

AGAT Laboratories
Core Services Division

OTTAWA COPY

CORE ANALYSIS REPORT

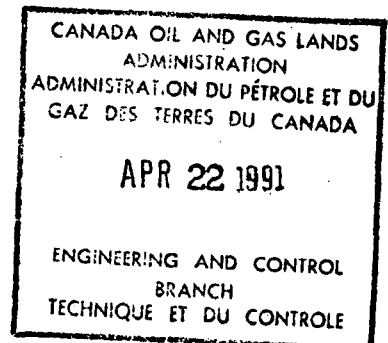
PARA et al SWEDE A-52
60-11N-117-39W

9211-P33-6-2

Prepared for:

PARAMOUNT RESOURCES LIMITED

RC3093/97
Apr 1991



3801-21st Street NE
Calgary, Alberta
T2E 6T5
Tel. 299-2000

4954-89th Street
Edmonton, Alberta
T6E 5K1
Tel. 465-0265

9625-115th Street
Grande Prairie
T0J 0J0
Tel. 362-5422

AGAT LABORATORIES CORE SERVICES

TABLE OF CONTENTS

	<u>PAGE</u>
Final Core Analysis Data	1
Quality Control Report	8
Calculated Data Report	15
Grouping by Porosity Ranges	22
Grouping by Permeability Ranges	24
Statistical Data for Porosity and Permeability Histogram - Porosity Cut Off	26
Statistical Data for Porosity and Permeability Histogram - Permeability Cut Off	28
Summary of Core Data Report	30
Porosity - Permeability Correlation	Figure 1 & 2
Porosity - Permeability Frequency Distribution	Figure 3 & 4
Grain Density Frequency Distribution	Figure 5 & 6

General Information

Sample Handling and Analysis Information

Abbreviations

Core Logs

CORE ANALYSIS DATA

PARA et al SWEDE A-52
60-11N-117-39W

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: SULPHUR POINT
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 1
W/O No: RC3093
Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	

CORE NO. 1 1363.00 - 1381.00 (RECEIVED/CUT = 17.90/18.00m TOTAL BOXES = 16)													
	1365.00		58.0										
NA	1363.00	1366.34	3.34	-	-	-	-	-	-	-	-	-	ls;arg;prr RU
SP001P	1366.34	1366.55	.21	-	>10000.	*	-	.025	2710	2780	trc	.171	ls;vfxln;frac;calc
NA	1366.55	1367.32	.77	-	-	-	-	-	-	-	-	-	ls;arg
001	1367.32	1367.70	.38	.10	<.01	<.01	<.01	.014	2680	2720	trc	.148	ls;vfxln;sl arg
NA	1367.70	1370.30	2.60	-	-	-	-	-	-	-	-	-	ls;arg
SP002	1370.30	1370.66	.36	-	.03	-	-	.020	2790	2850	trc	.098	dol;vfxln
003	1370.66	1371.03	.37	.12	.88	.25	.12	.082	2620	2850	.159	.349	dol;vfxln;arg clasts
004	1371.03	1371.28	.25	.12	.01	<.01	<.01	.048	2640	2780	.127	.387	dol;vfxln;arg clasts
SP002P	1371.28	1371.45	.17	-	.27	-	-	.075	2610	2830	.244	.455	dol;vfxln;arg clasts
005	1371.45	1371.65	.20	.07	.08	.08	<.01	.066	2650	2840	.107	.261	dol;vf-fxln;arg
SP006	1371.65	1371.86	.21	-	1.81	-	-	.120	2510	2850	.129	.138	dol;vfxln;arg
007	1371.86	1372.19	.33	.12	3.09	.93	.09	.078	2620	2850	.163	.103	dol;vf-fxln;vugs;hfrac
SP008	1372.19	1372.33	.14	-	4.37	-	-	.131	2460	2830	.205	.184	dol;vf-fxln;vugs
SP003P	1372.33	1372.42	.09	-	2.45	-	-	.180	2310	2810	.213	.340	dol;vf-fxln;p-p vugs
009	1372.42	1372.56	.14	.08	13.4	7.18	2.50	.153	2430	2860	.220	.164	dol;vf-fxln;vugs
010	1372.56	1372.96	.40	.15	2.13	1.33	.58	.118	2520	2850	.196	.159	dol;vf-fxln;arg ptg
011	1372.96	1373.20	.24	.13	.08	.07	.01	.044	2730	2850	.279	.035	dol;vf-fxln;p-p vugs
SP012	1373.20	1373.30	.10	-	.02	-	-	.037	2760	2860	trc	.285	dol;vfxln
013	1373.30	1373.51	.21	.11	5.45	4.61	.64	.072	2650	2860	.287	.062	dol;vf-fxln;vugs
SP004P	1373.51	1373.61	.10	-	.09	-	-	.056	2690	2850	.235	.113	dol;vfxln;p-p vugs
014	1373.61	1373.80	.19	.11	1.59	1.48	.55	.057	2680	2840	.532	.093	dol;vf-fxln;vugs
NA	1373.80	1373.86	.06	-	-	-	-	-	-	-	-	-	dol;arg

* - Affected by fracture or crack as mentioned in remarks

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: SULPHUR POINT
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 2
W/O No: RC3093
Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
015	1373.86	1374.18	.32	.09	<.01	<.01	<.01	.020	2750	2810	.253	.055	dol;vf-fxln;scat p-p vugs
016	1374.18	1374.41	.23	.13	5.80	4.98	.22	.103	2560	2850	.133	.029	dol;vf-fxln;vugs;h arg prt
NA	1374.41	1374.55	.14	-	-	-	-	-	-	-	-	-	dol;arg
017	1374.55	1374.88	.33	.12	214. *	18.3	149. *	.111	2530	2850	.278	.069	dol;vf-fxln;vugs;vfrac
018	1374.88	1375.19	.31	.13	12.8	9.65	3.28	.106	2540	2840	.215	.136	dol;vf-fxln;vugs;fracs
SP005P	1375.19	1375.34	.15	-	3.22	-	-	.077	2620	2830	.277	.089	dol vf-fxln;vugs
019	1375.34	1375.60	.26	.14	5.45	2.51	1.17	.077	2630	2850	.236	.126	dol;vfxln;vugs
020	1375.60	1375.83	.23	.08	3.85	2.02	1.50	.042	2710	2830	.549	.299	dol;vf-fxln;fracs;arg
021	1375.83	1376.10	.27	.09	52.3	41.0	3.78	.131	2470	2840	.279	.133	dol; vf-fxln;vugs
SP022	1376.10	1376.20	.10	-	<.01	-	-	.032	2750	2840	.578	.101	dol;vfxln;p-p vugs
023	1376.20	1376.55	.35	.11	30.6	29.2	4.40	.116	2530	2860	.240	.043	dol;fxln;scat p-p vugs
SP024	1376.55	1376.71	.16	-	.15	-	-	.055	2700	2850	.265	.134	dol;vf-fxln;p-p vugs
025	1376.71	1376.97	.26	.12	.09	.09	<.01	.060	2690	2860	.514	.042	dol;vf-fxln;arg lam
026	1376.97	1377.24	.27	.11	1.24	1.02	.70	.079	2640	2870	.423	.214	dol;vf-fxln;vugs
SP006P	1377.24	1377.33	.09	-	<.01	-	-	.043	2710	2830	trc	.137	dol;vfxln
027	1377.33	1377.71	.38	.11	36.0	28.5	4.54	.117	2520	2850	.208	.249	dol;vf-fxln;arg;fracs
NA	1377.71	1377.98	.27	-	-	-	-	-	-	-	-	-	dol;arg
028	1377.98	1378.24	.26	.10	215.	210.	36.5	.240	2160	2850	.225	.159	dol;vf-fxln;vugs
029	1378.24	1378.54	.30	.11	203.	168.	34.7	.212	2240	2840	.198	.110	dol;vf-fxln;vugs
SP007P	1378.54	1378.61	.07	-	60.1	-	-	.179	2330	2840	.232	.177	dol;vf-fxln;vugs
SP030	1378.61	1378.72	.11	-	.05	-	-	.060	2730	2900	.453	.045	dol;vfxln;p-p vugs;anh
031	1378.72	1379.06	.34	.14	1.08	.92	.15	.070	2650	2850	.426	.062	dol;vf-fxln;vugs
SP032	1379.06	1379.22	.16	-	653.	-	-	.253	2130	2850	.188	.239	dol;vf-fxln;vugs
SP008P	1379.22	1379.33	.11	-	197.	-	-	.200	2280	2850	.375	.415	dol;vf-fxln;vugs
033	1379.33	1379.47	.14	.10	175.	150.	54.6	.179	2350	2860	.260	.254	dol;vf-fxln;vugs

* - Affected by fracture or crack as mentioned in remarks

COMPANY: PARAMOUNT RESOURCES LTD.
 WELL: PARA et al SWEDE A-52
 LOCATION: 60-11N-117-39W
 FORMATION: SULPHUR POINT
 DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 3
 W/O No: RC3093
 Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
SP034	1379.47	1379.59	.12	-	421.	-	-	.185	2330	2860	.227	.181	dol;vf-fxln;vugs
SP035	1379.59	1379.91	.32	-	37.7	-	-	.152	2450	2890	.301	.095	dol;vf-fxln;vugs;anh
SP036	1379.91	1380.02	.11	-	10.9	-	-	.098	2550	2830	.325	.026	dol;vfxln;p-p vugs
037	1380.02	1380.44	.42	.09	166.	114.	11.1	.134	2460	2840	.210	.023	dol;vf-fxln;vugs;arg ptg
038	1380.44	1380.67	.23	.10	47.1	46.7	28.1	.110	2570	2880	.198	.018	dol;vf-fxln;vugs;anh
SP009P	1380.67	1380.90	.23	-	94.2	-	-	.144	2440	2850	.339	.164	dol;vf-fxln;vugs
CORE NO. 2 1381.00 - 1390.60 (RECEIVED/CUT = 9.60/ 9.60m TOTAL BOXES = 9)													
039	1381.00	1381.22	.22	.11	25.5	18.0	4.22	.101	2570	2850	.310	.025	dol;fxln;vugs
040	1381.22	1381.38	.16	.07	.94	.86	1.12	.048	2700	2830	.213	.060	dol;vf-fxln;vugs;vfracs
041	1381.38	1381.60	.22	.11	.35	.18	.07	.044	2740	2860	.240	.081	dol;vf-fxln;scat vugs
SP010P	1381.60	1381.71	.11	-	<.01	-	-	.067	2630	2820	.102	.563	dol;vfxln
042	1381.71	1382.15	.44	.13	.88	.78	<.01	.061	2670	2840	.260	.263	dol;vf-fxln;arg lam
043	1382.15	1382.42	.27	.12	.72	.57	.01	.080	2630	2860	.299	.065	dol;vf-fxln;anh
044	1382.42	1382.74	.32	.12	.04	.03	<.01	.030	2770	2850	trc	.572	dol;vfxln;arg
SP011P	1382.74	1382.85	.11	-	.01	-	-	.037	2740	2850	trc	.150	dol;vfxln;arg
NA	1382.85	1383.36	.51	-	-	-	-	-	-	-	-	-	dol;;arg;pyr
NA	1383.36	1384.61	1.25	-	-	-	-	-	-	-	-	-	anh
045	1384.61	1384.83	.22	.11	9.87	.23	1.07	.076	2660	2880	.254	.027	dol;vf-fxln;vfracs;anh
SP012P	1384.83	1384.97	.14	-	.10	-	-	.053	2720	2870	.310	.104	dol;vfxln
SP046	1384.97	1385.14	.17	-	.02	-	-	.016	2850	2890	.304	.129	dol;vfxln;anh
047	1385.14	1385.37	.23	.11	.25	.19	<.01	.040	2760	2870	.340	.034	dol;vfxln;arg
SP048	1385.37	1385.45	.08	-	.06	-	-	.040	2750	2870	.316	.055	dol;vfxln;p-p vugs
049	1385.45	1385.62	.17	.08	1.85	.34	2.54	.032	2800	2900	.350	.177	dol;vf-fxln;vfrac

COMPANY: PARAMOUNT RESOURCES LTD.
 WELL: PARA et al SWEDE A-52
 LOCATION: 60-11N-117-39W
 FORMATION: SULPHUR POINT
 DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 4
 W/O No: RC3093
 Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
050	1385.62	1385.92	.30	.10	13.7	<.01	9.71	.016	2840	2880	.532	.147	dol;vfxln;vfrac;anh
NA	1385.92	1387.49	1.57	-	-	-	-	-	-	-	-	-	anh
051	1387.49	1387.85	.36	.09	<.01	<.01	<.01	.024	2780	2850	trc	.267	dol;vfxln;arg
NA	1387.85	1388.29	.44	-	-	-	-	-	-	-	-	-	anh
052	1388.29	1388.58	.29	.12	1.47	1.22	.02	.026	2780	2860	trc	.408	dol;vfxln;hfracs;anh
NA	1388.58	1388.93	.35	-	-	-	-	-	-	-	-	-	anh
SP053--	1388.93	1389.02	.09	-	5.17	-	-	.044	2750	2880	trc	.128	dol;vfxln;frac;anh
NA	1389.02	1390.24	1.22	-	-	-	-	-	-	-	-	-	anh
054	1390.24	1390.60	.36	.07	<.01	<.01	<.01	.008	2820	2840	trc	.267	dol;vf-fxln

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: KEG RIVER
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 5
W/O No: RC3097
Date: 04-05-91

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	

CORE NO. 3 1478.00 - 1496.20 (RECEIVED/CUT = 18.20/18.20m TOTAL BOXES = 17)													
001	1478.00	1478.28	.28	.10	.26	.23	1.73	.041	2750	2870	.360	.141	dol;vf-fxln;vugs;vfrac
SP001P	1478.28	1479.16	.88	-	<.01	-	-	.023	2790	2850	trc	.181	dol;vfxln;vugs
002	1479.16	1479.90	.74	.13	.01	<.01	<.01	.025	2780	2860	.465	.182	dol;vf-fxln;vugs
SP002P	1479.90	1480.20	.30	-	<.01	-	-	.019	2800	2850	trc	.097	dol;vfxln;vugs
003	1480.20	1480.95	.75	.13	<.01	<.01	<.01	.023	2790	2850	trc	.524	dol;vf-fxln
004	1480.95	1481.66	.71	.13	.03	<.01	<.01	.022	2790	2850	.315	.123	dol;vf-fxln
005	1481.66	1481.89	.23	.07	120.	30.3	4.18	.085	2620	2860	trc	.263	dol;vfxln;vugs;arg ptg
006	1481.89	1482.55	.66	.10	2.67	.48	3.39	.040	2740	2860	trc	.207	dol;vf-fxln;vfracs
SP003P	1482.55	1482.76	.21	-	.02	-	-	.025	2780	2850	.205	.080	dol;vf-fxln;vugs
007	1482.76	1483.07	.31	.14	4.90	3.53	.39	.052	2710	2860	trc	.243	dol;vf-fxln;vugs
008	1483.07	1483.47	.40	.12	.60	.33	.08	.042	2720	2830	trc	.150	dol;vf-fxln;vugs;styl
009	1483.47	1484.08	.61	.11	21.7	2.51	.02	.052	2710	2860	.098	.268	dol;vf-fxln;vugs
SP004P	1484.08	1484.20	.12	-	.11	-	-	.076	2630	2850	.195	.076	dol;vf-fxln;vugs
010	1484.20	1484.50	.30	.15	645.	118.	41.7	.127	2500	2860	trc	.392	dol;vf-fxln;vugs;arg
011	1484.50	1484.80	.30	.10	72.1	26.4	.17	.108	2550	2860	.084	.560	dol;vf-fxln;vugs;arg
012	1484.80	1485.03	.23	.13	64.7	13.2	.12	.052	2690	2840	.268	.315	dol;vf-fxln;vugs;hfracs;sty
013	1485.03	1485.39	.36	.13	19.4	.11	<.01	.058	2690	2860	trc	.132	dol;vf-fxln;vugs
014	1485.39	1486.46	1.07	.13	46.7	13.6	<.01	.041	2730	2840	trc	.339	dol;vfxln;vugs;fracs
015	1486.46	1486.76	.30	.10	4.03	2.59	.20	.064	2670	2850	trc	.176	dol;vf-fxln;vugs
016	1486.76	1487.28	.52	.13	.24	.09	<.01	.020	2810	2870	trc	.318	dol;vf-fxln;vugs
017	1487.28	1487.66	.38	.09	.68	.10	.04	.038	2750	2860	trc	.209	dol;vf-fxln;vugs;styl
018	1487.66	1488.05	.39	.11	60.0	1.32	7.00	.027	2760	2840	trc	.205	dol;vf-fxln;vugs

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: KEG RIVER
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 6
W/O No: RC3097
Date: 04-05-91

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
019	1488.05	1488.23	.18	.11	3.83	.02	<.01	.043	2730	2860	.290	.113	dol;vf-fxln;vugs;arg
SP005P	1488.23	1488.38	.15	-	<.01	-	-	.016	2810	2850	.204	.080	dol;vfxln
020	1488.38	1488.64	.26	.12	<.01	<.01	<.01	.044	2720	2850	trc	.032	dol;vf-fxln;vugs
NA	1488.64	1488.86	.22	-	-	-	-	-	-	-	-	-	dol;arg
021	1488.86	1488.98	.12	.09	890.	188.	.32	.117	2530	2860	.435	.118	dol;vf-fxln;vugs
022	1488.98	1489.51	.53	.12	.01	<.01	<.01	.036	2750	2860	trc	.547	dol;vfxln;arg
023	1489.51	1489.79	.28	.14	1.16	1.08	.10	.034	2750	2850	.511	.200	dol;vf-fxln;vugs;styl
024	1489.79	1490.00	.21	.12	2.52	.05	<.01	.039	2740	2850	trc	.131	dol;vf-fxln;vugs
025	1490.00	1490.38	.38	.14	5.82	3.48	<.01	.037	2750	2850	trc	.408	dol;vf-fxln;vugs
026	1490.38	1490.64	.26	.12	59.5	12.3	.29	.050	2700	2850	.426	.166	dol;vf-fxln;vugs;hfracs
027	1490.64	1490.92	.28	.12	11.4	10.9	<.01	.047	2710	2840	.683	.186	dol;vf-fxln;vugs;arg ptg
SP006P	1490.92	1491.29	.37	-	20.1	-	-	.031	2750	2840	.177	.048	dol;vf-fxln;vugs;frac
028	1491.29	1491.54	.25	.14	17.2	1.14	.01	.047	2720	2850	.485	.132	dol;vf-fxln;vugs;anh
SP007P	1491.54	1491.66	.12	-	3.90	-	-	.037	2730	2840	.315	.065	dol;vf-fxln;vugs;frac
029	1491.66	1491.95	.29	.13	713.	477.	.65	.087	2600	2850	trc	.061	dol;vf-fxln;vugs;styl
030	1491.95	1492.34	.39	.09	121.	114.	.15	.082	2620	2850	.155	.121	dol;vf-fxln;vugs
031	1492.34	1492.76	.42	.13	36.9	6.31	<.01	.077	2630	2850	.200	.054	dol;vf-fxln;vugs
032	1492.76	1493.03	.27	.13	5.33	1.80	.17	.042	2730	2840	.322	.088	dol;vf-fxln;vugs
033	1493.03	1493.24	.21	.10	.02	.02	<.01	.046	2710	2830	trc	.098	dol;vf-fxln;vugs;arg lam
034	1493.24	1493.38	.14	.10	1.72	.02	.01	.048	2700	2830	.827	.173	dol;vf-fxln;vugs
035	1493.38	1493.57	.19	.06	.14	<.01	.98	.031	2760	2850	.181	.071	dol;vf-fxln;vugs;vfrac
NA	1493.57	1493.66	.09	-	-	-	-	-	-	-	-	-	dol;arg
036	1493.66	1493.99	.33	.11	<.01	<.01	<.01	.018	2800	2850	.590	.100	dol;vf-fxln;foss
037	1493.99	1494.26	.27	.13	.04	.03	<.01	.040	2730	2840	.316	.124	dol;vf-fxln;scat vugs
SP008P	1494.26	1494.51	.25	-	.04	-	-	.041	2720	2840	.565	.109	dol;vf-fxln;vugs

AGAT LABORATORIES

FINAL CORE ANALYSIS DATA

[illegible]

CORE ANALYSIS - QUALITY CONTROL REPORT

DATE: 4- 2-1991

WORK ORDER: RC3093
 COMPANY: PARAMOUNT RESOURCES LTD.
 WELL: PARA et al SWEDE A-52
 LOCATION: 60-11N-117-39W

CORE NO.1 1363.00 - 1381.00 REC:17.90

NA	1363.00	1366.34			
SP001P	1366.34	1366.55			
-GRAIN DENSITY (2778)	OUT OF LIMIT FOR LITHOLOGY SPECIFIED (1s		[2670-2770])	Calcite	
-KMAX (10200.00)	IS OUTSIDE FOUR STANDARD DEVIATION (		.01 - .26)	Fractures Sample	
NA	1366.55	1367.32			
001	1367.32	1367.70			
NA	1367.70	1370.30			
SP002	1370.30	1370.66			
003	1370.66	1371.03			
004	1371.03	1371.28			
-KMAX (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 - .96)	Result verified	
-K90 (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 - 1.00)	Result verified	
SP002P	1371.28	1371.45			
005	1371.45	1371.65			
-KV (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 - .93)	Result verified	
SP006	1371.65	1371.86			
007	1371.86	1372.19			
SP008	1372.19	1372.33			
SP003P	1372.33	1372.42			
-KMAX (	2.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	44.07 - 1586.45)	Poorly connected vugs	
009	1372.42	1372.56			
-K90 (	7.18)	IS OUTSIDE FOUR STANDARD DEVIATION (	11.29 - 406.51)	Poorly connected vugs	
-KV (	2.50)	IS OUTSIDE FOUR STANDARD DEVIATION (	3.01 - 108.43)	Poorly connected vugs	
010	1372.56	1372.96			
-K90 (	1.33)	IS OUTSIDE FOUR STANDARD DEVIATION (	1.52 - 54.90)	Result verified	
011	1372.96	1373.20			
SP012	1373.20	1373.30			
013	1373.30	1373.51			
-KMAX (	5.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	.10 - 3.69)	Result verified	
-K90 (	4.61)	IS OUTSIDE FOUR STANDARD DEVIATION (	.11 - 3.95)	Result verified	
SP004P	1373.51	1373.61			
014	1373.61	1373.80			
NA	1373.80	1373.86			

