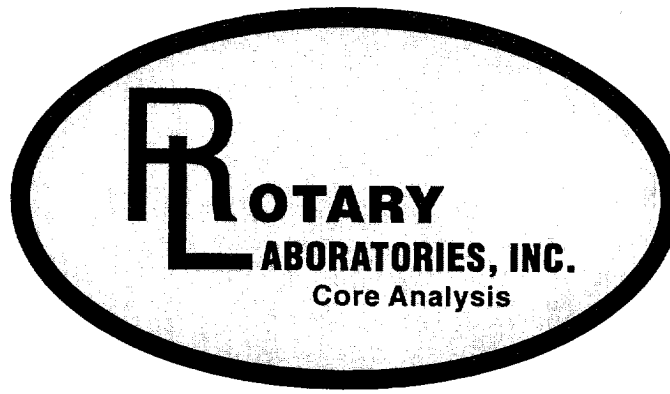




CORE ANALYSIS PROCEDURES

FOR

PATTERSON PETROLEUM LP

MAGUA "20" STATE # 1

LEA COUNTY, NEW MEXICO

The Rotary Sidewalls were delivered to Rotary Laboratories, Inc.

Gases from the Sidewalls were measured by Hot Wire Chromatography and reported in Gas Units.

A brief Lithological Description of the Sidewalls was recorded.

A description of the Fluorescence of the Sidewalls was recorded.

Ultraviolet Light Photographs were taken of the Sidewalls for a permanent record.

Natural Light Photographs were taken of the Sidewalls for a permanent record.

Composite Photographs of the Sidewall End Trims were taken under Natural and Ultraviolet Light.

The Sidewalls were extracted utilizing the Dean Stark method.

The fluids were measured by the Dean Stark method.

Porosities were measured in a Boyle's Law Porosimeter utilizing Helium.

Permeabilities were measured in a Hassler Sleeve Permeameter utilizing Nitrogen at 300 psi confining pressure.

Test samples of a known permeability were measured before and after the Sidewall permeabilities were measured.

ROTARY SIDEWALL CORE ANALYSIS

PATTERSON PETROLEUM LP
MAGUA "20" STATE # 1
LEA COUNTY, NEW MEXICO

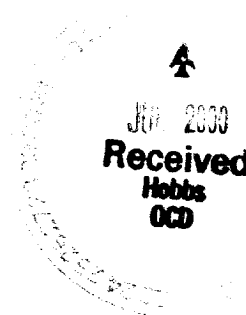
FORMATION :
FIELD : Wildcat
LOCATION :

