

LATITUDE 38° 55'

LONGITUDE 81° 45'

CERTIFICATE

"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 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Minimum degree of accuracy is one part in 200

Signed W.S. #247 Arnold J. Day

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT - 7/26/71

COMPANY CITIES SERVICE OIL COMPANY
 ADDRESS BOX 873 CHARLESTON, W.VA.
 FARM WOODRUFF INVESTMENT COMPANY
 MAP C-1 ACRES 240^a Part 452^a LEASE NO. WV-542
 WELL (FARM) NO. A-2 SERIAL NO. GW-1694
 ELEVATION (SPIRIT LEVEL) 862.14
 QUADRANGLE RAVENSWOOD EV
 COUNTY JACKSON DISTRICT UNION
 POINT OF PROVEN ELEVATION INTERSECTION SEC. RTS. 87/2 & 87/9
ELEV. 627
 FILE NO. _____ DRAWING NO. W-8-71
 DATE JUNE 29, 1971 SCALE 1" = 600'

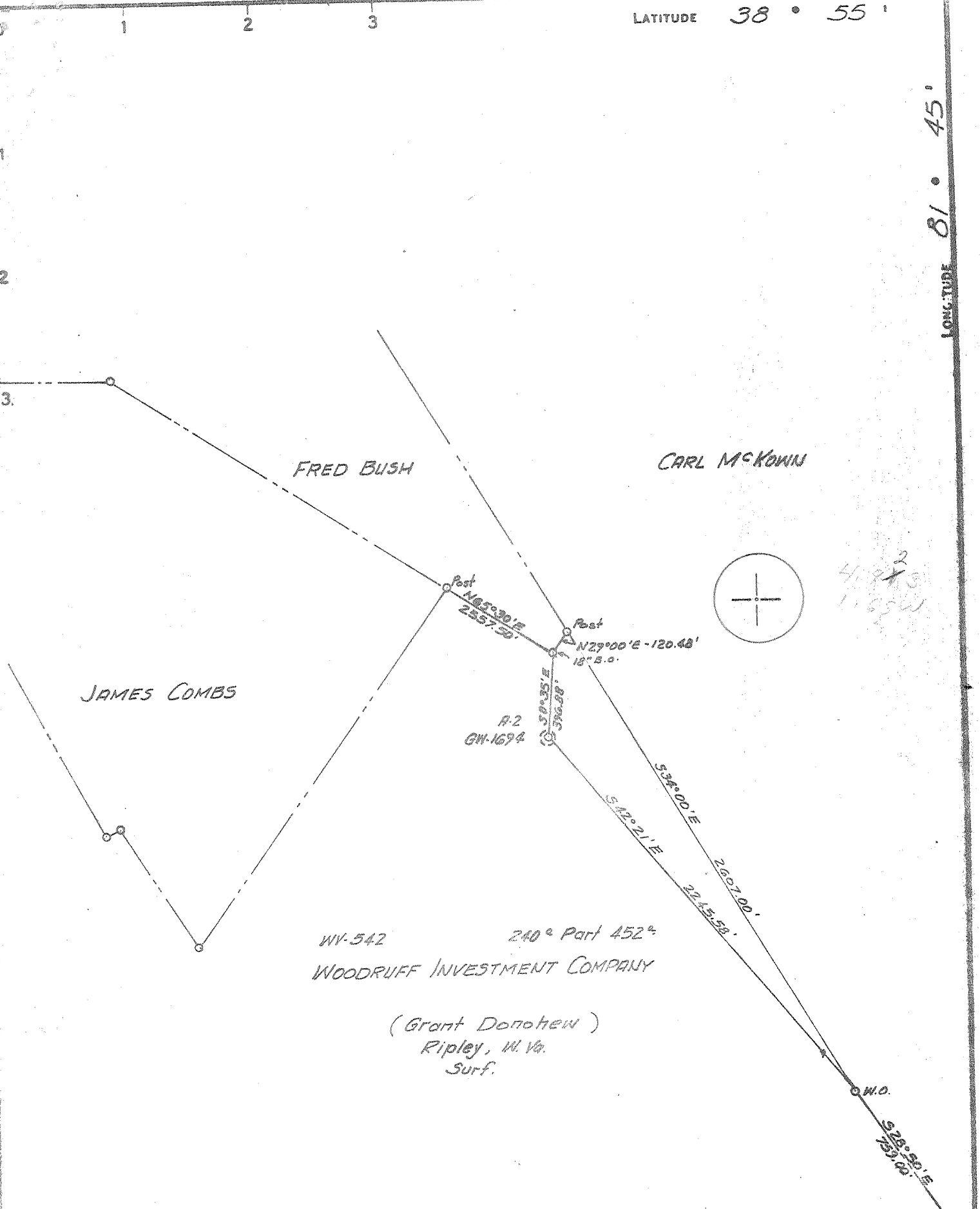
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
 WELL LOCATION MAP
 FILE NO. JAC-1293-P

