900
	Gel	900 - 300
↓	Cement	300 - 200
	Gel	200 - 100
	Cement	100 - surface
	Erect monument w/API Number	

PLUGS - CLASS A CEMENT WITH NO MORE THAN
3% $CaCl_2$ AND NO OTHER ADDITIVES

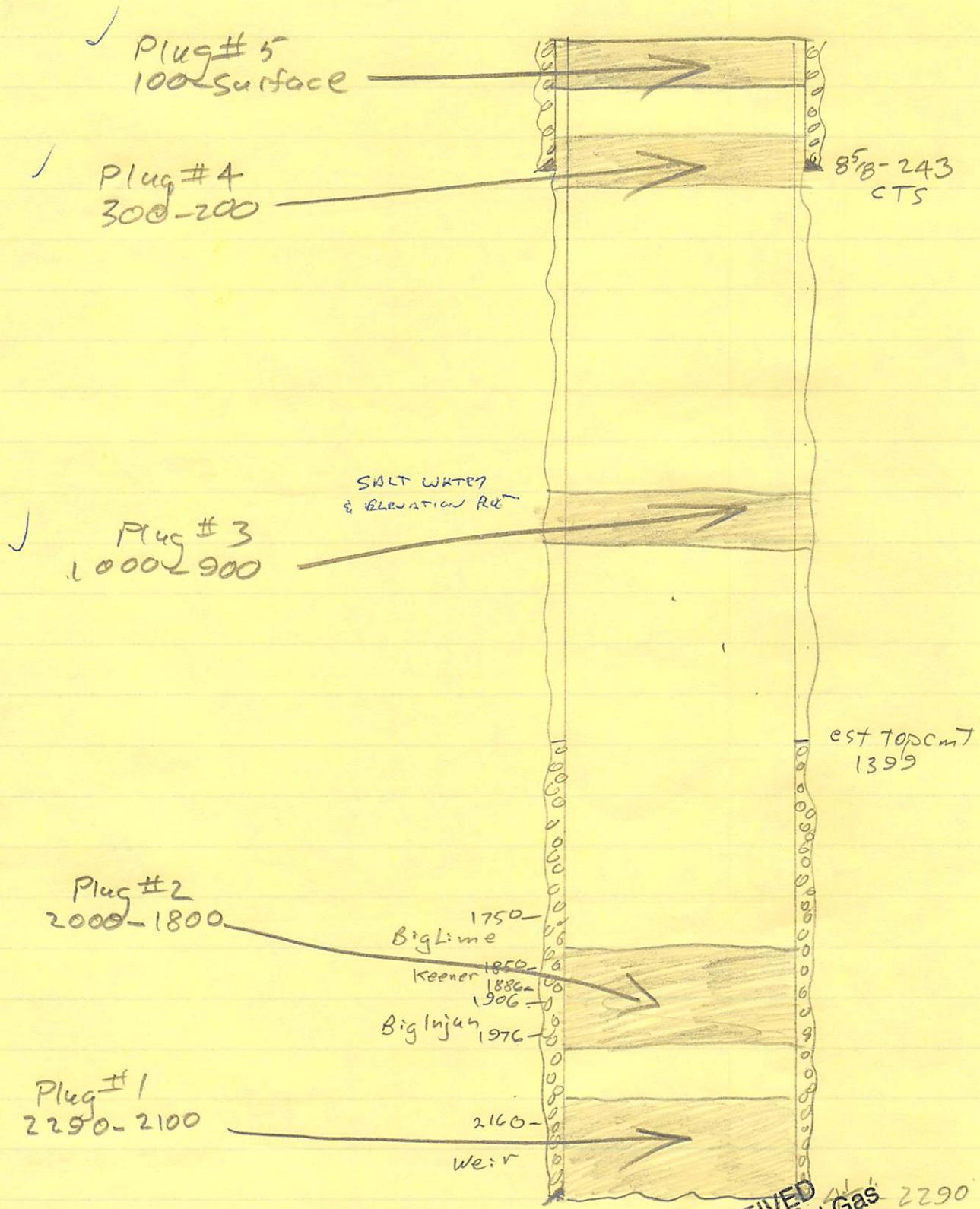
GEL SPREADS BETWEEN ALL PLUGS. GEL - FRESH WATER
WITH NO ~~MORE~~ ^{LESS} THAN 6% BENTONITE.

