BENSON-MONTIN-GREER DRILLING CORP.

EXHIBITS IN CASE NO. 4067
BEFORE THE
NEW MEXICO OIL CONSERVATION
COMMISSION

March 5, 1969

INDEX

CA-20

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2306
Well LA PLATA MANCOS UNIT NO. 1(P-31) Core Type DIAMOND 4" Date Report 7-31-68
Field LA PLATA (GALLUP) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 6062'GL Location 660'FSL 990'FEL SEC 31-T32N-R13W

Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM	DOLOMITE-DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SANDY-SDY SHALY-SHY LIMY-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BRN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS K_A	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS

NOTE: Add 6' to BELOW LISTED CORE DEPTHS TO CORRELATE WITH SCHLUM. IES LOG RUN 7-31-68

(CONVENTIONAL ANALYSIS)

1	2868.0-69.0	0.06	8.5	52.0	42.3	Sh, Bl, V/Fn Grn, Sl/Slty
2	73.0-74.0	0.03	6.8	48.4	36.7	Sh, Bl, V/Fn Grn, Sl/Slty
3	78.0-79.0	0.01	9.1	46.2	37.3	Sh, Bl, V/Fn Grn, Sl/Slty
4	83.0-84.0	0.13	8.4	45.2	42.8	Sh, Bl, V/Fn Grn, Sl/Slty
5	88.0-89.0	0.04	8.6	41.8	46.5	Sh, Bl, V/Fn Grn, Sl/Slty
6	93.0-94.0	0.33	9.2	42.8	43.6	Sh, Bl, V/Fn Grn, Sl/Slty
7	98.0-99.0	0.03	8.9	43.8	46.1	Sh, Bl, V/Fn Grn, Sl/Slty
8	2903.0-04.0	0.33	9.0	41.1	48.7	Sh, Bl, V/Fn Grn, W/Strks of Lmy Slt
9	08.0-09.0	0.01	9.2	52.1	36.9	Sh, Bl, V/Fn Grn, W/Strks of Lmy Slt
10	13.0-14.0	0.01	5.8	44.9	36.2	Sd, Wh, Fn Grn, W/Sh Strks
11	14.0-15.0	0.01	8.0	47.5	40.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
12	18.0-19.0	0.02	8.0	41.2	41.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
13	23.0-24.0	0.02	8.0	45.0	40.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
14	27.0-28.0	0.01	7.9	35.4	53.1	Sh, Bl, V/Fn Grn
15	33.0-34.0	0.01	8.2	45.2	45.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
16	38.0-39.0	0.12	9.7	48.5	44.3	Sh, Bl, V/Fn Grn
17	43.0-44.0	0.02	8.4	38.1	54.8	Sh, Bl, V/Fn Grn
18	48.0-49.0	0.02	7.3	38.4	54.7	Sh, Bl, V/Fn Grn
19	50.0-51.0	0.86	5.8	48.2	41.3	Sd, Wh, Fn Grn, Lmy, W/Sh Strks
20	55.0-56.0	0.02	7.0	44.3	41.4	Sd, Wh, Fn Grn, Lmy, W/Sh Strks
21	60.0-61.0	0.08	7.8	51.2	41.0	Sh, Bl, V/Fn Grn
22	65.0-66.0	0.12	6.4	14.1	75.0	Sh, Bl, V/Fn Grn
23	70.0-71.0	<0.01	5.9	11.9	74.5	Sh, Bl, V/Fn Grn, Slty
24	75.0-76.0	0.34	6.4	10.9	81.3	Sh, Bl, V/Fn Grn, Slty
25	80.0-81.0	0.81	6.8	10.3	79.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
26	84.0-85.0	0.07	8.9	7.9	61.8	Sh, Bl, V/Fn Grn
27	90.0-91.0	0.33	6.6	13.6	77.2	Sh, Bl, Fn Grn, Sndy
28	95.0-96.0	0.01	7.8	6.4	77.0	Sh, Bl, Fn Grn, Sndy
29	3000.0-01.0	0.33	7.3	6.8	76.6	Sh, Bl, Fn Grn, Sndy
30	05.0-06.0	0.08	6.9	7.3	81.2	Sh, Bl, Fn Grn, Slty
31	10.0-11.0	0.01	5.9	8.5	78.1	Sh, Bl, Fn Grn, Slty
32	15.0-16.0	0.33	6.4	7.8	79.7	Sh, Bl, Fn Grn, Sndy
33	20.0-21.0	0.33	6.4	7.8	75.0	Sh, Bl, Fn Grn, Sndy
34	25.0-26.0	0.13	6.5	7.7	80.0	Sh, Bl, Fn Grn, Slty
35	30.0-31.0	0.06	7.0	7.1	80.0	Sh, Bl, Fn Grn, Slty
36	35.0-36.0	0.05	6.4	10.9	81.2	Sh, Bl, Fn Grn, Slty

Service #5-A

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER | Formation GALLUP | File RP-3-2312
Well LA PLATA MANCOS UNIT "I" NO. 6 | Core Type DIAMOND 3.5" | Date Report 8-24-68
Field LA PLATA (GALLUP) | Drilling Fluid CRUDE OIL | Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 6015'KB Location SEC 6-T32N-R13W

Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM	DOLOMITE-DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SANDY-SDY SHALY-SHY LIMY-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BRN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS KA	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
		(CONVENTIONAL ANALYSIS)				(Note: Add 9' to below listed core depths to correspond to depths on Schlumberger log run 8-29-68.)
1	3995.0-96.0	0.29	8.3	42.2	46.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
2	97.0-98.0	0.11	9.0	41.1	42.2	Sh, Bl, Slty, V/Fn Grn, Frac
3	99.0-00.0	0.10	9.6	38.5	48.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
4	4001.0-02.0	0.32	8.7	41.3	43.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
5	03.0-04.0	0.22	9.2	38.0	46.7	Sh, Bl, V/Fn Grn, Slty, Frac
6	05.0-06.0	0.07	8.6	39.5	51.2	Sh, Bl, V/Fn Grn, Slty, Frac
7	07.0-08.0	0.16	9.1	37.4	50.6	Sh, Bl, V/Fn Grn, Slty, Frac
8	09.0-10.0	0.06	9.1	39.5	52.7	Sh, Bl, V/Fn Grn, Slty, Frac
9	11.0-12.0	0.32	9.4	42.6	48.9	Sh, Bl, V/Fn Grn, Slty, Frac
10	13.0-14.0	0.99	8.5	37.7	54.1	Sh, Bl, V/Fn Grn, Slty, Frac
11	15.0-16.0	0.02	8.0	48.7	41.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
12	17.0-18.0	0.02	7.5	52.0	36.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
13	19.0-20.0	0.06	7.5	41.3	49.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
14	21.0-22.0	0.19	7.7	48.2	41.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
15	23.0-24.0	0.11	7.9	44.2	44.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
16	25.0-26.0	0.08	7.5	38.6	49.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
17	27.0-28.0	0.02	7.9	37.9	50.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
18	29.0-30.0	0.11	8.6	33.7	54.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
19	31.0-32.0	1.70	8.9	39.3	52.7	Sh, Bl, V/Fn Grn, Slty, Frac
20	33.0-34.0	0.07	7.9	36.7	57.0	Sh, Bl, V/Fn Grn, Slty, Frac
21	35.0-36.0	0.14	6.6	49.3	37.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
22	37.0-38.0	0.10	7.9	51.8	39.2	Sh, Bl, V/Fn Grn, Slty, Frac
23	39.0-40.0	0.07	7.0	44.3	47.2	Sh, Bl, V/Fn Grn, Slty, Frac
24	41.0-42.0	0.06	7.4	41.8	52.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
25	43.0-44.0	0.01	7.3	39.7	50.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
26	45.0-46.0	0.13	7.0	44.2	47.2	Sh, Bl, V/Fn Grn, Slty, Frac
27	47.0-48.0	0.02	7.0	40.0	45.7	Sh, Bl, V/Fn Grn, Slty, Frac
28	49.0-50.0	0.03	7.0	41.4	47.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
29	51.0-52.0	0.01	7.4	40.6	51.3	Sh, Bl, V/Fn Grn, Slty, Frac
30	53.0-54.0	0.03	8.1	38.3	35.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
31	55.0-56.0	0.06	6.8	30.9	61.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
32	57.0-58.0	0.09	6.3	31.8	55.6	Sh, Bl, V/Fn Grn, Slty, Frac
33	59.0-60.0	0.01	6.5	27.2	61.5	Sh, Bl, V/Fn Grn, Slty, Frac
34	61.0-62.0	2.0	7.2	40.2	48.5	Sh, Bl, V/Fn Grn, Slty, Frac
35	63.0-64.0	4.8	6.7	31.3	61.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
36	65.0-66.0	0.83	7.2	27.7	63.8	Sh, Bl, V/Fn Grn, Slty, Frac

Service #1-A

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2312
Well LA PLATA MANCOS UNIT "I" NO. 6 Core Type DIAMOND 3.5" Date Report 8-24-68
Field LA PLATA (GALLUP) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 6015'KB Location SEC 6-T32N-R13W

Lithological Abbreviations

SAND-SD, SHALE-SH, LIME-LM, DOLOMITE-DOL, CHERT-CH, GYPSUM-GYP, ANHYDRITE-ANHY, CONGLOMERATE-CONG, FOSSILIFEROUS-FOSS, SANDY-SDY, SHALY-SHY, LIMY-LMY, FINE-FN, MEDIUM-MED, COARSE-CSE, CRYSTALLINE-XLN, GRAIN-GRN, GRANULAR-GRNL, BROWN-BRN, GRAY-GY, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-SL/, VERY-V/, WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS Ka	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
		(CONVENTIONAL ANALYSIS)				
37	4067.0-68.0	0.13	6.0	36.6	48.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
38	69.0-70.0	0.37	4.8	41.7	43.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
39	71.0-72.0	0.10	5.1	43.1	45.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
40	73.0-74.0	0.66	6.1	42.6	40.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
41	75.0-76.0	0.07	7.1	39.4	45.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
42	77.0-78.0	0.40	7.2	40.2	48.6	Sh, Bl, V/Fn Grn, Slty, Frac
43	79.0-80.0	0.13	7.6	32.9	56.5	Sh, Bl, V/Fn Grn, Slty, Frac
44	4150.0-51.0	0.83	5.5	25.4	63.6	Sh, Bl, V/Fn Grn, W/Lmy Slty Strks, Frac
45	52.0-53.0	1.30	5.0	30.0	58.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
46	54.0-55.0	0.83	5.8	27.5	56.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
47	56.0-57.0	5.3	5.1	33.4	52.9	Sh, Bl, V/Fn Grn, S/Lmy Slt Strks, Frac
48	58.0-59.0	0.06	5.7	29.0	54.3	Sh, Bl, V/Fn Grn, S/Lmy Slt Strks, Frac
49	60.0-61.0	<0.01	4.7	25.5	57.4	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
50	62.0-63.0	0.21	5.9	27.2	57.6	Sh, Bl, V/Fn Grn, Slty, Frac
51	64.0-65.0	0.06	5.8	32.8	56.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
52	66.0-67.0	0.83	6.1	41.0	49.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
53	68.0-69.0	0.04	6.7	38.8	49.3	Sh, Bl, V/Fn Grn, Slty, Frac
54	70.0-71.0	0.03	6.5	32.3	58.5	Sh, Bl, V/Fn Grn, Slty, Frac
55	72.0-73.0	0.02	6.6	30.3	57.5	Sh, Bl, V/Fn Grn, Slty, Frac
56	74.0-75.0	0.11	6.5	44.6	41.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
57	76.0-77.0	0.01	5.9	35.6	52.5	Sh, Bl, V/Fn Grn, Slty, Frac
58	78.0-79.0	5.5	5.9	37.3	42.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
59	80.0-81.0	1.50	7.3	38.3	52.0	Sh, Bl, V/Fn Grn, W/Lmy Slty Strks, Frac
60	82.0-83.0	0.06	8.1	42.0	46.8	Sh, Bl, V/Fn Grn, Slty, Frac
61	84.0-85.0	2.2	7.9	39.2	54.4	Sh, Bl, V/Fn Grn, Slty, Frac
62	86.0-87.0	1.50	5.4	53.6	33.4	Sh, Bl, V/Fn Grn, W/Lm Slty, Strks, Frac
63	88.0-89.0	0.03	7.0	42.8	40.0	Sh, Bl, V/Fn Grn, Slty, Frac
64	90.0-91.0	1.12	5.8	56.9	34.5	Sh, Bl, V/Fn Grn, Slty, Frac
65	92.0-93.0	0.33	6.7	52.2	40.3	Sh, Bl, V/Fn Grn, Slty, Frac
66	94.0-95.0	0.04	7.5	44.0	46.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
67	96.0-97.0	0.33	6.7	49.1	40.3	Sh, Bl, V/Fn Grn, Slty, Frac
68	98.0-99.0	0.83	7.3	43.8	46.5	Sh, Bl, V/Fn Grn, W/Lmy Slty Strks, Frac
69	4200.0-01.0	0.09	6.9	50.7	42.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
70	02.0-03.0	0.50	9.4	41.4	52.0	Sh, Bl, V/Fn Grn, Slty, Frac
71	04.0-05.0	0.08	8.5	43.5	43.5	Sh, Bl, V/Fn Grn, Slty, Frac
72	06.0-07.0	1.30	7.5	49.2	44.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
73	08.0-09.0	0.01	8.2	51.2	34.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac

CA-36

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2312
Well LA PLATA MANCOS UNIT "I" NO. 6 Core Type DIAMOND 3.5" Date Report 8-24-68
Field LA PLATA (GALLUP) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 6015'KB Location SEC 6-T32N-R13W

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SAND-SD SHALE-SH LIME-LM	DOLOMITE-DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SANDY-SDY SHALY-SHY LIMY-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BRN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS KA	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
	(CONVENTIONAL ANALYSIS)					
74	4210.0-11.0	0.09	8.5	48.2	41.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
75	12.0-13.0	<0.01	6.9	50.7	42.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
76	14.0-15.0	0.06	8.1	40.7	48.0	Sh, Bl, V/Fn Grn, Slty, Frac
77	16.0-17.0	0.02	8.3	45.7	45.7	Sh, Bl, V/Fn Grn, Slty, Frac
78	18.0-19.0	2.5	7.9	39.2	44.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
79	20.0-21.0	1.80	8.0	41.3	51.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
80	22.0-23.0	0.17	7.3	46.6	41.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
81	24.0-25.0	0.10	6.5	49.1	40.0	Sh, Bl, V/Fn Grn, Slty, Frac
82	26.0-27.0	0.10	7.0	55.8	31.4	Sh, Bl, V/Fn Grn, Slty, Frac
83	28.0-29.0	0.02	7.5	50.7	37.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
84	30.0-31.0	8.3	6.6	45.4	39.4	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
85	32.0-33.0	0.37	6.5	47.7	41.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
86	34.0-35.0	0.10	7.3	35.6	45.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
87	36.0-37.0	0.06	6.3	33.3	49.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
88	38.0-39.0	0.02	6.0	35.0	45.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
89	40.0-41.0	0.02	7.9	35.4	42.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
90	42.0-43.0	0.04	7.0	40.0	48.6	Sh, Bl, V/Fn Grn, Slty, Frac
91	44.0-45.0	<0.01	6.8	17.6	66.2	Sh, Bl, V/Fn Grn, Slty, Frac
92	46.0-47.0	0.83	8.2	36.5	46.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
93	48.0-49.0	0.19	6.2	33.8	48.3	Sh, Bl, V/Fn Grn, Slty, Frac
94	50.0-51.0	0.02	6.6	42.3	39.4	Sh, Bl, V/Fn Grn, Slty, Frac
95	52.0-53.0	0.20	6.2	50.0	35.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
96	54.0-55.0	0.06	7.1	43.6	43.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
97	56.0-57.0	0.33	7.0	41.4	41.4	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
98	58.0-59.0	0.17	6.7	43.3	40.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
99	60.0-61.0	0.01	7.6	38.2	40.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
100	62.0-63.0	0.01	6.7	49.2	32.8	Sh, Bl, V/Fn Grn, Slty, Frac
101	64.0-65.0	2.3	5.7	49.1	35.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
102	66.0-67.0	0.17	7.4	44.6	44.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
103	68.0-69.0	0.07	6.2	50.0	35.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
104	70.0-71.0	0.19	6.3	52.3	34.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
105	72.0-73.0	12	6.6	45.4	42.4	Sh, Bl, V/Fn Grn, Slty, Frac
106	74.0-75.0	0.21	6.0	49.3	36.7	Sh, Bl, V/Fn Grn, Slty, Frac
107	76.0-77.0	0.14	6.1	50.8	39.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
108	78.0-79.0	0.66	5.8	46.5	37.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
109	80.0-81.0	0.01	7.0	57.1	31.4	Sh, Bl, V/Fn Grn, Slty, Frac
110	82.0-83.0	<0.01	5.6	39.2	48.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
111	84.0-85.0	3.0	6.3	39.7	46.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac

CA 2a

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2312
Well LA PLATA MANCOS UNIT "I" NO. 6 Core Type DIAMOND 3.5" Date Report 8-24-68
Field LA PLATA (GALLUP) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 6015'KB Location SEC 6-T32N-R13W

