

KAISER ALUMINUM & CHEMICAL CORP.

BENCH MARK
 C-84 AT WILLOW GROVE JACKSON CO. 468'
 SOUTH OF THE B.&O. R.R. FLAG STATION
 50.5' NORTH OF THE CENTER OF A DIRT
 ROAD CROSSING. 16.5' WEST OF THE
 CENTER LINE OF THE MAIN TRACT. 27'
 SOUTH OF A POLE, 2' NORTH OF A WHITE
 WOODEN WITNESS POST, AND ABOUT
 1 FOOT LOWER THAN THE TRACK.
 A STANDARD DISK, STAMPED "C84
 1943" AND SET IN THE TOP OF A CONC.
 POST PROJECTING ABOUT 0.4' ABOVE
 GROUND. ELEV. 588.618'
 TOP OF RAIL OPPOSITE B.&O. R.R. M.P. #135
 587.3'

DEGREE OF ACCURACY
 ONE PART IN 200.

<p>Fracture Before 6/5/29 <input type="checkbox"/> New Location <input checked="" type="checkbox"/> Drill Deeper <input type="checkbox"/> Redrill <input type="checkbox"/> Abandonment <input checked="" type="checkbox"/> WORKED 9-13-70</p>	<p>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.</p>
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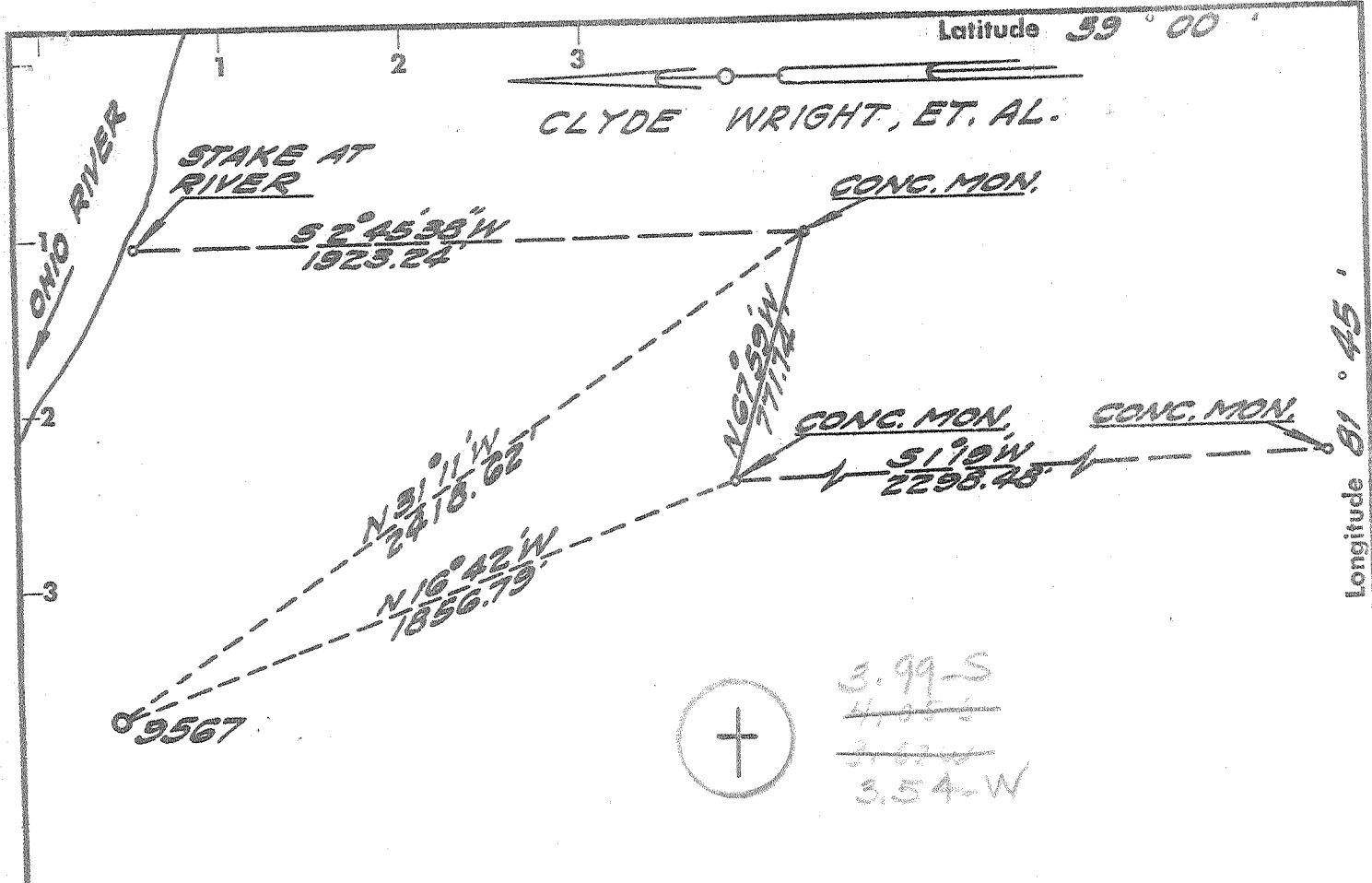
Company UNITED FUEL GAS CO.
 Address CHARLESTON, W.VA.
 Farm KAISER ALUMINUM CHEMICAL CORP.
 Tract 5111 ²³ Acres Lease No. 64390
 Well (Farm) No. _____ Serial No. 2567
 Elevation (Spirit Level) 611.21'
 Quadrangle RAVENSWOOD W.VA. OHIO NE
 County JACKSON District UNION
 Engineer Clifton E. Buchanan
 Engineer's Registration No. 2230
 File No. 50-99 Drawing No. _____
 Date 6-26-70 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. Jac-1231-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.

