

Fracture Before 6/5/27
 New Location
 Drill Deeper
 Redrill
 Abandonment
 Date 5/24/74

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 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.
 The accuracy of this survey is within the limits and as prescribed in paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.
 PROVEN ELEVATION USCG E 107

Company Cam E. Smith, Inc. P.O. Box 4
~~City Service Oil Company~~
 Address Box 875 Charleston, W. Va. 25325
 Farm Delmar Pursley et al.
 Tract III Acres 111 Lease No. WU-223
 Well (Farm) No. A-1 Serial No. GN-1621
 Elevation (Spirit Level) 928.93
 Quadrangle RIPLEY SW
 County JACKSON District RIPLEY
 Engineer Wendell S Moore
 Engineer's Registration No. _____
 File No. _____ Drawing No. W-3-67
 Date 17 MARCH 67 Scale 1" = 1000'

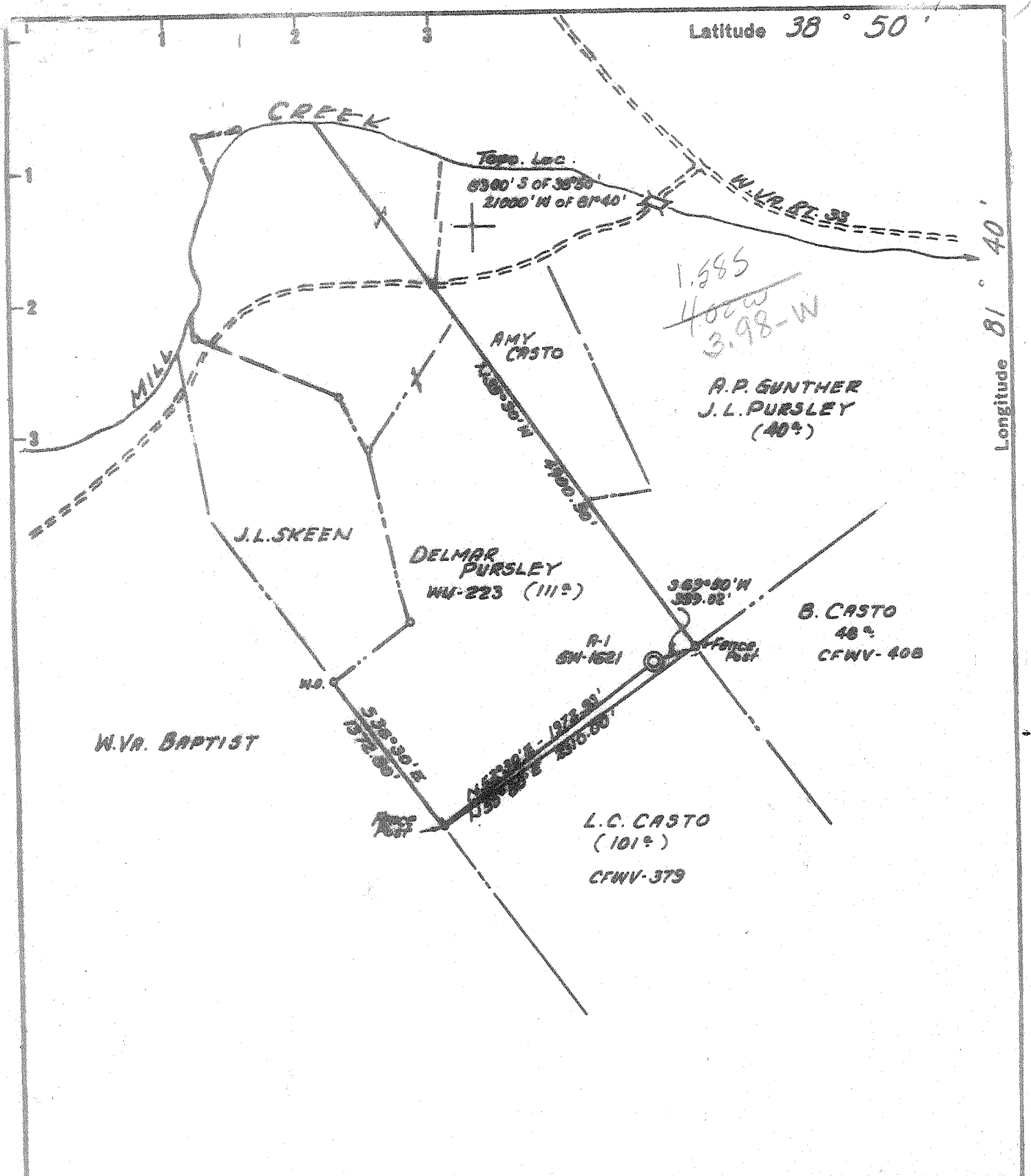
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. SAC-1136-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.