OK

JW 4/4

C Leeson A-A
A7-085-043A6

ELEV 787'
SALT WATER



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SEP 20 2013
WV Department of
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OG-10
Rev. - 9-71



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

Rotary XX Oil _____
Cable _____ Gas _____
Recycling _____ Comb. XX
Water Flood _____ Storage _____
Disposal _____ (Kind)

Quadrangle Pullman 7.5

Permit No. 47-085-4346

Company <u>Ferrell Prior</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>717 Union Trust Building Parkersburg</u>				
Farm <u>Clee Leeson</u> Acres <u>94</u>	Size			
Location (waters) <u>Otterslide Creek</u>	<u>20-16</u>			
Well No. <u>Four A (4-A)</u> Elev. <u>822</u>	Cond.			
District <u>Union</u> County <u>Ritchie</u>	<u>13-10"</u>			
The surface of tract is owned in fee by <u>Clee Leeson</u>	<u>9 5/8</u>			
Address <u>Auburn, WV</u>	<u>8 5/8</u>	<u>243</u>	<u>243</u>	<u>100 sks.</u>
Mineral rights are owned by <u>Clee Leeson et al</u>	<u>7</u>			
Address <u>same as above</u>	<u>5 1/2</u>			
Drilling Commenced <u>8/4/79</u>	<u>4 1/2</u>		<u>2290</u>	<u>230 sks.</u>
Drilling Completed <u>8/12/79</u>	<u>3</u>			
Initial open flow <u>100,000</u> cu. ft. <u>show</u> bbls.	<u>2</u>			
Final production <u>1 MM</u> cu. ft. per day <u>.5</u> bbls.	Liners Used			
Well open <u>4</u> hrs. before test <u>600</u> RP.				
Well treatment details:	Attach copy of cementing record.			

Coal was encountered at N/A Feet _____ Inches _____
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Keener Sand, Weir Sand Depth _____

