



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

RECEIVED
OCT 2 1980
OIL & GAS DIVISION
DEPT. OF MINES

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE October 1, 1980

Surface Owner LEWIS WETZEL HUNTING GROUND
Address DNR, Charleston, WV

Company QUAKER STATE OIL REFG. CORP.
Address P.O. Box 1327, Parkersburg, WV 26101

Mineral Owner Mills Wetzel Lands, Inc.
Address 10 S. LaSalle St., Chicago, IL 60600

Farm John Mills, Jr. Acres 5228.5
Location (waters) Buffalo Run

Coal Owner Mills Wetzel Lands, Inc.
Address same as above

Well No. 138 Elevation 1402
District Grant County Wetzel

Coal Operator None
Address _____

Quadrangle Center Point 7.5'

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for fracturing. This permit shall expire if operations have not commenced by 6-14-81.
John B. Burdett
Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Phillip L. Tracy
ADDRESS Rt. #3, Alma, WV 26320
PHONE 758-4573

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated November 30, 1948 by Mills Wetzel Lands, Inc. made to QUAKER STATE OIL REFG. CORP. and recorded on the 22 day of September 1980 in Wetzel County, Book 60A Page 381

NEW WELL _____ DRILL DEEPER _____ REDRILL XXX FRACTURE OR STIMULATE
XXX OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address October 1, 1980 before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address of Well Operator

Very truly yours, QUAKER STATE OIL REFG. CORP.
(Sign Name) *Carl J. Carlson*
Well Operator
Carl J. Carlson
P.O. Box 1327
Street
Parkersburg,
City or Town
West Virginia 26101
State

*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator, upon receipt of the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

47-103-1200-FRAC. _____ PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by *Carl J. Carlson*

BLANKET BOND

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO _____ DRILL _____ DEEPEN XXX FRACTURE-STIMULATE
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME QUAKER STATE OIL REFG. CORP. NAME Carl J. Carlson
 ADDRESS P.O. Box 1327, Parkersburg, WV 26101 ADDRESS P.O. Box 1327, Parkersburg, WV 26101
 TELEPHONE 614-423-9543 TELEPHONE 614-423-9543
 ESTIMATED DEPTH OF COMPLETED WELL: 3347 ROTARY _____ CABLE TOOLS XXX
 PROPOSED GEOLOGICAL FORMATION: Gordon, Big Injun
 TYPE OF WELL: OIL XX GAS _____ COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE In Hole	USED FOR DRILLING	LEFT IN WELL	CEMENT III. UP OR SACKS - CUBIC FT.
20 - 16			
- 10	300	300	
9 - 5/8			
8 1/4"	1700	1700	
6 5/8"	2183	2183	
5 3/16"	3075	3075	
4 1/2			
3	Pull 5 3/16" and run 4 1/2" to 3347' with slotted liner		Perf. Top
2	on bottom and multiple stage cementing collar set above Gordon.		Perf. Bottom
Liners	Cement to 300' above Big Injun.		Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS NA FEET SALT WATER 2023 FEET
 APPROXIMATE COAL DEPTHS 740', 976', 1240'
 IS COAL BEING MINED IN THE AREA? No BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

09/08/2023

For Coal Company

Official Title

BLANKET BOND

Date October 1, 1980
Well No. John Mills, Jr. #138
API No. 47 - 103 - 1200-FRAC
State County Permit

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS

Company Name QUAKER STATE OIL REFG. CORP. Designated Agent Carl J. Carlson
Address P.O. Box 1327, Parkersburg, WV Address P.O. Box 1327, Parkersburg, WV
Telephone 614-423-9543 Telephone 614-423-9543 26101
Landowner Lewis Wetzel Hunting Ground Soil Cons. District Upper Ohio SCD

Revegetation to be carried out by Quaker State Oil Refg. Corp. (Agent)

This plan has been reviewed by Upper Ohio SCD. All corrections
and additions become a part of this plan. 10/3/80 Kenneth R. Mason
(Date) (SCD Agent)

Access Road	Location
Structure <u>Ditch Relief Cross Drains</u>	Structure _____ (1)
Spacing <u>Various - see drawing</u>	Material _____
Page Ref. Manual <u>1:5</u>	Page Ref. Manual _____
Structure _____ (B)	Structure _____ (2)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____
Structure _____ (C)	Structure _____ (3)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____

All structures should be inspected regularly and repaired if necessary.
All commercial timber is to be cut and stacked. All brush and small timber
to be cut and removed from site before dirt work begins.