Lithological Abbreviations

SAND-SD, SHALE-SH, LIME-LM, DOLOMITE-DOL, CHERT-CH, GYPSUM-GYP, ANHYDRITE-ANHY, CONGLOMERATE-CONG, FOSSILIFEROUS-FOSS, SANDY-SDY, SHALY-SHY, LIMY-LMY, FINE-FN, MEDIUM-MED, COARSE-CSE, CRYSTALLINE-XLN, GRAIN-GRN, GRANULAR-GRNL, BROWN-BRN, GRAY-GY, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-SL/, VERY-V/, WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS K_A	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
		(CONVENTIONAL ANALYSIS)				
112	4286.0-87.0	0.02	6.6	43.9	46.9	Sh, Bl, V/Fn Grn, Slty, Frac
113	88.0-89.0	0.33	6.9	45.9	47.8	Sh, Bl, V/Fn Grn, Slty, Frac
114	90.0-91.0	<0.01	8.2	40.2	47.5	Sh, Bl, V/Fn Grn, Slty, Frac
115	92.0-93.0	<0.01	8.3	42.2	47.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
116	94.0-95.0	0.50	5.1	17.6	68.5	Sh, Bl, V/Fn Grn, V/Slty
117	96.0-97.0	3.3	5.2	13.5	76.8	Sh, Bl, V/Fn Grn, V/Slty
118	98.0-99.0	0.02	7.2	6.9	79.2	Sh, Bl, V/Fn Grn, V/Slty
119	4300.0-01.0	0.01	5.2	13.4	69.2	sh, Bl, V/Fn Grn, V/Slty
120	02.0-03.0	<0.01	4.2	16.6	76.2	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
121	04.0-05.0	0.50	5.0	10.0	84.0	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
122	06.0-07.0	<0.01	5.0	10.0	76.0	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
123	08.0-09.0	0.22	5.4	9.2	77.8	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
124	10.0-11.0	0.09	6.0	8.3	73.3	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
125	12.0-13.0	3.0	6.3	7.9	76.2	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
126	14.0-15.0	<0.01	5.4	9.3	81.5	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
127	16.0-17.0	0.05	6.0	8.3	76.6	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
128	18.0-19.0	0.01	6.3	7.9	69.9	Sh, Bl, V/Fn Grn, V/Slty
129	20.0-21.0	0.07	5.4	9.3	74.0	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
130	22.0-23.0	0.18	5.7	8.7	70.1	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
131	24.0-25.0	<0.01	4.6	10.9	71.7	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
132	26.0-27.0	0.08	5.8	8.6	74.1	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
133	28.0-29.0	0.09	6.2	8.1	77.3	Sh, Bl, V/Fn Grn, V/Slty, W/Lmy Slt Strks
134	30.0-31.0	0.07	6.8	7.3	82.4	Sh, Bl, V/Fn Grn, V/Slty

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2318
Well LA PLATA MANCOS UNIT NO. 3(G-32) Core Type DIAMOND 3.5" Date Report 9-30-68
Field LA PLATA (GALLUP) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 5988'GL Location 1650'FN&EL SEC 32-T32N-R13W

Lithological Abbreviations

SAND-SD, SHALE-SH, LIME-LM, DOLOMITE-DOL, CHERT-CH, GYPSUM-GYP, ANHYDRITE-ANHY, CONGLOMERATE-CONG, FOSSILIFEROUS-FOSS, SANDY-SDY, SHALY-SHY, LIMY-LMY, FINE-FN, MEDIUM-MED, COARSE-CSE, CRYSTALLINE-XLN, GRAIN-GRN, GRANULAR-GRNL, BROWN-BRN, GRAY-GY, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-SL/, VERY-V/, WITH-W/

NOTE: DEDUCT 20' FROM BELOW GIVEN DEPTHS TO CORRELATE WITH SCHLUM. IES LOG RUN 10-2-68

(CONVENTIONAL ANALYSIS)

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS KA	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
1	5075.0-76.0	0.03	5.8	12.1	75.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
2	77.0-78.0	0.30	5.4	13.0	64.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
3	79.0-80.0	0.38	5.9	8.5	67.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
4	81.0-82.0	0.66	4.5	11.1	75.5	Sh, Bl, V/Fn Grn, Slty, Frac
5	83.0-84.0	0.17	5.6	8.9	71.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
6	85.0-86.0	0.01	5.3	3.8	75.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
7	87.0-88.0	0.17	5.5	3.6	80.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
8	89.0-90.0	0.02	4.8	4.2	83.4	Sh, Bl, V/Fn Grn, Slty, Frac
9	91.0-92.0	0.01	5.1	9.8	68.6	Sh, Bl, V/Fn Grn, Slty, Frac
10	93.0-94.0	0.01	5.3	13.2	71.7	Sh, Bl, V/Fn Grn, Slty, Frac
11	95.0-96.0	0.04	5.7	8.8	70.7	Sh, Bl, V/Fn Grn, Slty, Frac
12	97.0-98.0	0.02	7.2	29.8	59.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
13	5099.0-00.0	1.12	6.6	39.4	46.9	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
14	5101.0-02.0	0.09	6.2	46.7	43.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
15	03.0-04.0	0.02	6.9	43.5	37.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
16	05.0-06.0	0.01	7.3	46.5	41.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
17	07.0-08.0	0.03	6.7	41.8	44.7	Sh, Bl, V/Fn Grn, Slty, Frac
18	09.0-10.0	0.03	7.8	51.2	35.9	Sh, Bl, V/Fn Grn, Slty, Frac
19	11.0-12.0	0.17	6.7	49.2	40.3	Sh, Bl, V/Fn Grn, Slty, Frac
20	13.0-14.0	0.01	7.5	41.3	44.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
21	15.0-16.0	0.03	6.6	53.0	30.3	Sh, Bl, V/Fn Grn, Slty, Frac
22	17.0-18.0	0.03	6.6	48.5	36.4	Sh, Bl, V/Fn Grn, Slty, Frac
23	19.0-20.0	0.24	6.7	49.2	37.3	Sh, Bl, V/Fn Grn, Slty, Frac
24	21.0-22.0	0.22	5.2	40.3	46.2	Sh, Bl, V/Fn Grn, Slty, Frac
25	23.0-24.0	0.27	5.9	28.8	55.9	Sh, Bl, V/Fn Grn, Slty, Frac
26	25.0-26.0	0.50	4.5	20.0	59.9	Sh, Bl, V/Fn Grn, Slty, Frac
27	27.0-28.0	0.03	6.1	27.8	57.3	Sh, Bl, V/Fn Grn, Slty, Frac
28	29.0-30.0	0.66	6.7	32.8	49.2	Sh, Bl, V/Fn Grn, Slty, Frac
29	31.0-32.0	0.03	6.8	27.9	57.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
30	33.0-34.0	0.04	6.2	27.4	56.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
31	35.0-36.0	0.17	5.2	32.7	44.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
32	37.0-38.0	0.17	5.5	25.5	56.3	Sh, Bl, V/Fn Grn, Slty, Frac
33	39.0-40.0	0.17	5.9	27.1	64.3	Sh, Bl, V/Fn Grn, Slty, Frac
34	41.0-42.0	0.13	5.4	38.9	48.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
35	43.0-44.0	0.09	5.6	35.7	44.6	Sh, Bl, V/Fn Grn, Slty, Frac
36	45.0-46.0	0.02	5.3	39.6	51.0	Sh, Bl, V/Fn Grn, Slty, Frac