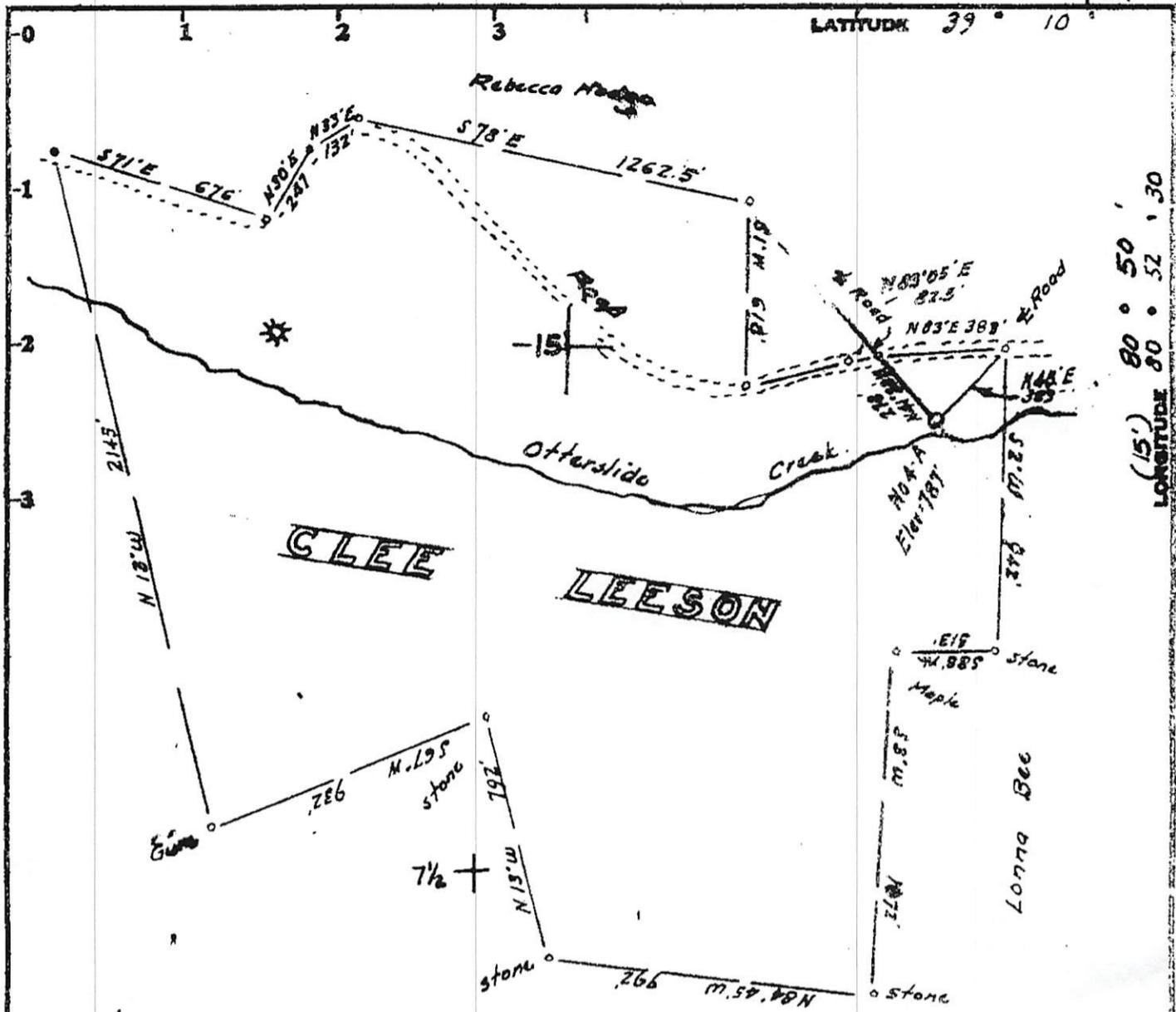
Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	• Remarks
Third Salt			1440	1474		
Maxon			1690	1738		
Big Lime			1750	1850		
✓ Keener			1850	1886		
✓ Big Injun			1906	1976		
✓ Weir			2160	2290		

RECEIVED
OCT 1 - 1979

OIL & GAS DIVISION
DEPT. OF MINES

(over)

* Indicates Electric Log tops in the remarks section.



LATITUDE 39° 10'

LONGITUDE 80° 52' 30"

LEGEND

- Lines plotted from deed calls
- Surveyed Lines
- - - Roads
- Well Location

OWNERSHIP

NEWT in this area
 Surface: Cleo Leeson
 Auburn, W. Va.
 Oil & Gas: Nannie Batson Hrs.

Minimum Error of Closure 1 in 300

Source of Elevation Elev. Well No. 1 - 775

- Fracture
- New Location
- Drill Deeper
- Abandonment

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.

Signed: [Signature]
 Squares: N S E W

Company Ferrell L. Prior
 Address 717 Union Trust Bldg. Parkersburg, W. Va.
 Farm Cleo Leeson (BATSON HRS.)
 Tract _____ Acres 94 Lease No. _____
 Well (Farm) No. 4-A Serial No. _____
 Elevation (Spirit Level) 787
 Quadrangle Pullman 7 1/2 Holbrook 15
 County Ritchie District Union
 Engineer [Signature]
 Surveyor's Registration No. 1227
 File No. _____ Drawing No. _____
 Date July 27, 1979 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. **47-085-4346**

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000 latitude and longitude lines being represented by border lines as shown.
 — Denotes one inch spaces on border line of original tracing.