015	1373.86	1374.18			
016	1374.18	1374.41			
NA	1374.41	1374.55			
017	1374.55	1374.88			
-KMAX	(214.00)	IS OUTSIDE FOUR STANDARD DEVIATION (	.92 -	32.96)	Vertical fractures
-KV	(149.46)	IS OUTSIDE FOUR STANDARD DEVIATION (	.30 -	10.93)	Vertical fractures
-K90	(18.31)	IS LESS THAN KV (149.46)			Vertical fractures
018	1374.88	1375.19			
SP005P	1375.19	1375.34			
019	1375.34	1375.60			
-KMAX	(5.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	.14 -	4.89)	Result verified
020	1375.60	1375.83			
-KMAX	(3.85)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.68)	Fractured sample
-K90	(2.02)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.71)	Fractured sample
-KV	(1.50)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.25)	Fractured sample
021	1375.83	1376.10			
SP022	1376.10	1376.20			
023	1376.20	1376.55			
SP024	1376.55	1376.71			
025	1376.71	1376.97			
-KV	(.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.67)	Horizontal argillaceous laminae
026	1376.97	1377.24			
SP006P	1377.24	1377.33			
-KMAX	(.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.72)	Result verified
027	1377.33	1377.71			
NA	1377.71	1377.98			
028	1377.98	1378.24			
-KMAX	(214.71)	IS OUTSIDE FOUR STANDARD DEVIATION (	1279.55 -	10000.00)	Poorly connected vugs
-K90	(210.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	1637.37 -	10000.00)	Poorly connected vugs
-KV	(36.52)	IS OUTSIDE FOUR STANDARD DEVIATION (	349.54 -	10000.00)	Poorly connected vugs
029	1378.24	1378.54			
-KMAX	(202.79)	IS OUTSIDE FOUR STANDARD DEVIATION (	265.68 -	9564.41)	Poorly connected vugs
-K90	(167.89)	IS OUTSIDE FOUR STANDARD DEVIATION (	330.01 -	10000.00)	Poorly connected vugs
-KV	(34.70)	IS OUTSIDE FOUR STANDARD DEVIATION (	75.69 -	2724.71)	Poorly connected vugs
SP007P	1378.54	1378.61			
SP030	1378.61	1378.72			
031	1378.72	1379.06			
SP032	1379.06	1379.22			
-KMAX	(652.58)	IS OUTSIDE FOUR STANDARD DEVIATION (	2654.77 -	10000.00)	Poorly connected vugs
SP008P	1379.22	1379.33			
033	1379.33	1379.47			
SP034	1379.47	1379.59			
SP035	1379.59	1379.91			
SP036	1379.91	1380.02			
037	1380.02	1380.44			

-KMAX (166.19) IS OUTSIDE FOUR STANDARD DEVIATION (	3.33 -	119.91)	Result verified
038 1380.44 1380.67			
-KMAX (47.12) IS OUTSIDE FOUR STANDARD DEVIATION (	.87 -	31.17)	Result verified
-K90 (46.70) IS OUTSIDE FOUR STANDARD DEVIATION (	.96 -	34.74)	Result verified
-KV (28.14) IS OUTSIDE FOUR STANDARD DEVIATION (	.29 -	10.34)	Result verified
SP009P 1380.67 1380.90			
CORE NO.2 1381.00 - 1390.60 REC: 9.60			
039 1381.00 1381.22			
-KMAX (25.48) IS OUTSIDE FOUR STANDARD DEVIATION (	.52 -	18.80)	Result verified
040 1381.22 1381.38			
-KV (1.12) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.35)	Vertical fracture
-KMAX (.94) IS LESS THAN KV (1.12)			Vertical fracture
-K90 (.86) IS LESS THAN KV (1.12)			Vertical fracture
041 1381.38 1381.60			
SP010P 1381.60 1381.71			
-KMAX (.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.08 -	2.79)	Result verified
042 1381.71 1382.15			
-KV (.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.71)	Horizontal argillaceous laminae
043 1382.15 1382.42			
-KV (.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.01)	Result verified
044 1382.42 1382.74			
SP011P 1382.74 1382.85			
NA 1382.85 1383.36			
NA 1383.36 1384.61			
045 1384.61 1384.83			
-KMAX (9.87) IS OUTSIDE FOUR STANDARD DEVIATION (	.13 -	4.62)	Vertical fractures
-K90 (.23) IS LESS THAN KV (1.07)			Vertical fractures
SP012P 1384.83 1384.97			
SP046 1384.97 1385.14			
047 1385.14 1385.37			
SP048 1385.37 1385.45			
049 1385.45 1385.62			
-KMAX (1.85) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.39)	Vertical fractures
-KV (2.54) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.15)	Vertical fractures
-KMAX (1.85) IS LESS THAN KV (2.54)			Vertical fractures
-K90 (.34) IS LESS THAN KV (2.54)			Vertical fractures
050 1385.62 1385.92			
-KMAX (13.73) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.16)	Vertical fractures
-KV (9.71) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.06)	Vertical fractures
-K90 (.01) IS LESS THAN KV (9.71)			Vertical fractures
NA 1385.92 1387.49			
051 1387.49 1387.85			
NA 1387.85 1388.29			

052	1388.29	1388.58		
-KMAX	(1.47)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.28) Horizontal fractures
-K90	(1.22)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.28) Horizontal fractures
NA	1388.58	1388.93		
SP053	1388.93	1389.02		
-KMAX	(5.17)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.77) Fracture
NA	1389.02	1390.24		
054	1390.24	1390.60		

CORE ANALYSIS - QUALITY CONTROL REPORT

DATE: 4- 4-1991

WORK ORDER: RC3097
 COMPANY: PARAMOUNT RESOURCES LTD.
 WELL: PARA et al SWEDE A-52
 LOCATION: 60-11N-117-39W

CORE NO.3 1478.00 - 1496.20 REC:18.20

001	1478.00	1478.28				
-KV	(1.73)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01	-	.18)	Vertical fracture
-KMAX	(.26)	IS LESS THAN KV (1.73)				Vertical fracture
-K90	(.23)	IS LESS THAN KV (1.73)				Vertical fracture
SP001P	1478.28	1479.16				
002	1479.16	1479.90				
SP002P	1479.90	1480.20				
003	1480.20	1480.95				
004	1480.95	1481.66				
005	1481.66	1481.89				
006	1481.89	1482.55				
-KMAX	(2.67)	IS OUTSIDE FOUR STANDARD DEVIATION (	.06	-	2.30)	Vertical fracture
-KV	(3.39)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01	-	.17)	Vertical fracture
-KMAX	(2.67)	IS LESS THAN KV (3.39)				Vertical fracture
-K90	(.48)	IS LESS THAN KV (3.39)				Vertical fracture
SP003P	1482.55	1482.76				
007	1482.76	1483.07				
008	1483.07	1483.47				
009	1483.47	1484.08				
-KMAX	(21.74)	IS OUTSIDE FOUR STANDARD DEVIATION (	.26	-	9.32)	Result verified. Vuggy sample
SP004P	1484.08	1484.20				
-KMAX	(.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	4.25	-	152.86)	Poorly connected vugs
010	1484.20	1484.50				
-KMAX	(645.36)	IS OUTSIDE FOUR STANDARD DEVIATION (	1619.93	-	10000.00)	Large poorly connected vugs
-K90	(118.39)	IS OUTSIDE FOUR STANDARD DEVIATION (	1934.81	-	10000.00)	Large poorly connected vugs
011	1484.50	1484.80				
-KMAX	(72.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	176.91	-	6368.83)	Large poorly connected vugs
-K90	(26.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	165.57	-	5960.38)	Large poorly connected vugs
-KV	(.17)	IS OUTSIDE FOUR STANDARD DEVIATION (	1.93	-	69.55)	Large poorly connected vugs
012	1484.80	1485.03				
-KMAX	(64.74)	IS OUTSIDE FOUR STANDARD DEVIATION (	.26	-	9.32)	Fracture along horizontal stylolites
-K90	(13.19)	IS OUTSIDE FOUR STANDARD DEVIATION (	.12	-	4.25)	Fracture along horizontal stylolites
013	1485.03	1485.39				

-KMAX (	19.40)	IS OUTSIDE FOUR STANDARD DEVIATION (	.52 -	18.76)	Result verified: vuggy sample
-K90 (	.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	.26 -	9.24)	Poorly connected vugs
-KV (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.82)	Poorly connected vugs
014	1485.39 1486.46				
-KMAX (	46.70)	IS OUTSIDE FOUR STANDARD DEVIATION (	.07 -	2.59)	Non continuous vertical fracture
-K90 (	13.61)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	1.02)	Horizontal fracture
015	1486.46 1486.76				
016	1486.76 1487.28				
-KMAX (	.24)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.22)	Result verified
-K90 (	.09)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.07)	Result verified
017	1487.28 1487.66				
018	1487.66 1488.05				
-KMAX (	60.03)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.51)	Vertical fracture
-K90 (	1.32)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.17)	Result verified
-KV (	7.00)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.05)	Vertical fracture
-K90 (	1.32)	IS LESS THAN KV (7.00)			
019	1488.05 1488.23				
-KMAX (	3.83)	IS OUTSIDE FOUR STANDARD DEVIATION (	.09 -	3.27)	Result verified
-K90 (	.02)	IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.33)	Result verified
SP005P	1488.23 1488.38				
020	1488.38 1488.64				
-KMAX (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.10 -	3.67)	Poorly connected vugs
-K90 (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.51)	Poorly connected vugs
NA	1488.64 1488.86				
021	1488.86 1488.98				
-K90 (	188.40)	IS OUTSIDE FOUR STANDARD DEVIATION (	530.53 -	10000.00)	Poorly connected vugs
-KV (	.32)	IS OUTSIDE FOUR STANDARD DEVIATION (	4.29 -	154.58)	Poorly connected vugs
022	1488.98 1489.51				
-KMAX (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.44)	Result verified
023	1489.51 1489.79				
-KMAX (	1.16)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	1.14)	Result verified
-K90 (	1.08)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.41)	Result verified
024	1489.79 1490.00				
-KMAX (	2.52)	IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.05)	Result verified
025	1490.00 1490.38				
-KMAX (	5.82)	IS OUTSIDE FOUR STANDARD DEVIATION (	.05 -	1.62)	Result verified
-K90 (	3.48)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.61)	Result verified
026	1490.38 1490.64				
-KMAX (	59.51)	IS OUTSIDE FOUR STANDARD DEVIATION (	.21 -	7.38)	Horizontal fractures
-K90 (	12.34)	IS OUTSIDE FOUR STANDARD DEVIATION (	.09 -	3.28)	Horizontal fractures
027	1490.64 1490.92				
-KMAX (	11.40)	IS OUTSIDE FOUR STANDARD DEVIATION (	.14 -	5.20)	Result verified
-K90 (	10.87)	IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.23)	Result verified
SP006P	1490.92 1491.29				
-KMAX (	20.06)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.81)	Vertical fracture

028	1491.29 1491.54				
-KMAX	(17.25) IS OUTSIDE FOUR STANDARD DEVIATION (	.14 -	5.20)	Result verified	
SP007P	1491.54 1491.66				
-KMAX	(3.90) IS OUTSIDE FOUR STANDARD DEVIATION (	.05 -	1.62)	Vertical fracture	
029	1491.66 1491.95				
-KMAX	(713.09) IS OUTSIDE FOUR STANDARD DEVIATION (	15.30 -	550.91)	Result verified	
-K90	(476.61) IS OUTSIDE FOUR STANDARD DEVIATION (	10.94 -	393.75)	Result verified	
030	1491.95 1492.34				
-KV	(.15) IS OUTSIDE FOUR STANDARD DEVIATION (	.19 -	6.92)	Result verified	
031	1492.34 1492.76				
-KV	(.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.12 -	4.44)	Result verified	
032	1492.76 1493.03				
-KMAX	(5.33) IS OUTSIDE FOUR STANDARD DEVIATION (	.08 -	2.91)	Result verified	
-K90	(1.80) IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	1.17)	Result verified	
033	1493.03 1493.24				
-KMAX	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.13 -	4.63)	Result verified	
-K90	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.05 -	1.96)	Result verified	
034	1493.24 1493.38				
-K90	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.07 -	2.53)	Result verified	
035	1493.38 1493.57				
-KV	(.98) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.07)	Vertical fracture	
-KMAX	(.14) IS LESS THAN KV (.98)			Vertical fracture	
-K90	(.01) IS LESS THAN KV (.98)			Vertical fracture	
NA	1493.57 1493.66				
036	1493.66 1493.99				
037	1493.99 1494.26				
-KMAX	(.04) IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.30)	Poorly connected vugs	
SP008P	1494.26 1494.51				
-KMAX	(.04) IS OUTSIDE FOUR STANDARD DEVIATION (	.07 -	2.59)	Poorly connected vugs	
038	1494.51 1494.85				
-KMAX	(7.13) IS OUTSIDE FOUR STANDARD DEVIATION (	.13 -	4.63)	Result verified	
039	1494.85 1495.10				
040	1495.10 1495.29				
041	1495.29 1495.57				
-KMAX	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.44)	Result verified	
SP009P	1495.57 1495.76				
-KMAX	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (10000.00 - 10000.00)			Vuggy sample	
NA	1495.76 1496.20				

APPROVED: 
 QUALITY CONTROL SUPERVISOR

April 5, 1991
 DATE

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

CORE 1 & 2

AGAT LABORATORIES

Page: 15
W/O No: RC3093
Date: 04-05-90

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base								
			m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	

	CORE NO. 1 1363.00 - 1381.00 (RECEIVED/CUT = 17.90/18.00m TOTAL BOXES = 16)									
NA	1363.00	1366.34	3.34	-	-	-	-	-	-	-
SP001P	1366.34	1366.55	.21	.21	.005	.005	.025	-	-	-
NA	1366.55	1367.32	.77	-	-	-	-	-	-	-
001	1367.32	1367.70	.38	.59	.005	.011	.018	.002	.002	.003
NA	1367.70	1370.30	2.60	-	-	-	-	-	-	-
SP002	1370.30	1370.66	.36	.95	.007	.018	.019	.011	.013	.013
003	1370.66	1371.03	.37	1.32	.030	.048	.036	.326	.338	.256
004	1371.03	1371.28	.25	1.57	.012	.060	.038	.002	.341	.217
SP002P	1371.28	1371.45	.17	1.74	.013	.073	.042	.046	.387	.222
005	1371.45	1371.65	.20	1.94	.013	.086	.044	.016	.403	.208
SP006	1371.65	1371.86	.21	2.15	.025	.111	.052	.380	.783	.364
007	1371.86	1372.19	.33	2.48	.026	.137	.055	1.019	1.802	.727
SP008	1372.19	1372.33	.14	2.62	.018	.155	.059	.612	2.415	.922
SP003P	1372.33	1372.42	.09	2.71	.016	.172	.063	.220	2.635	.972
009	1372.42	1372.56	.14	2.85	.021	.193	.068	1.873	4.508	1.582
010	1372.56	1372.96	.40	3.25	.047	.240	.074	.852	5.360	1.649
011	1372.96	1373.20	.24	3.49	.011	.251	.072	.019	5.380	1.542
SP012	1373.20	1373.30	.10	3.59	.004	.254	.071	.002	5.382	1.499
013	1373.30	1373.51	.21	3.80	.015	.270	.071	1.144	6.526	1.717
SP004P	1373.51	1373.61	.10	3.90	.006	.275	.071	.009	6.535	1.676
014	1373.61	1373.80	.19	4.09	.011	.286	.070	.302	6.837	1.672
NA	1373.80	1373.86	.06	-	-	-	-	-	-	-

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 16
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
015	1373.86	1374.18	.32	4.41	.006	.292	.066	.002	6.839	1.551
016	1374.18	1374.41	.23	4.64	.024	.316	.068	1.335	8.173	1.762
NA	1374.41	1374.55	.14	-	-	-	-	-	-	-
017	1374.55	1374.88	.33	4.97	.037	.353	.071	-	-	-
018	1374.88	1375.19	.31	5.28	.033	.386	.073	3.967	12.140	2.299
SP005P	1375.19	1375.34	.15	5.43	.012	.397	.073	.483	12.624	2.325
019	1375.34	1375.60	.26	5.69	.020	.417	.073	1.416	14.040	2.468
020	1375.60	1375.83	.23	5.92	.010	.427	.072	.886	14.926	2.521
021	1375.83	1376.10	.27	6.19	.035	.462	.075	14.129	29.055	4.694
SP022	1376.10	1376.20	.10	6.29	.003	.465	.074	.000	29.056	4.620
023	1376.20	1376.55	.35	6.64	.041	.506	.076	10.720	39.776	5.991
SP024	1376.55	1376.71	.16	6.80	.009	.515	.076	.024	39.800	5.853
025	1376.71	1376.97	.26	7.06	.016	.530	.075	.023	39.823	5.641
026	1376.97	1377.24	.27	7.33	.021	.552	.075	.335	40.158	5.479
SP006P	1377.24	1377.33	.09	7.42	.004	.556	.075	.000	40.159	5.412
027	1377.33	1377.71	.38	7.80	.044	.600	.077	13.691	53.850	6.904
NA	1377.71	1377.98	.27	-	-	-	-	-	-	-
028	1377.98	1378.24	.26	8.06	.062	.662	.082	55.827	109.676	13.608
029	1378.24	1378.54	.30	8.36	.064	.726	.087	60.847	170.523	20.398
SP007P	1378.54	1378.61	.07	8.43	.013	.739	.088	4.204	174.728	20.728
SP030	1378.61	1378.72	.11	8.54	.007	.745	.087	.005	174.733	20.461
031	1378.72	1379.06	.34	8.88	.024	.769	.087	.367	175.100	19.719
SP032	1379.06	1379.22	.16	9.04	.040	.809	.090	104.355	279.456	30.914
SP008P	1379.22	1379.33	.11	9.15	.022	.831	.091	21.744	301.200	32.919
033	1379.33	1379.47	.14	9.29	.025	.856	.092	24.533	325.733	35.064

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 1 & 2

AGAT LABORATORIES

Page: 17
W/O No: RC3093
Date: 04-05-90

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
SP034	1379.47	1379.59	.12	9.41	.022	.879	.093	50.489	376.222	39.982
SP035	1379.59	1379.91	.32	9.73	.049	.927	.095	12.057	388.279	39.906
SP036	1379.91	1380.02	.11	9.84	.011	.938	.095	1.199	389.478	39.582
037	1380.02	1380.44	.42	10.26	.056	.994	.097	69.807	459.285	44.766
038	1380.44	1380.67	.23	10.49	.025	1.020	.097	10.831	470.116	44.817
SP009P	1380.67	1380.90	.23	10.72	.033	1.053	.098	21.676	491.791	45.877
CORE NO. 2 1381.00 - 1390.60 (RECEIVED/CUT = 9.60/ 9.60m TOTAL BOXES = 9)										
039	1381.00	1381.22	.22	10.94	.022	1.075	.098	5.605	497.396	45.467
040	1381.22	1381.38	.16	11.10	.008	1.083	.098	.150	497.547	44.825
041	1381.38	1381.60	.22	11.32	.010	1.092	.097	.077	497.624	43.961
SP010P	1381.60	1381.71	.11	11.43	.007	1.100	.096	.001	497.624	43.538
042	1381.71	1382.15	.44	11.87	.027	1.127	.095	.387	498.012	41.956
043	1382.15	1382.42	.27	12.14	.022	1.148	.095	.194	498.206	41.039
044	1382.42	1382.74	.32	12.46	.010	1.158	.093	.013	498.219	39.986
SP011P	1382.74	1382.85	.11	12.57	.004	1.162	.092	.001	498.220	39.636
NA	1382.85	1383.36	.51	-	-	-	-	-	-	-
NA	1383.36	1384.61	1.25	-	-	-	-	-	-	-
045	1384.61	1384.83	.22	12.79	.017	1.179	.092	2.172	500.392	39.124
SP012P	1384.83	1384.97	.14	12.93	.007	1.186	.092	.014	500.406	38.702
SP046	1384.97	1385.14	.17	13.10	.003	1.189	.091	.003	500.409	38.200
047	1385.14	1385.37	.23	13.33	.009	1.198	.090	.057	500.467	37.545
SP048	1385.37	1385.45	.08	13.41	.003	1.201	.090	.005	500.472	37.321
049	1385.45	1385.62	.17	13.58	.005	1.207	.089	.314	500.786	36.877

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 18
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity *		Wt. Avg. Porosity (Arith.)	Kmax *		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
050	1385.62	1385.92	.30	13.88	.005	1.211	.087	4.120	504.906	36.377
NA	1385.92	1387.49	1.57	-	-	-	-	-	-	-
051	1387.49	1387.85	.36	14.24	.009	1.220	.086	.002	504.908	35.457
NA	1387.85	1388.29	.44	-	-	-	-	-	-	-
052	1388.29	1388.58	.29	14.53	.008	1.228	.084	.426	505.334	34.779
NA	1388.58	1388.93	.35	-	-	-	-	-	-	-
SP053	1388.93	1389.02	.09	14.62	.004	1.232	.084	.465	505.799	34.596
NA	1389.02	1390.24	1.22	-	-	-	-	-	-	-
054	1390.24	1390.60	.36	14.98	.003	1.234	.082	.002	505.801	33.765

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 19
W/O No: RC3097
Date: 04-05-91

CORE 3

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity *		Wt. Avg. Porosity (Arith.)	Kmax *		Wt. Avg. Kmax (Arith.)
	Top	Base	Rep. Thick.		Rep. Thick.			Rep. Thick.		
			m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	