→ 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

JUL 23 1971
 AUG 3 1971

Deep well

688
 CD



4,213
1,654

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

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Signed L. S. # 217 Arnold J. Bay

COMPANY	CITIES SERVICE OIL COMPANY		
ADDRESS	BOX 873 CHARLESTON, W. VA.		
FARM	WOODRUFF INVESTMENT COMPANY		
MAP	C-1	ACRES	240° Part 452°
WELL (FARM) NO.	A-2	SERIAL NO.	GW-1694
ELEVATION (SPIRIT LEVEL)	862.10		
QUADRANGLE	RAVENSHOOD EC		
COUNTY	JACKSON	DISTRICT	UNION
POINT OF PROVEN ELEVATION	INTERSECTION SEC. RTS. 87/8 & 87/9		
	ELEV. 627		
FILE NO.		DRAWING NO.	W-8-71
DATE	JUNE 29, 1971	SCALE	1" = 600'

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

WELL LOCATION MAP

FILE NO. **JAC-1293**

✦ 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.

5-0 Ripley 311

Deep Well (Newburg)

JUL 12 1971



JUL 26 1971

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION 8

Rotary
Spudder
Cable Tools
Storage

Quadrangle Ravenswood

Permit No. JAC - 1293 P

WELL RECORD

Oil or Gas Well dry hole
(KIND)

Company Cities Service Oil Company
Address P. O. Box 873, Charleston, W. Va.
Farm Woodruff Investment Co Acres 240
Location (waters) _____
Well No. "A" #2, GW-1694 Elev. 862.14'
District Union County Jackson
The surface of tract is owned in fee by Grant Donohew, et ux

Address Ripley, W. Va.
Mineral rights are owned by Woodruff Investment Co
1009 Baltimore Ave Address Kansas City, Mo.

Drilling commenced 7-9-71
Drilling completed 7/23/71
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 (DETAILS) _____
WELL FRACTURED (DETAILS) _____

RESULT AFTER TREATMENT (Initial open Flow or bbls.) Dry

ROCK PRESSURE AFTER TREATMENT _____ HOURS _____

Fresh Water _____ Feet _____ Salt Water _____ Feet _____

Producing Sand Top of Newburg Sand 5420' Depth T. D. 5,468'

Casing and Tubing	Used in Drilling depth set	Left in Well	Packers
Size			
16			Kind of Packer
13/8" 48#	75'	75'	none
10			Size of
8 1/4" 24#	2570'	2570'	Depth set
6#			
5 3/16" 17#	5383'	5383'	
4 1/2			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

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

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soil			76	76			
Sand and Shale			76	90			
Shale			90	128	LOGS:		
Sand and Shale			128	158	ONONDAGA - TOP -	4632	
Shale			158	585	- 463		
Shale and Sand			585	644	SALINA - TOP - ? -	4923	
Gray Shale			644	668			
Sand and Shale			668	842			
Shale			842	1195			
Sand and Shale			1195	1219			
Shale			1219	1265			
✓ Salt Sand			1265	1672			
Sand			1672	1887			
Lime - Big Lime			1887	1939			
Sand - Injun Plus			1939	2301			
Sand and Shale			2301	2392			
Shale			2392	2487			
Sand - Berea			2487				
Newburg Sand			5420' E	5433' E			
McKenzie			5433' E				
Total depth					5465' Drillers' T. D.		
					5468' Loggers' T. D.		
					(545)		

Formation	Color	Hard or Soft	Top δ	Bottom	Oil, Gas or Water	Depth Found	Remarks
CASING RECORD							
7-9-71							13-3/8" 48# H-40 new casing set at 75' with 70 sacks of regular cement. Cement circulated to surface
7-16-71							Set and cemented 8-5/8" 24# H-40 new casing at 2,570' with 455 sacks Lite Poz and followed with 100 sacks regular cement with 2% Ca. Cl. Cement circulated to surface. Pumped 50 bbls. 6% Gel ahead of cement.
7-20-71							Set and cemented 5-1/2" 17# N-80 casing at 5,383' (1,250' new on top of string and 4,133' B-grade) with 110 sacks regular cement and 34 sacks Latex. Pumped 250 bbls. 6% Gel with lost circulation material ahead of cement. Gel did not circulate to surface. Insert at 5,352', Centralizers at 5,257', 5,162', 5,067', 4,972' and 4,877'.
7-23-71							Ran Birdwell Gamma Ray and Density Logs. Drillers' T. D. 5,465' - Loggers' T. D. 5,468'. Top of Newburg Sand 5,420' -- No porosity

Date July 26, 1971

APPROVED Cities Service Oil Company, Owner

By L. D. Todd, Region Prod. Manager
(Title)

CSO & CUA