Rever - 2500'



B-2

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

Quadrangle Pullman 7.5
Permit No. 47-085-4346

Rotary X Oil _____
Cable _____ Gas _____
Recycling _____ Comb. X
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company The Frazer Company
Address P. O. Box 590, Palm Beach, Florida
Farm Clee Leeson Batson Hrs Acres 94
Location (waters) Otterslide Creek
Well No. 4-A Elev. 787
District Union County Ritchie
The surface of tract is owned in fee by Clee Leeson
Address Auburn, W. Va.
Mineral rights are owned by Clee Leeson Address Auburn, W. Va.
Drilling Commenced 8-6-79
Drilling Completed 8-12-1979
Initial open flow _____ cu. ft. _____ bbls.
Final production 800, m cu. ft. per day 1 bbls.
Well open 4 hrs. before test 630 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size <u>20-16</u>			
Cond. <u>13-10"</u>			
<u>9 5/8</u>			
<u>8 5/8</u>	243	243	
<u>7</u>			
<u>5 1/2</u>			
<u>4 1/2</u>	2278	2278	
<u>3</u>			
<u>2</u>			
Liners Used			

docs not agree with application

Well treatment details:

Dowell Frac w/ 1500 Bbls H2O 60, cwt 20/40 Sand 1500 gal 15% HCL

Attach copy of cementing record.

Coal was encountered at _____ Feet _____ Inches
Fresh water 82 Feet _____ Salt Water 1730 Feet _____
Producing Sand Injun, Weir Depth 1932 1950 - 2152-2236

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	15		
Slate			15	180		
Sand			180	210		
Slate			210	480		
Red Rock			480	530		
Slate			530	685		
Red Rock			685	705		
Slate			705	840		
Sand			840	895		
Slate			895	990		
Sand			990	1010		
Slate			1010	1240		
Sand			1240	1345		
Shale			1345	1440		
Sand			1440	1475		
Shale			1475	1655		
Sand			1655	1740		
Shale			1740	1810		
Lime			1810	1840		
Pencil Cave			1840	1850		
Big Lime			1850	1905		
Injun Sand			1905	1984		
Shale			1984	2156		
Weir Sand			2156	2290		

* Indicates Electric Log tops in the remarks section.

B-3

Designation	Color	Hard or Soft	Top Feet	Bottom Feet	Diameter	Weight
Sample			2290	2392		
Total Depth			2392			

APPROVED: *[Signature]*

8504346 P

WW-4A
Revised 6-07

1) Date: August 29, 2013
2) Operator's Well Number C Leeson 4-A

3) API Well No.: 47 - 085 - 04346

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>Southfork Sportsman Assoc. Inc</u>	Name _____
Address <u>c/o Thomas Carnes</u>	Address _____
<u>211 Wiseman Ave., Bridgeport, WV 26330</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector	(c) Coal Lessee with Declaration
Address _____	Name _____
_____	Address _____
Telephone _____	_____

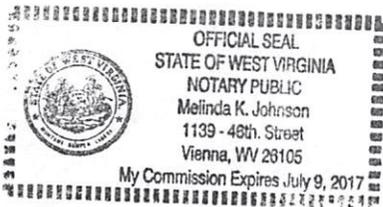
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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 J F Deem Oil & Gas Co
 By: _____
 Its: Owner
 Address 4541 Emerson Ave
Parkersburg, WV 6104
 Telephone 304 428-0005



Subscribed and sworn before me this 17th day of September, 2013
Melinda K. Johnson Notary Public
 My Commission Expires July 9, 2017

RECEIVED
 Office of Oil and Gas
 SEP 20 2013
 WV Department of
 Environmental Protection

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 deprivacvoffier@wv.gov.

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 J F Deem Oil & Gas Co OP Code 307118

Watershed Otterslide Run Quadrangle Pullman

Elevation 787 County Ritchie District Union

Description of anticipated Pit Waste: Fluids from plugging operations

Will a synthetic liner be used in the pit? ~~AS needed~~ 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 _____

