

Danell W. Smith Co.

PHONE OX 4-2511—MIDLAND, TEXAS
PHONE EX 3-6173—HOBBS, N. MEX.

CONVENTIONAL CORE STUDY

Operator S.P. Yates & Martin Yates Field Turkey Track Formation Queen, Penrose, Grayburg
Well No. 1-70 Federal Location _____ Date _____ Lab No. 420-HA
Depths _____

SAMPLE NO.	REPRESENTATIVE OF FEET	FOOTAGE	PERMEABILITY, MD.		EFFECTIVE POROSITY %	SATURATION % OF PORE SPACE		DESCRIPTION
			HORIZONTAL	VERTICAL		RESIDUAL OIL	WATER	
* 1	1930-33	3.0	-	-	-	-	-	Ahy sc Ss stgrs sc Dol stgrs NS NA
	1933-39	6.0	-	-	-	-	-	Ss vfg sc Ahy IncIs NS NA
	1939-42	3.0	-	-	-	-	-	Ahy sc Sd stgr NS NA
	1942-48	6.0	-	-	-	-	-	Ss vfg sc Ahy IncIs NS NA
	1948-49	1.0	-	-	-	-	-	Ahy Sd stgrs NS NA
	1949-50.5	1.5	-	-	-	-	-	Ss vfg sc Ahy IncIs NS NA
* 2	1950.5-51	0.5	0.02	-	2.8	18.6	60.7	Ss vfg sc G11
	1951-52	1.0	-	-	-	-	-	Ss vfg sc Ahy IncIs NS NA
	1952-53	1.0	0.07	-	2.0	7.5	68.1	Ss vfg sc G11
	1953-54.5	1.5	-	-	-	-	-	Ss vfg sc Ahy IncIs shy NS NA
* 3	1954.5-55	0.5	< 0.01	-	5.0	3.0	58.0	Ss vfg sc Ahy IncIs sc G11
* 4	1955-56	1.0	0.05	-	4.3	11.6	73.7	Ss vfg sc Ahy IncIs sc G11
* 5	1956-57	1.0	0.12	-	6.5	7.7	50.8	Ss vfg sc Ahy IncIs sc G11
* 6	1957-58	1.0	0.23	-	7.2	6.9	43.1	Ss vfg sc Ahy IncIs sc G11
* 7	1958-59	1.0	0.33	-	5.0	8.0	58.2	Ss vfg sc Ahy IncIs sc G11
	1959-66	7.0	-	-	-	-	-	Ss vfg Ahy IncIs
	1966-67	1.0	-	-	-	-	-	NR
	2150-51	1.0	-	-	-	-	-	Ahy sc Sh stgrs NS NA
	2151-53	2.0	-	-	-	-	-	Dol d sc Ahy IncIs styo NS NA
			Core No. 2 2150-2167 (17 Ft.)					
			Recovered 2150-2164 (14 Ft.)					

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OPERATOR

S. P. Yates & Martin Yates III

LAB NO.

420-HA

SAMPLE NO.	REPRESENTATIVE OF FEET	FODTAGE	PERMEABILITY, MD.		EFFECTIVE POROSITY %	SATURATION % OF PORE SPACE		DESCRIPTION
			HORIZONTAL	VERTICAL		RESIDUAL OIL	WATER	
* 8	2153-54	1.0	0.12		5.8	13.8	66.2	Ss vfg sc G11
* 9	2154-55	1.0	0.06		3.6	10.6	71.4	Ss vfg sc G11
	2155-57	2.0	-		-	-	-	Ss vfg sl do1o NS NA
*10	2157-58	1.0	0.26		5.8	13.7	69.1	Ss vfg sc G11
*11	2158-59	1.0	0.38		5.6	8.9	72.3	Ss vfg sc G11
*12	2159-60	1.0	0.02		4.3	0	66.5	Ss vfg sc G11
*13	2160-61	1.0	0.02		3.6	10.6	70.6	Ss vfg sc G11
	2161-64	3.0	-		-	-	-	Ahy silty NS NA
	2164-67	3.0	-		-	-	-	NR
Core No. 3 2350-2401 (61 Ft.) Recovered 2350-2401 (61 Ft.)								
14	2350-54	4.0	-		-	-	-	Dol d sc Ahy inc1s sdy NA
	2354-55	1.0	1.5		11.6	22.8	31.6	Dol vfx sc Ahy inc1s
	2355-62	27.0	-		-	-	-	Dol vfx sc Ahy inc1s oo NA
	2362-72	10.0	-		-	-	-	Dol d-vfx sc Ahy inc1s sc oo sc MF NA
	2372-77	5.0	-		-	-	-	Dol d-vfx sc Ahy inc1s sdy NA
15	2377-78	1.0	0.07		4.9	24.5	49.0	Dol vfx sc Ahy inc1s sdy
16	2378-79	1.0	0.13		6.6	16.7	31.8	Dol vfx sc Ahy inc1s sdy
	2379-83	4.0	-		-	-	-	Dol d-vfx sc Ahy inc1s NA
17	2383-84	1.0	0.27		4.6	13.1	70.9	Dol vfx sc Ahy inc1s sdy
18	2384-85	1.0	0.29		7.5	5.3	67.1	Dol vfx sc Ahy inc1s sdy
19	2385-86	1.0	0.06		7.8	7.7	62.5	Dol vfx sc Ahy inc1s sdy
20	2386-87	1.0	0.18		8.1	13.6	50.6	Dol vfx sc Ahy inc1s sdy
	2387-89	2.0	-		-	-	-	Dol vfx sdy sc Ahy inc1s NA
21	2389-90	1.0	0.15		7.4	8.1	35.1	Dol vfx sdy sc Ahy inc1s
22	2390-91	1.0	0.15		5.5	7.3	66.4	Dol vfx sdy sc Ahy inc1s
23	2391-92	1.0	0.06		4.5	17.8	46.7	Dol vfx sdy sc Ahy inc1s
24	2392-93	1.0	0.07		3.9	10.3	59.5	Dol vfx sdy sc Ahy inc1s
*25	2393-94	1.0	8.5		10.5	12.4	37.6	Ss vfg sc Ahy inc1s
*26	2394-95	1.0	3.4		12.5	16.0	32.8	Ss vfg sc Ahy inc1s
*27	2395-96	1.0	1.9		11.5	9.6	68.3	Ss vfg sc Ahy inc1s
*28	2396-97	1.0	2.0		10.8	18.5	67.6	Ss vfg sc Ahy inc1s
*29	2397-98	1.0	3.7		8.1	22.2	48.1	Ss vfg sc Ahy inc1s
*30								

