



PETROLEUM SERVICES

February 10, 1995

DALEN RESOURCES OIL & GAS
6688 North Central Expressway
Suite 1000
Dallas, Texas 75206

File No: 57181-17187
Subject: Drilled Sidewall Analysis
Murchison State 2 No. 1
Wildcat
Eddy County, Texas

Gentlemen:

Sidewall Core Analysis was made on 40 drilled sidewall core samples received from Schlumberger.

Samples were photographed under both ultraviolet and natural light.

Gas expansion porosity and grain density were determined using Boyle's Law.

Gas detection was measured using a "Hot Wire Gas Detector" on gas in the sealed jars.

Air permeability was measured horizontally on drilled sidewalls.

Descriptions and fluorescence were visually determined microscopically.

The samples will be returned to client.

We trust these data will be useful in the evaluation of your property and thank you for the opportunity of serving you.

Very truly yours,
CORE LABORATORIES, INC.

A handwritten signature in cursive script, reading "Dean Olson".

Dean Olson
Laboratory Supervisor

DO/ym

CORE LABORATORIES

DALEN RESOURCES OIL & GAS
MURCHISON STATE 2 NO. 1
1980' FNL & 660' FEL, SEC. 2, T-25-S, R-26-E
EDDY COUNTY, NEW MEXICO

Field : WILDCAT
Formation : DELAWARE/BONE SPRING
Coring Fluid : CUT BRINE
Elevation : 3358'KB/3343'GL

File No.: 57181-17187
Date : 2-10-95
API No. :
Analysts: OLSON

S I D E W A L L C O R E A N A L Y S I S R E S U L T S

SAMPLE NUMBER	DEPTH ft	SAMPLE REC. in.	PERMEABILITY (HORIZONTAL) Kair md	POROSITY (HELIUM) %	SATURATION		GRAIN DENSITY gm/cc	GAS DETECTOR UNITS	DESCRIPTION
					(PORE VOLUME) OIL %	(BULK VOLUME) OIL % GAS %			

DRILLED SIDEWALL ANALYSIS

DELAWARE FORMATION

1	3039.0	0.2	TBFA	22.0	13.9	51.5	3.1	7.6	2.65	6. Sd gry, vf gr, 80% wh flu
2	3057.0	1.2	2.40	18.1	15.4	59.5	2.8	4.5	2.66	18. Sd gry, vf gr, sl calc, 85% wh flu
3	3066.0	1.6	1.04	17.7	13.9	64.3	2.5	3.9	2.65	55. Sd gry, vf gr, sl calc, 65% wh yel flu
4	3094.0	1.0	4.68	18.2	14.0	63.3	2.5	4.1	2.66	74. Sd gry, vf gr, sl calc, 85% wh yel flu
5	3104.0	1.6	4.32	16.8	14.4	65.0	2.4	3.5	2.65	42. Sd gry, vf gr, 80% wh yel flu
6	4687.0	1.6	1.13	13.8	12.8	55.4	1.8	4.4	2.65	52. Sd gry, vf gr, 90% wh yel flu
7	4764.0	1.5	30.4	16.9	11.2	74.7	1.9	2.4	2.65	25. Sd gry, vf gr, flushed 60% wh yel flu
8	4808.0	1.6	0.31	17.3	0.0	91.1	0.0	1.5	2.65	3. Sd gry, vf gr, 0% flu, no cut
9	4834.0	1.2	71.2	19.8	3.4	77.4	0.7	3.8	2.65	15. Sd gry, vf gr, sl calc, 0% flu, tr cut
10	4840.0	1.5	46.5	16.8	13.8	56.0	2.3	5.1	2.65	40. Sd gry, vf gr, sl calc, 95% wh yel flu
11	4849.0	1.4	12.1	15.9	13.8	48.0	2.2	6.1	2.65	30. Sd gry, vf gr, 95% br wh flu
12	5117.0	1.6	8.40	15.8	12.7	51.1	2.0	5.7	2.65	24. Sd gry, vf gr, 85% wh flu
13	5137.0	1.6	11.2	16.7	14.2	42.1	2.4	7.3	2.65	36. Sd gry, vf gr, 95% wh yel flu
14	5157.0	1.6	34.5	17.1	14.2	54.7	2.4	5.3	2.65	48. Sd gry, vf gr, sl calc, 85% wh yel flu
15	5162.0	1.7	5.42	14.4	13.7	35.8	2.0	7.3	2.66	48. Sd gry, vf gr, 95% br yel flu
16	5165.0	1.5	51.1	18.9	16.1	40.0	3.0	8.3	2.65	52. Sd gry, vf gr, 95% wh yel flu
17	5190.0	1.5	16.7	18.2	14.7	52.4	2.7	6.0	2.65	38. Sd gry, vf gr, 85% wh yel flu
18	5195.0	1.5	1.69	16.5	0.0	85.5	0.0	2.4	2.65	1. Sd dk gry, vf gr, lam, 0% flu, no cut
19	5309.0	1.6	0.38	14.8	14.7	46.2	2.2	5.8	2.65	56. Sd gry, vf gr, sl calc, 90% wh yel flu
20	5311.0	1.0	0.28	15.3	14.5	48.0	2.2	5.7	2.66	44. Sd gry, vf gr, 90% wh yel flu

CORE LABORATORIES

DALEN RESOURCES OIL & GAS
MURCHISON STATE 2 NO. 1

Field : WILDCAT

Formation : DELAWARE/BONE SPRING

File No.: 57181-17187
Date : 2-10-95

S I D E W A L L C O R E A N A L Y S I S R E S U L T S

SAMPLE NUMBER	DEPTH ft	SAMPLE REC. in.	PERMEABILITY (HORIZONTAL) K _{air} md	POROSITY (HELIUM) %	SATURATION		SATURATION		GRAIN DENSITY gm/cc	GAS DETECTOR UNITS	DESCRIPTION
					(PORE VOLUME) OIL %	(PORE VOLUME) WATER %	(BULK VOLUME) OIL %	(BULK VOLUME) GAS %			