Company Official (Typed Name) J F Deem

Company Official Title Owner

Subscribed and sworn before me this 17th day of September, 2013

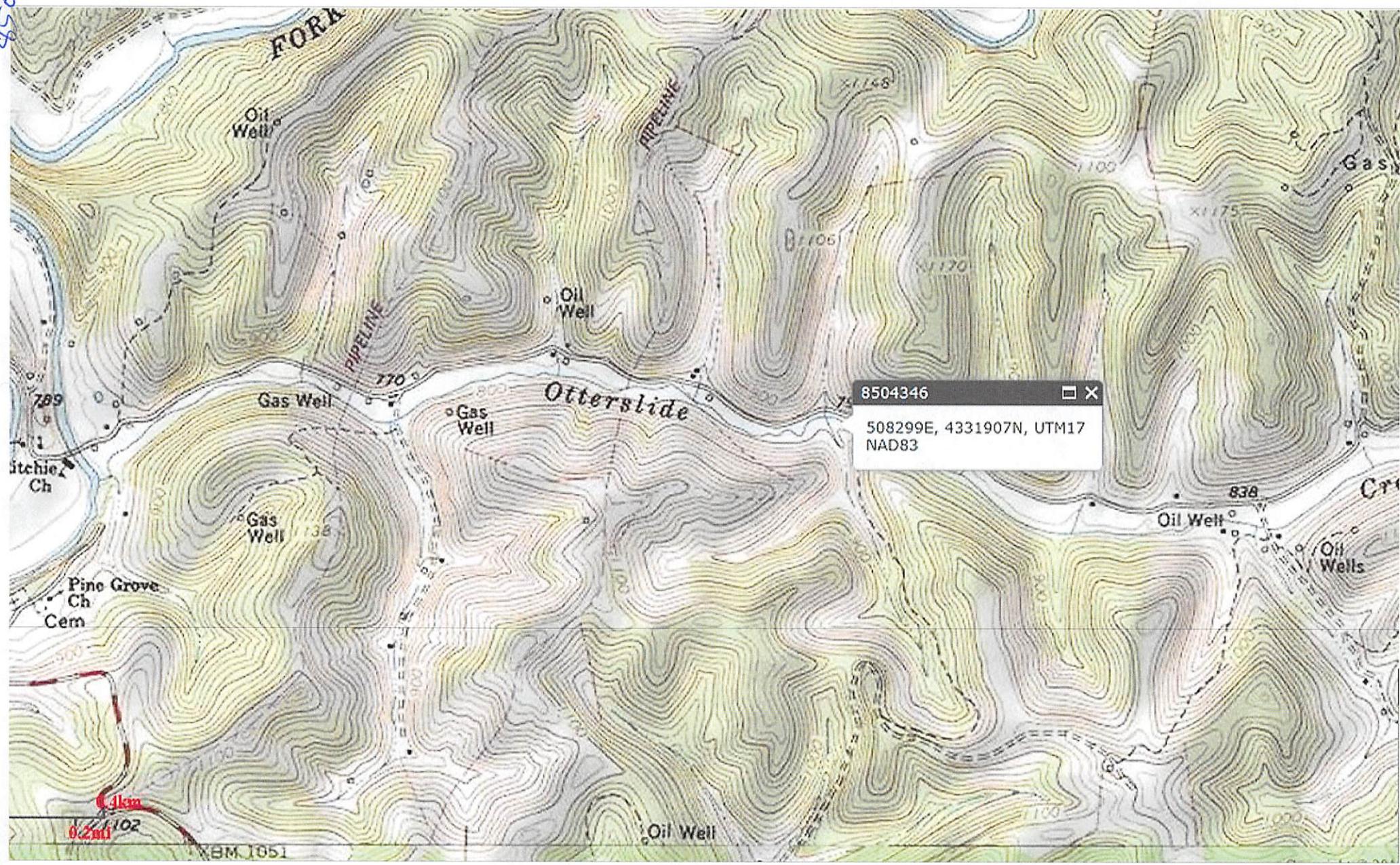
Melinda K. Johnson Notary Public

My commission expires July 9, 2017

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Office of Oil and Gas
SEP 20 2013
WV Department of
Environmental Protection

NOTARY PUBLIC SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Melinda K. Johnson
1139 - 46th Street
Vienna, WV 26105
My Commission Expires July 9, 2017