Deep Well (True) SEP 28 1970



KAISER ALUMINUM & CHEMICAL CORP.

BENCH MARK
 C-84 AT WILLOW GROVE JACKSON CO. 468'
 SOUTH OF THE B. & O. R.R. FLAG STATION
 50.5' NORTH OF THE CENTER OF A DIRT
 ROAD CROSSING. 16.5' WEST OF THE
 CENTER LINE OF THE MAIN TRACT. 2.7'
 SOUTH OF A POLE, 2' NORTH OF A WHITE
 WOODEN WITNESS POST, AND ABOUT
 1 FOOT LOWER THAN THE TRACK.
 A STANDARD DISK, STAMPED "C84
 1943" AND SET IN THE TOP OF A CONC.
 POST PROJECTING ABOUT 0.4' ABOVE
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Fracture		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.
Before 6/5/29	<input type="checkbox"/>	
New Location	<input checked="" type="checkbox"/>	
Drill Deeper	<input type="checkbox"/>	
Redrill	<input type="checkbox"/>	
Abandonment	<input type="checkbox"/>	

Company UNITED FUEL GAS CO.
 Address CHARLESTON, W. VA.
 Farm KAISER ALUMINUM & CHEMICAL CORP.
 Tract _____ Acres 311.23 Lease No. 64390
 Well (Farm) No. _____ Serial No. 9567
 Elevation (Spirit Level) 611.21'
 Quadrangle RAVENSWOOD W. VA. OHIO NE
 County JACKSON District UNION
 Engineer Adrian E. [Signature]
 Engineer's Registration No. 2330
 File No. 50-99 Drawing No. _____
 Date 6-26-70 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. Jac-1231

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary
Spudder
Cable Tools
Storage

Quadrangle Ripley

Permit No. JAC. 1231

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company United Fuel Gas Company
Address Charleston, West Virginia
Farm Kaiser Aluminium Chemical Corp. Acres. 3,111.3
Location (waters) Ohio River
Well No. 9567 Elev. 661.21
District Union County Jackson
The surface of tract is owned in fee by _____
Address _____

Mineral rights are owned by _____
Address _____

Drilling commenced Sept. 8, 1970
Drilling completed Sept. 14, 1970

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) Well not Fractured

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

ROCK PRESSURE AFTER TREATMENT _____ HOURS _____

Fresh Water _____ Feet _____ Salt Water _____ Feet _____

Producing Sand Dry Depth 5643'

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16 3/8"	120'	120'	
13 3/8"	1867'	1867'	Size of
10 9 5/8"			Depth set
8 1/4"			Perf. top
6 1/4"			Perf. bottom
5 3/16"			Perf. top
4 1/2"			Perf. bottom
3"			
2"			
Liners Used			

Attach copy of cementing record.

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

Amount of cement used (bags) _____

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
Sand & Gravel			0	60			
Lime & Shale			60	130			
Shale & Red Rock			130	800			
Sand & Shale			800	1505			
Big Lime			1505	1555			
Sand & Shale			1555	1800			
Shale			1800	4075			
Corniferous Lime - 463			4075	4138			
Oriskany Sand			4138	4170			
Lime & Dolomite (Held & SALINA)			4170	4950			
Lime & Sand - (McKenze, Newburg, Keffer)			4950	5130			
Shale - Rose Hill			5130	5490			
Clinton Sand Tusarora			5490	5625			
Shale Juniata			5625	5643			
TOTAL DEPTH				5643			

615

SEP 16 1970