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LAB NO. 420-HA

SAMPLE NO.	REPRESENTATIVE OF FEET	FOOTAGE	PERMEABILITY, MD.		EFFECTIVE POROSITY %	SATURATION % OF PORE SPACE		DESCRIPTION
			HORIZONTAL	VERTICAL		RESIDUAL OIL	WATER	
*30	2398-99	1.0	5.3		12.5	23.2	37.6	Ss vfg
*31	2399-2400	1.0	9.6		13.2	18.9	52.3	Ss vfg
*32	2400-01	1.0	2.6		11.5	23.5	54.8	Ss vfg
			Core No. 4 2401-2427 (26 Ft.) Recovered 2401-2427					
*33	2401-02	1.0	2.1		11.8	21.2	39.8	Ss vfg sc Ahv incls
*34	2402-03	1.0	1.0		10.3	10.7	39.1	Ss vfg sc Ahv incls
*35	2403-04	1.0	1.6		9.6	19.8	50.0	Ss vfg sc Ahv incls
*36	2404-05	1.0	0.80		8.9	19.1	41.6	Ss vfg sc Ahv incls
*37	2405-06	1.0	0.78		9.9	18.2	43.4	Ss vfg sc Ahv incls
	2406-12	6.0	-		-	-	-	Dol vfx sdy Ahv NA
	2412-27	15.0	-		-	-	-	Dol d sc Ahv incls NA

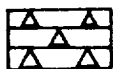
LITHOLOGY



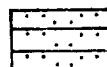
ANHYDRITE



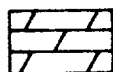
LIMESTONE



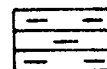
CHERT



SANDSTONE



DOLOMITE



SHALE

DESCRIPTION OF CORE

Dol	Dolomite	oo	Oolitic
Ls	Limestone	PPP	Pin Point Porosity
Ss	Sandstone	incls	Inclusions
Ch	Chert	ptgs	Partings
Ahy	Anhydrite	St	Stain
Sh	Shale	NS	No Stain
Sulf	Sulphur	sc	Scattered
Ca	Calcite	stgr	Stringer
Carb	Carbonaceous	sl	Slightly
gil	Gilsonite	Tr	Trace
dolo	Dolomitic	NA	Not Analyzed per
lmy	Limy		Operators Instructions
sdv	Sandy	NR	Not Recovered
ahyd	Anhydritic	NSL	Not Sent to Lab
shy	Shaly	SV	Small Vugs
slty	Silty	V	Vugs
Lam	Laminations	F	Fracture
Sol Cav	Solution Cavity		
Sol Chan	Solution Channels		C Cemented
Sty	Stylolite		H Horizontal
styo	Stylolitic		I Inclined
Trip	Tripolitic		M Multiple
Fs	Fossiliferous		R Random
Gyp	Gypsum		V Vertical

TEXTURE

cg	Coarse Grain	d	Dense
fg	Fine Grain	fx	Fine Cryst.
FQG	Frosted Quartz Grains	mx	Medium Cryst.
gran	Granular	cx	Coarse Cryst.

FLUORESCENCE

G	Good
F	Fair
Dl	Dull
Tr	Trace
Sc	Scattered

- * Matrix permeability
 ** Sample not suitable for analysis