(Service #1-A)

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2318
Well LA PLATA MANCOS UNIT NO. 3(G-32) Core Type DIAMOND 3.5" Date Report 9-30-68
Field LA PLATA (GALLUP) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 5988'GL Location 1650'FN&EL SEC 32-T32N-R13W

Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM	DOLOMITE-DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SANDY-SDY SHALY-SHY LIMY-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BRN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS KA	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
		(CONVENTIONAL ANALYSIS)				
37	5147.0-48.0	2.80	6.3	33.3	50.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
38	49.0-50.0	0.04	6.2	45.1	35.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
39	51.0-52.0	0.02	6.3	46.0	34.9	Sh, Bl, V/Fn Grn, Slty, Frac
40	53.0-54.0	0.10	5.6	33.9	48.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
41	55.0-56.0	0.30	6.9	50.7	39.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
42	57.0-58.0	1.30	5.9	42.4	40.7	Sh, Bl, V/Fn Grn, Slty, Frac
43	59.0-60.0	0.33	6.3	39.7	42.8	Sh, Bl, V/Fn Grn, Slty, Frac
44	61.0-62.0	2.60	6.6	43.9	40.8	Sh, Bl, V/Fn Grn, Slty, Frac
45	63.0-64.0	0.09	5.6	46.1	37.5	Sh, Bl, V/Fn Grn, Slty, Frac
46	65.0-66.0	1.30	6.2	50.0	40.3	Sh, Bl, V/Fn Grn, Slty, Frac
47	67.0-68.0	0.33	6.3	46.0	39.7	Sh, Bl, V/Fn Grn, Slty, Frac
48	69.0-70.0	0.50	4.7	34.0	38.3	Sh, Bl, V/Fn Grn, Slty, Frac
49	71.0-72.0	0.04	6.0	46.7	40.0	Sh, Bl, V/Fn Grn, Slty, Frac
50	73.0-74.0	0.17	7.6	40.8	40.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
51	75.0-76.0	0.19	5.3	13.2	71.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
52	77.0-78.0	0.31	5.7	15.8	73.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
53	5180.0-81.0	0.21	5.9	15.2	67.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
54	85.0-86.0	0.02	6.4	14.1	71.9	Sh, Bl, V/Fn Grn, Slty, Frac
55	90.0-91.0	0.01	6.2	14.5	74.2	Sh, Bl, Fn Grn, Slty, Frac
56	95.0-96.0	0.01	5.2	3.8	80.8	Sh, Bl, Fn Grn, Slty, Frac
57	5200.0-01.0	0.01	4.7	4.3	74.4	Sh, Bl, V/Fn Grn, Slty, Frac
58	05.0-06.0	0.02	5.2	3.8	77.0	Sh, Bl, V/Fn Grn, Slty, Frac
59	10.0-11.0	0.01	4.0	5.0	75.0	Sh, Bl, V/Fn Grn, Slty, Frac
60	15.0-16.0	0.04	4.8	10.4	68.8	Sh, Bl, V/Fn Grn, Slty, Frac
61	20.0-21.0	0.32	4.8	10.4	73.0	Sh, Bl, V/Fn Grn, Slty, Frac
62	25.0-26.0	0.09	4.4	11.4	77.2	Sh, Bl, V/Fn Grn, Slty, Frac
63	30.0-31.0	0.01	4.2	11.9	76.2	Sh, Bl, V/Fn Grn, Slty, Frac
64	35.0-36.0	0.01	5.7	3.5	87.8	Sh, Bl, V/Fn Grn, Slty, Frac