CORE NO. 3 1478.00 - 1496.20 (RECEIVED/CUT = 18.20/18.20m TOTAL BOXES = 17)										
001	1478.00	1478.28	.28	.28	.011	.011	.041	.073	.073	.260
SP001P	1478.28	1479.16	.88	1.16	.020	.032	.027	.004	.077	.067
002	1479.16	1479.90	.74	1.90	.018	.050	.026	.007	.085	.045
SP002P	1479.90	1480.20	.30	2.20	.006	.056	.025	.001	.086	.039
003	1480.20	1480.95	.75	2.95	.017	.073	.025	.004	.090	.030
004	1480.95	1481.66	.71	3.66	.016	.089	.024	.021	.111	.030
005	1481.66	1481.89	.23	3.89	.020	.108	.028	27.690	27.801	7.147
006	1481.89	1482.55	.66	4.55	.026	.135	.030	1.762	29.563	6.497
SP003P	1482.55	1482.76	.21	4.76	.005	.140	.029	.004	29.567	6.212
007	1482.76	1483.07	.31	5.07	.016	.156	.031	1.519	31.086	6.131
008	1483.07	1483.47	.40	5.47	.017	.173	.032	.240	31.326	5.727
009	1483.47	1484.08	.61	6.08	.032	.205	.034	13.261	44.587	7.333
SP004P	1484.08	1484.20	.12	6.20	.009	.214	.034	.013	44.600	7.194
010	1484.20	1484.50	.30	6.50	.038	.252	.039	193.640	238.240	36.652
011	1484.50	1484.80	.30	6.80	.032	.284	.042	21.637	259.876	38.217
012	1484.80	1485.03	.23	7.03	.012	.296	.042	14.889	274.765	39.085
013	1485.03	1485.39	.36	7.39	.021	.317	.043	6.984	281.749	38.126
014	1485.39	1486.46	1.07	8.46	.044	.361	.043	49.972	331.721	39.210
015	1486.46	1486.76	.30	8.76	.019	.380	.043	1.209	332.930	38.006
016	1486.76	1487.28	.52	9.28	.010	.391	.042	.125	333.055	35.890
017	1487.28	1487.66	.38	9.66	.014	.405	.042	.258	333.313	34.504
018	1487.66	1488.05	.39	10.05	.011	.416	.041	23.413	356.726	35.495

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 3

AGAT LABORATORIES

Page: 20
W/O No: RC3097
Date: 04-05-91

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
019	1488.05	1488.23	.18	10.23	.008	.423	.041	.689	357.415	34.938
SP005P	1488.23	1488.38	.15	10.38	.002	.426	.041	.001	357.416	34.433
020	1488.38	1488.64	.26	10.64	.011	.437	.041	.001	357.417	33.592
NA	1488.64	1488.86	.22	-	-	-	-	-	-	-
021	1488.86	1488.98	.12	10.76	.014	.451	.042	106.709	464.126	43.135
022	1488.98	1489.51	.53	11.29	.019	.470	.042	.005	464.131	41.110
023	1489.51	1489.79	.28	11.57	.010	.480	.041	.325	464.456	40.144
024	1489.79	1490.00	.21	11.78	.008	.488	.041	.529	464.985	39.473
025	1490.00	1490.38	.38	12.16	.014	.502	.041	2.212	467.197	38.421
026	1490.38	1490.64	.26	12.42	.013	.515	.041	15.473	482.670	38.863
027	1490.64	1490.92	.28	12.70	.013	.528	.042	3.192	485.862	38.257
SP006P	1490.92	1491.29	.37	13.07	.011	.540	.041	7.420	493.282	37.742
028	1491.29	1491.54	.25	13.32	.012	.551	.041	4.315	497.596	37.357
SP007P	1491.54	1491.66	.12	13.44	.004	.556	.041	.468	498.064	37.059
029	1491.66	1491.95	.29	13.73	.025	.581	.042	206.824	704.888	51.339
030	1491.95	1492.34	.39	14.12	.032	.613	.043	47.258	752.146	53.268
031	1492.34	1492.76	.42	14.54	.032	.645	.044	15.495	767.641	52.795
032	1492.76	1493.03	.27	14.81	.011	.657	.044	1.439	769.081	51.930
033	1493.03	1493.24	.21	15.02	.010	.666	.044	.004	769.085	51.204
034	1493.24	1493.38	.14	15.16	.007	.673	.044	.241	769.326	50.747
035	1493.38	1493.57	.19	15.35	.006	.679	.044	.027	769.352	50.121
NA	1493.57	1493.66	.09	-	-	-	-	-	-	-
036	1493.66	1493.99	.33	15.68	.006	.685	.044	.002	769.354	49.067
037	1493.99	1494.26	.27	15.95	.011	.696	.044	.011	769.365	48.237
SP008P	1494.26	1494.51	.25	16.20	.010	.706	.044	.010	769.375	47.493

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 3

AGAT LABORATORIES

Page: 21
W/O No: RC3097
Date: 04-05-91

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity *		Wt. Avg. Porosity (Arith.)	Kmax *		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
038	1494.51	1494.85	.34	16.54	.016	.722	.044	2.425	771.800	46.663
039	1494.85	1495.10	.25	16.79	.005	.726	.043	.005	771.805	45.969
040	1495.10	1495.29	.19	16.98	.005	.731	.043	.013	771.818	45.455
041	1495.29	1495.57	.28	17.26	.010	.741	.043	.006	771.824	44.718
SP009P	1495.57	1495.76	.19	17.45	.033	.774	.044	.004	771.827	44.231
NA	1495.76	1496.20	.44	-	-	-	-	-	-	-

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 22
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY POROSITY RANGES

Porosity Range	Samples		Metres		Wt. Avg. Porosity (Arith)	Wt. Avg. Kmax		Frequency %	
	In Rng	Cuml.	In Rng	Cuml.		Arith	Geom	In Rng	Cuml.
0.000-0.0199	4	4	1.21	1.21	.013	3.408	.043	8.38	8.38
0.020-0.0399	9	13	2.13	3.34	.026	.361	.036	14.75	23.13
0.040-0.0599	13	26	2.18	5.52	.047	.923	.216	15.10	38.23
0.060-0.0799	13	39	3.07	8.59	.071	2.415	.881	21.26	59.49
0.080-0.0999	3	42	.75	9.34	.084	2.292	1.184	5.19	64.68
0.100-0.1199	7	49	2.12	11.46	.111	22.171	14.403	14.68	79.36
0.120-0.1399	4	53	1.04	12.50	.130	81.650	30.275	7.20	86.56
0.140-0.1599	3	56	.69	13.19	.150	51.589	41.448	4.78	91.34
0.160-0.1799	2	58	.21	13.40	.179	136.950	122.730	1.45	92.80
0.180-0.1999	2	60	.21	13.61	.183	241.519	46.389	1.45	94.25
0.200-0.2199	2	62	.41	14.02	.209	201.364	201.351	2.84	97.09
0.220-0.2399	0	62	.00	14.02	.000	.000	.000	.00	97.09
0.240-0.2599	2	64	.42	14.44	.245	381.457	327.871	2.91	100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 23
W/O No: RC3097
Date: 04-05-91

CORE 3

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY POROSITY RANGES								
Porosity Range	Samples		Metres		Wt. Avg.	Wt. Avg. Kmax		Frequency %
	In	Rng. Cuml.	In	Rng. Cuml.	Porosity (Arith)	Arith	Geom	In Rng Cuml.
0.000-0.0199	4	4	1.03	1.03	.018	.006	.007	5.90 5.90
0.020-0.0399	17	21	7.13	8.16	.028	4.886	.094	40.86 46.76
0.040-0.0599	19	40	6.63	14.79	.045	17.571	3.658	38.00 84.76
0.060-0.0799	3	43	.84	15.63	.072	19.905	7.290	4.81 89.57
0.080-0.0999	3	46	.91	16.54	.084	309.628	212.826	5.22 94.78
0.100-0.1199	2	48	.42	16.96	.111	305.640	147.766	2.41 97.19
0.120-0.1399	1	49	.30	17.26	.127	645.360	645.360	1.72 98.91
0.140-0.1599	0	49	.00	17.26	.000	.000	.000	.00 98.91
0.160-0.1799	1	50	.19	17.45	.174	.020	.020	1.09 100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 24
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY PERMEABILITY RANGES

Permeability Range	Samples		Metres		Wt. Avg.	Wt. Avg. Kmax		Frequency %	
	In Rng	Cuml.	In Rng	Cuml.	Porosity (Arith)	Arith	Geom	In Rng	Cuml.
0.000-0.009	7	7	1.72	1.72	.022	.001	.005	11.91	11.91
0.010-0.019	2	9	.36	2.08	.045	.010	.010	2.49	14.40
0.020-0.039	3	12	.63	2.71	.022	.026	.025	4.36	18.77
0.040-0.079	3	15	.51	3.22	.038	.045	.045	3.53	22.30
0.080-0.159	6	21	1.10	4.32	.056	.096	.094	7.61	29.91
0.160-0.319	2	23	.40	4.72	.055	.259	.258	2.77	32.68
0.320-0.639	1	24	.22	4.94	.044	.350	.350	1.52	34.21
0.640-1.249	6	30	1.85	6.79	.071	.951	.938	12.81	47.02
1.250-2.499	6	36	1.35	8.14	.083	1.848	1.825	9.35	56.37
2.500-4.999	4	40	.85	8.99	.077	3.530	3.498	5.89	62.26
5.000-9.999	5	45	1.01	10.00	.079	6.468	6.262	6.99	69.25
10.000-19.999	4	49	.86	10.86	.081	12.976	12.943	5.96	75.21
20.000-39.999	4	53	1.27	12.13	.123	33.128	32.812	8.80	84.00
40.000-79.999	3	56	.57	12.70	.128	51.193	51.032	3.95	87.95
80.000-159.999	1	57	.23	12.93	.144	94.200	94.200	1.59	89.54
160.000-319.999	5	62	1.23	14.16	.186	189.218	188.177	8.52	98.06
320.000-639.999	1	63	.12	14.28	.185	420.760	420.760	.83	98.89
640.000-1279.999	1	64	.16	14.44	.253	652.580	652.580	1.11	100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 25
W/O No: RC3097
Date: 04-05-91

CORE 3

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY PERMEABILITY RANGES

Permeability Range	Samples		Metres		Wt. Avg.	Wt. Avg. Kmax		Frequency %	
	In Rng	Cuml.	In Rng	Cuml.	Porosity (Arith)	Arith	Geom	In Rng	Cuml.
0.000-0.009	6	6	2.67	2.67	.024	.001	.005	15.30	15.30
0.010-0.019	2	8	1.27	3.94	.030	.010	.010	7.28	22.58
0.020-0.039	6	14	1.85	5.79	.042	.024	.023	10.60	33.18
0.040-0.079	3	17	.71	6.50	.037	.048	.046	4.07	37.25
0.080-0.159	2	19	.31	6.81	.048	.128	.128	1.78	39.03
0.160-0.319	2	21	.80	7.61	.027	.247	.247	4.58	43.61
0.320-0.639	1	22	.40	8.01	.042	.600	.600	2.29	45.90
0.640-1.249	2	24	.66	8.67	.036	.884	.853	3.78	49.68
1.250-2.499	1	25	.14	8.81	.048	1.720	1.720	.80	50.49
2.500-4.999	6	31	1.78	10.59	.046	3.470	3.361	10.20	60.69
5.000-9.999	3	34	.99	11.58	.041	6.136	6.092	5.67	66.36
10.000-19.999	3	37	.89	12.47	.051	16.279	15.879	5.10	71.46
20.000-39.999	3	40	1.40	13.87	.054	25.844	24.944	8.02	79.48
40.000-79.999	5	45	2.25	16.12	.050	55.723	54.959	12.89	92.38
80.000-159.999	2	47	.62	16.74	.083	120.884	120.884	3.55	95.93
160.000-319.999	0	47	.00	16.74	.000	.000	.000	.00	95.93
320.000-639.999	0	47	.00	16.74	.000	.000	.000	.00	95.93
640.000-1279.999	3	50	.71	17.45	.109	714.366	709.728	4.07	100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 1 & 2

AGAT LABORATORIES

Page: 26
W/O No: RC3093
Date: 04-05-90

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

Porosity Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Arith	
	Lost	Remaining	Por-Metres	%	Por-Metres	%	Mean	Median
0.000	.00	14.98	.000	.00	1.234	100.00	.082	.071
0.020	1.89	13.09	.029	2.37	1.205	97.63	.092	.075
0.040	3.86	11.12	.089	7.22	1.145	92.78	.103	.092
0.060	6.10	8.88	.201	16.32	1.033	83.68	.116	.107
0.080	9.07	5.91	.417	33.82	.817	66.18	.138	.119
0.100	9.55	5.43	.459	37.15	.776	62.85	.143	.125
0.120	12.00	2.98	.732	59.26	.503	40.74	.169	.153
0.140	13.04	1.94	.867	70.22	.368	29.78	.190	.187
0.160	13.73	1.25	.970	78.58	.264	21.42	.212	.210
0.180	14.03	.95	1.024	82.93	.211	17.07	.222	.215
0.200	14.26	.72	1.068	86.51	.166	13.49	.231	.240
0.220	14.56	.42	1.132	91.67	.103	8.33	.245	.250
0.240	14.56	.42	1.132	91.67	.103	8.33	.245	
0.260	14.98	.00	1.234	100.00	.000	.00	.000	

Total Storage Capacity in Porosity-Metres = 1.234

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 3

AGAT LABORATORIES

Page: 27
W/O No: RC3097
Date: 04-05-91

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

Porosity Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Arith	
	Lost	Remaining	Por-Metres	%	Por-Metres	%	Mean	Median
0.000	.00	17.45	.000	.00	.774	100.00	.044	.042
0.020	1.55	15.90	.029	3.77	.745	96.23	.047	.043
0.040	9.09	8.36	.256	33.04	.519	66.96	.062	
0.060	14.79	2.66	.519	67.07	.255	32.93	.096	
0.080	15.63	1.82	.580	74.90	.194	25.10	.107	
0.100	16.54	.91	.657	84.81	.118	15.19	.129	
0.120	16.96	.49	.703	90.81	.071	9.19	.145	
0.140	17.26	.19	.741	95.73	.033	4.27	.174	
0.160	17.26	.19	.741	95.73	.033	4.27	.174	
0.180	17.45	.00	.774	100.00	.000	.00	.000	

Total Storage Capacity in Porosity-Metres = .774

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 28
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

MILLIDARCY-METRES OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

Permeability Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Geom.	
	Lost	Remaining	mD-Metres	%	mD-Metres	%	Mean	Median
0.000	.00	14.44	.000	.00	505.794	100.00	1.291	1.559
0.010	2.08	12.36	.005	.00	505.789	100.00	2.735	2.423
0.020	2.35	12.09	.011	.00	505.783	100.00	3.221	2.757
0.040	3.03	11.41	.034	.01	505.760	99.99	4.180	3.564
0.080	3.66	10.78	.080	.02	505.714	99.98	5.137	4.387
0.160	4.32	10.12	.150	.03	505.644	99.97	7.937	6.532
0.320	4.72	9.72	.254	.05	505.540	99.95	9.139	7.494
0.640	4.94	9.50	.331	.07	505.463	99.93	9.856	8.081
1.250	6.79	7.65	2.090	.41	503.704	99.59	17.406	16.412
2.500	8.14	6.30	4.586	.91	501.208	99.09	28.223	25.287
5.000	8.99	5.45	7.587	1.50	498.207	98.50	39.091	31.891
10.000	10.00	4.44	14.120	2.79	491.674	97.21	59.294	44.624
20.000	10.86	3.58	25.279	5.00	480.515	95.00	85.466	75.295
40.000	12.13	2.31	67.352	13.32	438.442	86.68	144.676	195.443
80.000	12.70	1.74	96.516	19.08	409.278	80.92	203.498	229.471
160.000	12.93	1.51	118.192	23.37	387.602	76.63	228.841	
320.000	14.16	.28	350.949	69.39	154.845	30.61	540.674	
640.000	14.28	.16	401.439	79.37	104.355	20.63	652.604	
1280.000	14.44	.00	505.794	100.00	.000	.00	.000	

Total Flow Capacity in Millidarcy-Metres (Arithmetic) = 505.794

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 29
W/O No: RC3097
Date: 04-05-91

CORE 3

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

MILLIDARCY-METRES OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

Permeability Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Geom.	
	Lost	Remaining	mD-Metres	%	mD-Metres	%	Mean	Median
0.000	.00	17.45	.000	.00	771.817	100.00	.816	1.642
0.010	3.94	13.51	.015	.00	771.801	100.00	2.048	4.067
0.020	5.08	12.37	.038	.00	771.778	100.00	3.377	5.382
0.040	6.31	11.14	.080	.01	771.736	99.99	7.434	10.317
0.080	6.50	10.95	.094	.01	771.723	99.99	10.331	13.602
0.160	6.81	10.64	.133	.02	771.683	99.98	11.741	15.346
0.320	7.61	9.84	.331	.04	771.486	99.96	16.071	20.601
0.640	8.01	9.44	.571	.07	771.246	99.93	18.474	22.746
1.250	8.67	8.78	1.154	.15	770.662	99.85	23.279	26.784
2.500	8.81	8.64	1.395	.18	770.422	99.82	24.283	27.729
5.000	10.59	6.86	7.571	.98	764.245	99.02	40.562	41.892
10.000	11.58	5.87	13.647	1.77	758.170	98.23	55.847	48.793
20.000	12.47	4.98	28.137	3.65	743.679	96.35	69.924	55.963
40.000	13.87	3.58	64.313	8.33	707.503	91.67	104.630	
80.000	16.12	1.33	189.697	24.58	582.120	75.42	310.981	
160.000	16.74	.71	264.645	34.29	507.172	65.71	709.742	
320.000	16.74	.71	264.645	34.29	507.172	65.71	709.742	
640.000	16.74	.71	264.645	34.29	507.172	65.71	709.742	
1280.000	17.45	.00	771.817	100.00	.000	.00	.000	

Total Flow Capacity in Millidarcy-Metres (Arithmetic) = 771.817

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 1 & 2

AGAT LABORATORIES

Page: 30
W/O No: RC3093
Date: 04-05-90

SUMMARY OF CORE DATA REPORT

PERMEABILITY RANGES, MILLIDARCY

	Total	100.00 +	10.00 - 99.99	1.00 - 9.99	0.50 - 0.99	0.10 - 0.49	0.01 - 0.09	< 0.01
Thickness (m)	12.72	1.51	2.93	3.82	1.24	.92	2.30	.00
Fraction of analyzed core		.119	.230	.300	.097	.072	.181	.00
Porosity thickness (por-m)	1.155	.292	.332	.302	.086	.048	.094	.00
Permeability thickness (mD-m)	505.79	387.60	104.07	12.73	1.06	.22	.11	-
Wt. average Porosity	.091	.193	.113	.079	.070	.052	.041	.00
Wt. average Permeability	39.76	256.69	35.52	3.33	.85	.24	.05	-
Wt. average Residual Oil	.246	.226	.285	.263	.232	.281	.176	.00
Wt. average Residual Water	.160	.149	.119	.152	.219	.151	.206	.00
Wt. average (geom.) Kmax., mD for All Samples =			2.74					
Wt. average (harm.) Kmax., mD for All Samples =			.14					

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 3

AGAT LABORATORIES

Page: 31
W/O No: RC3097
Date: 04-05-91

SUMMARY OF CORE DATA REPORT

PERMEABILITY RANGES, MILLIDARCY

	Total	100.00 +	10.00 - 99.99	1.00 - 9.99	0.50 - 0.99	0.10 - 0.49	0.01 - 0.09	< 0.01
Thickness (m)	14.78	1.33	4.54	3.19	.78	1.11	3.83	.00
Fraction of analyzed core		.090	.307	.216	.053	.075	.259	.00
Porosity thickness (por-m)	.711	.129	.233	.139	.031	.037	.142	.00
Permeability thickness (mD-m)	771.81	582.12	176.05	12.82	.50	.24	.09	-
Wt. average Porosity	.048	.097	.051	.044	.040	.033	.037	.00
Wt. average Permeability	52.22	437.70	38.78	4.02	.64	.21	.02	-
Wt. average Residual Oil	.163	.085	.159	.147	.001	.143	.248	.00
Wt. average Residual Water	.205	.193	.234	.185	.179	.205	.197	.00
Wt. average (geom.) Kmax., mD for All Samples =			2.05					
Wt. average (harm.) Kmax., mD for All Samples =			.06					

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 1

LOCATION: 60-11N-117-39W

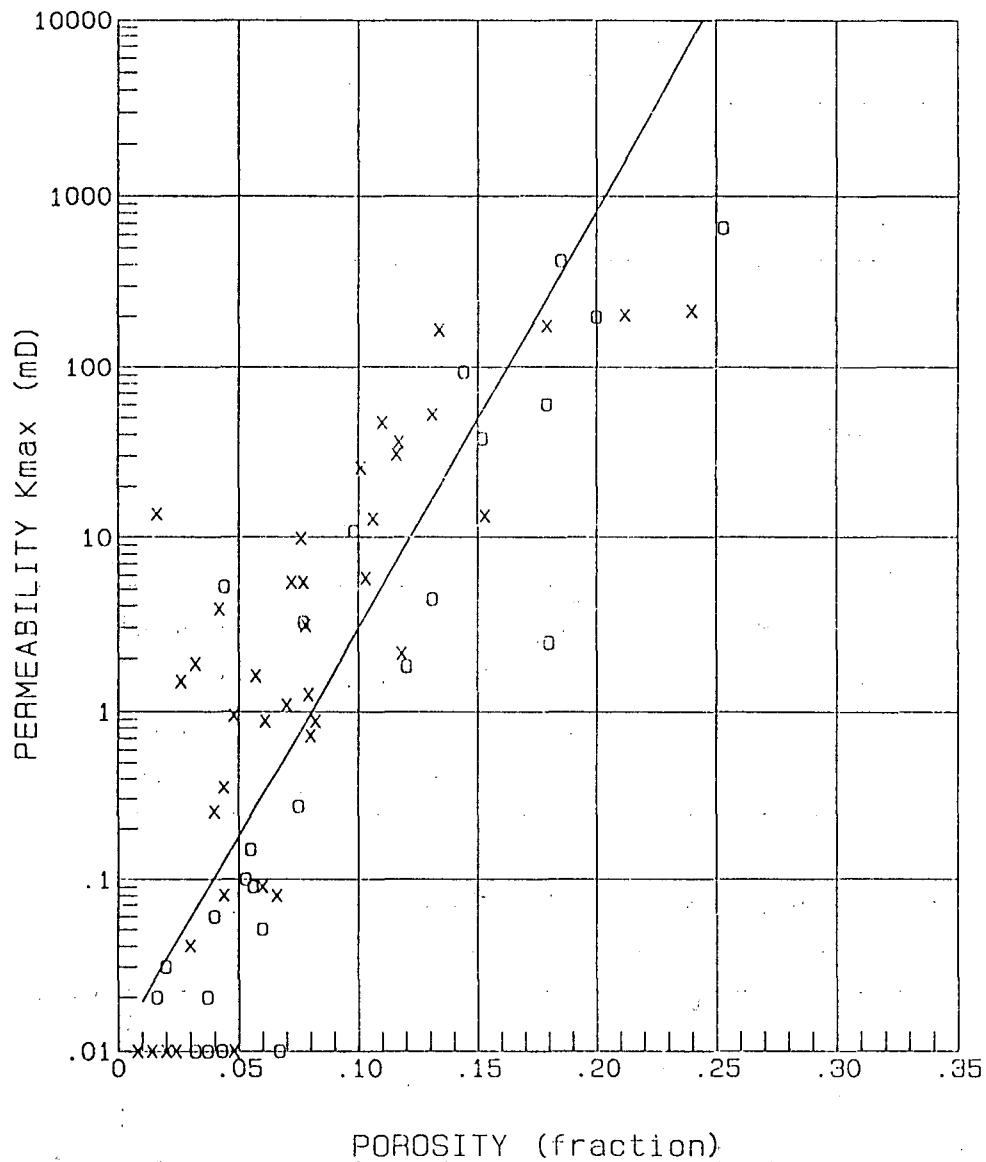
W/O NO: RC3093

INTERVAL: 1363.00 - 1390.60m

DATE: 04-05-90

FORMATION: SULPHUR POINT

POROSITY - PERMEABILITY (K_{max}) CORRELATION



x - FULL DIAMETER

o - SMALL PLUG.