47-035

- DEEP WELL -



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PROVEN ELEVATION USCG E 107

Company CITIES SERVICE OIL COMPANY
 Address BOX 875 CHARLESTON, W. VA.
 Farm DELMAR PURSLEY ET AL
 Tract _____ Acres 111 Lease No. WV-223
 Well (Farm) No. A-1 Serial No. GW-1521
 Elevation (Spirit Level) 323.93
 Quadrangle RIPLY WC
 County JACKSON District RIPLY
 Engineer Wendell J. Moore
 Engineer's Registration No. _____
 File No. _____ Drawing No. W-3-67
 Date 17 MARCH 67 Scale 1"=1000'

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

WELL LOCATION MAP
 FILE NO. JAC-1136

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

MAR 25 1967

6-6 311

Deep well (Newburg)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 3

Rotary
Spudder
Cable Tools
Storage

Quadrangle Ripley

WELL RECORD

Oil or Gas Well Gas
(KIND)

Permit No. JAC-1136

Company	Casing and Tubing	Used in Drilling	Left in Well	Packers	
<u>Cities Service Oil Company</u>	Size				
<u>Box 873, Charleston, W. Va. 25323</u>	16" 65#	35'	35'	Kind of Packer	
<u>Delmar Pursley, et al</u> Acres <u>300</u>	13			<u>none</u>	
Location (waters) <u>Mill Creek</u>	10 9-5/8" 32#	# 2676'	2676'	Size of	
Well No. <u>"A" #1, GW-1621</u> Elev. <u>928.93'</u>	8 1/4"	20#	5599'	5599'	Depth set
District <u>Ripley</u> County <u>Jackson</u>	10 7" 23#				
The surface of tract is owned in fee by <u>Delmar Pursley, et al</u>	5 3/16"				Perf. top
<u>R. F. D. #2</u> Address <u>Ripley, W. Va.</u>	4 1/2" 11.6#	5748'	5748'		Perf. bottom
Mineral rights are owned by <u>same</u>	3				Perf. top
for further add. contact <u>C. S. O. Co)</u>	2 3/8" 4.7#	5425'	5425'		Perf. bottom
Address	Liners Used	<u>w/cage</u>			
Drilling commenced <u>3-31-67</u>					
Drilling completed <u>4-27-67</u>					
Date Shot <u>not shot</u> From To					
With					

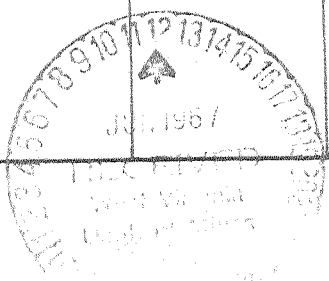
Open Flow /10ths Water in _____ Inch
 /10ths Merc. in _____ Inch
 Volume 146M Cu. Ft.
 Rock Pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 WELL ACIDIZED (DETAILS) not acidized
 WELL FRACTURED (DETAILS) See attached sheet

Attach copy of cementing record.

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
 Amount of cement used (bags) _____
 Name of Service Co. see reverse side
 COAL WAS ENCOUNTERED AT NONE FEET _____ INCHES _____
 FEET _____ INCHES FEET _____ INCHES
 FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 7412 MCF (actual) Newburg
 ROCK PRESSURE AFTER TREATMENT 96 HOURS Tubing 1926.5#, B. H. 1925# deadwt.
 Fresh Water _____ Feet _____ Salt Water _____ Feet _____
 Producing Sand Newburg Sand Depth 5711-26' per electric logs

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand and Soil			0	44			
Shale			44	48			
Red Rock			48	83			
Shale			83	138			
Sand			138	146			
Shale			146	198			
Sand			198	205			
Shale			205	275			
Red Rock			275	290			
Sand			290	294			
Shale			294	346			
Sand			346	357			
Red Rock			357	390			
Sand			390	419			
Shale			419	424			
Sandy Shale			424	440			
Red Rock and Shale			440	478			
Sandy Shale			478	493			
Red Rock			493	506			
Sandy Shale			506	628			
Shale			628	650			
Red Rock			650	660			
Red Rock & Shale			660	689			
Sand and Shale			689	753			
Sand			753	763			
Red Rock			763	772			



Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Sand and Shale			772	853			
Shale			853	887			
Sandy Shale			887	943			
Red Rock			943	964			
Red Rock & Shale			964	1008			
Shale			1008	1130			
Sand and Shale			1130	1171			
Sand			1171	1317			
Shale			1317	1362			
Sand			1362	1367			
Shale			1367	1402			
Sand			1402	1493			
Shale			1493	1502			
Sand and Shale			1502	1564			
Black Shale			1564	1570			
Sand and Shale			1570	1622			
Black Shale			1622	1636			
Sand			1636	1644			
Shale			1644	1681			
Sand			1681	1688			
Shale			1688	1697			
Sand			1697	1716			
Shale			1716	1792			
Sand			1792	1913			
Shale			1913	1920			
Sandy Lime			1920	1952			
Pencil Cave			1952	1956			
Big Lime			1956	2124			
Red Rock & Shale			2124	2131			
Big Lime			2131	2137			
Sandy Lime			2137	2254			
Sandy Shale			2254	2269			
Sand - Wash			2269	2364			
Shale			2364	2404			
Sand and Shale			2404	2432			
Shale			2432	2560			
Merca Sand			2560	2624			
Shale			2624	4873			
Corniferous Lime - 463			4873	4969			
Oriskany Sand			4969	5027			
Lime - Nelderberg & Salina			5027	5032			
Sand and Lime			5032	5452			
Sand and Shale			5452	5535			
Lime and Shale			5535	5575			
Sandy Lime			5575	5632			
Lime & Shale			5632	5711			
Newburg Sand			5711	5726	5-35		
McKENZIE LIME			5726				
Total depth				5746'	Drillers' Meas.	TD 545	
				5744'	Schlumberger Meas.		
Plugged back depth				5743'			
Electric Logs showed:							
Newburg			5711	5726			
see additional information on attached page)							

Date _____, 19__

APPROVED _____, Owner

By _____ (Title)

Formation	Color	Hard or Soft	Top 3A	Bottom	Oil, Gas or Water	Depth Found	Remarks
Additional information on GW-1621, Pursley "A" #1							
CASING RECORD							
3-31-67							Set and cemented 16" 65# H-40 B-Grade casing at 44' with 7 sacks cement.
4-14-67							Set and cemented 9-5/8" 32.3# H-40 new casing with guide shoe at 2,665' with 135 sacks cement with 2% Calcium Chloride. Centralizers at 2,633', 2,536', 2,445' and 2,355'.
4-20-67							Ran 7" casing with guide shoe to 5,550'. Pipe stopped. Started to mud up to pump casing to 5,573'. Pumping mud and sour gas forced crew away from rig. Cemented 7" 23# and 20# J-55 B-Grade casing at 5,550' with 122 sacks regular cement, R/L nipple at 4,057'. Centralizers at 5,517', 5,395', 5,264', 5,134' and 5,003'.
4-29-67							Set and cemented 4-1/2" 11.6# J-55 new casing with Baker Whirler Guide Shoe at 5,744' with 63 sacks Pozmix and 23 sacks Latex. Used 500 gallons mud wash ahead of cement. Insert at 5,741'. Reciprocating scratchers 5,744' to 5,602'. Centralizers 5,726', 5,700', 5,543', 5,410', 5,275' and 5,144'

4-27-67							Cut core #1 5700-5746'. Cut and recovered 46'
4-28-67							Ran Schlumberger Logs: Caliper, Gamma Ray, Compensated Formation Density and Induction. Ran Schlumberger Experimental Neutron Log. Schlumberger's total depth 5,744' - Newburg 5711-5726'
5-6-67							Ran McCullough Gamma-Ray Correlation Log, Collar Locator Log and Cement Bond Log. Depth reached by McCullough 5,733'.
5-8-67							Perforated Newburg Sand 5715-17' with 4 shots/foot. Gas gauging 146 MCF/D.
5-9-67							Attempted to Frac Newburg. Found hole in casing. Replaced bad casing.
5-12-67							FRACTURED THE NEWBURG Pressured up to 600# between 4-1/2" and 9-5/8" casing. Hole circulates behind 9-5/8" when pressure is above 600#. Fraced Newburg. Pumped 500 gallons mud and 1,000 gallons regular 15% acid. Pumping into formation at 4700#. Fraced Newburg Sand with 21,000# 20-40 sand in 22,000 gallons gelled water. Maximum treating pressure 5300#. Average treating pressure 4100#. AIR 21 bbls/min. Pumped 25 bbls. flush and started flowing back. Fracturing pressure was 5300#. Used 646 barrels of fluid.
5-23-67							FOF 7,412 MCF/D (Actual) 96 hours shut in pressure tubing 1926.5#, Braden head 1925.0#.

Date June 9, 1967

APPROVED Cities Service Oil Company, Owner

By L. D. Todd, District Sup't
(Title)

JUN 20 1967