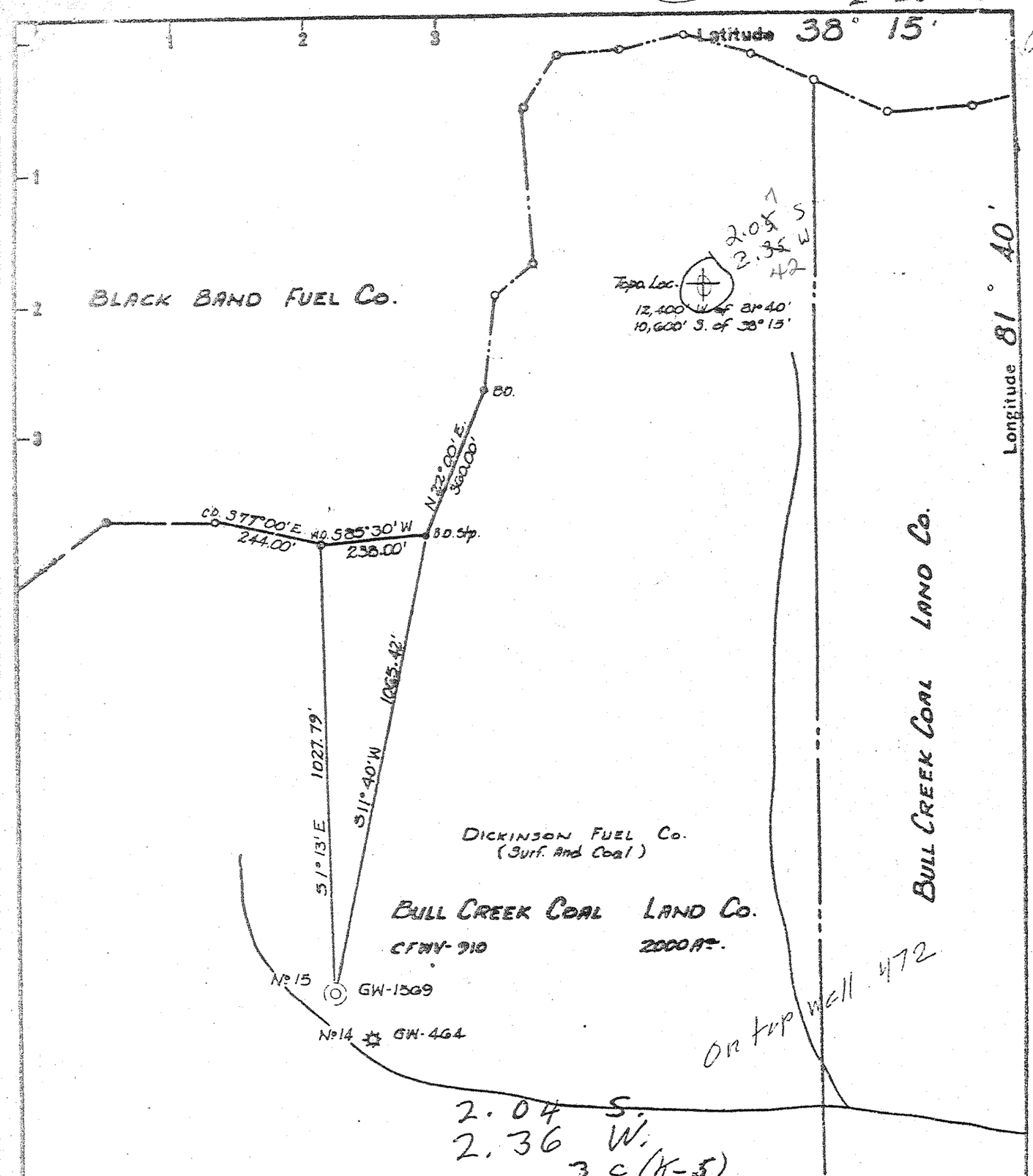
(m)

