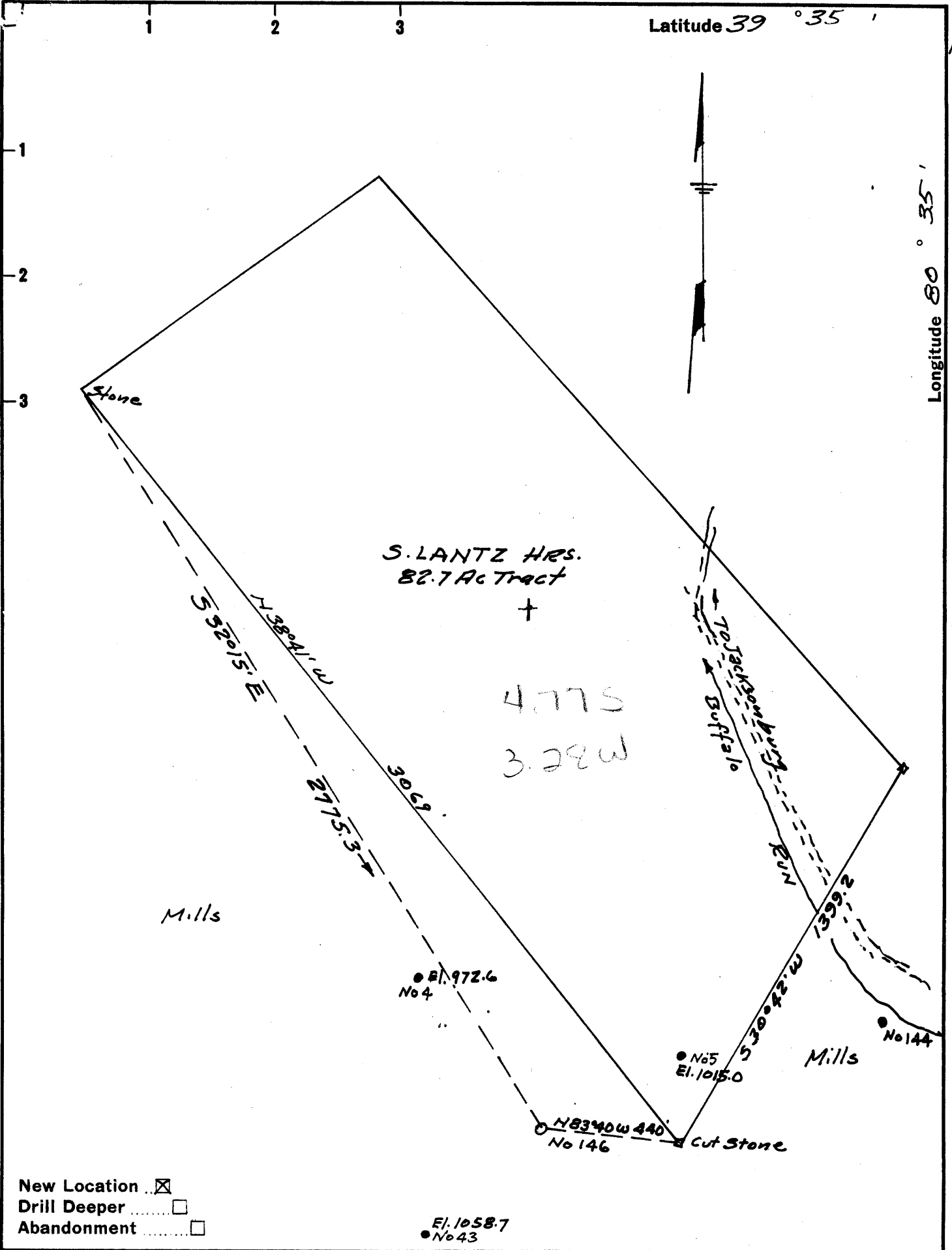


Latitude 39° 35'

Longitude 80° 35'



New Location
 Drill Deeper
 Abandonment

El. 1058.7
 No 43

No 50
 El. 1191.4

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

WELL LOCATION MAP
 FILE NO. WET-483

+ 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.

