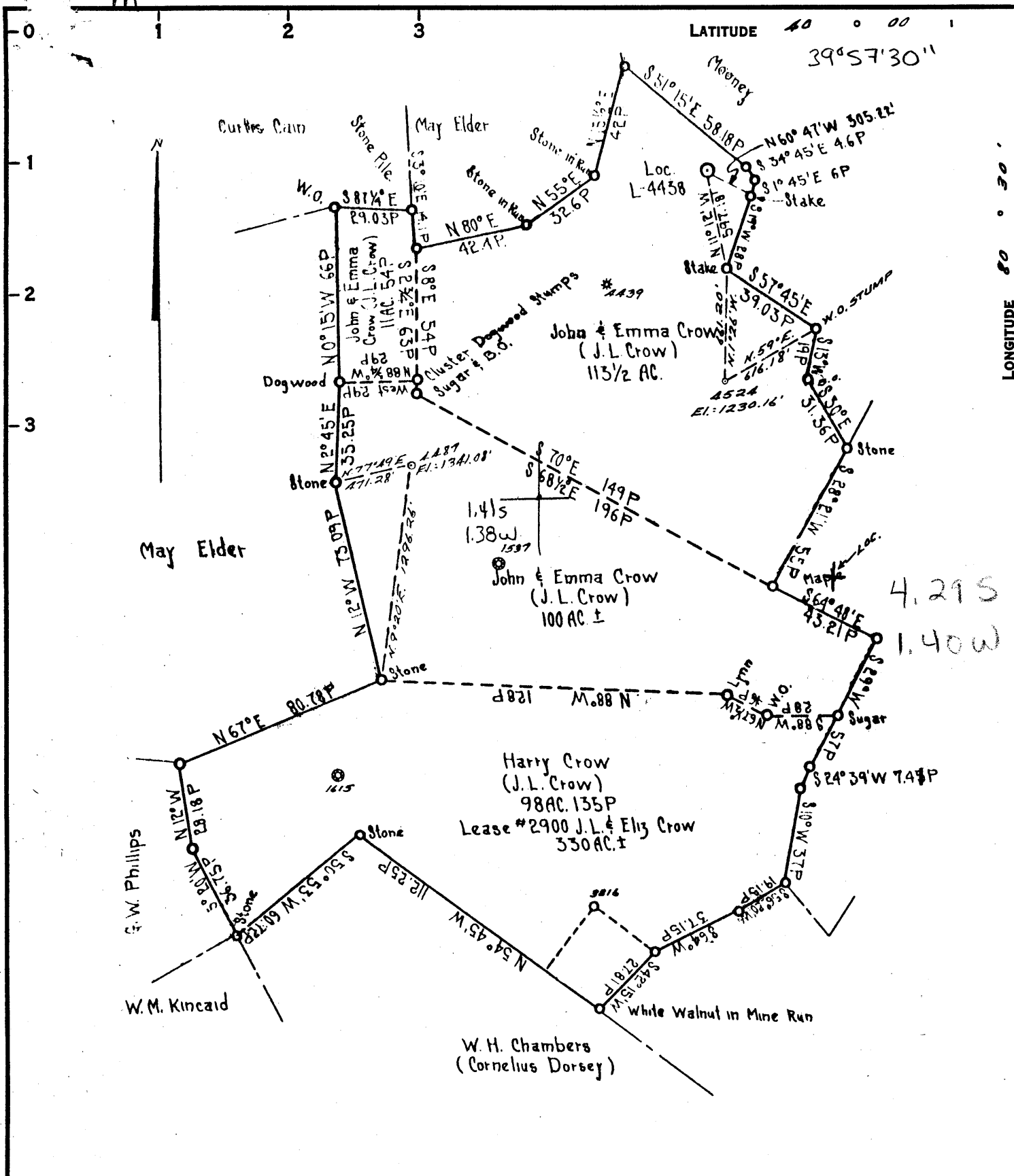


P



COAL OWNED BY _____

NEW LOCATION... FOR STORAGE

DRILL DEEPER...

ABANDONMENT...

0-25-10

COMPANY THE MANUFACTURERS LIGHT & HEAT

ADDRESS 800 UNION TRUST BLDG. PCH. PA.

FARM JOHN & EMMA CROW

TRACT _____ ACRES 330 LEASE NO. L-2900

WELL (FARM) No. _____ SERIAL No. 4524

ELEVATION (SPIRIT LEVEL) 1230.16'

QUADRANGLE CAMERON NE

COUNTY MARSHALL DISTRICT WEBSTER

ENGINEER A.G. Strator M.

ENGINEER'S REGISTRATION No. 9442

FILE No. _____ DRAWING No. Y-15-889

DATE 6 FEB. 59 SCALE 1" = 800'

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

WELL LOCATION MAP

FILE No. Mars-342-B
(Storage)

+ 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.