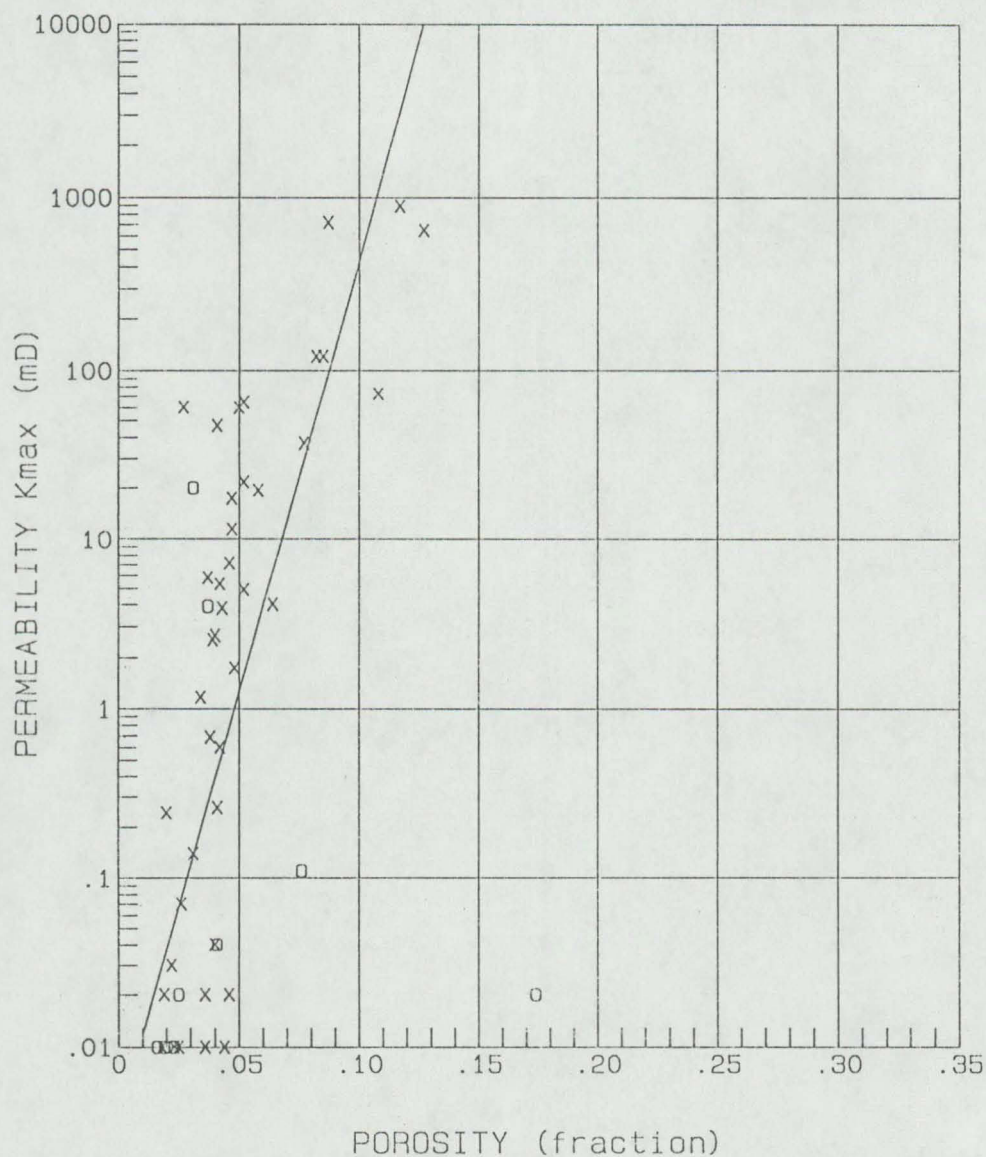
NOTE: Samples are not weighted

Equation: $\text{Log (K}_{\text{max}}) = -1.97 + 24.38 * \text{Porosity}$

Correlation Coefficient: $r = .811$

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 2
 LOCATION: 60-11N-117-39W W/O NO: RC3097
 INTERVAL: 1478.00 - 1496.20m DATE: 04-05-91
 FORMATION: KEG RIVER

POROSITY - PERMEABILITY (Kmax) CORRELATION



x - FULL DIAMETER o - SMALL PLUG

NOTE: Samples are not weighted

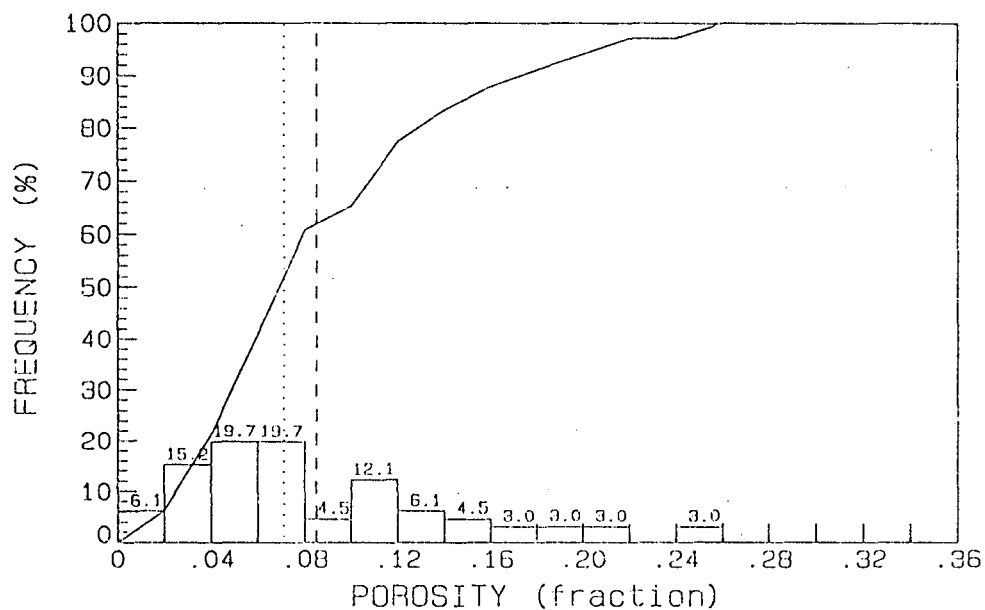
Equation: $\text{Log (Kmax)} = -2.44 + 50.62 * \text{Porosity}$
 Correlation Coefficient: $r = .479$

A-52

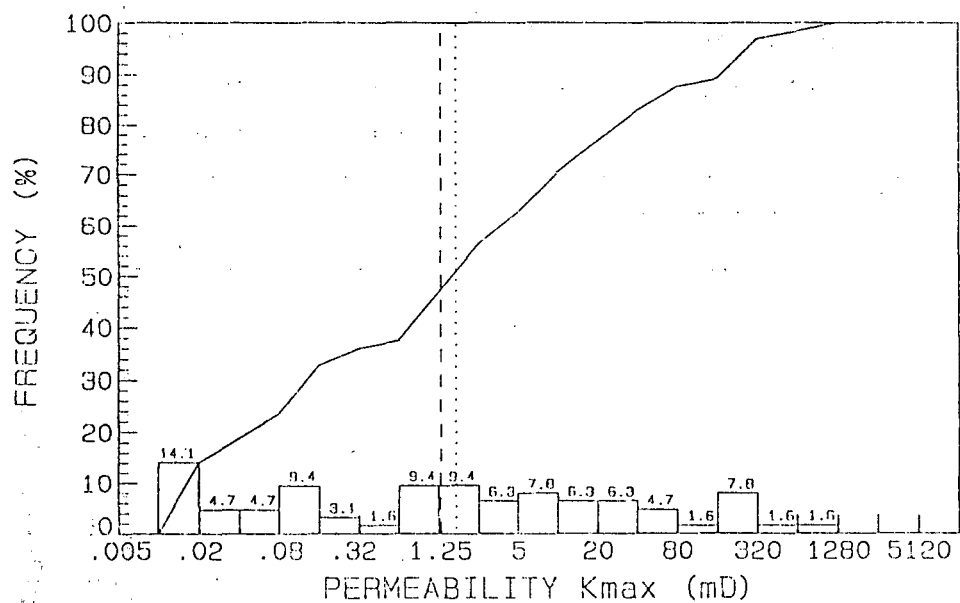
LS+ dol

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 3
LOCATION: 60-11N-117-39W W/O NO: RC3093
INTERVAL: 1363.00 - 1390.60m DATE: 04-05-90
FORMATION: SULPHUR POINT

POROSITY FREQUENCY DISTRIBUTION



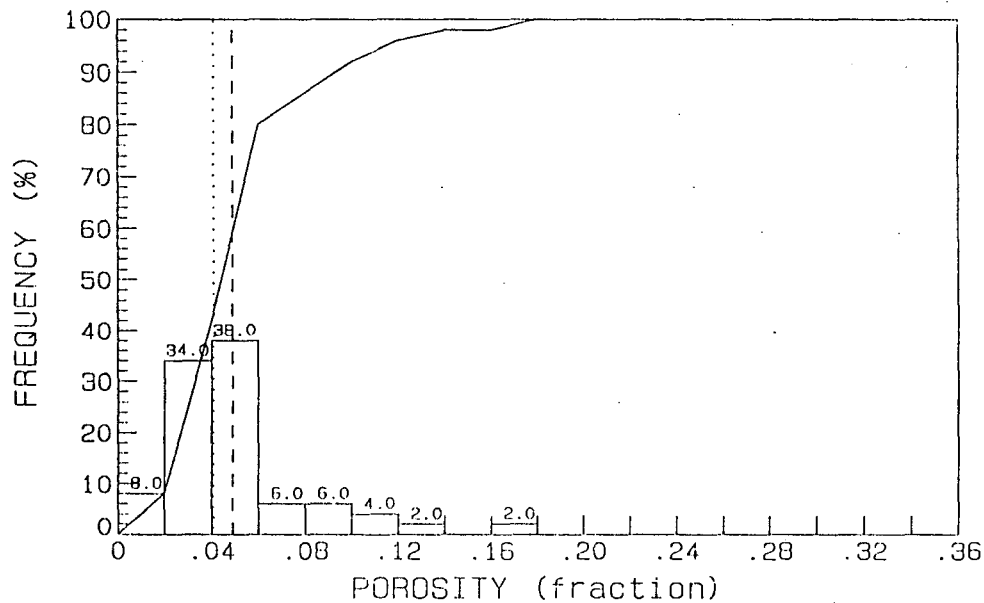
PERMEABILITY Kmax FREQUENCY DISTRIBUTION



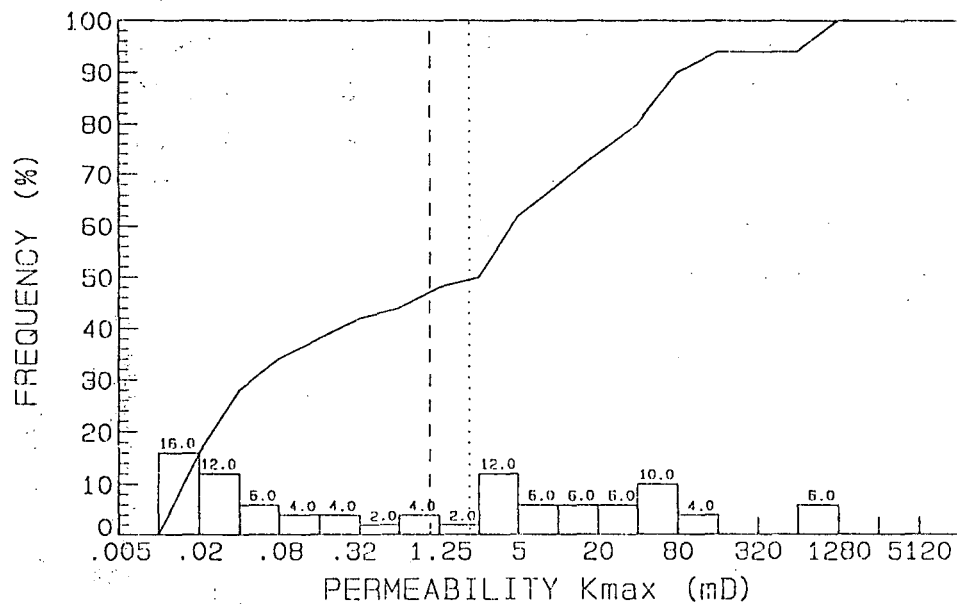
Arith. Mean Porosity	----	POROSITY	-	Arith. Mean:	.085
Geom. Mean Permeability	----			Median:	.071
Cumulative Frequency %	-----	PERMEABILITY	-	Geom. Mean:	1.31
Median				Median:	1.70

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 4
 LOCATION: 60-11N-117-39W W/O NO: RC3097
 INTERVAL: 1478.00 - 1496.20m DATE: 04-05-91
 FORMATION: KEG RIVER

POROSITY FREQUENCY DISTRIBUTION



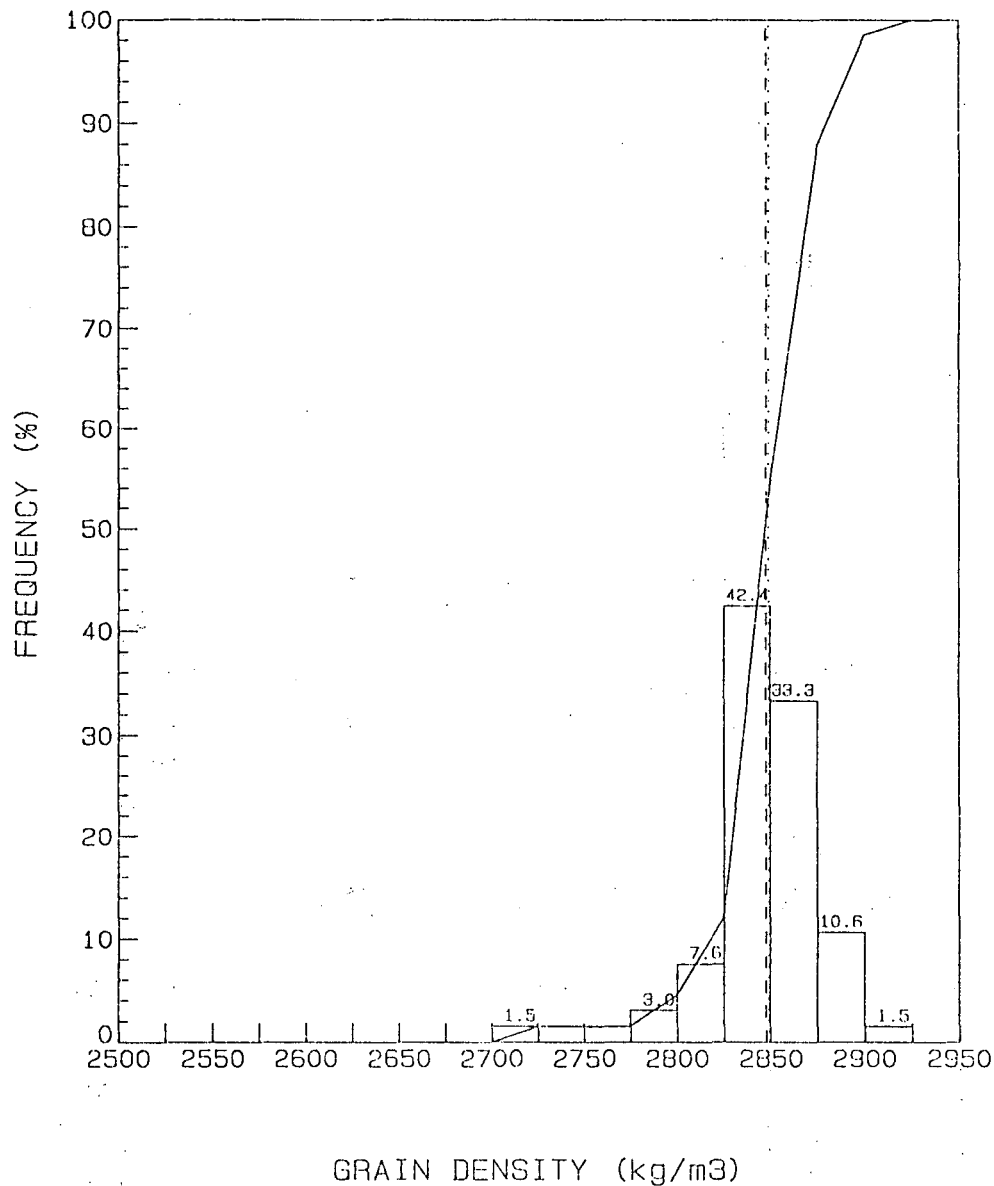
PERMEABILITY Kmax FREQUENCY DISTRIBUTION



Arith. Mean Porosity	----- POROSITY	Arith. Mean: .043
Geom. Mean Permeability	-----	Median: .041
Cumulative Frequency %	----- PERMEABILITY	Geom. Mean: 1.10
Median	-----	Median: 2.12

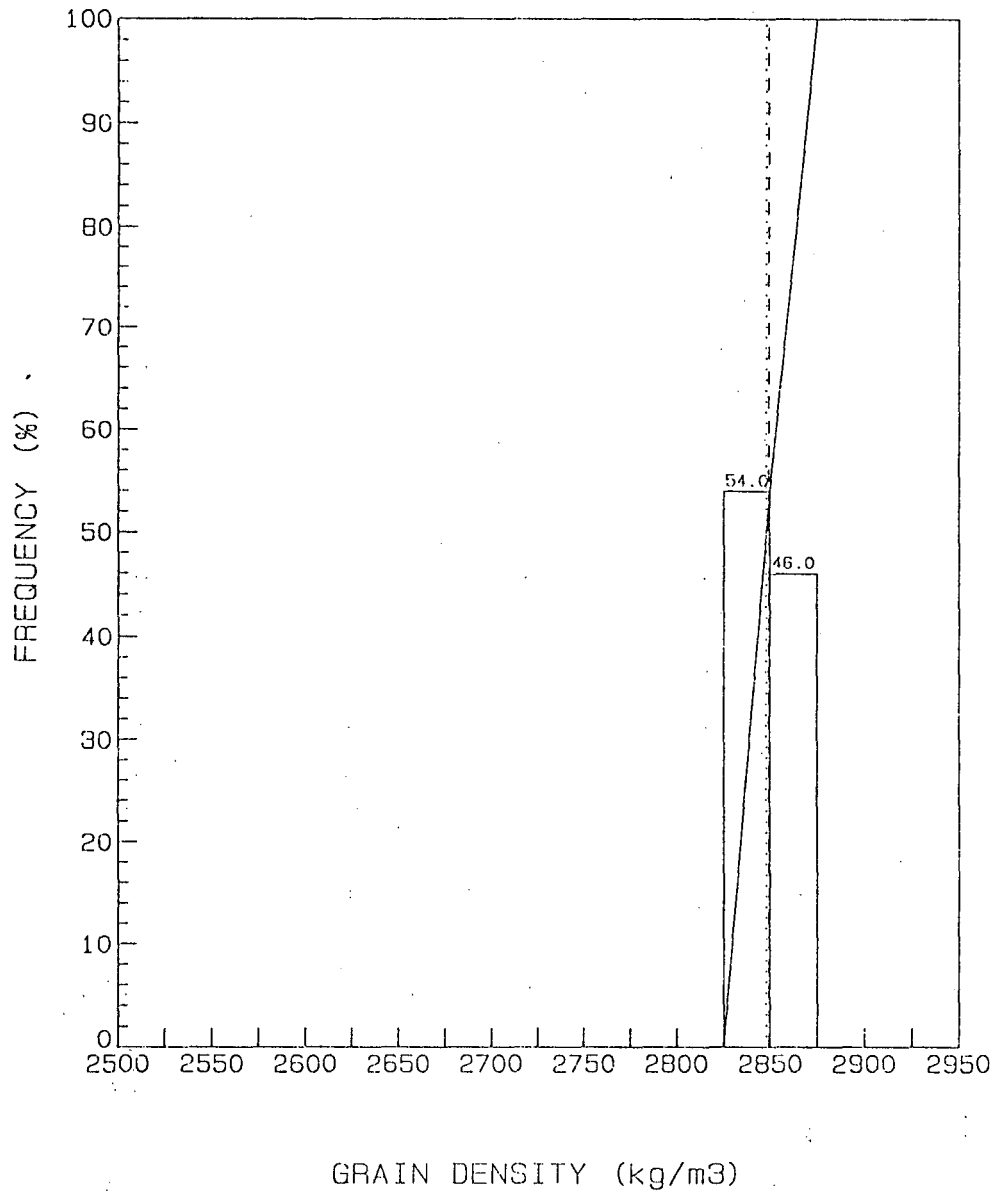
COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 5
 LOCATION: 60-11N-117-39W W/O NO: RC3093
 INTERVAL: 1363.00 - 1390.60m DATE: 04-05-90
 FORMATION: SULPHUR POINT

GRAIN DENSITY FREQUENCY DISTRIBUTION



COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 6
 LOCATION: 60-11N-117-39W W/O NO: RC3097
 INTERVAL: 1478.00 - 1496.20m DATE: 04-05-91
 FORMATION: KEG RIVER

GRAIN DENSITY FREQUENCY DISTRIBUTION



Arithmetic Mean - - - - Wt. Avg. Arith. Mean: 2849
 Median
 Cumulative Frequency % ——— Grain Density Median: 2848

SAMPLE HANDLING

AGAT LABORATORIES CORE SERVICES

SAMPLE HANDLING AND ANALYSIS INFORMATION

Company: PARAMOUNT RESOURCES LTD.
Well: PARA et al. SWEDE A-52
Location: 60-11N-117-39W
Field:

Coring Equipment: Diamond
Coring Fluid: Water Base Mud
Core Diameter: 0.10 m
Total Cored: 45.80 m
Total Recovered: 45.70 m

Job Number: RC3093/97
Date: Apr. 05, 1991

HANDLING

Core Transported in: Boxes
Cutting Solution: Water
Cleaning solvent: Toluene
Extraction: CO₂-Toluene
Cleaning time: 960 Hours
Drying Equipment: Convectional oven
Drying Time: 48 hours at 108°C

ANALYSIS

Grain volume measured by Boyle's Law using helium
Bulk volume measured by calipering on right-cylindrical samples
Bulk volume measured by archimedes principle using H₂O on non-cylindrical samples
Fluid saturations by retort on end pieces
Permeability measured on 0.10 m full diameter samples
Permeability measured on 38.1 mm diameter drilled plugs
Full diameter core sandblasted before Kh measurements

REMARKS

UV and Color Photographs to follow at a later date.

