

LATITUDE 39° 00'

4.35 S.
3.20 W.

LONGITUDE 80° 45'

M. E. Lynch

A. E. Wright

S35°30'E 996'

S40°30'E 247'

Black Run

To Sand Fork

S. A. Hays 222.6 ac.

* Equitable 7305

W. Va. Route 5

Little Kanawha River

S. A. Hays

To Glenville

Fairgrounds Property

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all of the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

W. H. H. H.
E. E. No. 127

Elev. at intersection of W. Va. Route 5 and U.S. Route 33 = 728'

Error in Closure: - Less than 1' in 200'

- New Location
- Drill Deeper
- Abandonment

Company PACIFIC STATES OIL & GAS, INC.
 Address P.O. Box 735, Encino, California
 Farm S. A. Hays, et al
 Tract Acres 222.6 Lease No. _____
 Well (Farm) No. Two Serial No. _____
 Elevation (Spirit Level) 1013
 Quadrangle Glenville - NE
 County Gilmer District Glenville
 Engineer W. H. H. H.
 Engineer's Registration No. 1227
 File No. _____ Drawing No. _____
 Date April 22, 1965 Scale 1" = 500'

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

WELL LOCATION MAP
FILE NO. GIL-1720

+ 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

Rotary
Spudder
Cable Tools
Storage

O S W 32161

Quadrangle Glen NE

Permit No. Gil 1720

WELL RECORD

Oil or Gas Well gas

Company Pacific States Gas & Oil, Inc.
Address P. O. Box 735, Encino, Calif.
Farm S. A. Hays Acres 222.6
Location (waters) Little Kanawha River
Well No. 2-A Elev. 1013'
District Glenville County Gilmer
The surface of tract is owned in fee by Luther B.

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16	20'	20'	
13			
10			Size of
8 1/4	755'	Pulled	
6 3/4	7" on a swedge	394'	Depth set
5 3/16	gelled back to		Perf. top <u>1643'</u>
3	surface		Perf. bottom <u>1719'</u>
2			Perf. top
Liners Used			Perf. bottom

Heater Address Glenville, W. Va.
Mineral rights are owned by Lohan Heirs, Glenville
W. Va. & W. E. Morris Heirs, Clarksburg,

Drilling commenced 6/1/65 W. Va.

Drilling completed 6/30/65

Date Shot From To

With

Open Flow /10ths Water in Inch

/10ths Merc. in Inch

Volume 60,000 Cu. Ft.

Rock Pressure Not taken lbs. hrs.

Oil bbls., 1st 24 hrs.

WELL ACIDIZED

CASING CEMENTED 4 1/2" SIZE 1796 No. Ft. 7/1/65 Date

70 sks. cement, 5 sks. gel

COAL WAS ENCOUNTERED AT None FEET INCHES

FEET INCHES FEET INCHES

FEET INCHES FEET INCHES

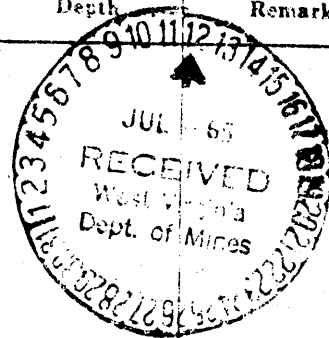
WELL FRACTURED 7/5/65 see details below

RESULT AFTER TREATMENT 4200 MCF, 5 bbls. frac oil per hour

ROCK PRESSURE AFTER TREATMENT

Fresh Water None Feet Salt Water Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
R			0'	60'			
and			60'	67'			
L			67'	113'			
ime			113'	125'			
L			125'	217'			
late & Shale			217'	390'			
late & lime Shells			390'	452'			
and			452'	482'			
late & Shells			482'	600'			
and			600'	630'	gas	602'	
late			630'	652'			
ime			652'	680'			
and		hard	680'	741'			
late Shells			741'	800'			
hale			800'	825'			
late Shells	white		825'	860'			
ark Shale Sand Shells			860'	905'			
and			905'	944'			
imy Shale			944'	1185'			
and			1185'	1259'	gas	1243'	1st Salt
andy Shale			1259'	1316'			
and			1316'	1380'			
andy Shale			1380'	1392'			2nd Salt
and			1392'	1428'			
andy Shale			1428'	1456'			3rd Salt
and			1456'	1472'			
andy Shale			1472'	1532'			Maxton
ine			1532'	1567'			
late			1567'	1576'			Little Lime Pencil Cave



Formation	Color	Hard or Soft	Top ⁷	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime			1576'	1637'			Big Lime Keener Big Injun
Sandy Lime			1637'	1666'	gas	1644'	
Sand & Lime			1666'	1736'			
Sandy Slate & Shells			1736'	1796'	gas	1720'	
			T D	1796'			
7/1/65	Logged well using Appalachian Well Surveys. Ran Gamma, Neutron, Caliper, Density and Temperature Logs.						
7/1/65	Ran and cemented 1796' - 4 1/2" with 70 sks. cement, 5 sks. gel.						
7/5/65	Perforated: 1643 1/2 - 1644 1/2 - 4 1/2" jets, 1707 1/2 - 1708 1/2 - 4 1/2" jets, 1718 - 1719' - 4 1/2" jets.						
7/5/65	Frac-ed well using Dowell Frac Equipment, and NSCO Nitrogen Equipment, Used the following: 3,000 Gals. 15% HCL, 30,000# 20-40 Sand, 500# 8-12 beads, 363,000 SCF N ₂						
	Breakdown pressure with acid 1900# Average treating pressure 2400# Maximum pressure 2500# Average injection rate with sand, oil and N ₂ - 35 bbls. per minute Maximum Sand concentration 2 1/2# per gal. 5 minute shut in pressure 1000# Shut in pressure after 48 hrs. 925#						
	Blew well 2 hrs. Open flow test 4200 MCF, 5 bbls. frac oil per hour.						

1576
1637
563

706200N
2053800E
Glenville 7.5
M 17221
S 22968

July 2 1965
Approved Pacific States Gas & Oil, Inc., Owner
by *(Signature)* Engineer