COMPARISON OF CORE ANALYSIS

WITH

GAMMA RAY - INDUCTION LOG

B.M.G. #G-32—LA PLATA MANCOS UNIT

TOTAL WATER ——

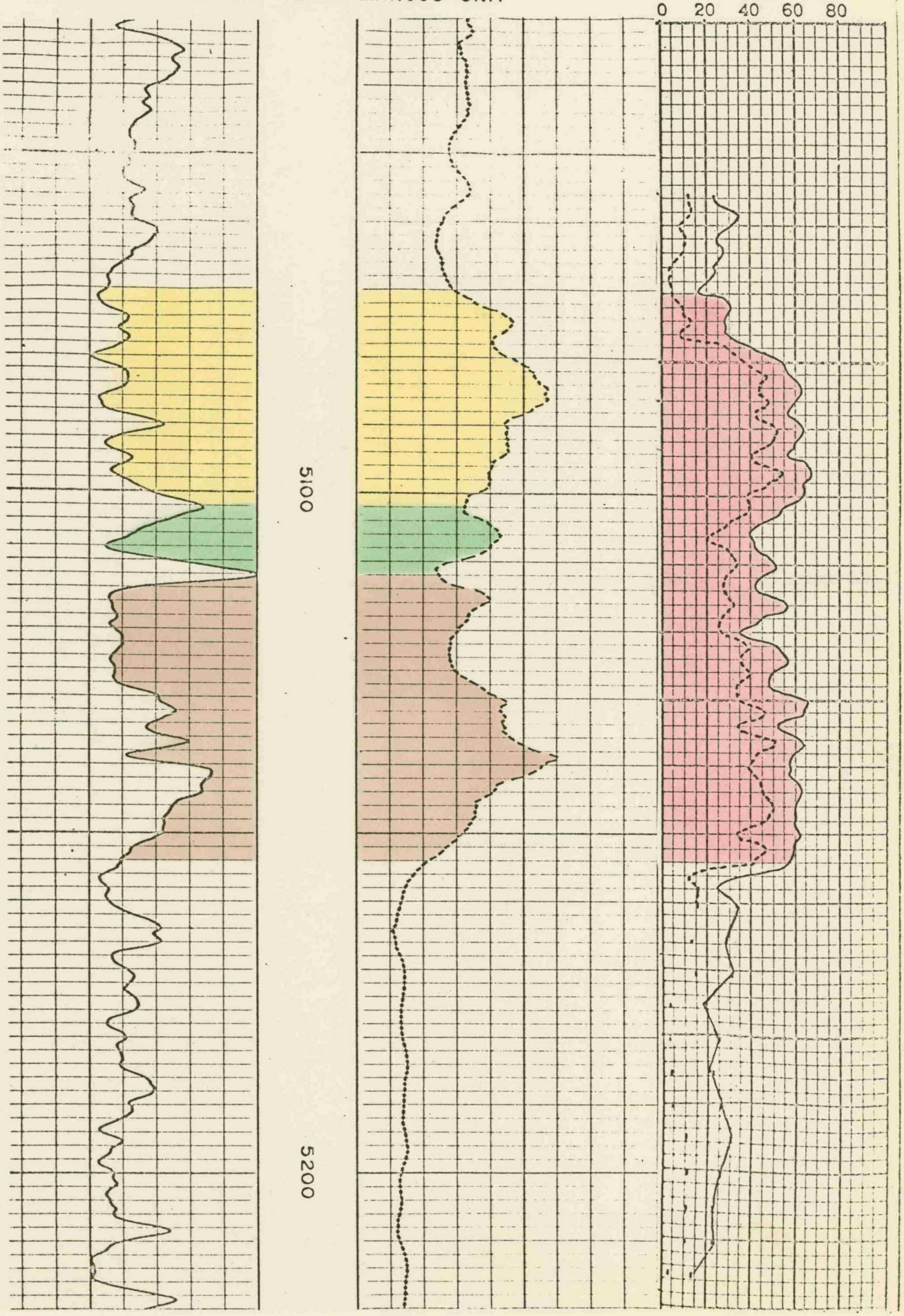
PERCENT TOTAL WATER

80 60 40 20 0

OIL SATURATION ------

PERCENT PORE SPACE

0 20 40 60 80



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2326
Well LA PLATA MANCOS UNIT NO. 4(N-31) Core Type DIAMOND 3.5" Date Report 10-25-68
Field LA PLATA (GALLUP) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 6113'GL Location 756'FSL 1208'FWL SEC 31-T32N-R13W

Lithological Abbreviations

SAND-SD, SHALE-SH, LIME-LM, DOLOMITE-DOL, CHERT-CH, GYPSUM-GYP, ANHYDRITE-ANHY, CONGLOMERATE-CONG, FOSSILIFEROUS-FOSS, SANDY-SDY, SHALY-SHY, LIMY-LMY, FINE-FN, MEDIUM-MED, COARSE-CSE, CRYSTALLINE-XLN, GRAIN-GRN, GRANULAR-GRNL, BROWN-BRN, GRAY-GY, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-SL/, VERY-V/, WITH-W/

NOTE: SEE DEPTH CORRELATIONS IN NOTATION ON PAGE 2

(CONVENTIONAL ANALYSIS)

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS KA	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
1	2220.0-21.0	0.20	6.5	44.6	50.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
2	22.0-23.0	0.41	8.3	39.7	56.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
3	24.0-25.0	0.20	7.8	41.1	53.8	Sh, Bl, V/Fn Grn, Slty, Frac
4	26.0-27.0	0.20	8.4	48.8	46.4	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
5	28.0-29.0	0.31	8.8	49.8	45.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
6	30.0-31.0	0.08	9.6	45.8	50.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
7	32.0-33.0	0.20	6.8	51.4	42.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
8	34.0-35.0	0.10	8.6	47.7	50.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
9	36.0-37.0	0.01	8.3	54.2	42.2	Sh, Bl, V/Fn Grn, Slty, Frac
10	38.0-39.0	0.02	8.3	49.4	47.0	Sh, Bl, V/Fn Grn, Slty, Frac
11	40.0-41.0	0.05	7.0	47.1	47.1	Sh, Bl, V/Fn Grn, Slty, Frac
12	42.0-43.0	0.01	8.1	50.7	43.1	Sh, Bl, V/Fn Grn, Slty, Frac
13	44.0-45.0	0.01	8.9	43.9	50.5	Sh, Bl, V/Fn Grn, Slty, Frac
14	46.0-47.0	0.02	8.4	34.5	58.5	Sh, Bl, V/Fn Grn, Slty, Frac
15	48.0-49.0	0.01	8.3	45.7	45.7	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
16	50.0-51.0	0.20	8.9	50.6	41.6	Sh, Bl, V/Fn Grn, Slty, Frac
17	52.0-53.0	0.01	8.1	54.3	35.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
18	54.0-55.0	0.01	7.8	42.3	47.5	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
19	56.0-57.0	0.04	7.7	45.3	48.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
20	58.0-59.0	0.01	8.2	42.7	47.6	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
21	60.0-61.0	0.62	9.6	40.5	51.0	Sh, Bl, V/Fn Grn, Slty, Frac
22	62.0-63.0	1.20	9.6	41.7	50.0	Sh, Bl, V/Fn Grn, Slty, Frac
23	64.0-65.0	0.04	7.8	37.2	56.4	Sh, Bl, V/Fn Grn, Slty, Frac
24	66.0-67.0	0.08	7.8	37.2	53.8	Sh, Bl, V/Fn Grn, Slty, Frac
25	67.0-68.0	2.10	8.8	29.8	47.7	Sd, Gy, V/Fn Grn, Lmy, W/Shale Strks, Frac
26	68.0-69.0	0.03	4.8	41.6	48.0	Sd, Gy, V/Fn Grn, Lmy, W/Sh Strks, Frac
27	69.0-70.0	0.36	7.7	29.0	41.6	Sd, Gy, V/Fn Grn, Lmy, W/Sh Strks, Frac
28	70.0-71.0	1.60	9.6	44.8	42.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
29	2272.0-73.0	0.17	9.2	48.8	40.2	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks, Frac
30	74.0-75.0	0.08	10.3	63.1	32.0	Sh, Bl, V/Fn Grn, Slty, Frac