ABBREVIATIONS

COMMON ABBREVIATIONS

abnt	Abundant	c	Coarse (ly)	f	Fine (ly)
abv	Above	calc	Calcite (areous)	fau	Fauna
Alg	Algae (al)	carb	Carbonaceous	Fe	Iron-Ferruginous
alt	Altered (ing)	cbl	Cobble (64-256 mm)	Fe-mag	Feromagnesian
amor	Amorphous	Ceph	Cephalopod	fenst	Fenestral
Amph	Amphipora	cgl	Conglomerate	fis	Fissile
ang	Angular	chk	Chalk (y)	fl	Fill (ed)
anhy	Anhydrite (ic)	chlor	Chlorite	fld	Feldspar (thic)
app	Appear	cht	Chert	flk	Flake
apr	Apparent	chty	Cherty	flky	Flaky
aprox	Approximate (ly)	cl	Clastic	flor	Fluorescence
arg	Argillaceous	cln	Clean	flt	Fault (ed)
ark	Arkose (ic)	clr	Clear	fltg	Floating
asph	Asphalt (ic)	clt	Clay (ey)	foram	Foraminifera
apha	Aphanitic	cmt	Cement (ed)	fos	Fossil (iferous)
		col	Color (ed)	fr	Fair
bcm	Become (ing)	com	Common	frac	Fracture (ed)
bd	Bed	coq	Coquina	frag	Fragment (al)
bdd	Bedded	Cor	Coral	fri	Friable
bdg	Bedding	crbnt	Carbonate	frmwk	Framework
Belm	Belemnites	Crin	Crinoid (al)	fros	Frosted
bent	Bentonite (ic)	crm	Cream		
bf	Buff	crpxl	Cryptocrystalline	g	Good
biocl	Bioclastic	ctc	Contact	Gast	Gastropod
bioturb	Bioturbated			gl	Glass (y)
bit	Bitumen (inous)	deb	Debris	glau	Glauconite (ic)
bl	Blue (ish)	decr	Decrease (ing)	gn	Green
blk	Black	desi	Desiccation	gr	Grain (ed)
blky	Blocky	dism	Disseminated	gran	Granular
bnd	Band (ed)	dk	Dark (er)	grd	Grade (ed)
Brac	Brachiopod	dns	Dense (er)	grnl	Granule (2-4 mm)
brec	Breccia (ted)	dol	Dolomite (ic)	gy	Grey
bri	Bright	drsy	Druse (y)	gyp	Gypsum (iferous)
brit	Brittle	dtrl	Detrital (us)		
brn	Brown			hd	Hard
Bry	Bryozoa	elg	Elongate	hfrac	Horizontal Fracture
bulb	Bulbous	euhed	Euhedral		
bur	Burrowed				

COMMON ABBREVIATIONS (CONTINUED)

hd	Hard	m	Medium	pk	Pink
hfrac	Horizontal Fracture	mar	Maroon	plag	Plagioclase
hi	High	mas	Massive	plcy	Pelecypod
hrtl	Horizontal	mat	Material, matter	pl	Plant
hvy	Heavy	mica	Mica (ceous)	plty	Platy
hydc	Hydrocarbon	mic	Micro	por	Porous (sity)
		mky	Milky	pos	Possible (ility)
ig	Igneous	mnr	Minor	p-p	Pin-Point
imbed	Imbedded	mnrl	Mineral (ized)	pred	Predominant (ly)
imp	Impression	mnut	Minute	prim	Primary
incl	Included (sion)	Mol	Mollusca	prob	Probable (ly)
incr	Increase	mot	Mottled	prom	Prominent (ly)
indst	Indistinct	mrly	Marly	pt	Part (ly)
intbd	Interbedded	mtx	Matrix	ptch	Patch (es)
intcl	Intraclast (s)			ptg	Parting
intfrag	Interfragmental	n	No, none, non	purp	Purple
intgran	Intergranular	nod	Nodule	pyr	Pyrite (ic) (ized)
intlam	Interlaminated	num	Numerous	pyrbit	Pyrobitumen
intr	Intrusion (ive)				
intv	Interval	o	Oil	qtz	Quartz
intxl	Intercrystalline	occ	Occasional	qtzc	Quartzitic
ireg	Irregular	od	Odor	qtzs	Quartzose
ird	Iridescent	ool	Oolite (ic)		
intrsk	Intraskeletal	op	Opaque	rd	Round (ed)
		org	Organic	repl	Replaced (ing) (ment)
kao	Kaolin	orng	Orange	rex1	Recrystallized
		orth	Orthoclase	rmn	Remains (nant)
lam	Laminated	Ost	Ostracod	rr	Rare
lchd	Leached	ovgth	overgrowth	rsns	Resinous
len	Lentil (cular)	ox	Oxidized	rthy	Earthy
lith	Lithographic				
lmy	Limy	p	Preliminary (as suffix)	s	Small
lrg	Large (er)	pbl	Pebble (4-64 mm)	sa	Salt (y)
ls	Limestone	pel	Pellet	S	Sulphur
lse	Loose	perm	permeability	s&p	Salt & Pepper
lstr	Lustre	pet	Petroleum (iferous)	sat	Saturated
lt	Light (er)	phos	Phosphate (ic)	sb	Sub

COMMON ABBREVIATIONS (CONTINUED)

sc	Scales	thru	Throughout	*	Broken core
scat	Scattered	tr	Trace	>10000	Permeability over
sd	Sand (1/16 - 2mm)	trnsl	Translucent		10000 mD
sdv	Sandy	trnsp	Transparent	<0.01	Permeability less
sec	Secondary	tt	Tight		than 0.01 mD
sed	Sediment (ary)	tub	Tubular	CC	Cracked Core
sft	Soft			DR	Drilled
sh	Shale	uncons	Unconsolidated	LC	Lost Core
shad	Shadow	unident	Unidentifiable	RU	Rubble
shy	Shaly	up	Upper	mD	milliDarcy
sid	Siderite (ic)				
sil	Silica	v	Very		
sks	Slickensided	var	Variable		
sl	Slight (ly)	vccl	Varicolored		
sln	Solution	vfrac	Vertical Fracture		
slt	Silt	vgt	Varigated		
sltst	Siltstone	vn	Vein		
slty	Silty	vrtl	Vertical		
sm	Smooth	vug	Vug (gy) (ular)		
SP	Small Plug (as prefix)				
sp	Spot (ted) (ty)	/	With		
spec	Speck (led)	w	Well		
spl	Sample	wh	White		
srt	Sort (ed) (ing)	wk	Weak		
strg	Stringer	wthrd	Weathered		
Strom	Stromatoporoid	wtr	Water		
stromlt	Stromatolite	wvy	Wavy		
struc	Structure	wxy	Waxy		
styl	Stylolite (ic)	wsrt	Well sorted		
suc	Sucrosic				
sug	Sugary	xbd	Cross-bedded		
sup	Supported	xbdg	Cross-bedding		
surf	Surface	xl	Crystal (line)		
sz	Size	xlam	Cross-laminated		
tab	Tabular	yel	Yellow		
tex	Texture				
Tham	Thamnopora	zn	Zone		
thk	Thick				
thn	Thin				

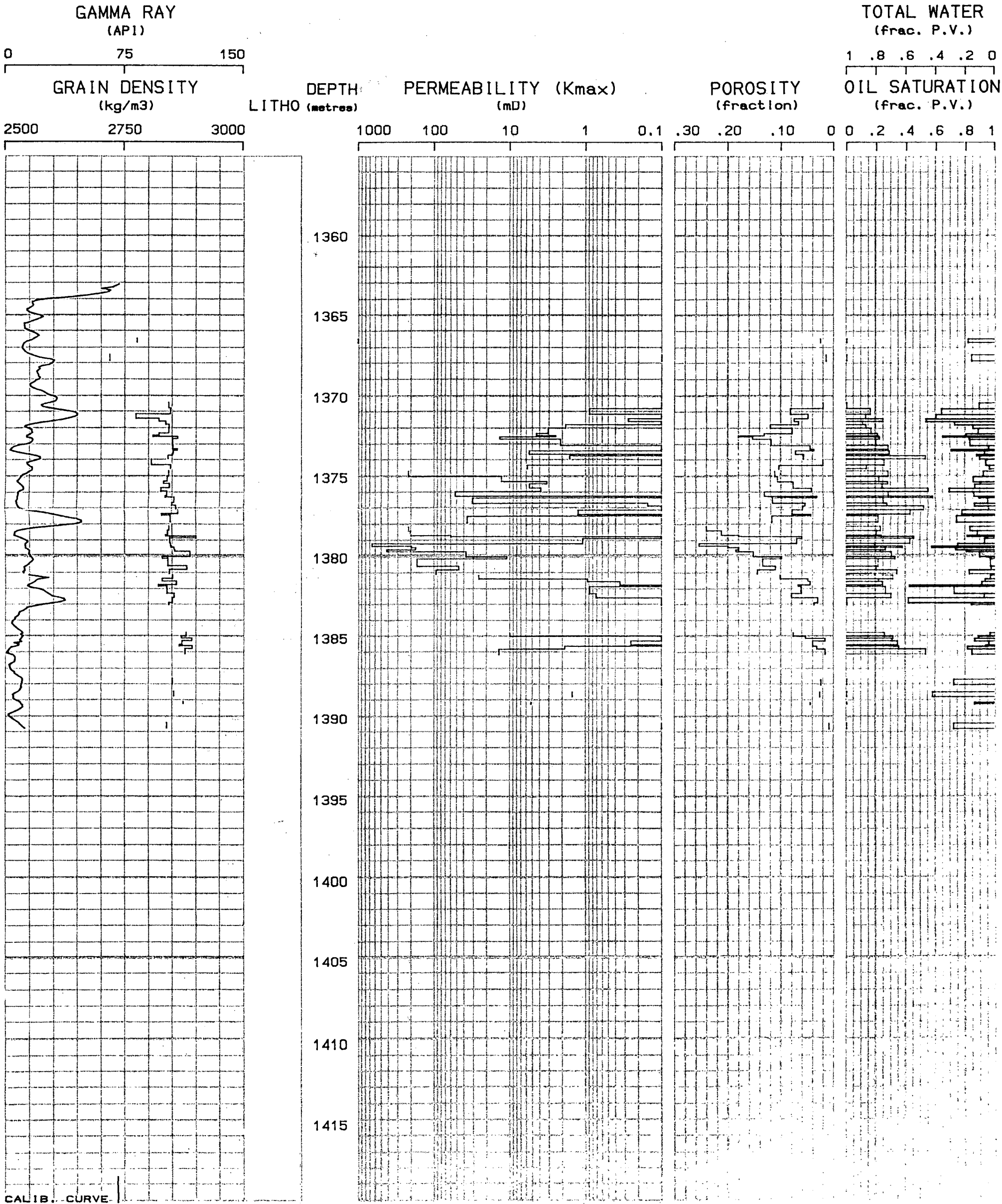
CORE LOG

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FIELD:
FORMATION(S): SULPHUR POINT
W/O: RC3093
CORE 1 & 2



RECOVERY: 27.50m
CORED INTERVAL: 1363.00 - 1390.60
DRLG. FLD.: WATER BASE MUD
ELEVATION: KB:
GRD:

CORELOG



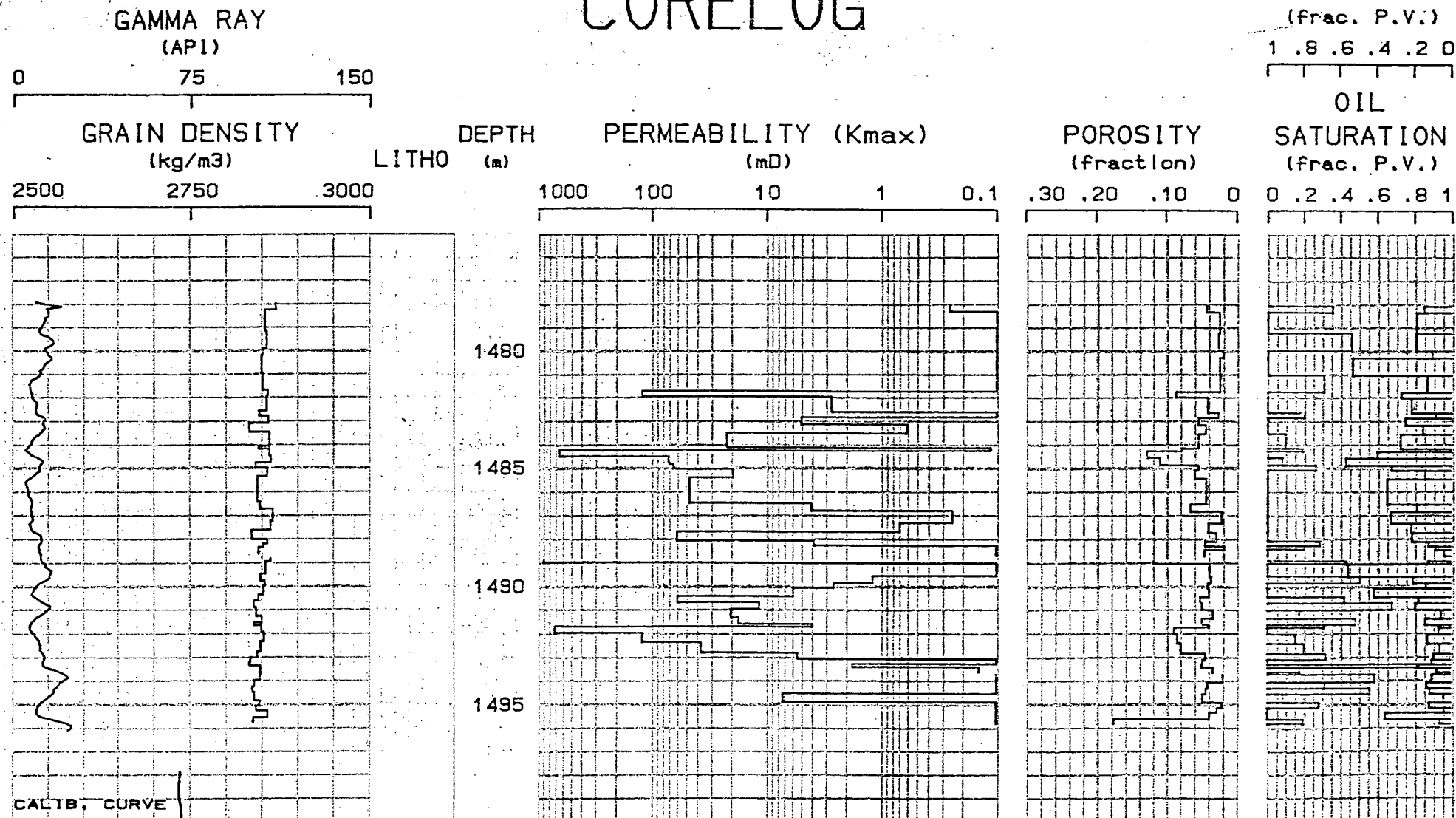
COMPANY: PARAMOUNT RESOURCES LTD.
 WELL: PARA et al SWEPE A-52
 LOCATION: 60-11N-117-39W
 FIELD:
 FORMATION(S): KEG RIVER
 W/O: RC3097

CORE 3.



RECOVERY: 18.20m
 CORED INTERVAL: 1478.00 - 1496.20m
 DRLG. FLD.: WATER BASE MUD
 ELEVATION: KB:
 GRD:

CORELOG



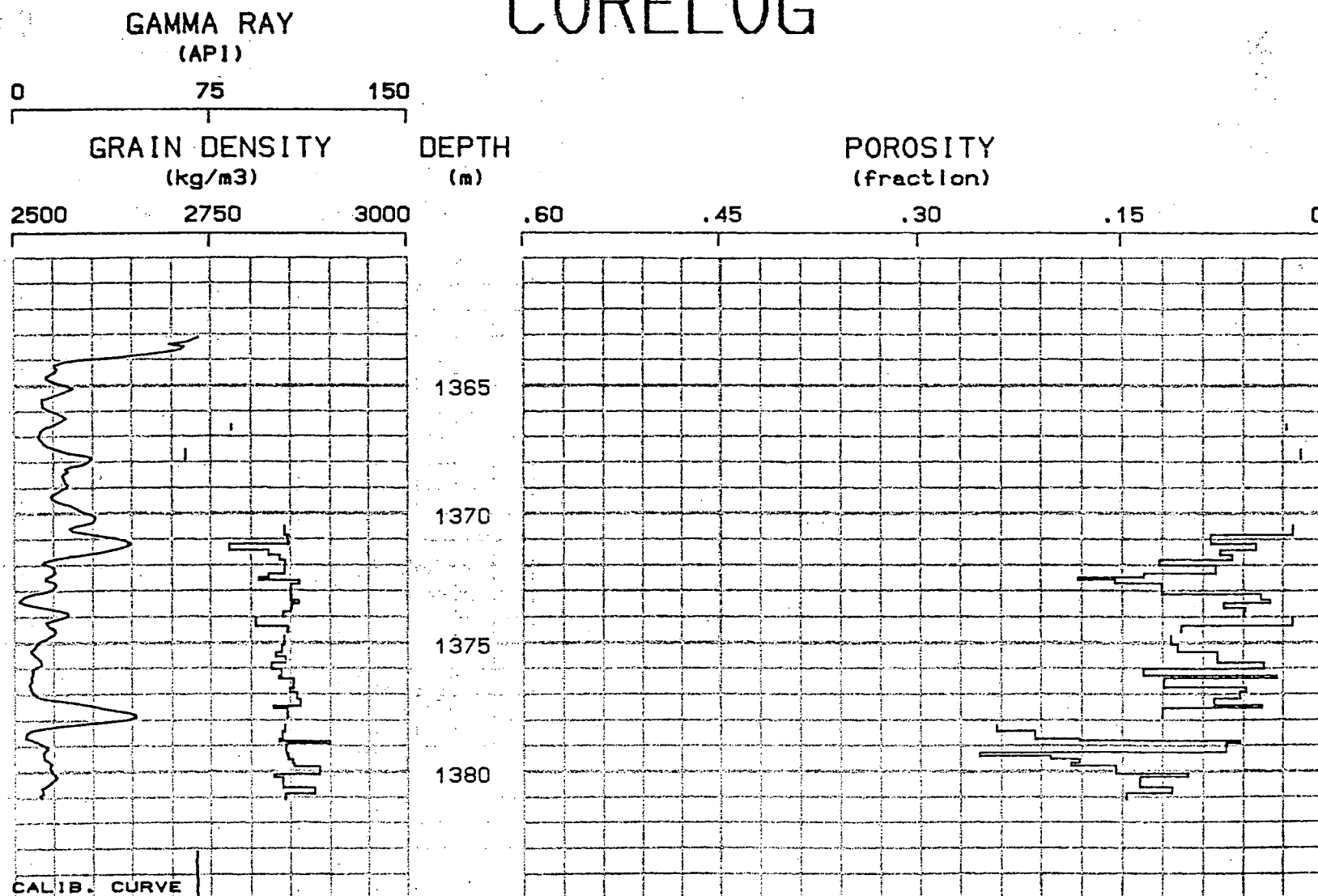
COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FIELD:
FORMATION(S): SULPHUR POINT
W/O: RC3093A

CORE 1



RECOVERY: 17.90M
CORED INTERVAL: 1363.00 - 1381.00m
DRLG. FLD.: WATER BASE MUD
ELEVATION: KB:
GRD:

CORELOG



COMPANY: PARAMOUNT RESOURCES LTD.