Revegetation

<u>Treatment Area I</u>		<u>Treatment Area II</u>	
Lime _____ Tons/acre	Lime _____ Tons/Acre	or correct to pH <u>6.5</u>	or correct to pH _____
Fertilizer <u>600</u> lbs/acre	Fertilizer _____ lbs/acre	(10-20-20 or equivalent)	(10-20-20 or equivalent)
Mulch <u>Straw</u> <u>2</u> Tons/Acre	Mulch _____ Tons/Acre		
Seed* <u>Ky31 Fescue</u> <u>45</u> lbs/acre	Seed* _____ lbs/acre		
_____ lbs/acre	_____ lbs/acre		
_____ lbs/acre	_____ lbs/acre		

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*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

OIL & GAS DIVISION
DEPT. OF MINE

Attach or photocopy section of involved Topographic map. Quadrangle Center Point 7.5'

Legend:  Well Site
 Access Road

See attached topo map copy.

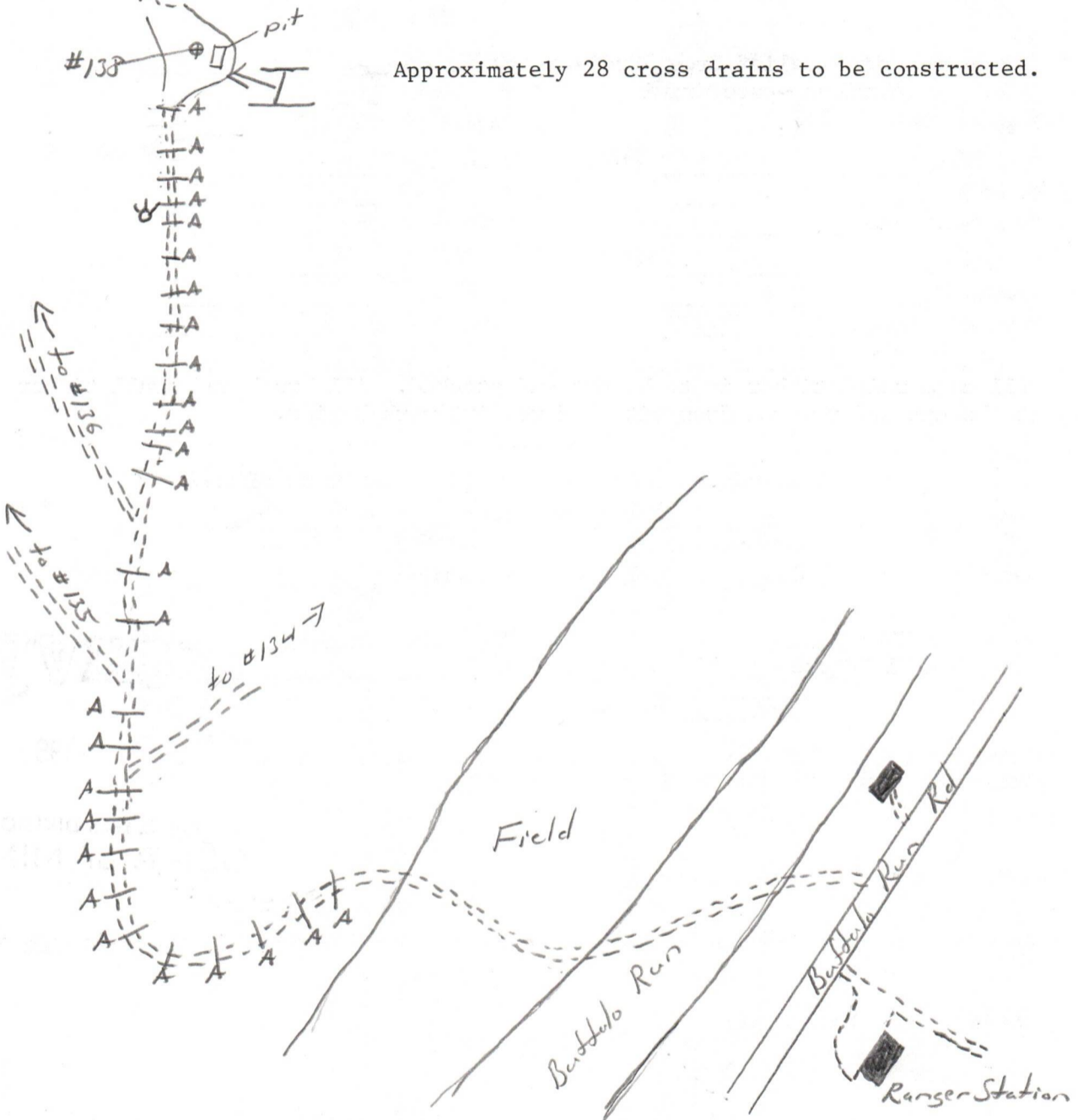
09/08/2023

Well Site Plan

- Legend:
- Property Boundry
 - Road
 - Existing Fence
 - Planned Fence
 - Stream
 - Open Ditch

- Diversion
- Spring
- Wet Spot
- Building
- Drain Pipe
- Waterway

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with first part of this plan. Include all natural drainage.



Approximately 28 cross drains to be constructed.

Comments: Ditch relief cross drains flagged out under supervision of Service Forester of DNR. Location grade will be 0 - 5%. Road grade varies from 10 to 20%. No additional road to be constructed.

Signature:

Agent

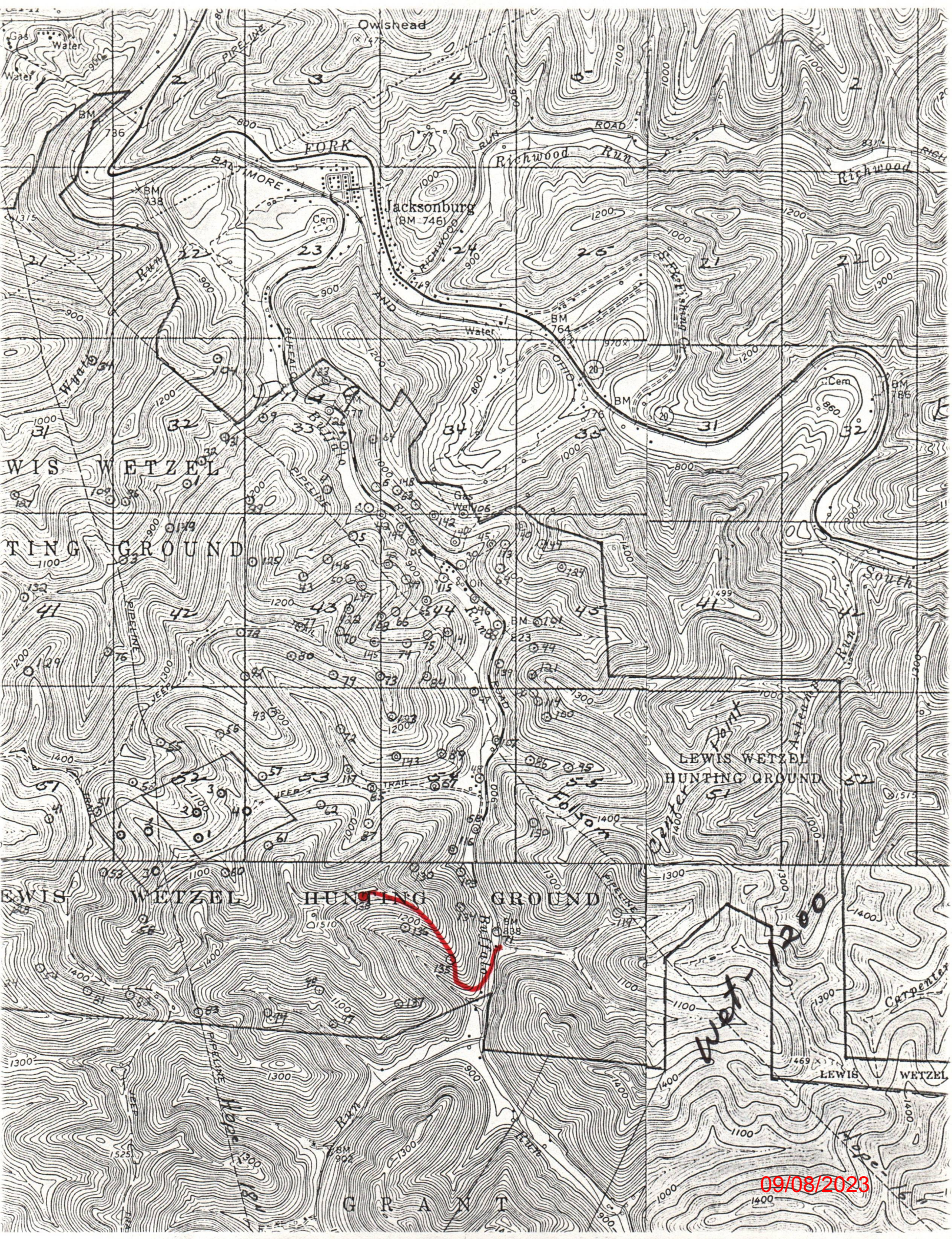
P.O. Box 1327, Parkersburg, WV
Address 26101

