

3570'

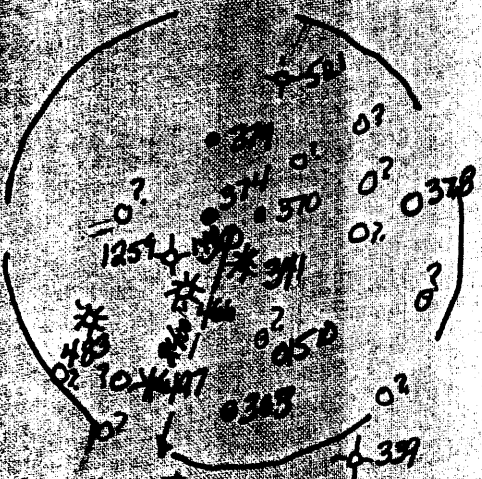
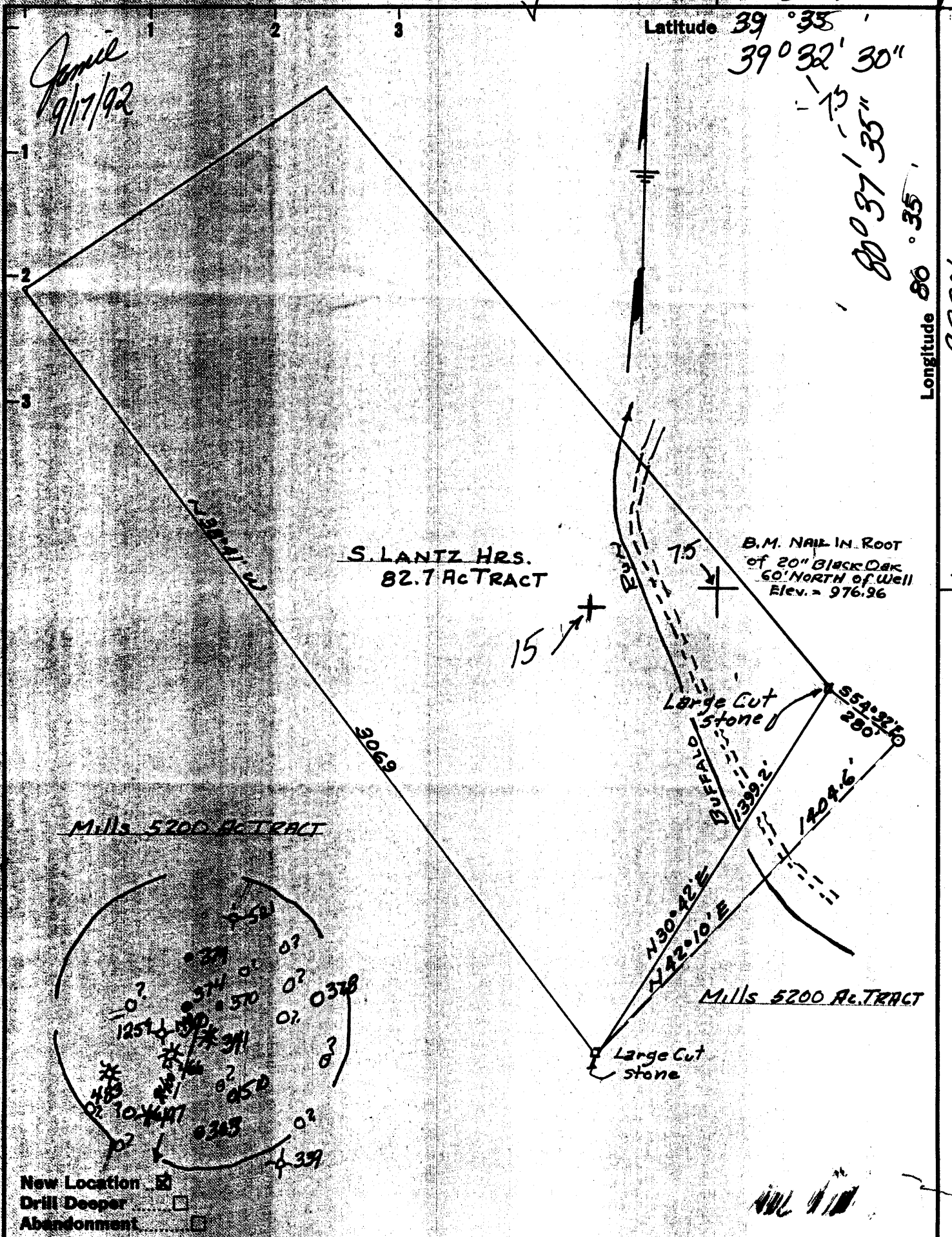
Latitude 39° 35'
39° 32' 30"