WELL: PARA et al SWEDE A-52

LOCATION: 60-11N-117-39W

FIELD:

FORMATION(S): SULPHUR POINT

W/O: RC3093B

CORE 2



RECOVERY: 9.60m

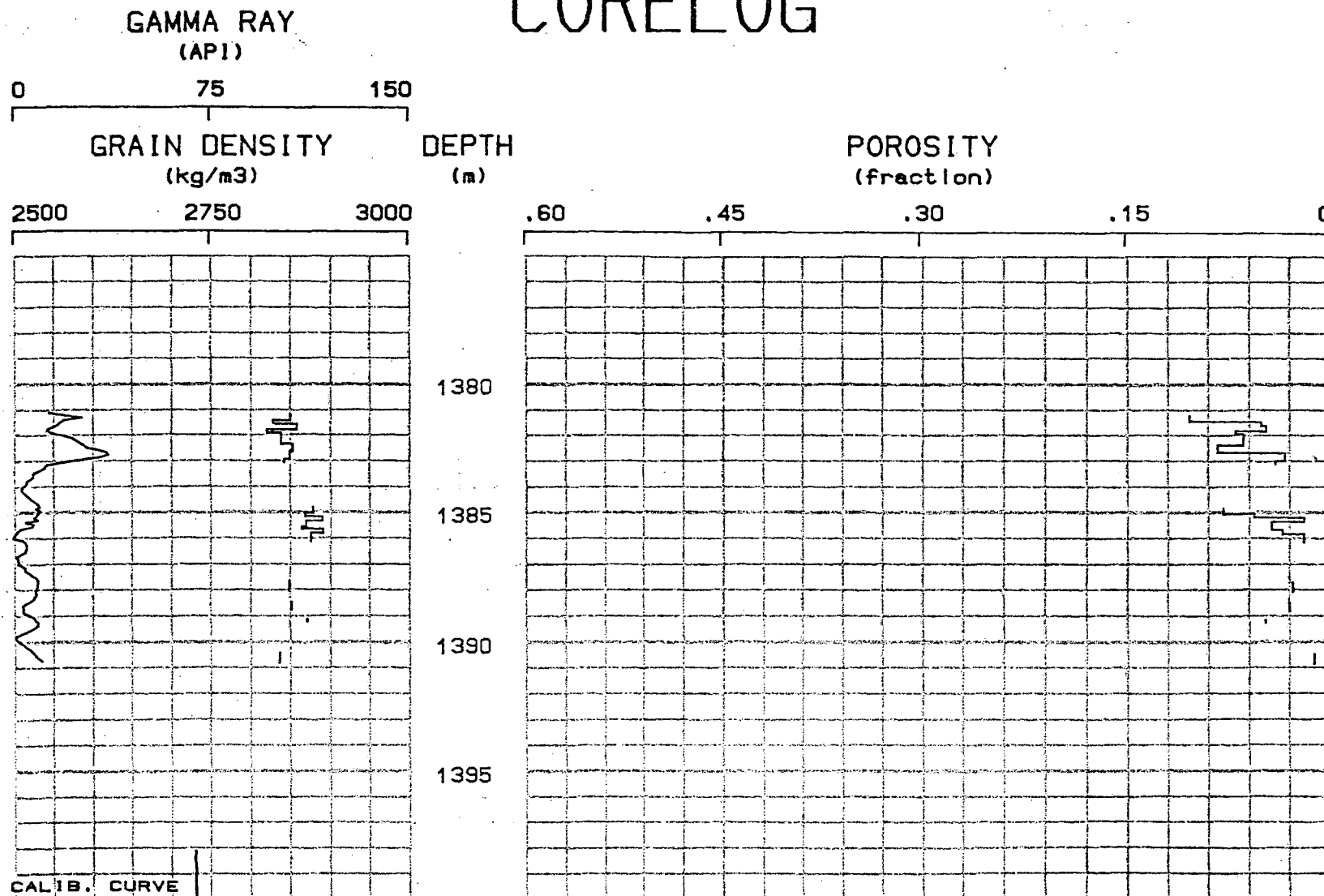
CORED INTERVAL: 1381.00 - 1390.60m

DRLG. FLD.: WATER BASE MUD

ELEVATION: KB:

GRD:

CORELOG

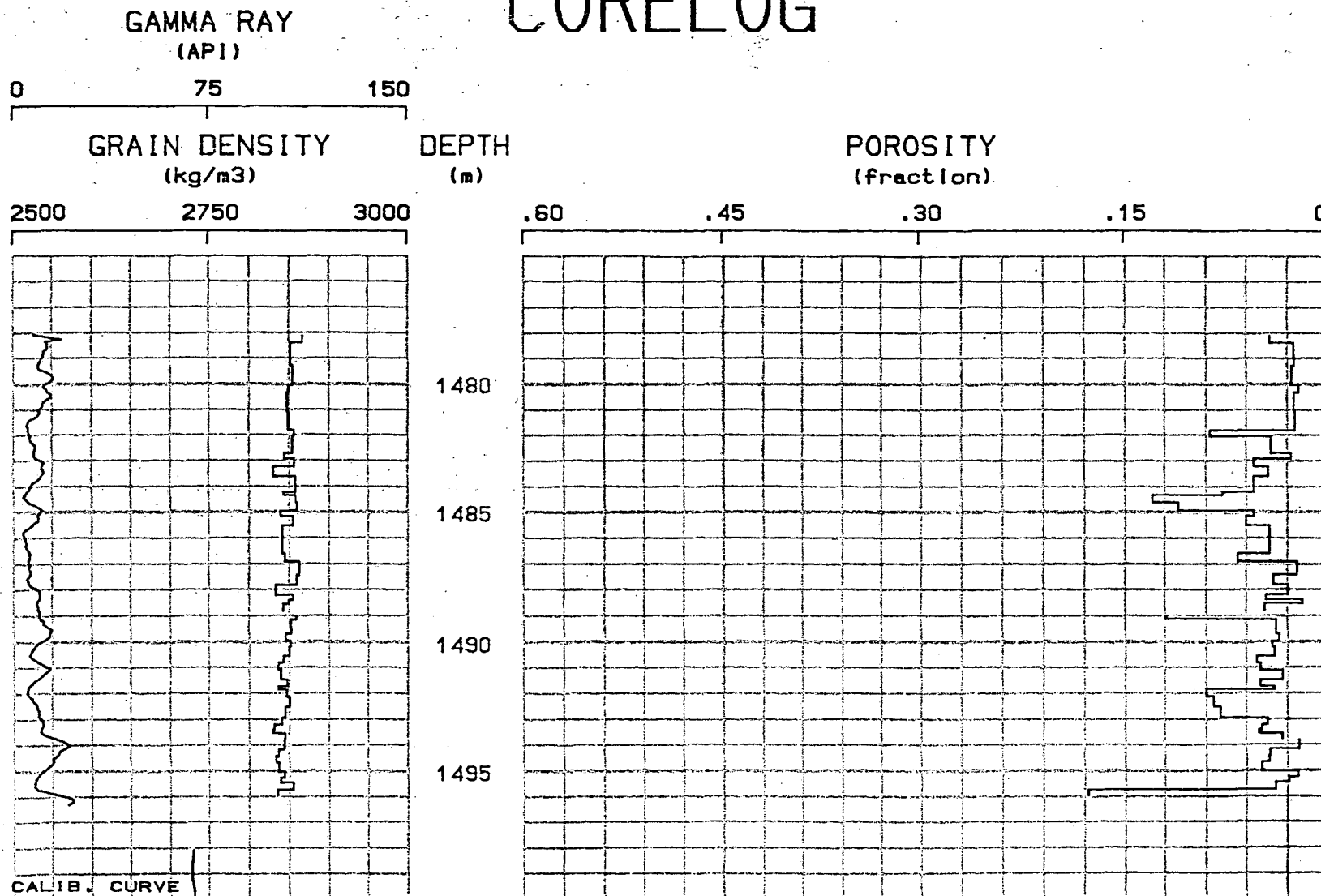


COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FIELD:
FORMATION(S): KEG RIVER
W/O: RC3097
CORE 3



RECOVERY: 18.20m
CORED INTERVAL: 1478.00 - 1496.20m
DRLG. FLD.: WATER BASE MUD
ELEVATION: KB:
GRD:

CORELOG



AGAT Laboratories
Core Services Division

CALGARY COPY

CORE ANALYSIS REPORT

PARA et al SWEDE A-52
60-11N-117-39W

9211-P33-6-2

Prepared for:

PARAMOUNT RESOURCES LIMITED

RC3093/97
Apr 1991

CANADA OIL AND GAS LANDS
ADMINISTRATION
ADMINISTRATION DU PÉTROLE ET DU
GAZ DES TERRES DU CANADA

APR 22 1991

ENGINEERING AND CONTROL
BRANCH
TECHNIQUE ET DU CONTRÔLE

3801-21st Street NE
Calgary, Alberta
T2E 6T5
Tel. 299-2000

4954-89th Street
Edmonton, Alberta
T6E 5K1
Tel. 465-0265

9625-115th Street
Grande Prairie
T0J 0J0
Tel. 362-5422

AGAT LABORATORIES CORE SERVICES

TABLE OF CONTENTS

	<u>PAGE</u>
Final Core Analysis Data	1
Quality Control Report	8
Calculated Data Report	15
Grouping by Porosity Ranges	22
Grouping by Permeability Ranges	24
Statistical Data for Porosity and Permeability Histogram - Porosity Cut Off	26
Statistical Data for Porosity and Permeability Histogram - Permeability Cut Off	28
Summary of Core Data Report	30
Porosity - Permeability Correlation	Figure 1 & 2
Porosity - Permeability Frequency Distribution	Figure 3 & 4
Grain Density Frequency Distribution	Figure 5 & 6

General Information

Sample Handling and Analysis Information

Abbreviations

Core Logs

CORE ANALYSIS DATA

PARA et al SWEDE A-52
60-11N-117-39W

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: SULPHUR POINT
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 1
W/O No: RC3093
Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	

CORE NO. 1 1363.00 - 1381.00 (RECEIVED/CUT = 17.90/18.00m TOTAL BOXES = 16)													
NA	1363.00	1366.34	3.34	-	-	-	-	-	-	-	-	-	ls;arg;prt RU
SP001P	1366.34	1366.55	.21	-	>10000.	*	-	.025	2710	2780	trc	.171	ls;vfxln;frac;calc
NA	1366.55	1367.32	.77	-	-	-	-	-	-	-	-	-	ls;arg
001	1367.32	1367.70	.38	.10	<.01	<.01	<.01	.014	2680	2720	trc	.148	ls;vfxln;sl arg
NA	1367.70	1370.30	2.60	-	-	-	-	-	-	-	-	-	ls;arg
SP002	1370.30	1370.66	.36	-	.03	-	-	.020	2790	2850	trc	.098	dol;vfxln
003	1370.66	1371.03	.37	.12	.88	.25	.12	.082	2620	2850	.159	.349	dol;vfxln;arg clasts
004	1371.03	1371.28	.25	.12	.01	<.01	<.01	.048	2640	2780	.127	.387	dol;vfxln;arg clasts
SP002P	1371.28	1371.45	.17	-	.27	-	-	.075	2610	2830	.244	.455	dol;vfxln;arg clasts
005	1371.45	1371.65	.20	.07	.08	.08	<.01	.066	2650	2840	.107	.261	dol;vf-fxln;arg
SP006	1371.65	1371.86	.21	-	1.81	-	-	.120	2510	2850	.129	.138	dol;vfxln;arg
007	1371.86	1372.19	.33	.12	3.09	.93	.09	.078	2620	2850	.163	.103	dol;vf-fxln;vugs;hfrac
SP008	1372.19	1372.33	.14	-	4.37	-	-	.131	2460	2830	.205	.184	dol;vf-fxln;vugs
SP003P	1372.33	1372.42	.09	-	2.45	-	-	.180	2310	2810	.213	.340	dol;vf-fxln;p-p vugs
009	1372.42	1372.56	.14	.08	13.4	7.18	2.50	.153	2430	2860	.220	.164	dol;vf-fxln;vugs
010	1372.56	1372.96	.40	.15	2.13	1.33	.58	.118	2520	2850	.196	.159	dol;vf-fxln;arg ptg
011	1372.96	1373.20	.24	.13	.08	.07	.01	.044	2730	2850	.279	.035	dol;vf-fxln;p-p vugs
SP012	1373.20	1373.30	.10	-	.02	-	-	.037	2760	2860	trc	.285	dol;vfxln
013	1373.30	1373.51	.21	.11	5.45	4.61	.64	.072	2650	2860	.287	.062	dol;vf-fxln;vugs
SP004P	1373.51	1373.61	.10	-	.09	-	-	.056	2690	2850	.235	.113	dol;vfxln;p-p vugs
014	1373.61	1373.80	.19	.11	1.59	1.48	.55	.057	2680	2840	.532	.093	dol;vf-fxln;vugs
NA	1373.80	1373.86	.06	-	-	-	-	-	-	-	-	-	dol;arg

* - Affected by fracture or crack as mentioned in remarks

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: SULPHUR POINT
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 2
W/O No: RC3093
Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
015	1373.86	1374.18	.32	.09	<.01	<.01	<.01	.020	2750	2810	.253	.055	dol;vf-fxln;scat p-p vugs
016	1374.18	1374.41	.23	.13	5.80	4.98	.22	.103	2560	2850	.133	.029	dol;vf-fxln;vugs;h arg prt
NA	1374.41	1374.55	.14	-	-	-	-	-	-	-	-	-	dol;arg
017	1374.55	1374.88	.33	.12	214. *	18.3	149. *	.111	2530	2850	.278	.069	dol;vf-fxln;vugs;vfrac
018	1374.88	1375.19	.31	.13	12.8	9.65	3.28	.106	2540	2840	.215	.136	dol;vf-fxln;vugs;fracs
SP005P	1375.19	1375.34	.15	-	3.22	-	-	.077	2620	2830	.277	.089	dol vf-fxln;vugs
019	1375.34	1375.60	.26	.14	5.45	2.51	1.17	.077	2630	2850	.236	.126	dol;vfxln;vugs
020	1375.60	1375.83	.23	.08	3.85	2.02	1.50	.042	2710	2830	.549	.299	dol;vf-fxln;fracs;arg
021	1375.83	1376.10	.27	.09	52.3	41.0	3.78	.131	2470	2840	.279	.133	dol; vf-fxln;vugs
SP022	1376.10	1376.20	.10	-	<.01	-	-	.032	2750	2840	.578	.101	dol;vfxln;p-p vugs
023	1376.20	1376.55	.35	.11	30.6	29.2	4.40	.116	2530	2860	.240	.043	dol;fxln;scat p-p vugs
SP024	1376.55	1376.71	.16	-	.15	-	-	.055	2700	2850	.265	.134	dol;vf-fxln;p-p vugs
025	1376.71	1376.97	.26	.12	.09	.09	<.01	.060	2690	2860	.514	.042	dol;vf-fxln;arg lam
026	1376.97	1377.24	.27	.11	1.24	1.02	.70	.079	2640	2870	.423	.214	dol;vf-fxln;vugs
SP006P	1377.24	1377.33	.09	-	<.01	-	-	.043	2710	2830	trc	.137	dol;vfxln
027	1377.33	1377.71	.38	.11	36.0	28.5	4.54	.117	2520	2850	.208	.249	dol;vf-fxln;arg;fracs
NA	1377.71	1377.98	.27	-	-	-	-	-	-	-	-	-	dol;arg
028	1377.98	1378.24	.26	.10	215.	210.	36.5	.240	2160	2850	.225	.159	dol;vf-fxln;vugs
029	1378.24	1378.54	.30	.11	203.	168.	34.7	.212	2240	2840	.198	.110	dol;vf-fxln;vugs
SP007P	1378.54	1378.61	.07	-	60.1	-	-	.179	2330	2840	.232	.177	dol;vf-fxln;vugs
SP030	1378.61	1378.72	.11	-	.05	-	-	.060	2730	2900	.453	.045	dol;vfxln;p-p vugs;anh
031	1378.72	1379.06	.34	.14	1.08	.92	.15	.070	2650	2830	.426	.062	dol;vf-fxln;vugs
SP032	1379.06	1379.22	.16	-	653.	-	-	.253	2130	2850	.188	.239	dol;vf-fxln;vugs
SP008P	1379.22	1379.33	.11	-	197.	-	-	.200	2280	2850	.375	.415	dol;vf-fxln;vugs
033	1379.33	1379.47	.14	.10	175.	150.	54.6	.179	2350	2860	.260	.254	dol;vf-fxln;vugs

* - Affected by fracture or crack as mentioned in remarks

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: SULPHUR POINT
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 3
W/O No: RC3093
Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
SP034	1379.47	1379.59	.12	-	421.	-	-	.185	2330	2860	.227	.181	dol;vf-fxln;vugs
SP035	1379.59	1379.91	.32	-	37.7	-	-	.152	2450	2890	.301	.095	dol;vf-fxln;vugs;anh
SP036	1379.91	1380.02	.11	-	10.9	-	-	.098	2550	2830	.325	.026	dol;vfxln;p-p vugs
037	1380.02	1380.44	.42	.09	166.	114.	11.1	.134	2460	2840	.210	.023	dol;vf-fxln;vugs;arg ptg
038	1380.44	1380.67	.23	.10	47.1	46.7	28.1	.110	2570	2880	.198	.018	dol;vf-fxln;vugs;anh
SP009P	1380.67	1380.90	.23	-	94.2	-	-	.144	2440	2850	.339	.164	dol;vf-fxln;vugs
CORE NO. 2 1381.00 - 1390.60 (RECEIVED/CUT = 9.60/ 9.60m TOTAL BOXES = 9)													
039	1381.00	1381.22	.22	.11	25.5	18.0	4.22	.101	2570	2850	.310	.025	dol;fxln;vugs
040	1381.22	1381.38	.16	.07	.94	.86	1.12	.048	2700	2830	.213	.060	dol;vf-fxln;vugs;vfracs
041	1381.38	1381.60	.22	.11	.35	.18	.07	.044	2740	2860	.240	.081	dol;vf-fxln;scat vugs
SP010P	1381.60	1381.71	.11	-	<.01	-	-	.067	2630	2820	.102	.563	dol;vfxln
042	1381.71	1382.15	.44	.13	.88	.78	<.01	.061	2670	2840	.260	.263	dol;vf-fxln;arg lam
043	1382.15	1382.42	.27	.12	.72	.57	.01	.080	2630	2860	.299	.065	dol;vf-fxln;anh
044	1382.42	1382.74	.32	.12	.04	.03	<.01	.030	2770	2850	trc	.572	dol;vfxln;arg
SP011P	1382.74	1382.85	.11	-	.01	-	-	.037	2740	2850	trc	.150	dol;vfxln;arg
NA	1382.85	1383.36	.51	-	-	-	-	-	-	-	-	-	dol;;arg;pyr
NA	1383.36	1384.61	1.25	-	-	-	-	-	-	-	-	-	anh
045	1384.61	1384.83	.22	.11	9.87	.23	1.07	.076	2660	2880	.254	.027	dol;vf-fxln;vfracs;anh
SP012P	1384.83	1384.97	.14	-	.10	-	-	.053	2720	2870	.310	.104	dol;vfxln
SP046	1384.97	1385.14	.17	-	.02	-	-	.016	2850	2890	.304	.129	dol;vfxln;anh
047	1385.14	1385.37	.23	.11	.25	.19	<.01	.040	2760	2870	.340	.034	dol;vfxln;arg
SP048	1385.37	1385.45	.08	-	.06	-	-	.040	2750	2870	.316	.055	dol;vfxln;p-p vugs
049	1385.45	1385.62	.17	.08	1.85	.34	2.54	.032	2800	2900	.350	.177	dol;vf-fxln;vfrac

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: SULPHUR POINT
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 4
W/O No: RC3093
Date: 04-05-90

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
050	1385.62	1385.92	.30	.10	13.7	<.01	9.71	.016	2840	2880	.532	.147	dol;vfxln;vfrac;anh
NA	1385.92	1387.49	1.57	-	-	-	-	-	-	-	-	-	anh
051	1387.49	1387.85	.36	.09	<.01	<.01	<.01	.024	2780	2850	trc	.267	dol;vfxln;arg
NA	1387.85	1388.29	.44	-	-	-	-	-	-	-	-	-	anh
052	1388.29	1388.58	.29	.12	1.47	1.22	.02	.026	2780	2860	trc	.408	dol;vfxln;hfrac;anh
NA	1388.58	1388.93	.33	-	-	-	-	-	-	-	-	-	anh
SP053	1388.93	1389.02	.09	-	5.17	-	-	.044	2750	2880	trc	.128	dol;vfxln;frac;anh
NA	1389.02	1390.24	1.22	-	-	-	-	-	-	-	-	-	anh
054	1390.24	1390.60	.36	.07	<.01	<.01	<.01	.008	2820	2840	trc	.267	dol;vf-fxln

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: KEG RIVER
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 5
W/O No: RC3097
Date: 04-05-91

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	

CORE NO. 3 1478.00 - 1496.20 (RECEIVED/CUT = 18.20/18.20m TOTAL BOXES = 17)													
001	1478.00	1478.28	.28	.10	.26	.23	1.73	.041	2750	2870	.360	.141	dol;vf-fxln;vugs;vfrac
SP001P	1478.28	1479.16	.88	-	<.01	-	-	.023	2790	2850	trc	.181	dol;vfxln;vugs
002	1479.16	1479.90	.74	.13	.01	<.01	<.01	.025	2780	2860	.465	.182	dol;vf-fxln;vugs
SP002P	1479.90	1480.20	.30	-	<.01	-	-	.019	2800	2850	trc	.097	dol;vfxln;vugs
003	1480.20	1480.95	.75	.13	<.01	<.01	<.01	.023	2790	2850	trc	.524	dol;vf-fxln
004	1480.95	1481.66	.71	.13	.03	<.01	<.01	.022	2790	2850	.315	.123	dol;vf-fxln
005	1481.66	1481.89	.23	.07	120.	30.3	4.18	.085	2620	2860	trc	.263	dol;vfxln;vugs;arg ptg
006	1481.89	1482.55	.66	.10	2.67	.48	3.39	.040	2740	2860	trc	.207	dol;vf-fxln;vfracs
SP003P	1482.55	1482.76	.21	-	.02	-	-	.025	2780	2850	.205	.080	dol;vf-fxln;vugs
007	1482.76	1483.07	.31	.14	4.90	3.53	.39	.052	2710	2860	trc	.243	dol;vf-fxln;vugs
008	1483.07	1483.47	.40	.12	.60	.33	.08	.042	2720	2830	trc	.150	dol;vf-fxln;vugs;styl
009	1483.47	1484.08	.61	.11	21.7	2.51	.02	.052	2710	2860	.098	.268	dol;vf-fxln;vugs
SP004P	1484.08	1484.20	.12	-	.11	-	-	.076	2630	2850	.195	.076	dol;vf-fxln;vugs
010	1484.20	1484.50	.30	.15	645.	118.	41.7	.127	2500	2860	trc	.392	dol;vf-fxln;vugs;arg
011	1484.50	1484.80	.30	.10	72.1	26.4	.17	.108	2550	2860	.084	.560	dol;vf-fxln;vugs;arg
012	1484.80	1485.03	.23	.13	64.7	13.2	.12	.052	2690	2840	.268	.315	dol;vf-fxln;vugs;hfracs;sty
013	1485.03	1485.39	.36	.13	19.4	.11	<.01	.058	2690	2860	trc	.132	dol;vf-fxln;vugs
014	1485.39	1486.46	1.07	.13	46.7	13.6	<.01	.041	2730	2840	trc	.339	dol;vfxln;vugs;fracs
015	1486.46	1486.76	.30	.10	4.03	2.59	.20	.064	2670	2850	trc	.176	dol;vf-fxln;vugs
016	1486.76	1487.28	.52	.13	.24	.09	<.01	.020	2810	2870	trc	.318	dol;vf-fxln;vugs
017	1487.28	1487.66	.38	.09	.68	.10	.04	.038	2750	2860	trc	.209	dol;vf-fxln;vugs;styl
018	1487.66	1488.05	.39	.11	60.0	1.32	7.00	.027	2760	2840	trc	.205	dol;vf-fxln;vugs