BONE SPRING FORMATION

21	7672.0	1.2	0.02	11.2	11.4	75.4	1.3	1.5	2.66	56.	Sd gry, vf gr, sl dolo, 75% pale wh flu
22	7674.0	1.7	0.02	10.4	12.0	64.7	1.2	2.4	2.66	74.	Sd gry, vf gr, sl dolo, 80% pale wh flu
23	7684.0	1.5	0.04	12.4	10.3	65.8	1.3	3.0	2.67	64.	Sd gry, vf gr, sl dolo, 75% pale wh flu
24	7694.0	1.8	0.01	10.0	12.8	60.5	1.3	2.7	2.67	68.	Sd gry, vf gr, sl dolo, 75% pale wh flu
25	7700.0	1.8	0.02	9.9	11.6	59.7	1.1	2.8	2.67	96.	Sd gry, vf gr, sl dolo, 70% wh flu
26	7707.0	0.9	0.12	13.9	10.1	68.9	1.4	2.9	2.65	58.	Sd gry, vf gr, 70% pale wh flu
27	7709.0	1.3	0.03	11.0	12.7	53.6	1.4	3.7	2.66	94.	Sd gry, vf gr, 70% wh flu
28	7717.0	1.5	0.01	11.0	13.3	50.0	1.5	4.0	2.67	125.	Sd gry, vf gr, sl dolo, 95% wh flu
29	7719.0	1.4	0.04	11.4	13.4	55.1	1.5	3.6	2.65	120.	Sd gry, vf gr, 75% wh flu
30	7724.0	1.4	0.02	9.3	12.3	56.1	1.1	2.9	2.71	92.	Sd gry, vf gr, sl dolo, 70% wh flu
31	7727.0	1.2	0.03	11.2	10.7	67.4	1.2	2.5	2.65	84.	Sd gry, vf gr, 40% wh flu
32	7732.0	1.6	0.03	11.1	14.6	60.7	1.6	2.7	2.65	110.	Sd gry, vf gr, 90% wh flu
33	7733.0	1.4	0.04	11.3	14.1	65.8	1.6	2.3	2.65	58.	Sd gry, vf gr, 70% wh flu
34	7737.0	1.5	0.04	11.7	12.3	61.4	1.4	3.1	2.65	130.	Sd gry, vf gr, 60% wh flu
35	7738.0	1.3	0.03	10.9	10.3	63.4	1.1	2.9	2.66	74.	Sd gry, vf gr, 50% wh flu
36	7743.0	1.4	0.01	8.9	14.5	48.2	1.3	3.3	2.71	110.	Sd gry, vf gr, sl dolo, sl calc, 75% wh flu
37	7752.5	1.6	0.01	9.5	10.9	59.6	1.0	2.8	2.69	60.	Sd gry, vf gr, sl calc, 60% pale wh flu
38	8467.0	1.7	0.05	10.6	9.7	61.7	1.0	3.0	2.68	54.	Sd gry, vf gr, sl calc, lam, 30% pale wh flu
39	8469.0	1.4	0.10	10.6	8.4	55.9	0.9	3.8	2.65	36.	Sd gry, vf gr, sl calc, 30% wh flu
40	8496.0	1.5	0.05	10.9	3.3	70.5	0.4	2.9	2.68	28.	Sd gry, vf gr, sl calc, lam, 0% flu, tr cut

LITHOLOGICAL ABBREVIATIONS

Anhy, anhy	anhydrite (-ic)	Lim, lim	limestone
Ark, ark	arkose (-ic)	med gr	medium grain
bnd	band (-ed)	Mtrx	matrix
Brec, brec	breccia	NA	interval not analyzed
Calc, calctc	calcite (-ic)	Nod, nod	nodules (-ar)
carb	carbonaceous	Ool, ool	oolite (-itic)
crs gr	course grained	Pisol, pisol	pisolite, pisolitic
chk, chky	chalk (-y)	p.p.	pin-point (porosity)
cht, cht	chert (-y)	Ptg	parting
Ogl, ogl	conglomerate (-ic)	Pyr, pyr	pyrite (-itized, -itic)
crs xln	coarsely crystalline	Sd, sd	sand (-y)
dns	dense	Sh, shy	shale (-ly)
Dol, dol	dolomite (-ic)	SHR	solid hydrocarbon residue
F	randomly oriented fractures	sli	slightly
f	slightly fractured	slt, slty	silt (-y)
f gr	fine grained	styl	stylolite (-itic)
foss	fossil (-iferous)	suc	sucrosic
f xln	finely crystalline	Su, su	sulphur, sulphurous
Gil	gilsonite	TEFA	TOO BROKEN FOR ANALYSIS
Glauc, glauc	glauconite (-itic)	Trip, trip	tripoli (-itic)
Grt	granite	v	very
Gyp, gyp	gypsum (-iferous)	vf	predominantly vertically fractured
hor frac	perdominantly horizontally fractured	vug	vug (-gy)
incl	inclusion (-ded)	xbd	crossbedded
intbd	interbedded	xln	medium crystalline
lam	lamina (-tions, -ated)	xtl	crystal

THE FIRST WORD IN THE DESCRIPTION COLUMN OF THE CORE ANALYSIS REPORT DESCRIBES THE ROCK TYPE. FOLLOWING ARE ROCK MODIFIERS IN DECREASING ABUNDANCE AND MISCELLANEOUS DESCRIPTIVE TERMS.

DISTRIBUTION OF FINAL REPORT

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