Journal
9/17/92

80° 37' 35"
-15
-35

Longitude 80° 35'

9320'



New Location
 Drill Deeper
 Abandonment

Company Quaker State Corp
 Address Box 189, Belpre, Ohio 45714
 Farm JOHN MILLS HRS. (Lewis Wetzel Public Land Div. Real Estate MAWB)
 Tract _____ Acres 5200 Lease No. _____
 Well (Farm) No. 148 Serial No. _____
 Elevation (Spirit Level) 959.00'
 Quadrangle LITTLETON 15/Pine Grove, 7.5
 County WETZEL District GRANT
 Engineer Parker E. Peters
 Engineer's Registration No. 485
 File No. _____ Drawing No. _____
 Date APRIL 7, 1961 Scale 1" = 400'

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

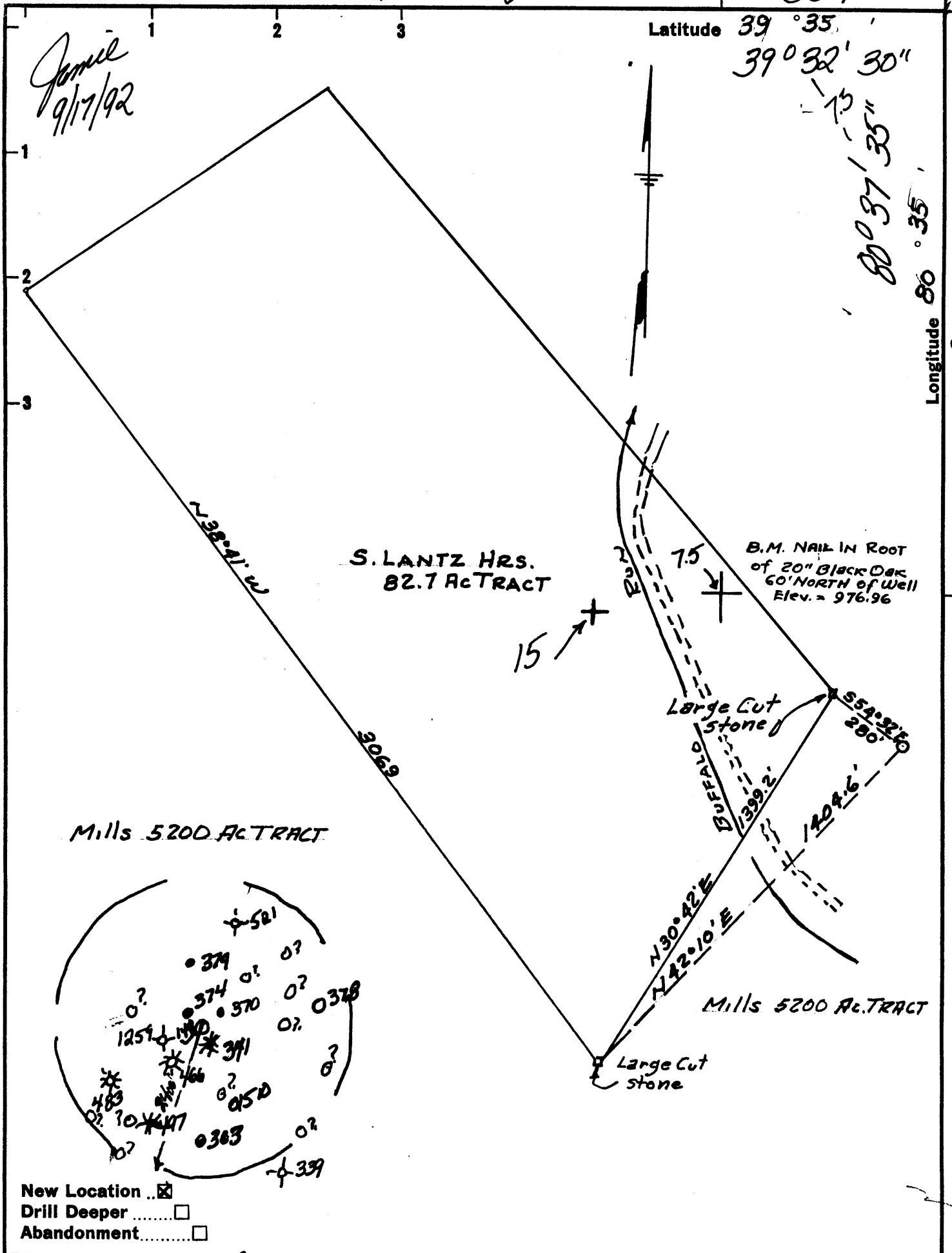
WELL LOCATION MAP
 API Well No. 47-103-0518-P