2-23-66-WB



Fracture
Before 6.5.27
New Location
Drill Deeper
Redrill
Abandonment

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 940 BM "738"

Company CITIES SERVICE OIL COMPANY
Address BOX 873 CHARLESTON, W.VA.
Farm BULL CREEK COAL LAND CO.
Tract ____ Acres 2000 Lease No. CFWV-910
Well (Farm) No 15 Serial No. GW-1509
Elevation (Spirit Level) 1011.51
Quadrangle PEYTONA NW
County BOONE District PEYTONA
Engineer Wendell B. Moore
Engineer's Registration No. 2113
File No. ____ Drawing No. W-1-66
Date 21 FEB. 66 Scale 1"=300'

Kanawha Forest

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

WELL LOCATION MAP

FILE NO. B00-991

+ 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.

Not received yet

6-6 238 Deep Well

Form OG-10

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Rotary [X]
Spudder [ ]
Cable Tools [ ]
Storage [ ]

Quadrangle Peytona
Permit No. Boo-991
Oil or Gas Well Gas (KIND)

Company Cities Service Oil Company
Address Box 873, Charleston, W. Va. 25323
Farm Bull Creek Coal Land Co Acres 2,000
Location (waters)
Well No. 15 - GW-1569 Elev. 1011.51
District Peytona County Boone
The surface of tract is owned in fee by Dickinson Fuel Co.
Kan. Valley Bldg. Address Charleston, W. Va.
Mineral rights are owned by Bull Creek Coal Land Co.
44 Lyman Road Address Buffalo, N. Y.
Drilling commenced 3-7-66
Drilling completed 4-4-66
Date Shot not shot From To
With

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
~~XX~~20"50. 7#	21'	21'	Kind of Packer
13 3/8"48#	518'	518'	none
~~XX~~9-5/8"32. 3#	1708'	1708'	Size of
8¼			
6⅝			Depth set
5 3/16			
4½"11. 6#	5441'	5441'	
3			Perf. top
2 3/8"4. 7#	5341'	5341'	Perf. bottom
Liners Used	with 2" cage		Perf. top
			Perf. bottom

Open Flow /10ths Water in Inch
/10ths Merc. in Inch
Volume Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.
WELL ACIDIZED (DETAILS) see attached sheet
WELL FRACTURED (DETAILS) see attached sheet
RESULT AFTER TREATMENT (Initial open Flow or bbls.) 894 MCF (Newburg) w/ est. 10 gal. fluid/hour
ROCK PRESSURE AFTER TREATMENT 42 HOURS 1780# tubing and 1880# B. H.
Fresh Water Feet Salt Water 715' Feet
Producing Sand Newburg Sand Deep Well Depth 5342-5361' (electric logs)

Attach copy of cementing record.
CASING CEMENTED SIZE No. Ft. Date
Amount of cement used (bags)
Name of Service Co. see attached sheet
COAL WAS ENCOUNTERED AT 184 FEET 24 INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

Deep Well

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale and Slate			0	20			
Lime			20	32			
Sandstone			32	35			
Lime			35	48			
Sand			48	50			
Lime			50	114			
Shale			114	120			
Lime			120	146			
Sand			146	150			
Sand and Shale			150	184			
Show of coal			184	186			
Sand and Shale			186	377			
Shale			377	393			
Sand and Shale			393	449			
Sand			449	507			
Sand and Shale			507	523			
Shale			523	677			
Sand			677	1242	S. water	715'	
Sand and Shale			1242	1250			
Shale			1250	1282			
Shale and Sand			1282	1306			
Sand			1306	1312			
Sand, Shale and Red Rock			1312	1335			
Maxon Sand			1335	1400			
Lime			1400	1406			
Shale and Lime			1406	1430			