Service #1-A

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

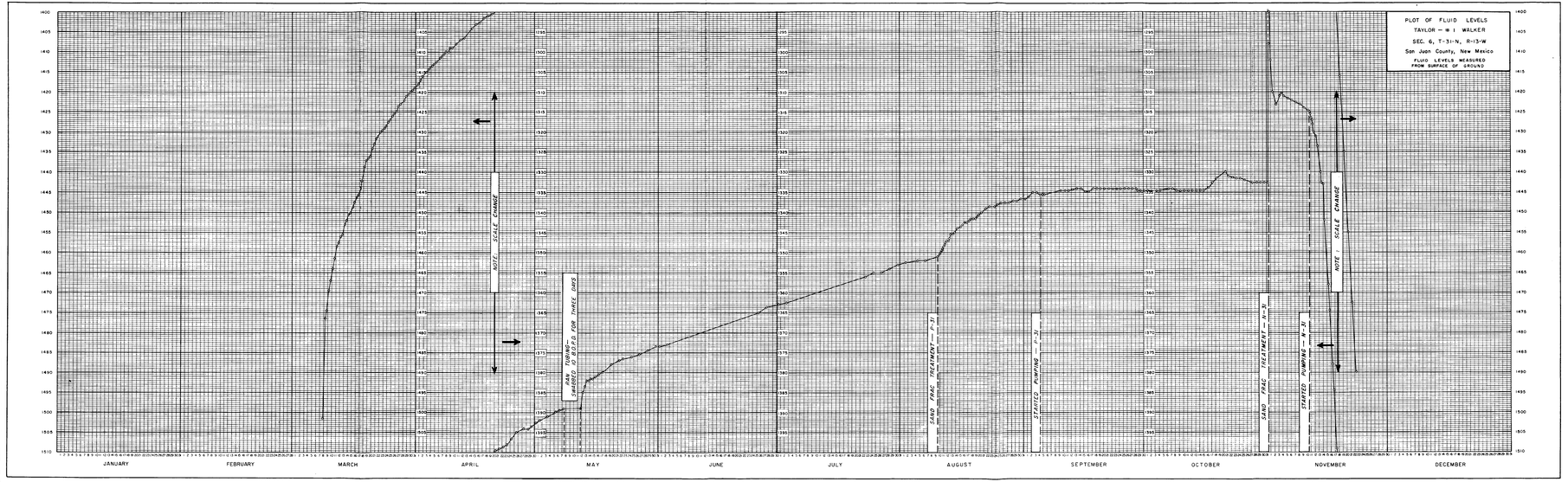
Company BENSON-MONTIN-GREER Formation GALLUP File RP-3-2326
Well LA PLATA MANCOS UNIT NO. 4 Core Type DIAMOND 3,5" Date Report 10-25-68
Field LA PLATA (GALLUP) (N-31) Drilling Fluid CRUDE OIL Analysts GALLOP
County SAN JUAN State NEW MEX. Elev. 6113'GL Location 756'FSL 1208'FWL SEC 31-T32N-R13W

Lithological Abbreviations

SAND-SD, SHALE-SH, LIME-LM, DOLOMITE-DOL, CHERT-CH, GYPSUM-GYP, ANHYDRITE-ANHY, CONGLOMERATE-CONG, FOSSILIFEROUS-FOSS, SANDY-SDY, SHALY-SHY, LIMY-LMY, FINE-FN, MEDIUM-MED, COARSE-CSE, CRYSTALLINE-XLN, GRAIN-GRN, GRANULAR-GRNL, BROWN-BRN, GRAY-GY, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-SL/, VERY-V/, WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS K_A	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
31	2276.0-77.0	0.60	8.9	50.5	37.1	Sh, Bl, V/Fn Grn, Slty, Frac
32	78.0-79.0	0.07	9.2	56.5	36.9	Sh, Bl, V/Fn Grn, Slty, Frac
33	80.0-81.0	0.02	8.5	52.8	41.1	Sh, Bl, V/Fn Grn, Slty, Frac
34	82.0-83.0	0.03	8.4	44.1	46.4	Sh, Bl, V/Fn Grn, Slty, Frac
35	84.0-85.0	0.57	7.2	18.1	69.5	Sh, Bl, V/Fn Grn, Slty, Frac
36	86.0-87.0	0.14	7.3	9.6	75.3	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
37	88.0-89.0	0.01	5.8	18.6	74.1	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
38	90.0-91.0	0.02	7.4	6.7	81.0	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
39	92.0-93.0	0.03	6.8	3.0	77.8	Sh, Bl, V/Fn Grn, W/Lmy Slt Strks
40	94.0-95.0	0.11	6.1	3.3	78.7	Sh, Bl, V/Fn Grn, Slty
41	96.0-97.0	0.08	5.7	3.5	82.4	Sh, Bl, V/Fn Grn, Slty

Note: To correspond with Schlumberger log depths:
Add 9' to interval 2220 to 2245 feet
Add 8' to interval 2245 to 2270 feet
Add 7' to interval 2270 to 2297 feet


PLOT OF FLUID LEVELS
TAYLOR — W I WALKER
SEC. 6, T-31-N, R-13-W
San Juan County, New Mexico
FLUID LEVELS MEASURED FROM SURFACE OF GROUND
NOTE - SCALE CHANGE
RAN TUBING & CUP FOR THREE DAYS
SAND FRAC TREATMENT — P-31
STARTED PUMPING — P-31
NOTE - SCALE CHANGE
SAND FRAC TREATMENT — W-31
STARTED PUMPING — W-31
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER

LLOYD B. TAYLOR
Vic Walker No. 1
NW 1/4 SEC. 6 – 31 N – 13W
GAMMA RAY–INDUCTION

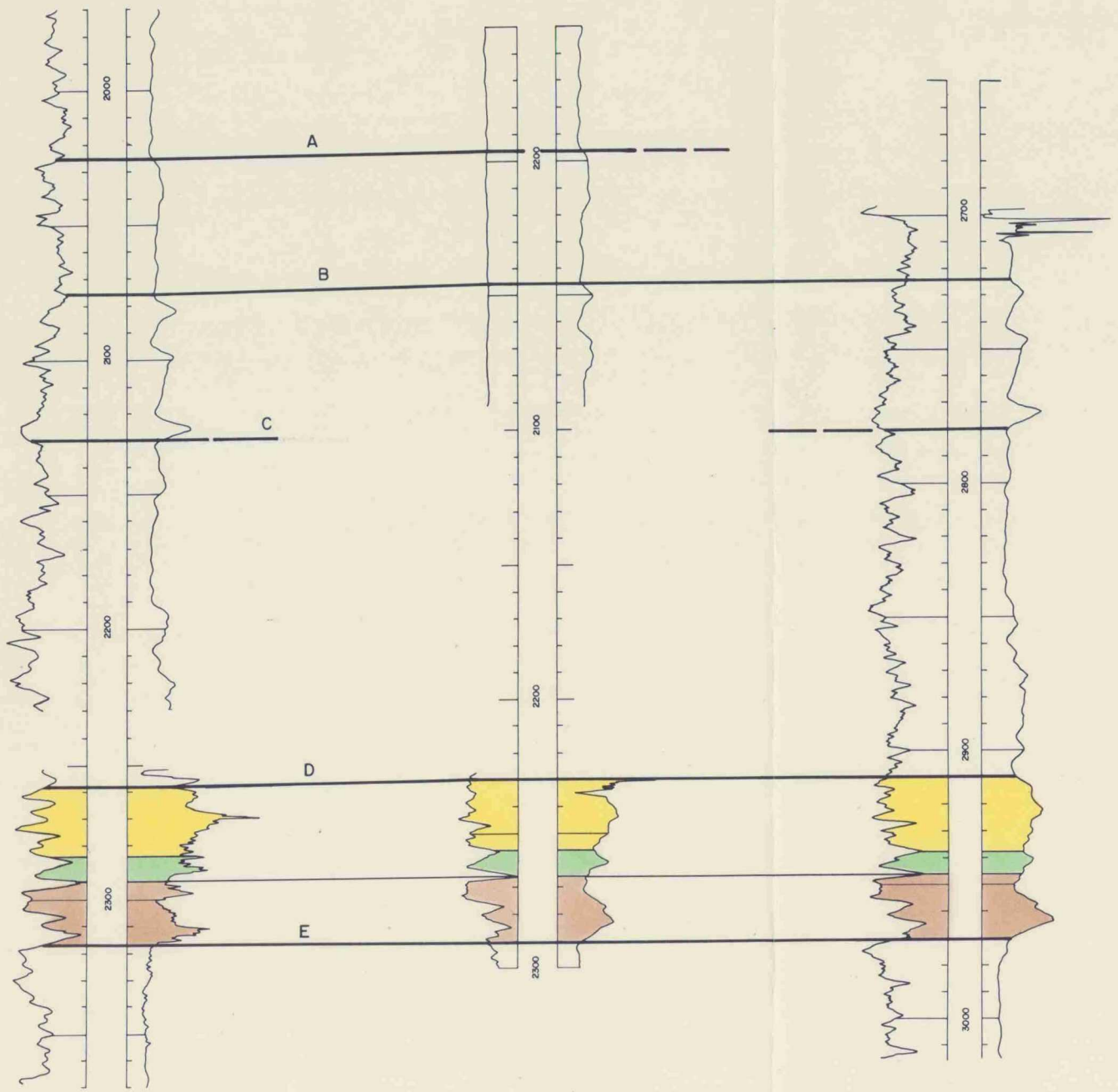
Elev. Ground 6027

BENSON–MONTIN–GREER DRLG. CORP.
La Plata Mancos No. N-31
SW 1/4 SEC. 31–32N–13W
GAMMA RAY–INDUCTION

Elev.–Ground 6113

BENSON–MONTIN–GREER DRLG. CORP.
La Plata Mancos No. P-31
SE 1/4 SEC. 31 – 32N–13 W
GAMMA RAY–INDUCTION

Elev.–R.K.B. 6075



CROSS – SECTION THROUGH PARTS OF SECTION 6 – T 31 N – R 13 W TO SECTION 31 – T 32 N – R 13 W

SHOWING DEVELOPMENT WITHIN THE NIOBRARA MEMBER OF THE MANCOS SHALE FORMATION VICINITY OF LA PLATA – GALLUP POOL

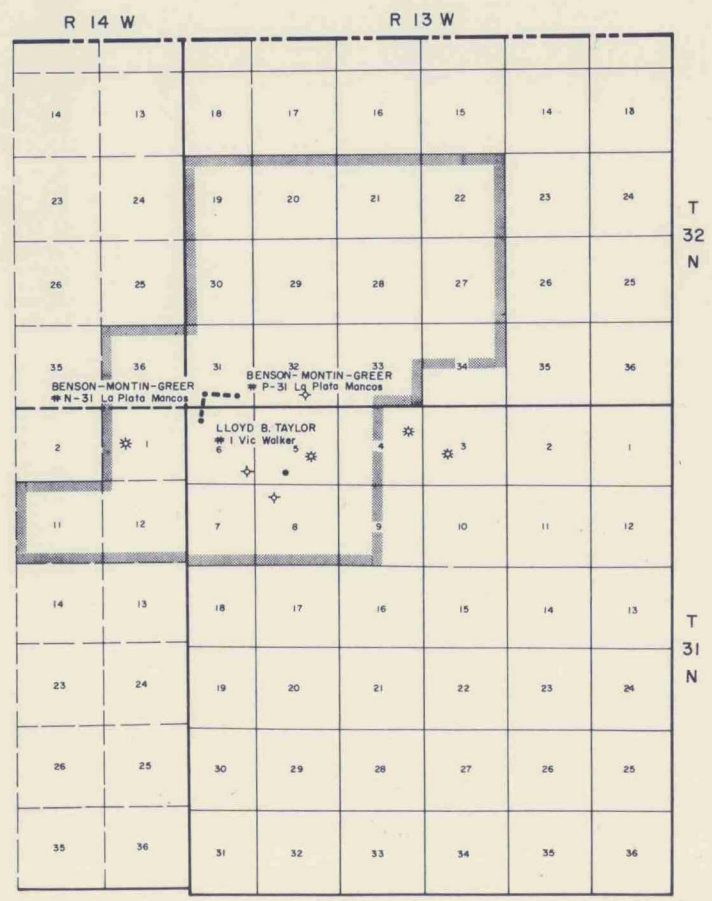
SAN JUAN COUNTY, NEW MEXICO

LEGEND

A, B, C, D, E — CORRELATIVE MARKERS OF ELECTRICAL OR RADIOACTIVE WELL LOGS

BOUNDARY OF PROPOSED UNIT AREA

INDEX MAP SHOWING LOCUS OF CROSS SECTION



JANUARY, 1969