+ 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.

DEC 6 1996

WET 0518-P



New Location
 Drill Deeper
 Abandonment

Company Quaker State Corp
 Address PO Box 189, Belpre, Ohio 45714
 Farm JOHN MILLS HRS. (Lewis Wetzel Public Land Own. Real Estate MAINT.)
 Tract _____ Acres 5200 Lease No. _____
 Well (Farm) No. 148 Serial No. _____
 Elevation (Spirit Level) 959.00'
 Quadrangle LITTLETON 15 / Pine Grove, 7.5
 County WETZEL District GRANT
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STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

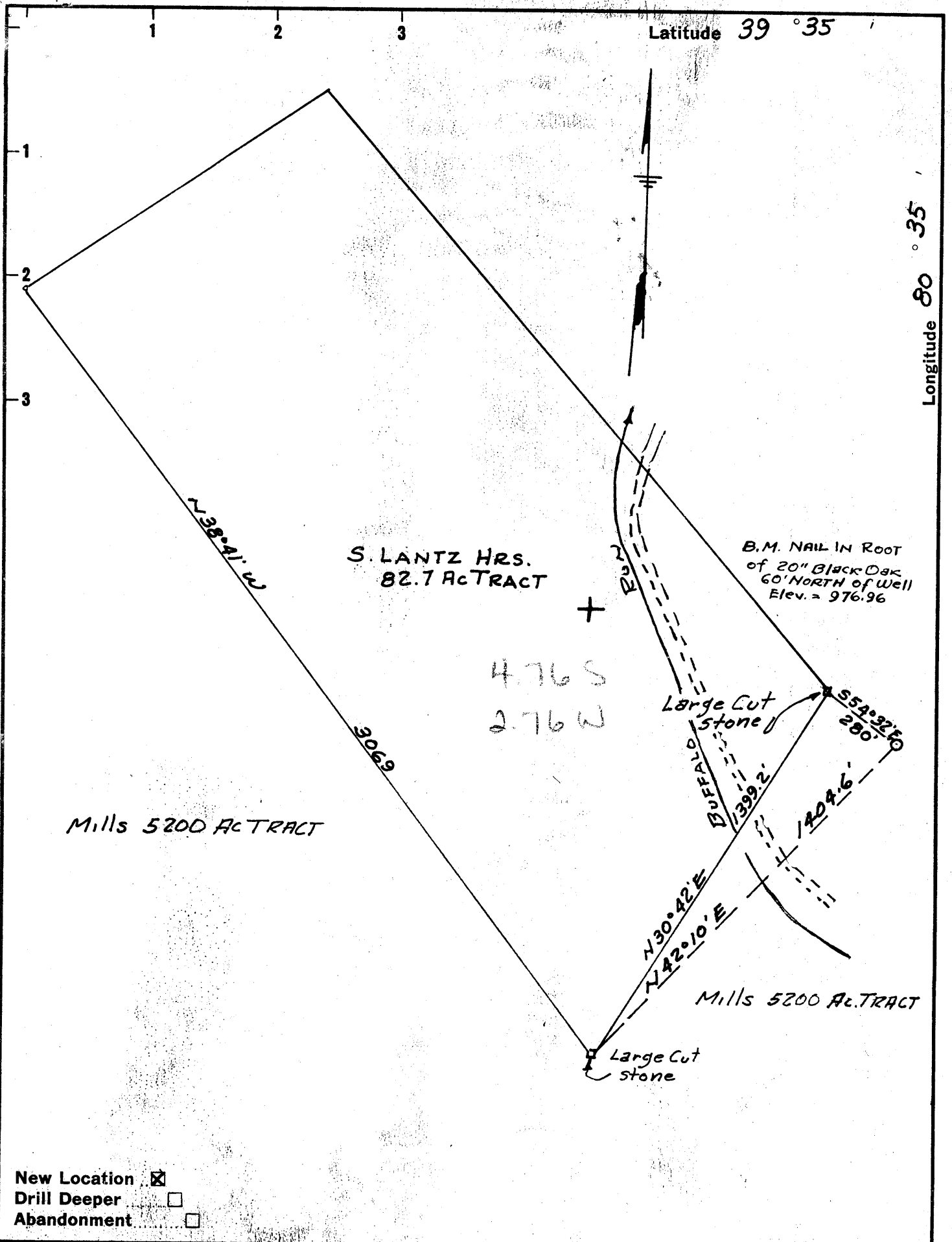
WELL LOCATION MAP
API Well No. 47-103-0518-P

+ 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.

SEP 21 1992

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

W



Company QUAKER STATE OIL & REF. CORP
 Address BOX 1789, PARKERSBURG, W. VA
 Farm JOHN MILLS HRS.
 Tract _____ Acres 5200 Lease No. _____
 Well (Farm) No. 148 Serial No. _____
 Elevation (Spirit Level) 959.00'
 Quadrangle LITTLETON SC
 County WETZEL District GRANT
 Engineer Parker & Peters
 Engineer's Registration No. 485
 File No. _____ Drawing No. _____
 Date APRIL 7, 1961 Scale 1" = 400'

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

WELL LOCATION MAP
 FILE NO. WET-518

+ 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.



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

Quadrangle Littleton

Permit No. Wetzel - 518

WELL RECORD

Oil or Gas Well Oil Well
(KIND)

Company Quaker State Oil Refng. Corp.
Address Box 1789, Parkersburg, W.Va.
Farm John Mills Acres 5200
Location (waters) Buffalo Run
Well No. 148 Elev. 959
District Grant County Wetzel
The surface of tract is owned in fee by State of West Virginia
Address Charleston, W.Va.
Mineral rights are owned by Mille-Wetzel Lands, Inc.
124 S. LaSalle St. Address Chicago 3, Ill.
Drilling commenced March 6, 1962
Drilling completed May 11, 1962
Date Shot _____ From _____ To _____
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
8 3/4	356	None	Size of
8 1/4	1204	None	
6 3/4	1964	1964	Depth set
5 3/16	2860	1685	Cemented by 80 sacks
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED SIZE 5 1/2 No. Ft. 5/11/62 Date
2860 - 1190 80 sacks