(614) 423-9543

09/08/2023

Carl J. Carlson - Asst. Dist. Manager

Please request landowners cooperation to protect new seeding for one growing season. Soil type primarily yellow sandy soil (type C). Cross drains approximately 100' or less apart. Cross drains will be maintained after construction is completed.



09/08/2023

G R A N T

OIL & GAS DIVISION
DEPT. OF MINES

OCT 10 1980

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OCT - 2 1980

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division
WELL RECORD

OIL & GAS DIVISION
DEPT. OF MINES

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

Quadrangle Center Point 7.5'

Permit No. _____

Company <u>QUAKER STATE OIL REFG. CORP.</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 1327, Parkersburg, WV 26101</u>				
Farm <u>John Mills, Jr.</u> Acres <u>5228.5</u>	Size			
Location (waters) <u>Buffalo Run</u>	20-16			
Well No. <u>138</u> Elev. <u>1402</u>	Cond.			
District <u>Grant</u> County <u>Wetzel</u>	<u>13 10"</u>	300	300	
The surface of tract is owned in fee by _____	<u>9 5/8</u>			
<u>Lewis Wetzel Hunting Ground - DNR</u>	XXXX <u>8 1/4"</u>	1700	1700	
Address <u>Charleston, WV 25305</u>	XXXX <u>6 5/8"</u>	2183	2183	
Mineral rights are owned by <u>Mills Wetzel Lands, Inc</u>	XXXX <u>5 3/16"</u>	3075	3075	
Address <u>10 LaSalle St., Chicago, IL 60600</u>	<u>4 1/2</u>			
Drilling Commenced <u>Nov. 13, 1922</u>	<u>3</u>			
Drilling Completed <u>Mar. 12, 1923</u>	<u>2</u>			
Initial open flow <u>show</u> cu. ft. <u>show</u> bbls.	Liners Used			
Final production <u>?</u> cu. ft. per day <u>25</u> bbls.				
Well open <u>---</u> hrs. before test <u>---</u> RP.				

Well treatment details:

Shot on 3/27/23 with 20 qts. nitro

Shot on 4/3/23 with 20 qts. nitro

Shot on 12/30/29 with 60 qts. nitro

Shot on 8/14/46 with 90 qts. nitro

Attach copy of cementing record.