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FORMATION: KEG RIVER
DRILLING FLUID: WATER BASE MUD

AGAT LABORATORIES

Page: 6
W/O No: RC3097
Date: 04-05-91

FINAL CORE ANALYSIS DATA

Sample	Interval (m)		Rep Thick (m)	Sample Length (m)	-----Gas Permeability-----			Porosity	Density (kg/m3)		Residual Saturation		Remarks
	Top	Base			Kmax (mD)	K90 (mD)	Vertical (mD)		Bulk	Grain	Oil	Water	
019	1488.05	1488.23	.18	.11	3.83	.02	<.01	.043	2730	2860	.290	.113	dol;vf-fxln;vugs;arg
SP005P	1488.23	1488.38	.15	-	<.01	-	-	.016	2810	2850	.204	.080	dol;vfxln
020	1488.38	1488.64	.26	.12	<.01	<.01	<.01	.044	2720	2850	trc	.032	dol;vf-fxln;vugs
NA	1488.64	1488.86	.22	-	-	-	-	-	-	-	-	-	dol;arg
021	1488.86	1488.98	.12	.09	890.	188.	.32	.117	2530	2860	.435	.118	dol;vf-fxln;vugs
022	1488.98	1489.51	.53	.12	.01	<.01	<.01	.036	2750	2860	trc	.547	dol;vfxln;arg
023	1489.51	1489.79	.28	.14	1.16	1.08	.10	.034	2750	2850	.511	.200	dol;vf-fxln;vugs;styl
024	1489.79	1490.00	.21	.12	2.52	.05	<.01	.039	2740	2850	trc	.131	dol;vf-fxln;vugs
025	1490.00	1490.38	.38	.14	5.82	3.48	<.01	.037	2750	2850	trc	.408	dol;vf-fxln;vugs
026	1490.38	1490.64	.26	.12	59.5	12.3	.29	.050	2700	2850	.426	.166	dol;vf-fxln;vugs;hfracs
027	1490.64	1490.92	.28	.12	11.4	10.9	<.01	.047	2710	2840	.683	.186	dol;vf-fxln;vugs;arg ptg
SP006P	1490.92	1491.29	.37	-	20.1	-	-	.031	2750	2840	.177	.048	dol;vf-fxln;vugs;frac
028	1491.29	1491.54	.25	.14	17.2	1.14	.01	.047	2720	2850	.485	.132	dol;vf-fxln;vugs;anh
SP007P	1491.54	1491.66	.12	-	3.90	-	-	.037	2730	2840	.315	.065	dol;vf-fxln;vugs;frac
029	1491.66	1491.95	.29	.13	713.	477.	.65	.087	2600	2850	trc	.061	dol;vf-fxln;vugs;styl
030	1491.95	1492.34	.39	.09	121.	114.	.15	.082	2620	2850	.155	.121	dol;vf-fxln;vugs
031	1492.34	1492.76	.42	.13	36.9	6.31	<.01	.077	2630	2850	.200	.054	dol;vf-fxln;vugs
032	1492.76	1493.03	.27	.13	5.33	1.80	.17	.042	2730	2840	.322	.088	dol;vf-fxln;vugs
033	1493.03	1493.24	.21	.10	.02	.02	<.01	.046	2710	2830	trc	.098	dol;vf-fxln;vugs;arg lam
034	1493.24	1493.38	.14	.10	1.72	.02	.01	.048	2700	2830	.827	.173	dol;vf-fxln;vugs
035	1493.38	1493.57	.19	.06	.14	<.01	.98	.031	2760	2850	.181	.071	dol;vf-fxln;vugs;vfrac
NA	1493.57	1493.66	.09	-	-	-	-	-	-	-	-	-	dol;arg
036	1493.66	1493.99	.33	.11	<.01	<.01	<.01	.018	2800	2850	.590	.100	dol;vf-fxln;foss
037	1493.99	1494.26	.27	.13	.04	.03	<.01	.040	2730	2840	.316	.124	dol;vf-fxln;scat vugs
SP008P	1494.26	1494.51	.25	-	.04	-	-	.041	2720	2840	.565	.109	dol;vf-fxln;vugs

AGAT LABORATORIES

FINAL CORE ANALYSIS DATA

[illegible]

CORE ANALYSIS - QUALITY CONTROL REPORT

DATE: 4- 2-1991

WORK ORDER: RC3093
 COMPANY: PARAMOUNT RESOURCES LTD.
 WELL: PARA et al SWEDE A-52
 LOCATION: 60-11N-117-39W

CORE NO.1 1363.00 - 1381.00 REC:17.90

NA	1363.00	1366.34			
SP001P	1366.34	1366.55			
-GRAIN DENSITY (2778) OUT OF LIMIT FOR LITHOLOGY SPECIFIED (ls				[2670-2770]]	Calcite
-KMAX (10200.00) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -		.26)		Fractures Sample
NA	1366.55	1367.32			
001	1367.32	1367.70			
NA	1367.70	1370.30			
SP002	1370.30	1370.66			
003	1370.66	1371.03			
004	1371.03	1371.28			
-KMAX (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	.96)	Result verified
-K90 (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	1.00)	Result verified
SP002P	1371.28	1371.45			
005	1371.45	1371.65			
-KV (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	.93)	Result verified
SP006	1371.65	1371.86			
007	1371.86	1372.19			
SP008	1372.19	1372.33			
SP003P	1372.33	1372.42			
-KMAX (	2.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	44.07 -	1586.45)	Poorly connected vugs
009	1372.42	1372.56			
-K90 (	7.18)	IS OUTSIDE FOUR STANDARD DEVIATION (	11.29 -	406.51)	Poorly connected vugs
-KV (	2.50)	IS OUTSIDE FOUR STANDARD DEVIATION (	3.01 -	108.43)	Poorly connected vugs
010	1372.56	1372.96			
-K90 (	1.33)	IS OUTSIDE FOUR STANDARD DEVIATION (	1.52 -	54.90)	Result verified
011	1372.96	1373.20			
SP012	1373.20	1373.30			
013	1373.30	1373.51			
-KMAX (	5.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	.10 -	3.69)	Result verified
-K90 (	4.61)	IS OUTSIDE FOUR STANDARD DEVIATION (	.11 -	3.95)	Result verified
SP004P	1373.51	1373.61			
014	1373.61	1373.80			
NA	1373.80	1373.86			

015	1373.86	1374.18			
016	1374.18	1374.41			
NA	1374.41	1374.55			
017	1374.55	1374.88			
-KMAX	(214.00)	IS OUTSIDE FOUR STANDARD DEVIATION (	.92 -	32.96)	Vertical fractures
-KV	(149.46)	IS OUTSIDE FOUR STANDARD DEVIATION (	.30 -	10.93)	Vertical fractures
-K90	(18.31)	IS LESS THAN KV (149.46)			Vertical fractures
018	1374.88	1375.19			
SP005P	1375.19	1375.34			
019	1375.34	1375.60			
-KMAX	(5.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	.14 -	4.89)	Result verified
020	1375.60	1375.83			
-KMAX	(3.85)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.68)	Fractured sample
-K90	(2.02)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.71)	Fractured sample
-KV	(1.50)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.25)	Fractured sample
021	1375.83	1376.10			
SP022	1376.10	1376.20			
023	1376.20	1376.55			
SP024	1376.55	1376.71			
025	1376.71	1376.97			
-KV	(.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.67)	Horizontal argillaceous laminae
026	1376.97	1377.24			
SP006P	1377.24	1377.33			
-KMAX	(.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.72)	Result verified
027	1377.33	1377.71			
NA	1377.71	1377.98			
028	1377.98	1378.24			
-KMAX	(214.71)	IS OUTSIDE FOUR STANDARD DEVIATION (	1279.55 -	10000.00)	Poorly connected vugs
-K90	(210.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	1637.37 -	10000.00)	Poorly connected vugs
-KV	(36.52)	IS OUTSIDE FOUR STANDARD DEVIATION (	349.54 -	10000.00)	Poorly connected vugs
029	1378.24	1378.54			
-KMAX	(202.79)	IS OUTSIDE FOUR STANDARD DEVIATION (	265.68 -	9564.41)	Poorly connected vugs
-K90	(167.89)	IS OUTSIDE FOUR STANDARD DEVIATION (	330.01 -	10000.00)	Poorly connected vugs
-KV	(34.70)	IS OUTSIDE FOUR STANDARD DEVIATION (	75.69 -	2724.71)	Poorly connected vugs
SP007P	1378.54	1378.61			
SP030	1378.61	1378.72			
031	1378.72	1379.06			
SP032	1379.06	1379.22			
-KMAX	(652.58)	IS OUTSIDE FOUR STANDARD DEVIATION (	2654.77 -	10000.00)	Poorly connected vugs
SP008P	1379.22	1379.33			
033	1379.33	1379.47			
SP034	1379.47	1379.59			
SP035	1379.59	1379.91			
SP036	1379.91	1380.02			
037	1380.02	1380.44			

-KMAX (166.19) IS OUTSIDE FOUR STANDARD DEVIATION (	3.33 -	119.91)	Result verified
038 1380.44 1380.67			
-KMAX (47.12) IS OUTSIDE FOUR STANDARD DEVIATION (	.87 -	31.17)	Result verified
-K90 (46.70) IS OUTSIDE FOUR STANDARD DEVIATION (	.96 -	34.74)	Result verified
-KV (28.14) IS OUTSIDE FOUR STANDARD DEVIATION (	.29 -	10.34)	Result verified
SP009P 1380.67 1380.90			
CORE NO.2 1381.00 - 1390.60 REC: 9.60			
039 1381.00 1381.22			
-KMAX (25.48) IS OUTSIDE FOUR STANDARD DEVIATION (	.52 -	18.80)	Result verified
040 1381.22 1381.38			
-KV (1.12) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.35)	Vertical fracture
-KMAX (.94) IS LESS THAN KV (1.12)			Vertical fracture
-K90 (.86) IS LESS THAN KV (1.12)			Vertical fracture
041 1381.38 1381.60			
SP010P 1381.60 1381.71			
-KMAX (.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.08 -	2.79)	Result verified
042 1381.71 1382.15			
-KV (.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.71)	Horizontal argillaceous laminae
043 1382.15 1382.42			
-KV (.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.01)	Result verified
044 1382.42 1382.74			
SP011P 1382.74 1382.85			
NA 1382.85 1383.36			
NA 1383.36 1384.61			
045 1384.61 1384.83			
-KMAX (9.87) IS OUTSIDE FOUR STANDARD DEVIATION (	.13 -	4.62)	Vertical fractures
-K90 (.23) IS LESS THAN KV (1.07)			Vertical fractures
SP012P 1384.83 1384.97			
SP046 1384.97 1385.14			
047 1385.14 1385.37			
SP048 1385.37 1385.45			
049 1385.45 1385.62			
-KMAX (1.85) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.39)	Vertical fractures
-KV (2.54) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.15)	Vertical fractures
-KMAX (1.85) IS LESS THAN KV (2.54)			Vertical fractures
-K90 (.34) IS LESS THAN KV (2.54)			Vertical fractures
050 1385.62 1385.92			
-KMAX (13.73) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.16)	Vertical fractures
-KV (9.71) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.06)	Vertical fractures
-K90 (.01) IS LESS THAN KV (9.71)			Vertical fractures
NA 1385.92 1387.49			
051 1387.49 1387.85			
NA 1387.85 1388.29			

052	1388.29	1388.58		
-KMAX	(1.47)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.28) Horizontal fractures
-K90	(1.22)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.28) Horizontal fractures
NA	1388.58	1388.93		
SP053	1388.93	1389.02		
-KMAX	(5.17)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.77) Fracture
NA	1389.02	1390.24		
054	1390.24	1390.60		

CORE ANALYSIS - QUALITY CONTROL REPORT

DATE: 4- 4-1991

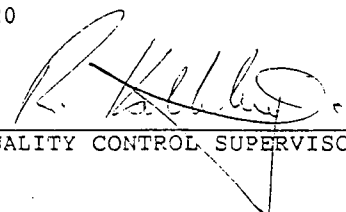
WORK ORDER: RC3097
 COMPANY: PARAMOUNT RESOURCES LTD.
 WELL: PARA et al SWEDE A-52
 LOCATION: 60-11N-117-39W

CORE NO.3 1478.00 - 1496.20 REC:18.20

001	1478.00	1478.28				
-KV	(1.73)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.18)	Vertical fracture	
-KMAX	(.26)	IS LESS THAN KV (1.73)			Vertical fracture	
-K90	(.23)	IS LESS THAN KV (1.73)			Vertical fracture	
SP001P	1478.28	1479.16				
002	1479.16	1479.90				
SP002P	1479.90	1480.20				
003	1480.20	1480.95				
004	1480.95	1481.66				
005	1481.66	1481.89				
006	1481.89	1482.55				
-KMAX	(2.67)	IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.30)	Vertical fracture	
-KV	(3.39)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.17)	Vertical fracture	
-KMAX	(2.67)	IS LESS THAN KV (3.39)			Vertical fracture	
-K90	(.48)	IS LESS THAN KV (3.39)			Vertical fracture	
SP003P	1482.55	1482.76				
007	1482.76	1483.07				
008	1483.07	1483.47				
009	1483.47	1484.08				
-KMAX	(21.74)	IS OUTSIDE FOUR STANDARD DEVIATION (	.26 -	9.32)	Result verified. Vuggy sample	
SP004P	1484.08	1484.20				
-KMAX	(.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	4.25 -	152.86)	Poorly connected vugs	
010	1484.20	1484.50				
-KMAX	(645.36)	IS OUTSIDE FOUR STANDARD DEVIATION (	1619.93 -	10000.00)	Large poorly connected vugs	
-K90	(118.39)	IS OUTSIDE FOUR STANDARD DEVIATION (	1934.81 -	10000.00)	Large poorly connected vugs	
011	1484.50	1484.80				
-KMAX	(72.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	176.91 -	6368.83)	Large poorly connected vugs	
-K90	(26.45)	IS OUTSIDE FOUR STANDARD DEVIATION (	165.57 -	5960.38)	Large poorly connected vugs	
-KV	(.17)	IS OUTSIDE FOUR STANDARD DEVIATION (	1.93 -	69.55)	Large poorly connected vugs	
012	1484.80	1485.03				
-KMAX	(64.74)	IS OUTSIDE FOUR STANDARD DEVIATION (	.26 -	9.32)	Fracture along horizontal stylolites	
-K90	(13.19)	IS OUTSIDE FOUR STANDARD DEVIATION (	.12 -	4.25)	Fracture along horizontal stylolites	
013	1485.03	1485.39				

-KMAX (	19.40)	IS OUTSIDE FOUR STANDARD DEVIATION (	.52 -	18.76)	Result verified: vuggy sample
-K90 (	.11)	IS OUTSIDE FOUR STANDARD DEVIATION (	.26 -	9.24)	Poorly connected vugs
-KV (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.82)	Poorly connected vugs
014	1485.39 1486.46				
-KMAX (	46.70)	IS OUTSIDE FOUR STANDARD DEVIATION (	.07 -	2.59)	Non continuous vertical fracture
-K90 (	13.61)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	1.02)	Horizontal fracture
015	1486.46 1486.76				
016	1486.76 1487.28				
-KMAX (	.24)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.22)	Result verified
-K90 (	.09)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.07)	Result verified
017	1487.28 1487.66				
018	1487.66 1488.05				
-KMAX (	60.03)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.51)	Vertical fracture
-K90 (	1.32)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.17)	Result verified
-KV (	7.00)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.05)	Vertical fracture
-K90 (	1.32)	IS LESS THAN KV (7.00)			
019	1488.05 1488.23				
-KMAX (	3.83)	IS OUTSIDE FOUR STANDARD DEVIATION (	.09 -	3.27)	Result verified
-K90 (	.02)	IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.33)	Result verified
SP005P	1488.23 1488.38				
020	1488.38 1488.64				
-KMAX (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.10 -	3.67)	Poorly connected vugs
-K90 (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.51)	Poorly connected vugs
NA	1488.64 1488.86				
021	1488.86 1488.98				
-K90 (	188.40)	IS OUTSIDE FOUR STANDARD DEVIATION (	530.53 -	10000.00)	Poorly connected vugs
-KV (	.32)	IS OUTSIDE FOUR STANDARD DEVIATION (	4.29 -	154.58)	Poorly connected vugs
022	1488.98 1489.51				
-KMAX (	.01)	IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.44)	Result verified
023	1489.51 1489.79				
-KMAX (	1.16)	IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	1.14)	Result verified
-K90 (	1.08)	IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.41)	Result verified
024	1489.79 1490.00				
-KMAX (	2.52)	IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.05)	Result verified
025	1490.00 1490.38				
-KMAX (	5.82)	IS OUTSIDE FOUR STANDARD DEVIATION (	.05 -	1.62)	Result verified
-K90 (	3.48)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.61)	Result verified
026	1490.38 1490.64				
-KMAX (	59.51)	IS OUTSIDE FOUR STANDARD DEVIATION (	.21 -	7.38)	Horizontal fractures
-K90 (	12.34)	IS OUTSIDE FOUR STANDARD DEVIATION (	.09 -	3.28)	Horizontal fractures
027	1490.64 1490.92				
-KMAX (	11.40)	IS OUTSIDE FOUR STANDARD DEVIATION (	.14 -	5.20)	Result verified
-K90 (	10.87)	IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.23)	Result verified
SP006P	1490.92 1491.29				
-KMAX (	20.06)	IS OUTSIDE FOUR STANDARD DEVIATION (	.02 -	.81)	Vertical fracture

028	1491.29 1491.54				
-KMAX	(17.25) IS OUTSIDE FOUR STANDARD DEVIATION (	.14 -	5.20)	Result verified	
SP007P	1491.54 1491.66				
-KMAX	(3.90) IS OUTSIDE FOUR STANDARD DEVIATION (	.05 -	1.62)	Vertical fracture	
029	1491.66 1491.95				
-KMAX	(713.09) IS OUTSIDE FOUR STANDARD DEVIATION (	15.30 -	550.91)	Result verified	
-K90	(476.61) IS OUTSIDE FOUR STANDARD DEVIATION (	10.94 -	393.75)	Result verified	
030	1491.95 1492.34				
-KV	(.15) IS OUTSIDE FOUR STANDARD DEVIATION (	.19 -	6.92)	Result verified	
031	1492.34 1492.76				
-KV	(.01) IS OUTSIDE FOUR STANDARD DEVIATION (	.12 -	4.44)	Result verified	
032	1492.76 1493.03				
-KMAX	(5.33) IS OUTSIDE FOUR STANDARD DEVIATION (	.08 -	2.91)	Result verified	
-K90	(1.80) IS OUTSIDE FOUR STANDARD DEVIATION (	.03 -	1.17)	Result verified	
033	1493.03 1493.24				
-KMAX	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.13 -	4.63)	Result verified	
-K90	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.05 -	1.96)	Result verified	
034	1493.24 1493.38				
-K90	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.07 -	2.53)	Result verified	
035	1493.38 1493.57				
-KV	(.98) IS OUTSIDE FOUR STANDARD DEVIATION (	.01 -	.07)	Vertical fracture	
-KMAX	(.14) IS LESS THAN KV (.98)			Vertical fracture	
-K90	(.01) IS LESS THAN KV (.98)			Vertical fracture	
NA	1493.57 1493.66				
036	1493.66 1493.99				
037	1493.99 1494.26				
-KMAX	(.04) IS OUTSIDE FOUR STANDARD DEVIATION (	.06 -	2.30)	Poorly connected vugs	
SP008P	1494.26 1494.51				
-KMAX	(.04) IS OUTSIDE FOUR STANDARD DEVIATION (	.07 -	2.59)	Poorly connected vugs	
038	1494.51 1494.85				
-KMAX	(7.13) IS OUTSIDE FOUR STANDARD DEVIATION (	.13 -	4.63)	Result verified	
039	1494.85 1495.10				
040	1495.10 1495.29				
041	1495.29 1495.57				
-KMAX	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (	.04 -	1.44)	Result verified	
SP009P	1495.57 1495.76				
-KMAX	(.02) IS OUTSIDE FOUR STANDARD DEVIATION (10000.00 - 10000.00)			Vuggy sample	
NA	1495.76 1496.20				

APPROVED: 
 QUALITY CONTROL SUPERVISOR

April 5, 1991
 DATE

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 15
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base								
			m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	

	CORE NO. 1 1363.00 - 1381.00 (RECEIVED/CUT = 17.90/18.00m TOTAL BOXES = 16)									
NA	1363.00	1366.34	3.34	-	-	-	-	-	-	-
SP001P	1366.34	1366.55	.21	.21	.005	.005	.025	-	-	-
NA	1366.55	1367.32	.77	-	-	-	-	-	-	-
001	1367.32	1367.70	.38	.59	.005	.011	.018	.002	.002	.003
NA	1367.70	1370.30	2.60	-	-	-	-	-	-	-
SP002	1370.30	1370.66	.36	.95	.007	.018	.019	.011	.013	.013
003	1370.66	1371.03	.37	1.32	.030	.048	.036	.326	.338	.256
004	1371.03	1371.28	.25	1.57	.012	.060	.038	.002	.341	.217
SP002P	1371.28	1371.45	.17	1.74	.013	.073	.042	.046	.387	.222
005	1371.45	1371.65	.20	1.94	.013	.086	.044	.016	.403	.208
SP006	1371.65	1371.86	.21	2.15	.025	.111	.052	.380	.783	.364
007	1371.86	1372.19	.33	2.48	.026	.137	.055	1.019	1.802	.727
SP008	1372.19	1372.33	.14	2.62	.018	.155	.059	.612	2.415	.922
SP003P	1372.33	1372.42	.09	2.71	.016	.172	.063	.220	2.635	.972
009	1372.42	1372.56	.14	2.85	.021	.193	.068	1.873	4.508	1.582
010	1372.56	1372.96	.40	3.25	.047	.240	.074	.852	5.360	1.649
011	1372.96	1373.20	.24	3.49	.011	.251	.072	.019	5.380	1.542
SP012	1373.20	1373.30	.10	3.59	.004	.254	.071	.002	5.382	1.499
013	1373.30	1373.51	.21	3.80	.015	.270	.071	1.144	6.526	1.717
SP004P	1373.51	1373.61	.10	3.90	.006	.275	.071	.009	6.535	1.676
014	1373.61	1373.80	.19	4.09	.011	.286	.070	.302	6.837	1.672
NA	1373.80	1373.86	.06	-	-	-	-	-	-	-