COAL WAS ENCOUNTERED AT 470 FEET 24 INCHES
____ FEET _____ INCHES FEET _____ INCHES
____ FEET _____ INCHES FEET _____ INCHES

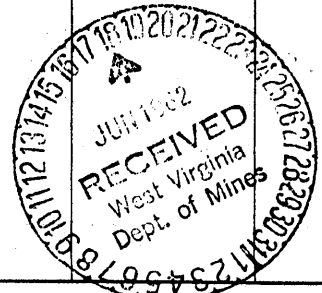
WELL FRACTURED 5-15-62 Western 20,000 gal. water and 20,000 lbs. of sand

RESULT AFTER TREATMENT 10 bbls. oil - 10,020 cu. ft. gas per day

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water 145 - 150 Feet Salt Water 1499 Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Clay-Rock			0	30			
Red Rock			30	45			
Shale & Shells			45	151			
Red Rock			151	174	(water 145-150)		
Shale & Shells			174	207			
Lime			207	227			
Shale			227	250			
Lime			250	272			
Lime & Shale			272	323			
Red Rock			323	333			
Lime Shells & Shale			333	348			
Sand			348	364			
Slate			364	373			
Shale			373	470			
Coal			470	472			
Lime & Shale			472	537			
Lime			537	585			
Shale & Lime Shells			585	597			
Lime Shells			597	610			
Grey Shale			610	626			
Lime			626	641			
Shale			641	654			
Lime			654	664			
Shale			664	695			
Hard Lime			695	707			
Slate			707	755			
Lime			755	774			
Red Rock			774	780			
Soft Lime			780	789			
Shale & Lime			789	827			



Formation	Color	Hard or Soft	Top <i>12</i>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			827	855			
Sand			855	866			
Lime			866	892			
Slate & Shells			892	904			
Shale & Red Rock			904	934			
Red Rock			934	950			
Shale			950	1014			
Red Rock & Shale			1014	1044			
Lime			1044	1064			
Slate			1064	1070			
Lime			1070	1082			
Slate & Shells			1082	1100			
Red Rock			1100	1109			
Gritty Lime			1109	1113			
Black Shale			1113	1135			
Slate & Lime Shells			1135	1200			
Sand			1200	1236			
Shale & Sand			1236	1246			
Shale & Lime			1246	1285			
Broken Lime			1285	1310			
Sand			1310	1374			
Sand Shale & Lime			1374	1412			
Sand			1412	1439			
Slate & Shells			1439	1480			
Sand & Lime			1480	1505	(water @ 1499 7 bailers per hr.)		
Sand			1505	1570			
Shale			1570	1593			
Sand			1593	1609			
Sand & Shale			1609	1627			
Lime Shell			1627	1652			
Grey Shale			1652	1675			
Dark Shale			1675	1700			
Shale & Shells			1700	1725			
Sand			1725	1750			
Sand & Shale			1750	1775	1944		
Black Shale			1775	1849	959		
Hard White Sand			1849	1867	<u>985</u>		
Shale			1867	1896			
Red Rock			1896	1903			
Grey Shale			1903	1919			
Black Slate			1919	1938			
<i>Little</i> Lime			1938	1940			
<i>✓</i> Pencil Cave			1940	1944			
<i>Big</i> Lime			1944	2013			
<i>✓</i> Sand B, I			2013	2215			
Shale			2215	2223			
Sand			2223	2231			
Shale			2231	2345			
Sand			2345	2373			
Slate & Shells			2373	2670			
Pink Rock			2670	2680			
Sandy Shale			2680	2703			
Sand & Shale			2703	2724			
Dark Shale			2724	2782			
<i>✓</i> Gordon Stray Sand			2782	2793			
<i>✓</i> Gordon Sand			2793	2826			
Shale			2826	2846	(TD - 2848')		

Date June 1, 1962

APPROVED Quaker State Oil Refng. Corp., Owner

By _____ (Title)