9-022

STORAGE



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

Quadrangle Cameron

WELL RECORD

Permit No. MARS-342-Redrill

Oil or Gas Well Gas
(KIND)

Company The Manufacturers Light and Heat Company
Address 800 Union Trust Building, Pgh. 19, Pennsylvania
Farm John and Emma Crow Acres 330
Location (waters) _____
Well No. 4524 Elev. 1230.16'
District Webster County Marshall
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by _____
Address _____
Drilling commenced April 1, 1959
Drilling completed August 3, 1959
Date Shot _____ From _____ To _____
With _____
Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume 5,940,000 Cu. Ft.
Rock Pressure 735 lbs. 72 hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water _____ feet _____ feet
Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
18"	70'10"	70'10"	
10"	725'10"	725'10"	Size of
8 1/2"	1419'6"	1419'6"	
8 1/4"	1819'10"	1819'10"	Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED	SIZE	No. Ft.	Date
COAL WAS ENCOUNTERED AT			
	FEEET	INCHES	
	FEEET	INCHES	
	FEEET	INCHES	

Formation	Color	Harder Soft thickness	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface		20	0	20			
Slate and Shells		55	20	75			
Sand		20	75	95			
Shale		13	95	108			
Lime		23	108	131			
Sand		24	131	155			
Slate		9	155	164			
Red Rock		5	164	169			
Slate and Shells		36	169	205			
Shale		25	205	230			
Lime		15	230	245			
Slate		40	245	285			
Lime		29	285	314			
Slate		19	314	333			
Lime		17	333	350			
Slate		35	350	385			
Waynesburg Coal		3	385	388			
Slate		26	388	414			
Lime		24	414	438			
Slate		39	438	477			
Mapletown Lime		107	477	584			
Shale		21	584	605			
Lime		47	605	652			
Shale		42	652	694			
Pittsburgh Coal		1	694	695	Some Water		
Lime		9	695	704			
Sand		10	704	714			
Slate		11	714	725			
Lime		20	725	745			
Shale		39	745	784			
Red Rock		58	784	842			
Lime		12	842	854			
Slate		6	854	860			
Red Rock		20	860	880			
Slate and Shells		74	880	954			
Red Rock		12	954	966			
Slate and Shells		48	966	1014			
Lime		144	1014	1158			
Shale		52	1158	1210			

(Over)

Formation	Color	Thickness Feet	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime		20	1210	1230			
Slate and Shells		36	1230	1266			
Lime		41	1266	1307			
Coal		4	1307	1311			
Sand		10	1311	1321		1785	
Slate and Shells		42	1321	1363		1230	
Lime		7	1363	1370		555	
Sand		38	1370	1408			
Slate and Shells		45	1408	1453			
Lime		47	1453	1500			
Shale		29	1500	1529			
Lime		19	1529	1548			
Slate and Shells		37	1548	1585			
Lime		8	1585	1593			
Shale		25	1593	1618			
Salt Sand		130	1618	1748	Hole Full Water at 1661' - Show of Gas		
Slate		37	1748	1785			
Big Lime		25	1785	1810			
Big Injun			1810				
TOTAL DEPTH				1914	Top of first gas 1844'		
					Well drilled from 1844' to 1914' with		
					hole full of 10# mud. Pay intervals		
					determined from Schlumberger G.R.N. &		
					M.L. Logs		
					1st pay	1840 - 1852'	
					2nd pay	1864 - 1876'	
					13 3/8" (48#, H-40) Csg. Pt. - 70' 10" cemented		
					with 70 bags 4/3/59		
					10 3/4" (32.75#, H-40) Csg. Pt. - 725' 10"		
					cemented with 250 bags 4/22/59		
					8 5/8" (24#, J-55) Csg. Pt. - 1419' 6" cemented		
					with 225 bags 5/5/59		
					7" (20#, J-55) Csg. Pt. - 1819' 6" cemented		
					with 175 bags 5/20/59		
SCHLUMBERGER GAMMA RAY SURVEY					New Well drilled for Storage		
					Elevation - 1230.16' (Ground Level)		
					Depth Datum - derrick floor - same as		
					original ground level		
					Water - 1661' - Fills up to within 770'		
					from top (385 psi hydrostatic press.)		
Pittsburgh Coal		3	696	699			
Sand		37	1380	1417			
3rd Salt Sand		129	1618	1474			
Big Injun			1808				
Total Depth				1914			
					Well drilled from 1844' to 1914' with		
					hole full of 10# mud, Pay intervals		
					determined from Schlumberger G.R.N. &		
					M. L. Logs.		

Date August 20, 1959

APPROVED THE MANUFACTURERS LIGHT AND HEAT CO., Owner

By Assistant (Title) Land Agent