Coal was encountered at 740', 976', 1240' Feet _____ Inches _____
Fresh water NA Feet _____ Salt Water 2023 Feet _____
Producing Sand Gordon Depth 3288 - 3337

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Native Coal				740		
Coal				976		
Pittsburg Coal				1240		
Little Dunkard Sand				1610		
Big Dunkard Sand				1730		
Gas Sand			1820	1975		
Salt Sand			2023	2065		HFW at 2023'
Second Salt Sand			2125	2183		
Red Rock			2340	2370		
Little Lime			2450	2458		
Pencil Cave			2458	2465		
Big Lime			2465	2515		
Big Injun			2515	2715		
Berea			2845	2960		
Fifty Foot			3075	3125		
Thirty Foot			3182	3186		

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(over)

* Indicates Electric Log tops in the remarks section.

BLANKET BOND

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Gordon Stray			3270	3285		
Shale			3285	3288		
Gordon Sand			3288	3337	Gas at 3295', oil at 3310'	
Shale			3337	3347 T.D.		

09/08/2023

Date October 1, 1980

APPROVED QUAKER STATE OIL REFG. CORP. Owner

By Michael C. Brannock

(Title)

Michael C. Brannock - Sr. Geologist

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

Date Dec. 23, 19 81

FORM IV-35
(Obverse)

Operator's
Well No. JOHN MILLS, JR. #138

[08-78,

WELL OPERATOR'S REPORT
OF

API Well No. 17 - 103 - 1200F
State County Permit

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil XX / Gas ___ / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production ___ / Underground storage ___ / Deep ___ / Shallow ___)
LOCATION: Elevation: 1402 Watershed: Buffalo Run
District: Grant County: Wetzel Quadrangle: Center Pint 7.5'

WELL OPERATOR QUAKER STATE OIL REFG. CORP. DESIGNATED AGENT Carl J. Carlson
Address P.O. Box 1327 Address P.O. Box 1327
Parkersburg, WV 26101-1327 Parkersburg, WV 26101-1327

PERMITTED WORK: Drill ___ / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate XX
Plug off old formation ___ / Perforate new formation ___
Other physical change in well (specify) Pull 5 3/16" and run 3 1/2" and cemented.

PERMIT ISSUED ON Oct. 14, 19 81 OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Phillip L. Tracy
Address Rt. #3
Alma, WV

GEOLOGICAL TARGET FORMATION: Gordon Depth 3284 - 3337 feet
Depth of completed well, 3352 feet Rotary ___ / Cable Tools XX
Water strata depth: Fresh, na feet; salt, 2023 feet.
Coal seam depths: 740, 976, 1240 Is coal being mined in the area? no
Work was commenced 4/23/81, 19 81, and completed 12/1/81, 19 81

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	10					300	300) old casing	Sizes
Coal	8 1/4					1700	1700		
Intermediate	6 5/8					2183	2183		
Production	3 1/2					3350	3350	125 sx	Depth set
Tubing									
Liners									Perforations:
									Top Bottom

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DEC 29 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

OPEN FLOW DATA

Producing formation Gordon Pay zone depth 3284 - 3337 feet
Gas: Initial open flow, 1 Mcf/d Oil: Initial open flow, 1/2 Bbl/d
Final open flow, 10 Mcf/d Final open flow, 5 Bbl/d
Time of open flow between initial and final tests, -- hours
Static rock pressure, 150 psig (surface measurement) after -- hours shut in

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[If applicable due to multiple completion--]

Second producing formation _____ Pay zone depth _____ feet
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 measurement) after _____ hours shut in