No 145

Company QUAKER STATE OIL & REF. CORP
 Address Box 1789 Parkersburg, W. Va.
 Farm John Mills
 Tract _____ Acres 5200 Lease No. _____
 Well (Farm) No. 146 Serial No. _____
 Elevation (Spirit Level) 1016.8
 Quadrangle LITTLETON SC
 County Wetzel District Grant
 Engineer L.G. Merrill
 Engineer's Registration No. 152
 File No. _____ Drawing No. _____
 Date Aug 21, 1960 Scale 1" = 400'



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 17

Quadrangle Littleton

Permit No. Wet - 483

WELL RECORD

Oil or Gas Well Oil

Company Quaker State Oil Refng. Corp.
Address Box 1789, Parkersburg, W. Va.
Farm John Mills Estate Acres 5200

Location (waters) Buffalo Run
Well No. 146 Elev. 1016.8
District Grant County Wetzel

The surface of tract is owned in fee by _____
Address _____

Mineral rights are owned by Mills-Wetzel Lands Inc.
134 S. LaSalle St. Address Chicago 3, Illinois

Drilling commenced 9-26-60

Drilling completed 12-9-60

Date Shot _____ From _____ To _____

With _____

Open Flow 50 /10ths Water in 3/4" Orifice Inch
/10ths Merc. in _____ Inch

Volume _____ Cu. Ft.

Rock Pressure 43 Psig lbs. 64 hrs.

Oil 1/2 Barrel bbls., 1st 24 hrs.

WELL ACIDIZED _____

WELL FRACTURED 11-25-60 Halliburton

10,400 gal. water 13,100 lbs. Sand

RESULT AFTER TREATMENT _____

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water 109 Feet Salt Water 1566' & 1584'; 1795' Feet 2176'

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	385		Size of
8 1/4	1286		
6 5/8	2026	2026	Depth set
5 3/16	2247	2247	
Hole jelled to Surface			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

COAL WAS ENCOUNTERED AT 738 FEET 24" INCHES
FEET _____ INCHES 1051' FEET Show _____ INCHES
FEET _____ INCHES FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale	Gray	Hard	Surface	85			
Red Rock		Medium	85	98			
Shale	Gray	Medium	98	160			
Red Rock		Hard	160	173			
Shale	Gray	Medium	173	191			
Red Rock		Medium	191	206			
Lime		Hard	206	214			
Shale	Grey	Medium	214	329			
Lime	White	Hard	329	350			
Shale		Medium	350	378			
Lime		Hard	378	407			
Shale		Medium	407	456			
Red Rock		Medium	456	467			
Shale	Grey	Shells	467	533			
Lime	White	Hard	533	562			
Red Rock		Medium	562	570			
Shale	Grey	Medium	570	586			
Lime	Grey	Hard	586	646			
Shale	Grey	Medium	646	671			
Lime		Hard	671	686			
Shale	Grey	Medium	686	734			
Lime	Grey	Hard	734	738			
Pittsburgh Coal			738	740			
Lime	Grey	Hard	740	776			
Shale & Lime	Shells	Medium	776	856			
Sand		Medium	856	874			
Shale	Grey	Medium	874	920			
Shale & Lime	Shells	Medium	920	974			
Red Rock		Medium	974	996			
Shale	Grey	Medium	996	1059	(1051' showing of coal)		

Formation	Color	Hard or Soft	Top ¹⁷	Bottom	Oil, Gas or Water	Depth Found	Remarks
Red Rock		Medium	1059	1071			
Lime	Grey	Hard	1071	1082			
Shale	Grey	Medium	1082	1160			
Lime		Medium	1160	1240			
Shale	Grey	Medium	1240	1270	1999		
Shale	Grey	Medium	1270	1299	1017		
Lime	Gritty	Medium	1299	1348	981		
Sand	Grey	Medium	1348	1486			
Sand & Shale			1486	1536			
Sand	Grey		1536	1602			
Sand & Shale			1602	1670			
Sand	Grey		1670	1708			
Shale	Dark	Medium	1708	1749			
Sand	White	Medium	1749	1795			
Shale	Dark	Medium	1795	1873	(water 14 bailers per hour)		
Lime & Shale	Dark	Medium	1873	1897			
Red Rock		Medium	1897	1941			
Lime, Gritty			1941	1958			
Shale		Medium	1958	1970			
Lime ^{L.L.}	Grey	Medium	1970	1985			
Shale ^{P.C.}	Dark	Medium	1985	1998			
Lime ^{B.L.}			1998	2068			
Sand B.L.	White	Hard	2068	2287	(Gas - 2077')	Water 2176'	
Shale	Dark	Medium	2287	2393			
Sand & Lime			2393	2417			
Sand		Hard	2417	2442			
Sand & Lime			2442	2460			
Shale	Dark	Medium	2460	2623			
Shale & Sand			2623	2707			
Shale	Dark	Medium	2707	2728			
Pink Rock			2728	2738			
Lime & Shale			2738	2832			
Sand ^{Q. 10'}		Medium	2832	2890	(Gas 2861')	Show of Oil	
Shale	Grey	Medium	2890	2918	Total Depth		

Date _____, 19____

APPROVED _____, Owner

By _____ (Title)