

CORE LABORATORIES, INC.
 Petroleum Reservoir Engineering
 DALLAS, TEXAS

Page No. 1**CORE ANALYSIS RESULTS**

Company EL PASO NATURAL GAS COMPANY Formation DAKOTA File RP-3-1265
 Well SAN JUAN UNIT 32-8 # 35 Core Type DIAMOND CONV. Date Report 9/14/60
 Field WILDCAT Drilling Fluid OIL EMULSION MUD Analysts ENGLISH
 County SAN JUAN State N.MEXICO Elev. 6521 DF Location SEC13 T31N R8W

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 - FNE 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 MILLIDARCY	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS		
				OIL	TOTAL WATER			
1	7958-59	<0.01	2.4	0.0	95.9	Vertical Fracture		
2	59-60	<0.01	1.7	0.0	94.2			
3	60-61	<0.01	1.0	0.0	80.0			
4	61-62	<0.01	3.2	0.0	59.4			
5	62-63	<0.01	3.2	0.0	68.9	" "	" "	
6	63-64	<0.01	2.4	0.0	91.7			
7	64-65	<0.01	2.6	0.0	96.1			
8	65-66	<0.01	2.0	0.0	95.2			
9	66-67	0.02	3.9	0.0	97.4			
10	67-68	<0.01	3.0	0.0	96.7			
11	68-69	<0.01	3.2	0.0	96.9			

7958-7969 This interval is essentially non-productive .

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CORE ANALYSIS RESULTS

Company **EL PASO NATURAL GAS COMPANY** Formation **DAKOTA** File **RP-3-1265**
 Well **SAN JUAN UNIT 32-8 # 35** Core Type **DIAMOND CONV.** Date Report **9/16/60**
 Field **WILDCAT** Drilling Fluid **OIL EMULSION MUD** Analysts **ENGLISH**
 County **SAN JUAN** State **N. MEXICO** Elev. **6521 DF** Location **SEC13 T31N R8W**

Lithological Abbreviations

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
12	7988-89	0.55	8.5	0.0	14.1	Vertical Fracture
13	89-90	0.03	6.6	0.0	18.2	" "
14	90-91	0.46	8.5	0.0	11.8	" "
15	91-92	<0.01	2.8	0.0	7.1	" "
16	92-93	0.01	5.8	0.0	17.3	" "
17	93-94	0.02	7.5	0.0	8.0	" "
18	94-95	<0.01	5.1	0.0	23.5	" "
19	95-96	<0.01	3.3	0.0	18.2	" "
20	96-97	<0.01	4.0	0.0	20.0	" "
21	97-98	<0.01	1.9	0.0	42.1	" "
22	98-99	<0.01	2.6	0.0	30.7	" "
23	99-8000	<0.01	3.7	0.0	10.8	" "
24	8000-01	<0.01	3.6	0.0	27.8	" "
25	01-02	0.04	3.1	0.0	32.3	" "
26	02-03	<0.01	3.1	0.0	19.3	" "
27	03-04	<0.01	3.2	0.0	12.5	" "
28	04-05	<0.01	3.9	0.0	15.4	" "
29	05-06	<0.01	3.2	0.0	12.5	" "

7988-8006 This interval has fair porosity (4.5% average) and low permeability (0.07 md./ft. average) . The saturations (residual oil 0.0% average and total water 19.0% average) show the interval to be capable of producing gas . A formation treatment will depend upon the effectiveness of the vertical fracture system .

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 Field WILDCAT Drilling Fluid OIL EMULSION MUD Analysts ENGLISH
 County SAN JUAN State N.MEXICO Elev. 6521 DF Location SEC13 T31N R8W