B-3

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Cemented on 5/26/81 with 125 sx.
 Perforated on 11/30/81 from 3290 to 3322 with 33 shots.
 Broke down formation at 3000 psi and shut well in.
 Reperforated on 12/1/81 from 3290 to 3310 with 21 shots.
 Fractured with 550 bbl. water and 17,000# of 20/40 sand.
 Average treating pressure 3450 psi at 14 BPM
 I.S.I. 2000 psi.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Sandstone & Shale			0	739	
Native Coal			739	740	
Sanstone & Shale			740	975	
Coal			975	976	
Sandstone			976	1030	
Shale			1030	1050	
Sandstone			1050	1110	
Sandstone & Shale			1110	1239	
Pittsburgh Coal			1239	1240	
Sandstone & Shale			1240	1726	
Big Dunkard SS			1726	1743	
Shale			1743	1812	
Sandstone			1812	1855	
Siltstone & Shale			1855	1990	
Sandstone			1990	2077	
Shale			2077	2120	
Sandstone			2120	2178	
Shale			2178	2430	
Little Lime			2430	2444	
Pencil Cave			2444	2458	
Big Lime			2458	2516	
Big Injun			2516	2713	
Shale & Siltstone			2713	3258	
Gordon Stray			3258	3263	
Shale			3263	3284	
Gordon			3284	3337	
Shale			3337	3352	

(Attach separate sheets to complete as necessary)

QUAKER STATE OIL REFINING CORPORATION

Well Operator

By Michael C. Brannock
 Its Michael C. Brannock - Sr. Geologist

09/08/2023

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

B-12

OG-11

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

INSPECTOR'S WELL REPORT

Permit No. 103-1200 F

Oil or Gas Well _____
(KIND)

Company Quaker State
 Address Parkersburg W. Va.
 Farm John Mills Jr
 Well No. 138
 District Grant County Wetzel
 Drilling commenced _____
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 5/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____
CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
NAME OF SERVICE COMPANY _____			
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
_____ FEET _____ INCHES _____ FEET _____ INCHES			
_____ FEET _____ INCHES _____ FEET _____ INCHES			

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Drillers' Names _____

Remarks:

Final Inspection

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

4-15-82

DATE

R.A. Lowther 512

DISTRICT WELL INSPECTOR

09/08/2023



State of West Virginia

Department of Mines
Oil and Gas Division

Charleston 25305

WALTER N. MILLER
DIRECTOR

May 20, 1982

Quaker State Oil Refining Corp.
P. O. Box 1327
Parkersburg, W. V. 26101

Dear Sir:

The required records and reports have been received in this office and the District Inspectors have submitted Final Inspections for the following wells listed below:

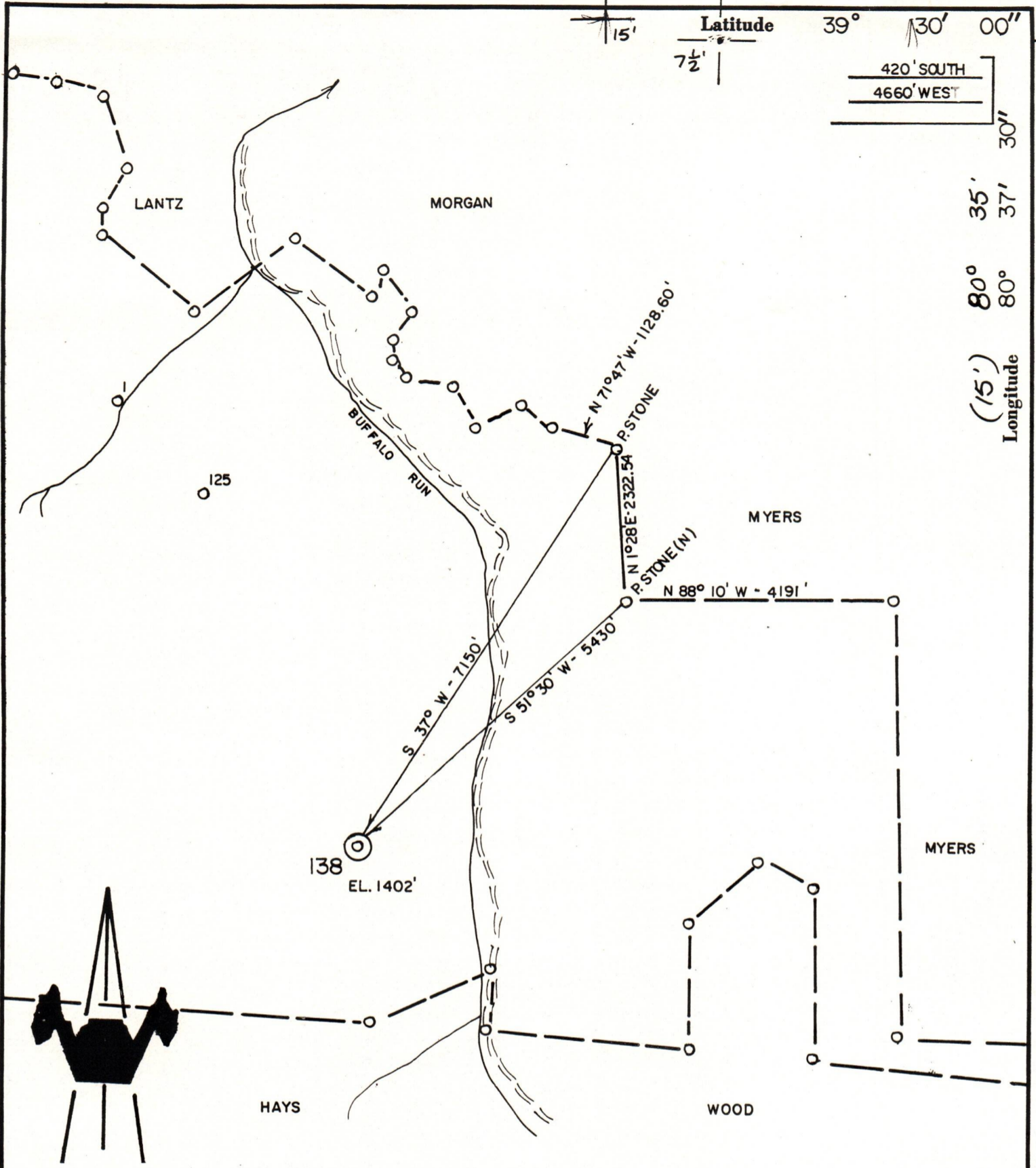
<u>PERMIT NO.</u>	<u>FARM AND WELL NO.</u>	<u>DISTRICT</u>
WET-1198-FRAC.	John Mills, Jr., #1	Grant
WET-1199-FRAC.	John Mills, Jr., #125	Grant
WET-1200-FRAC.	John Mills, Jr., #138	Grant
WET-1224	Mills Wetzel Lands, Inc./J. Mills, Jr. #154	Grant
WET-1225	Mills Wetzel Lands, Inc./John Mills, Jr. #155	Grant
WET-1226	Mills Wetzel Lands, Inc./John Mills, Jr. #156	Grant
WET-1227	Mills Wetzel Lands, Inc./John Mills, Jr. #157	Grant

In accordance with Chapter 22, Article 4, Section 2, the bond coverage for above captioned wells will stay in force for life of well. Reclamation requirements have been approved..... ..

Very truly yours,

Fred Burdette

10-3-80



ACCURACY: 1" / 200'

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

Formation GORDON Oil

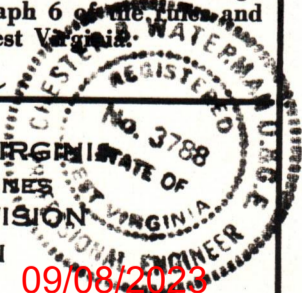
Est. Depth 2900' Gas

Other

Source of Elevation B.M. ON BUFFALO (823')

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



Company QUAKER STATE OIL REF. CORP.

Address PARKERSBURG, WV

Surface Owner LEWIS WETZEL HUNTING GROUND

Mineral Owner MILLS WETZEL LANDS, INC.

Farm JOHN MILLS, JR.

Well No. 138 Acres 5228.5

Elevation 1402'

Quadrangle CENTER POINT Series 7.5' & 15'

County WETZEL District GRANT

Date 9/24/80 Scale 1" = 2000'

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

WELL LOCATION MAP

47 - 103 - 1200 FRAC

STATE COUNTY PERMIT

+ Denotes location of well on United States Topographic Maps.
Engineer **CHET WATERMAN**
Engineer's Registration No. 3788 File No. 80-559

3347 GORDON - BIG INJUN