GEOLOG

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime and Shale			1430	1449			
Lime			1449	1628	Gas	1500'	show
Red Injun Sand 363			1628	1666			
Weir, Sand			1666	1672			
Shale and Sand			1672	1692			
Shale			1692	2104			
Sand - Berea			2104	2110			
Shale			2110	3322			
Sand and Shale			3322	3480			
Shale			3480	3814			
Shale and Sand			3814	3959			
Shale			3959	4592			
Sand			4592	4616			
Corniferous Lime		✓	4616	4683			
Oriskany Sand			4683	5038	S. gas	4900'	
Shale			5038	5078			
Sand and Shale			5078	5092			
Shale			5092	5119			
Lime			5119	5155			
Shale and Lime			5155	5168			
Lime			5168	5243			
Shale and Lime			5243	5269			
Lime			5269	5296			
Shale and Lime			5296	5314			
Lime			5314	5337			
Sand, Shale and Lime			5337	5358			
Sand - Newburg			5358	5378			
Lime			5378	5380			
Sand and Shale			5380	5394			
Lime and Shale			5394	5405			
				545			
Total depth				5405' drillers' T. D.			
				5398' Schl. T. D.			
				5394' Plugged back depth			
Electric Logs show:							
Big Lime			1439	1620			
Big Injun			1630	1666			
Berea			2094	2101			
Onondaga			4590	4689			
Oriskany Sand			4689	4698			
Newburg			5342	5361			

See additional information on attached sheet

Date _____, 19____

APPROVED _____, Owner

By _____
(Title)

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks

CASING RECORD

3-8-66 Set and cemented 20" 50.7# drive pipe at 32' - cemented with 20 sacks.

3-12-66 Set and cemented 13-3/8" 48# H-40 Grade B casing at 523' with shoe. Pumped 60 bbls. mud and cemented with 100 sacks cement with 3% calcium chloride. Pumped plug to 520'. Centralizers at 520' and 466'.

3-20-66 Set 9-5/8" 32.3# H-40 casing at 1692' with guide shoe. Pumped 72 bbls. mud with lost circulation material and cemented with 125 sacks regular cement with 3% calcium chloride. Mud circulated while cementing.

4-7-66 Set and cemented 4-1/2" 11.6# J-55 casing at 5398' with guide shoe. Cemented with 175 sacks Dowell Expandable cement. Pumped plug to 5394'. Scratchers on 12' centers 5393-5141'. Centralizers 5375', 5325', 5269', 5175', 5085' and 4987' with R/L nipple at 4675'.

4-5-66 Ran Schlumberger Logs: Gamma Ray, Caliper, Density and Induction.
Ran Drill Stem Test #1. Set packer at 5344' and tested Newburg 5344-5405'.

4-18-66 Ran Birdwell Cement Bond Log.

4-18-66 Perforated Newburg Sand 5348' and 5354' with 4 shots at each point.

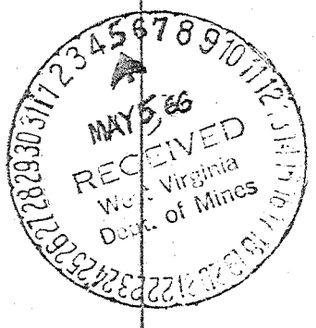
4-19-66 Ran 2" EUE tubing to 5360' and spotted 500 gallons mud acid and 1,000 gallons regular acid.

4-20-66 FRACTURED NEWBURG SAND

Fractured Newburg Sand down 4-1/2" casing after pumping 500 gallons of mud acid and 1500 gallons regular 15% acid into the formation at 3500#. Fraced with 12,000# 20-40 sand in 20,000 gallons of gelled water. Maximum treating pressure 4600#. Average treating pressure 4456#. AIR 15 bbls/min. Used 731 bbls. total fluid. Opened well and started flowing back.

4-21-66 Well died after being left open overnight. Ran 2" upset tubing with cage on bottom and swabbed.

4-29-66 Final open flow 894 MCF with an est. 10 gal/hr of fluid. 42 hour shut in pressure 1780# on tubing and 1880# on casing.



Date May 4, 19 66

APPROVED Cities Service Oil Company, Owner

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