8504346



8504346

508299E, 4331907N, UTM17
NAD83

1km
0.2mi

BM 1051

8504346 A

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-085-04346 WELL NO.: Leeson 4-A
FARM NAME: Southfork Sportsman Assoc. Inc.
RESPONSIBLE PARTY NAME: J F D eem
COUNTY: Ritchie DISTRICT: Union
QUADRANGLE: Auburn
SURFACE OWNER: South Fork Sportsman Assoc., Inc.
ROYALTY OWNER: C. Leeson
UTM GPS NORTHING: 4,331,907
UTM GPS EASTING: 508,299 GPS ELEVATION: 240M 787 FT

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 ____

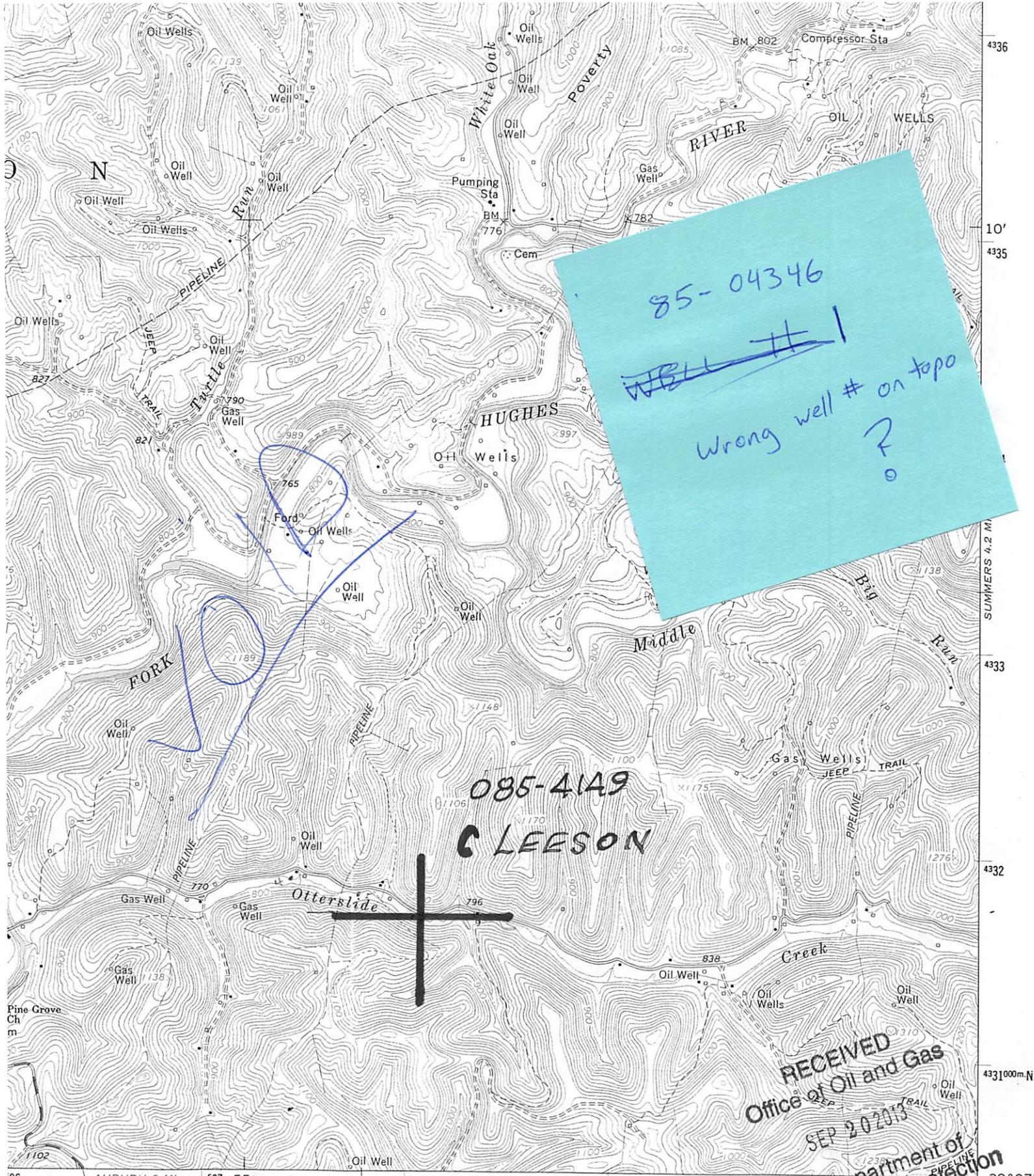
4. Letter size copy of the topography map showing the well location.