FILE NO. : 000503-1
DATE : May 3, 2000
ANALYSTS : WH, SB, PK

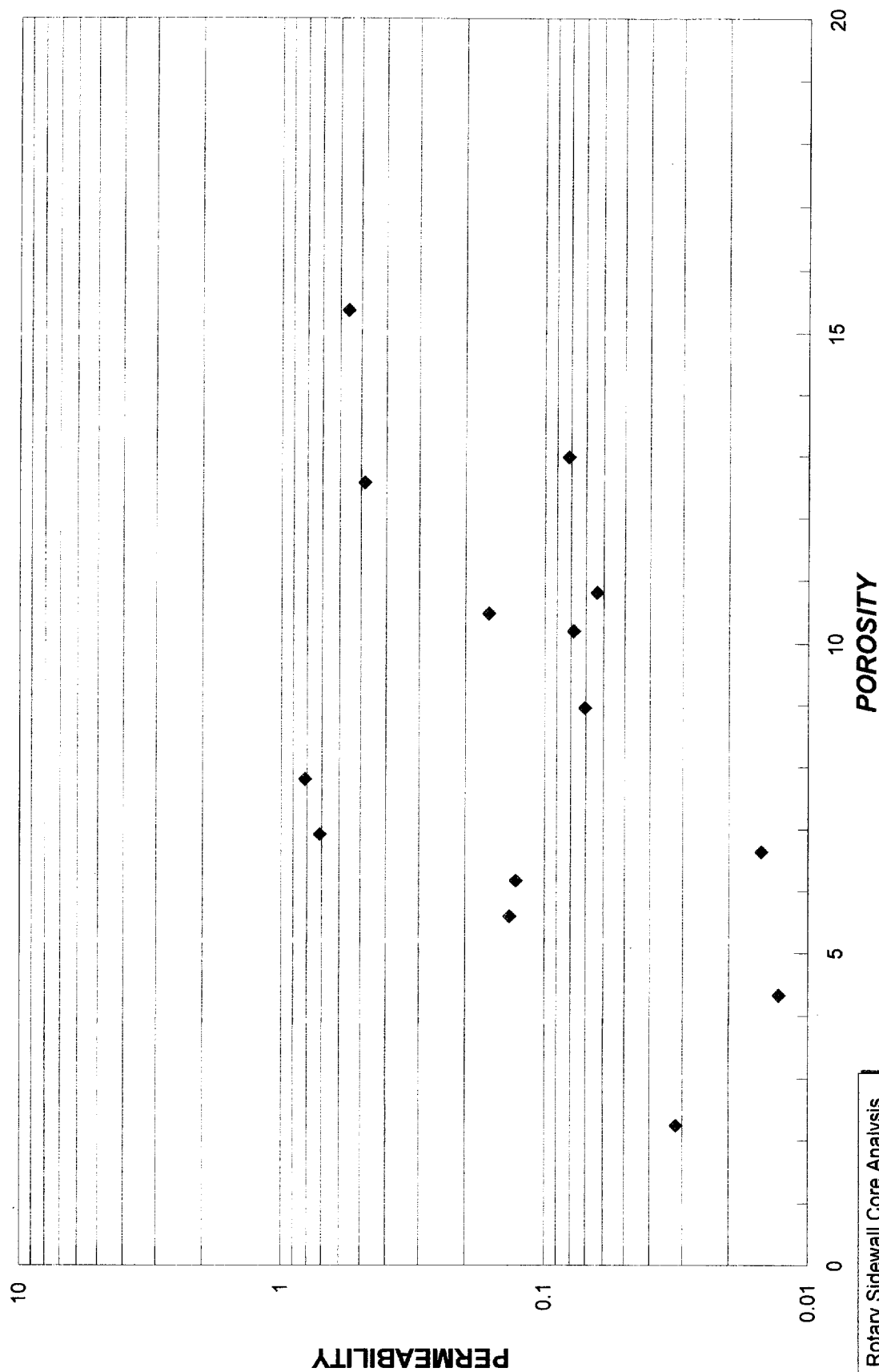
DEAN STARK EXTRACTION

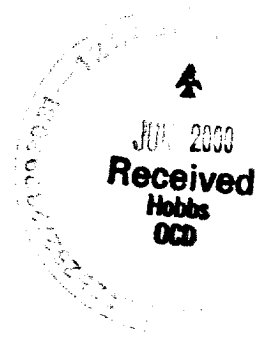
SAMPLE NO.	DEPTH ft	GRAIN DENSITY	POROSITY %	PERM mD	SATURATIONS		GAS UNITS	FLUORESCENCE		LITHOLOGY
					Sw	So		%	Description	
1	6,281.0	2.66	13.0	0.08	68.1	0.0	0	0		Ss gy vfgr sbang-ang slty sshy lam s/p
2	6,282.0	2.71	6.6	0.02	64.0	0.0	0	0	DI mf contam	Ss gy vfgr sbang-ang slty shy lam s/p pyr
3	8,876.0	2.81	15.4	0.56	27.3	25.3	485	100	Br t gld	Dol brn gran sc ppp ssly
4	10,272.0	2.69	6.9	0.71	26.0	3.0	100	80	Br t wht-yl	Ss wht-bf crs-fgr sbang-ang calc
5	10,274.0	2.69	7.8	0.81	27.3	8.4	134	80	Br t wht-yl	Ss wht-bf crsgr sbang-ang calc
6	10,501.0	2.71	0.7	<.01	40.5	0.0	0	0	Contam	Ls brn-gy vfxn foss sty
7	10,509.0	2.71	4.3	0.01	51.7	0.0	0	0	DI mf	Ss tn-gy crsgr sbang-ang sli calc tr pyr
8	12,305.0	2.78	9.1	tbfa	26.2	12.7	231	80	Pl grn	Ss gy-dk gy vf-mgr sbang-ang calc shy s/p
9	12,306.0	2.69	5.5	0.01	19.8	13.8	296	90	Pl grn	Ss gy mgr sbang-ang calc slty sshy pyr
10	12,420.0	2.68	10.8	0.06	60.6	0.0	14	0	Tr mf	Ss gy vfgr sbang-sbrnd calc shy lam s/p
11	12,421.0	2.67	10.5	0.16	40.7	9.4	41	50	Yl-grn	Ss gy f-mgr sbang-ang sli calc sshy
12	12,422.0	2.67	9.0	0.07	41.4	11.0	17	50	Yl-grn	Ss gy f-mgr sbang-ang sli calc sshy s/p
13	12,801.0	2.65	12.6	tbfa	70.8	0.0	0	0		Ss gy-wht crsgr ang-sbang
14	12,811.0	2.66	12.6	0.48	75.6	0.0	0	0		Ss gy-wht crsgr ang-sbang
15	13,095.0	2.66	10.2	0.08	45.5	0.0	18	0		Ss gy crsgr ang-sbang tr pyr
16	13,247.0	2.76	6.2	0.13	35.7	0.0	2	0	DI mf	Ss gy crsgr sbang-sbrnd pyr
17	13,253.0	2.77	5.6	0.14	14.5	0.0	7	0	DI mf contam	Ss gy crsgr sbang-sbrnd pyr
18	13,321.0	2.68	4.1	tbfa	46.8	0.0	28	0	DI mf	Ss gy vfgr sbang-sbrnd shy lam s/p
19	13,321.0	2.71	2.8	0.01	65.7	0.0	71	0	DI mf	Ss gy vfgr sbang-sbrnd shy lam s/p pyr
20	13,353.0	2.69	2.2	0.03	21.2	0.0	5	0	DI mf	Ss gy vf-crsgr sbang-sbrnd sshy pyr
21	13,354.0	2.70	2.5	0.01	24.1	0.0	33	0	DI mf	Ss gy vf-crsgr sbang-sbrnd sshy