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/
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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
30	8007-08	0.10	1.4	0.0	42.8	Vertical Fracture
31	08-09	0.08	2.0	0.0	50.0	" "
32	09-10	0.01	1.9	0.0	63.1	" "
33	10-11	0.01	2.2	0.0	63.7	" "
34	11-12	0.01	1.1	0.0	91.0	" "
35	12-13	0.01	1.5	0.0	93.3	" "
36	13-14	0.01	0.9	0.0	89.0	" "
37	14-15	0.01	1.2	0.0	83.4	" "
38	15-16	0.01	1.3	0.0	77.1	" "
39	16-17	0.02	2.4	0.0	66.7	" "
40	17-18	0.01	0.9	0.0	88.9	" "
41	18-19	0.06	2.2	0.0	63.6	" "
42	19-20	0.08	2.0	0.0	50.0	" "
43	20-21	0.01	1.2	0.0	66.7	" "
44	21-22	0.01	1.7	0.0	47.1	" "
45	22-23	0.01	1.2	0.0	83.2	" "
46	23-24	0.01	1.3	0.0	76.9	" "
47	24-25	0.01	4.2	0.0	19.1	" "
48	25-26	0.01	1.6	0.0	75.0	" "
49	26-27	0.01	1.3	0.0	92.5	" "
50	27-28	0.01	1.7	0.0	47.1	" "
51	28-29	0.01	1.6	0.0	50.0	" "
52	29-30	0.21	3.6	0.0	33.3	" "
53	30-31	0.01	2.1	0.0	57.2	" "
54	31-32	0.01	1.4	0.0	71.4	" "
55	32-33	0.03	3.4	0.0	11.8	" "

8007-8024 This interval is essentially non-productive .

8024-8025 This one-foot interval is low-capacity gas-productive .

8025-8029 This interval is essentially non-productive .

8029-8030 This one-foot interval is low-capacity gas-productive .

8030-8032 This interval is essentially non-productive .

8032-8033 This one-foot interval is low-capacity gas-productive .

The vertical fractures should increase the effective permeability .

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Well	SAN JUAN UNIT 32-8 # 35	Core Type	DIAMOND CONV.	Date Report	9/18/60
Field	WILDCAT	Drilling Fluid	OIL EMULSION MUD	Analysts	ENGLISH
County	SAN JUAN	State	N. MEXICO	Elev.	6521 DF
		Location	SEC13 T31N R8W		

Lithological Abbreviations

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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS		
				OIL	TOTAL WATER			
56	8042-43	0.07	3.4	0.0	52.9			
57	43-44	0.09	4.3	0.0	28.0			
58	44-45	<0.01	1.9	0.0	63.2			
59	8055-56	0.01	1.3	0.0	92.4			
60	56-57	<0.01	2.2	0.0	63.8			
61	8058-59	0.16	0.7	0.0	85.6	Vertical Fracture		
62	8060-61	1.0	1.7	0.0	82.3	"	"	
63	61-62	0.9	1.4	0.0	71.5	"	"	
64	62-63	<0.01	1.4	0.0	71.5	"	"	
65	63-64	<0.01	1.8	0.0	55.6	"	"	
66	64-65	0.55	1.4	0.0	71.5	"	"	
67	65-66	<0.01	2.4	0.0	87.5	"	"	

8042-8044 This interval has low porosity (3.8% average) and low permeability (0.08 md./ft. average) . The saturations (residual oil 0.0% average and total water 40.4% average) show the interval to be low-capacity gas-productive . A formation treatment to increase permeability will be required .

8044-8066 The samples analyzed within this interval have the properties of non-productive sandstone . Further testing should be done to evaluate the vertical fracture system .

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Well	SAN JUAN UNIT 32-8 # 35	Core Type	DIAMOND CONV.	Date Report	9/20/60
Field	WILDCAT	Drilling Fluid	OIL EMULSION MUD	Analysts	ENGLISH
County	SAN JUAN	State	N. MEXICO	Elev.	6521 DF
		Location	SEC13 T31N R8W		

Lithological Abbreviations

SAND - SD SHALE - SH LIME - LM	DOLOMITE - DOL CHERT - CH GYPSUM - GYP	ANHYDRITE - ANHY CONGLOMERATE - CONG FOSSILIFEROUS - FOSS	SANDY - SDY SHALY - SHY SILTY - 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/
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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	

68	8066	0.02	3.2	21.1	56.2	Vertical Fracture
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Low permeability shows this sample to be essentially non-productive .
However , it may contribute a small amount of very rich gas to the fracture system .