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.

Signature J F D eem

Owner
Title

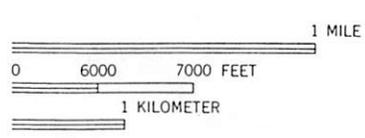
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Office of Oil and Gas
SEP 20 2013
9/17/13
West Virginia Department of Environmental Protection



85-04346
~~WELL #1~~
 Wrong well # on topo
 ?

085-41A9
 C LEESON

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 SEP 20 2013
 WV Department of
 Environmental Protection

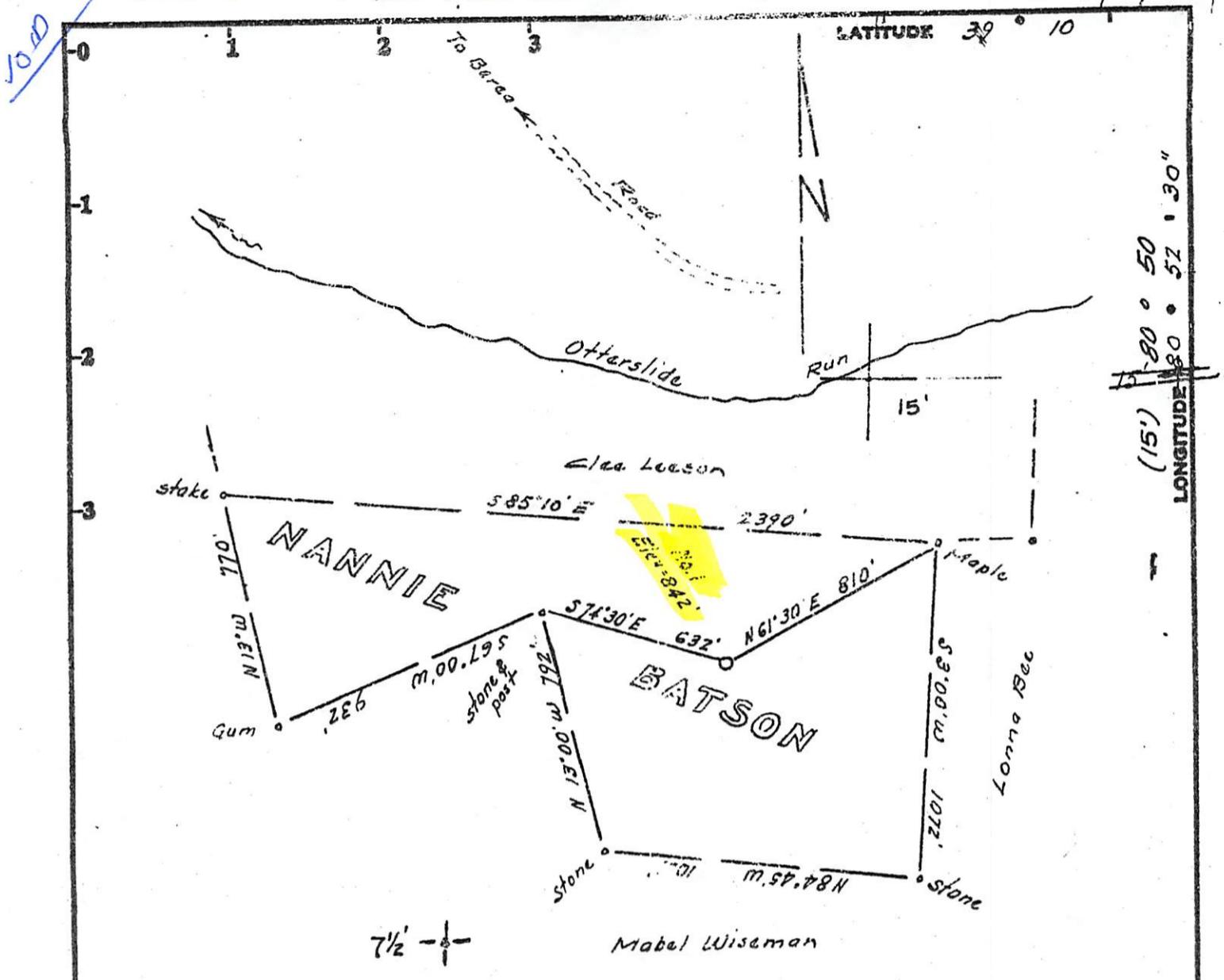


The Engineering Supply Co.
 1316 12th St.
 Parkersburg, WV 26101

ROAD CLASSIFICATION
 Medium-duty ——— Light-duty ———
 Unimproved dirt =====



NOT PERTINENT FOR LEASON 4A 10/19/78



No Coal in Ritchie County.
 Surface owned by:-
 Nannie Batson Heirs
 Pullman, W. Va.

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 WV Department of
 Environmental Protection

Minimum Error of Closure 1 in 200
 Source of Elevation USGS location 1200' West = 770'

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.

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

Signed: M. Stuebel
 Squares: N S E W

Map No. _____

Company Ferrall L. Prier
 Address 717 Union Trust Bldg Parkersburg
 Farm Nannie Batson, Cleo Leason et al
 Tract _____ Acres 35 Lease No. _____
 Well (Farm) No. One Serial No. _____
 Elevation (Spirit Level) 842'
 Quadrangle Pullman 7 1/2, Holbrook 15'
 County Ritchie District Union
 Engineer M. Stuebel
 Engineer's Registration No. 1227 LLS 200
 File No. _____ Drawing No. _____
 Date October 19, 1978 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. RIT-4149

+ Denotes location of well on United States Topographic Maps, scale 1 to ^{24,000}/_{62,500}, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing. **47-085**

VOID NOT PERTINENT FOR LEESON 4A

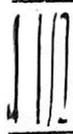