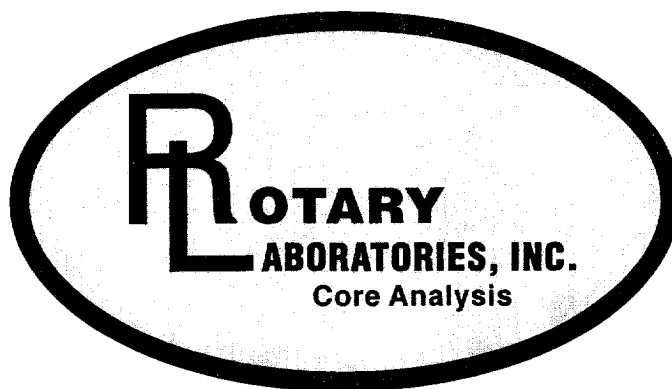




**PATTERSON PETROLEUM LP
MAGUA "20" STATE # 1**



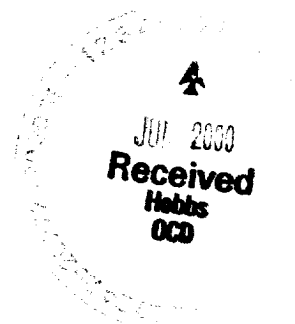




PATTERSON PETROLEUM LP
MAGUA "20" STATE # 1
05/05/2000

QUALITY CONTROL RERUN DATA

Sample No.	GRAIN DENSITY		POROSITY		<i>k</i> standard Test Sample	PERMEABILITY	
	original	reruns	original	reruns		original	reruns
3	2.811	2.814	15.35	15.45			
5	2.693	2.694	7.79	7.81	2.593	0.814	0.798
6	2.714	2.713	0.71	0.67			
8	2.775	2.780	9.10	9.26			
10	2.683	2.684	10.80	10.85		0.064	0.066
14	2.659	2.660	12.55	12.59			
15	2.660	2.661	10.18	10.21		0.078	0.077
20	2.688	2.684	2.24	2.09	2.588	0.032	0.032



LITHOLOGICAL ABBREVIATIONS

Anhydrite (-ic)	anhy, anhyd	Filled	fd	Poor	pr
Anhydrite inclusion	A/I	Fine (-ly)	f, fnly	Pyrite	pyr
Bentonite (-ic)	bent	Fluorescence	flu	Quartz (-itic)	qtz
Black (-ish)	blk, blksh	Fossil (-iferous)	foss	Red (ish)	rd, rdsh
Bleeding Oil	B/O	Fracture	frac	Round	rnd
Brecciated	brec	Fragments	frag	Residual Oil	So
Bright	brt	Friable	fri	Residual Water	Sw
Brittle	brit	Fusulinid	fus	Sample	Spl
Broken	brkn	Gilsonite	gil	Sandstone	Ss
Brown	brn	Gold	gld	Sandy	sd
Buff	bf	Good	gd	Scattered	sc
Calcite (-ic)	calc, calctc	Grain (-s)	gr	Shaley	shy
Calcareous	calc	Granular	gran	Shale	sh
Carbonaceous	carb	Gray	gy	Shale parting	s/p
Cement	cmt	Green	grn	Silt (-y)	slt, slty
Chalk (-y)	chk, chky	Gypsum	gyp	Siliceous	sil
Chert	cht	Hair line(frac)	hl	Slight (-ly)	sl, s
Clay	cl	Halite	hal	Small	sml
Clear	clr	Inclusion	incl	Spotted (-y)	sp
Coal	c	Laminations (ated)	lam	Stringer	strgr
Coarse	crs	Large	lrg	Stylolite (-itic)	sty, styl
Conglomerate	cgl	Light	lt	Sucrosic	suc
Consolidated	consol	Limestone	ls	Sulphur	su
Contaminated	contam	Limey	lmy	Tan	tn
Crinoid (-al)	crin, crinal	Lithology	lith	Too broken	tbfa
Cross-bedded	x-bd	Maximum	max	(for Analysis)	
Crystal (-line)	Xl, xin	Medium	m	Thin	thn
Dark	dk	Mineral Fluorescence	mfl	Trace	Tr
Dense	dns	Moderate	mod	Very	v
Diameter	dia	No Show	N/S	Vertical	vert, vt
Dolomite (ic)	dol, dolm	Oolite (-itic)	ool	Vug (-gy)	vug
Dull	dl	Pale	pl	Well	wl
Faint	fnt	Permeability	Perm, K	White	wh
Fair	fr	Pin-Point Porosity	ppp	Yellow	yl