OG-10
Rev. - 9-71
14



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD 14

Rotary XX Oil _____
Cable _____ Gas _____
Recycling _____ Comb. XX
Water Flood _____ Storage _____
Disposal _____ (Kind)

Quadrangle Pullman 7.5
Permit No. 185- RIT-4149

Company <u>Ferrell Prior</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P. O. Box 1486 Parkersburg, W. Va.</u>				
Farm <u>Nannie Batson</u> Acres <u>35</u>	Size			Circulated 230 sks.
Location (waters) <u>Otterslide Creek</u>	20-16			
Well No. <u>One (1)</u> Elev. <u>842</u>	Cond.			
District <u>Union</u> County <u>Ritchie</u>	13-10"			
The surface of tract is owned in fee by <u>Clee & Tessie Leeson</u>	9 5/8			
Address <u>Bera, West Virginia</u>	8 5/8	270	270	
Mineral rights are owned by <u>Nannie Batson</u>	7			
et al Address <u>Weirton, West Virginia</u>	5 1/2			
				
Drilling Commenced <u>11/28/78</u>	3			
Drilling Completed <u>12/3/78</u>	2			
Initial open flow <u>60,000</u> cu. ft. <u>Show</u> bbls.	Liners Used			
Final production <u>1,200,000</u> qt. per day <u>1</u> bbls.				
Well open <u>10</u> hrs. before test <u>675</u> RP.				

Well treatment details: Fractured Dowell, Inc. 40,000 lb. Sand, 1600 HP
1200 Barrels of H2O and Additives

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand _____ Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	65		
Sand			65	105		
Shale			105	175		
Sand			175	217		
Shale			217	333		
Sand			333	368		
Shale			368	402		
Sand			402	513		
Shale			513	557		
Sand			557	609		
Shale			609	650		
Sand			650	701		
Lime			701	832		
Shale			832	906		
Sand			906	990		
Shale			990	1017		
Sand			1017	1052		
Shale			1052	1207		
Sand			1207	1260		
Sand			1260	1377		

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MAY - 2 1980
WV Department of
Environmental Protection
OIL & GAS DIVISION
DEPT. OF MINES