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 16
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
015	1373.86	1374.18	.32	4.41	.006	.292	.066	.002	6.839	1.551
016	1374.18	1374.41	.23	4.64	.024	.316	.068	1.335	8.173	1.762
NA	1374.41	1374.55	.14	-	-	-	-	-	-	-
017	1374.55	1374.88	.33	4.97	.037	.353	.071	-	-	-
018	1374.88	1375.19	.31	5.28	.033	.386	.073	3.967	12.140	2.299
SP005P	1375.19	1375.34	.15	5.43	.012	.397	.073	.483	12.624	2.325
019	1375.34	1375.60	.26	5.69	.020	.417	.073	1.416	14.040	2.468
020	1375.60	1375.83	.23	5.92	.010	.427	.072	.886	14.926	2.521
021	1375.83	1376.10	.27	6.19	.035	.462	.075	14.129	29.055	4.694
SP022	1376.10	1376.20	.10	6.29	.003	.465	.074	.000	29.056	4.620
023	1376.20	1376.55	.35	6.64	.041	.506	.076	10.720	39.776	5.991
SP024	1376.55	1376.71	.16	6.80	.009	.515	.076	.024	39.800	5.853
025	1376.71	1376.97	.26	7.06	.016	.530	.075	.023	39.823	5.641
026	1376.97	1377.24	.27	7.33	.021	.552	.075	.335	40.158	5.479
SP006P	1377.24	1377.33	.09	7.42	.004	.556	.075	.000	40.159	5.412
027	1377.33	1377.71	.38	7.80	.044	.600	.077	13.691	53.850	6.904
NA	1377.71	1377.98	.27	-	-	-	-	-	-	-
028	1377.98	1378.24	.26	8.06	.062	.662	.082	55.827	109.676	13.608
029	1378.24	1378.54	.30	8.36	.064	.726	.087	60.847	170.523	20.398
SP007P	1378.54	1378.61	.07	8.43	.013	.739	.088	4.204	174.728	20.728
SP030	1378.61	1378.72	.11	8.54	.007	.745	.087	.005	174.733	20.461
031	1378.72	1379.06	.34	8.88	.024	.769	.087	.367	175.100	19.719
SP032	1379.06	1379.22	.16	9.04	.040	.809	.090	104.355	279.456	30.914
SP008P	1379.22	1379.33	.11	9.15	.022	.831	.091	21.744	301.200	32.919
033	1379.33	1379.47	.14	9.29	.025	.856	.092	24.533	325.733	35.064

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 1 & 2

AGAT LABORATORIES

Page: 17
W/O No: RC3093
Date: 04-05-90

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
SP034	1379.47	1379.59	.12	9.41	.022	.879	.093	50.489	376.222	39.982
SP035	1379.59	1379.91	.32	9.73	.049	.927	.095	12.057	388.279	39.906
SP036	1379.91	1380.02	.11	9.84	.011	.938	.095	1.199	389.478	39.582
037	1380.02	1380.44	.42	10.26	.056	.994	.097	69.807	459.285	44.766
038	1380.44	1380.67	.23	10.49	.025	1.020	.097	10.831	470.116	44.817
SP009P	1380.67	1380.90	.23	10.72	.033	1.053	.098	21.676	491.791	45.877
CORE NO. 2 1381.00 - 1390.60 (RECEIVED/CUT = 9.60/ 9.60m TOTAL BOXES = 9)										
039	1381.00	1381.22	.22	10.94	.022	1.075	.098	5.605	497.396	45.467
040	1381.22	1381.38	.16	11.10	.008	1.083	.098	.150	497.547	44.825
041	1381.38	1381.60	.22	11.32	.010	1.092	.097	.077	497.624	43.961
SP010P	1381.60	1381.71	.11	11.43	.007	1.100	.096	.001	497.624	43.538
042	1381.71	1382.15	.44	11.87	.027	1.127	.095	.387	498.012	41.956
043	1382.15	1382.42	.27	12.14	.022	1.148	.095	.194	498.206	41.039
044	1382.42	1382.74	.32	12.46	.010	1.158	.093	.013	498.219	39.986
SP011P	1382.74	1382.85	.11	12.57	.004	1.162	.092	.001	498.220	39.636
NA	1382.85	1383.36	.51	-	-	-	-	-	-	-
NA	1383.36	1384.61	1.25	-	-	-	-	-	-	-
045	1384.61	1384.83	.22	12.79	.017	1.179	.092	2.172	500.392	39.124
SP012P	1384.83	1384.97	.14	12.93	.007	1.186	.092	.014	500.406	38.702
SP046	1384.97	1385.14	.17	13.10	.003	1.189	.091	.003	500.409	38.200
047	1385.14	1385.37	.23	13.33	.009	1.198	.090	.057	500.467	37.545
SP048	1385.37	1385.45	.08	13.41	.003	1.201	.090	.005	500.472	37.321
049	1385.45	1385.62	.17	13.58	.005	1.207	.089	.314	500.786	36.877

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 18
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity *		Wt. Avg. Porosity (Arith.)	Kmax *		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
050	1385.62	1385.92	.30	13.88	.005	1.211	.087	4.120	504.906	36.377
NA	1385.92	1387.49	1.57	-	-	-	-	-	-	-
051	1387.49	1387.85	.36	14.24	.009	1.220	.086	.002	504.908	35.457
NA	1387.85	1388.29	.44	-	-	-	-	-	-	-
052	1388.29	1388.58	.29	14.53	.008	1.228	.084	.426	505.334	34.779
NA	1388.58	1388.93	.35	-	-	-	-	-	-	-
SP053	1388.93	1389.02	.09	14.62	.004	1.232	.084	.465	505.799	34.596
NA	1389.02	1390.24	1.22	-	-	-	-	-	-	-
054	1390.24	1390.60	.36	14.98	.003	1.234	.082	.002	505.801	33.765

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 19
W/O No: RC3097
Date: 04-05-91

CORE 3

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity *		Wt. Avg. Porosity (Arith.)	Kmax *		Wt. Avg. Kmax (Arith.)
	Top	Base	Rep. Thick.		Rep. Thick.			Rep. Thick.		
			m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	

	CORE NO. 3		1478.00 - 1496.20		(RECEIVED/CUT = 18.20/18.20m		TOTAL BOXES = 17)			
001	1478.00	1478.28	.28	.28	.011	.011	.041	.073	.073	.260
SP001P	1478.28	1479.16	.88	1.16	.020	.032	.027	.004	.077	.067
002	1479.16	1479.90	.74	1.90	.018	.050	.026	.007	.085	.045
SP002P	1479.90	1480.20	.30	2.20	.006	.056	.025	.001	.086	.039
003	1480.20	1480.95	.75	2.95	.017	.073	.025	.004	.090	.030
004	1480.95	1481.66	.71	3.66	.016	.089	.024	.021	.111	.030
005	1481.66	1481.89	.23	3.89	.020	.108	.028	27.690	27.801	7.147
006	1481.89	1482.55	.66	4.55	.026	.135	.030	1.762	29.563	6.497
SP003P	1482.55	1482.76	.21	4.76	.005	.140	.029	.004	29.567	6.212
007	1482.76	1483.07	.31	5.07	.016	.156	.031	1.519	31.086	6.131
008	1483.07	1483.47	.40	5.47	.017	.173	.032	.240	31.326	5.727
009	1483.47	1484.08	.61	6.08	.032	.205	.034	13.261	44.587	7.333
SP004P	1484.08	1484.20	.12	6.20	.009	.214	.034	.013	44.600	7.194
010	1484.20	1484.50	.30	6.50	.038	.252	.039	193.640	238.240	36.652
011	1484.50	1484.80	.30	6.80	.032	.284	.042	21.637	259.876	38.217
012	1484.80	1485.03	.23	7.03	.012	.296	.042	14.889	274.765	39.085
013	1485.03	1485.39	.36	7.39	.021	.317	.043	6.984	281.749	38.126
014	1485.39	1486.46	1.07	8.46	.044	.361	.043	49.972	331.721	39.210
015	1486.46	1486.76	.30	8.76	.019	.380	.043	1.209	332.930	38.006
016	1486.76	1487.28	.52	9.28	.010	.391	.042	.125	333.055	35.890
017	1487.28	1487.66	.38	9.66	.014	.405	.042	.258	333.313	34.504
018	1487.66	1488.05	.39	10.05	.011	.416	.041	23.413	356.726	35.495

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 3

AGAT LABORATORIES

Page: 20
W/O No: RC3097
Date: 04-05-91

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
019	1488.05	1488.23	.18	10.23	.008	.423	.041	.689	357.415	34.938
SP005P	1488.23	1488.38	.15	10.38	.002	.426	.041	.001	357.416	34.433
020	1488.38	1488.64	.26	10.64	.011	.437	.041	.001	357.417	33.592
NA	1488.64	1488.86	.22	-	-	-	-	-	-	-
021	1488.86	1488.98	.12	10.76	.014	.451	.042	106.709	464.126	43.135
022	1488.98	1489.51	.53	11.29	.019	.470	.042	.005	464.131	41.110
023	1489.51	1489.79	.28	11.57	.010	.480	.041	.325	464.456	40.144
024	1489.79	1490.00	.21	11.78	.008	.488	.041	.529	464.985	39.473
025	1490.00	1490.38	.38	12.16	.014	.502	.041	2.212	467.197	38.421
026	1490.38	1490.64	.26	12.42	.013	.515	.041	15.473	482.670	38.863
027	1490.64	1490.92	.28	12.70	.013	.528	.042	3.192	485.862	38.257
SP006P	1490.92	1491.29	.37	13.07	.011	.540	.041	7.420	493.282	37.742
028	1491.29	1491.54	.25	13.32	.012	.551	.041	4.315	497.596	37.357
SP007P	1491.54	1491.66	.12	13.44	.004	.556	.041	.468	498.064	37.059
029	1491.66	1491.95	.29	13.73	.025	.581	.042	206.824	704.888	51.339
030	1491.95	1492.34	.39	14.12	.032	.613	.043	47.258	752.146	53.268
031	1492.34	1492.76	.42	14.54	.032	.645	.044	15.495	767.641	52.795
032	1492.76	1493.03	.27	14.81	.011	.657	.044	1.439	769.081	51.930
033	1493.03	1493.24	.21	15.02	.010	.666	.044	.004	769.085	51.204
034	1493.24	1493.38	.14	15.16	.007	.673	.044	.241	769.326	50.747
035	1493.38	1493.57	.19	15.35	.006	.679	.044	.027	769.352	50.121
NA	1493.57	1493.66	.09	-	-	-	-	-	-	-
036	1493.66	1493.99	.33	15.68	.006	.685	.044	.002	769.354	49.067
037	1493.99	1494.26	.27	15.95	.011	.696	.044	.011	769.365	48.237
SP008P	1494.26	1494.51	.25	16.20	.010	.706	.044	.010	769.375	47.493

COMPANY: PARAMOUNT RESOURCES LTD.

WELL: PARA et al SWEDE A-52

LOCATION: 60-11N-117-39W

CORE 3

AGAT LABORATORIES

Page: 21

W/O No: RC3097

Date: 04-05-91

CALCULATED DATA REPORT

Sample	Interval (m)		Rep. Thick.		Porosity * Rep. Thick.		Wt. Avg. Porosity (Arith.)	Kmax * Rep. Thick.		Wt. Avg. Kmax (Arith.)
	Top	Base	m	Cuml.	Por-m	Cuml.		mD-m	Cuml.	
038	1494.51	1494.85	.34	16.54	.016	.722	.044	2.425	771.800	46.663
039	1494.85	1495.10	.25	16.79	.005	.726	.043	.005	771.805	45.969
040	1495.10	1495.29	.19	16.98	.005	.731	.043	.013	771.818	45.455
041	1495.29	1495.57	.28	17.26	.010	.741	.043	.006	771.824	44.718
SP009P	1495.57	1495.76	.19	17.45	.033	.774	.044	.004	771.827	44.231
NA	1495.76	1496.20	.44	-	-	-	-	-	-	-

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 22
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY POROSITY RANGES

Porosity Range	Samples		Metres		Wt. Avg. Porosity (Arith)	Wt. Avg. Kmax		Frequency %	
	In	Rng Cuml.	In	Rng Cuml.		Arith	Geom	In	Rng Cuml.
0.000-0.0199	4	4	1.21	1.21	.013	3.408	.043	8.38	8.38
0.020-0.0399	9	13	2.13	3.34	.026	.361	.036	14.75	23.13
0.040-0.0599	13	26	2.18	5.52	.047	.923	.216	15.10	38.23
0.060-0.0799	13	39	3.07	8.59	.071	2.415	.881	21.26	59.49
0.080-0.0999	3	42	.75	9.34	.084	2.292	1.184	5.19	64.68
0.100-0.1199	7	49	2.12	11.46	.111	22.171	14.403	14.68	79.36
0.120-0.1399	4	53	1.04	12.50	.130	81.650	30.275	7.20	86.56
0.140-0.1599	3	56	.69	13.19	.150	51.589	41.448	4.78	91.34
0.160-0.1799	2	58	.21	13.40	.179	136.950	122.730	1.45	92.80
0.180-0.1999	2	60	.21	13.61	.183	241.519	46.389	1.45	94.25
0.200-0.2199	2	62	.41	14.02	.209	201.364	201.351	2.84	97.09
0.220-0.2399	0	62	.00	14.02	.000	.000	.000	.00	97.09
0.240-0.2599	2	64	.42	14.44	.245	381.457	327.871	2.91	100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 23
W/O No: RC3097
Date: 04-05-91

CORE 3

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY POROSITY RANGES

Porosity Range	Samples		Metres		Wt. Avg. Porosity (Arith)	Wt. Avg. Kmax		Frequency %	
	In Rng	Cuml.	In Rng	Cuml.		Arith	Geom	In Rng	Cuml.
0.000-0.0199	4	4	1.03	1.03	.018	.006	.007	5.90	5.90
0.020-0.0399	17	21	7.13	8.16	.028	4.886	.094	40.86	46.76
0.040-0.0599	19	40	6.63	14.79	.045	17.571	3.658	38.00	84.76
0.060-0.0799	3	43	.84	15.63	.072	19.905	7.290	4.81	89.57
0.080-0.0999	3	46	.91	16.54	.084	309.628	212.826	5.22	94.78
0.100-0.1199	2	48	.42	16.96	.111	305.640	147.766	2.41	97.19
0.120-0.1399	1	49	.30	17.26	.127	645.360	645.360	1.72	98.91
0.140-0.1599	0	49	.00	17.26	.000	.000	.000	.00	98.91
0.160-0.1799	1	50	.19	17.45	.174	.020	.020	1.09	100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 24
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY PERMEABILITY RANGES

Permeability Range	Samples		Metres		Wt. Avg.	Wt. Avg. Kmax		Frequency %	
	In Rng	Cuml.	In Rng	Cuml.	Porosity (Arith)	Arith	Geom	In Rng	Cuml.
0.000-0.009	7	7	1.72	1.72	.022	.001	.005	11.91	11.91
0.010-0.019	2	9	.36	2.08	.045	.010	.010	2.49	14.40
0.020-0.039	3	12	.63	2.71	.022	.026	.025	4.36	18.77
0.040-0.079	3	15	.51	3.22	.038	.045	.045	3.53	22.30
0.080-0.159	6	21	1.10	4.32	.056	.096	.094	7.61	29.91
0.160-0.319	2	23	.40	4.72	.055	.259	.258	2.77	32.68
0.320-0.639	1	24	.22	4.94	.044	.350	.350	1.52	34.21
0.640-1.249	6	30	1.85	6.79	.071	.951	.938	12.81	47.02
1.250-2.499	6	36	1.35	8.14	.083	1.848	1.825	9.35	56.37
2.500-4.999	4	40	.85	8.99	.077	3.530	3.498	5.89	62.26
5.000-9.999	5	45	1.01	10.00	.079	6.468	6.262	6.99	69.25
10.000-19.999	4	49	.86	10.86	.081	12.976	12.943	5.96	75.21
20.000-39.999	4	53	1.27	12.13	.123	33.128	32.812	8.80	84.00
40.000-79.999	3	56	.57	12.70	.128	51.193	51.032	3.95	87.95
80.000-159.999	1	57	.23	12.93	.144	94.200	94.200	1.59	89.54
160.000-319.999	5	62	1.23	14.16	.186	189.218	188.177	8.52	98.06
320.000-639.999	1	63	.12	14.28	.185	420.760	420.760	.83	98.89
640.000-1279.999	1	64	.16	14.44	.253	652.580	652.580	1.11	100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 25
W/O No: RC3097
Date: 04-05-91

CORE 3

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY PERMEABILITY RANGES

Permeability Range	Samples		Metres		Wt. Avg. Porosity (Arith)	Wt. Avg. Kmax		Frequency %	
	In Rng	Cuml.	In Rng	Cuml.		Arith	Geom	In Rng	Cuml.
0.000-0.009	6	6	2.67	2.67	.024	.001	.005	15.30	15.30
0.010-0.019	2	8	1.27	3.94	.030	.010	.010	7.28	22.58
0.020-0.039	6	14	1.85	5.79	.042	.024	.023	10.60	33.18
0.040-0.079	3	17	.71	6.50	.037	.048	.046	4.07	37.25
0.080-0.159	2	19	.31	6.81	.048	.128	.128	1.78	39.03
0.160-0.319	2	21	.80	7.61	.027	.247	.247	4.58	43.61
0.320-0.639	1	22	.40	8.01	.042	.600	.600	2.29	45.90
0.640-1.249	2	24	.66	8.67	.036	.884	.853	3.78	49.68
1.250-2.499	1	25	.14	8.81	.048	1.720	1.720	.80	50.49
2.500-4.999	6	31	1.78	10.59	.046	3.470	3.361	10.20	60.69
5.000-9.999	3	34	.99	11.58	.041	6.136	6.092	5.67	66.36
10.000-19.999	3	37	.89	12.47	.051	16.279	15.879	5.10	71.46
20.000-39.999	3	40	1.40	13.87	.054	25.844	24.944	8.02	79.48
40.000-79.999	5	45	2.25	16.12	.050	55.723	54.959	12.89	92.38
80.000-159.999	2	47	.62	16.74	.083	120.884	120.884	3.55	95.93
160.000-319.999	0	47	.00	16.74	.000	.000	.000	.00	95.93
320.000-639.999	0	47	.00	16.74	.000	.000	.000	.00	95.93
640.000-1279.999	3	50	.71	17.45	.109	714.366	709.728	4.07	100.00

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 1 & 2

AGAT LABORATORIES

Page: 26
W/O No: RC3093
Date: 04-05-90

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

Porosity Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Arith	
	Lost	Remaining	Por-Metres	%	Por-Metres	%	Mean	Median
0.000	.00	14.98	.000	.00	1.234	100.00	.082	.071
0.020	1.89	13.09	.029	2.37	1.205	97.63	.092	.075
0.040	3.86	11.12	.089	7.22	1.145	92.78	.103	.092
0.060	6.10	8.88	.201	16.32	1.033	83.68	.116	.107
0.080	9.07	5.91	.417	33.82	.817	66.18	.138	.119
0.100	9.55	5.43	.459	37.15	.776	62.85	.143	.125
0.120	12.00	2.98	.732	59.26	.503	40.74	.169	.153
0.140	13.04	1.94	.867	70.22	.368	29.78	.190	.187
0.160	13.73	1.25	.970	78.58	.264	21.42	.212	.210
0.180	14.03	.95	1.024	82.93	.211	17.07	.222	.215
0.200	14.26	.72	1.068	86.51	.166	13.49	.231	.240
0.220	14.56	.42	1.132	91.67	.103	8.33	.245	.250
0.240	14.56	.42	1.132	91.67	.103	8.33	.245	
0.260	14.98	.00	1.234	100.00	.000	.00	.000	

Total Storage Capacity in Porosity-Metres = 1.234

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 3

AGAT LABORATORIES

Page: 27
W/O No: RC3097
Date: 04-05-91

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

Porosity Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Arith	
	Lost	Remaining	Por-Metres	%	Por-Metres	%	Mean	Median
0.000	.00	17.45	.000	.00	.774	100.00	.044	.042
0.020	1.55	15.90	.029	3.77	.745	96.23	.047	.043
0.040	9.09	8.36	.256	33.04	.519	66.96	.062	
0.060	14.79	2.66	.519	67.07	.255	32.93	.096	
0.080	15.63	1.82	.580	74.90	.194	25.10	.107	
0.100	16.54	.91	.657	84.81	.118	15.19	.129	
0.120	16.96	.49	.703	90.81	.071	9.19	.145	
0.140	17.26	.19	.741	95.73	.033	4.27	.174	
0.160	17.26	.19	.741	95.73	.033	4.27	.174	
0.180	17.45	.00	.774	100.00	.000	.00	.000	

Total Storage Capacity in Porosity-Metres = .774

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 28
W/O No: RC3093
Date: 04-05-90

CORE 1 & 2

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

MILLIDARCY-METRES OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

Permeability Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Geom.	
	Lost	Remaining	mD-Metres	%	mD-Metres	%	Mean	Median
0.000	.00	14.44	.000	.00	505.794	100.00	1.291	1.559
0.010	2.08	12.36	.005	.00	505.789	100.00	2.735	2.423
0.020	2.35	12.09	.011	.00	505.783	100.00	3.221	2.757
0.040	3.03	11.41	.034	.01	505.760	99.99	4.180	3.564
0.080	3.66	10.78	.080	.02	505.714	99.98	5.137	4.387
0.160	4.32	10.12	.150	.03	505.644	99.97	7.937	6.532
0.320	4.72	9.72	.254	.05	505.540	99.95	9.139	7.494
0.640	4.94	9.50	.331	.07	505.463	99.93	9.856	8.081
1.250	6.79	7.65	2.090	.41	503.704	99.59	17.406	16.412
2.500	8.14	6.30	4.586	.91	501.208	99.09	28.223	25.287
5.000	8.99	5.45	7.587	1.50	498.207	98.50	39.091	31.891
10.000	10.00	4.44	14.120	2.79	491.674	97.21	59.294	44.624
20.000	10.86	3.58	25.279	5.00	480.515	95.00	85.466	75.295
40.000	12.13	2.31	67.352	13.32	438.442	86.68	144.676	195.443
80.000	12.70	1.74	96.516	19.08	409.278	80.92	203.498	229.471
160.000	12.93	1.51	118.192	23.37	387.602	76.63	228.841	
320.000	14.16	.28	350.949	69.39	154.845	30.61	540.674	
640.000	14.28	.16	401.439	79.37	104.355	20.63	652.604	
1280.000	14.44	.00	505.794	100.00	.000	.00	.000	

Total Flow Capacity in Millidarcy-Metres (Arithmetic) = 505.794

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W

AGAT LABORATORIES

Page: 29
W/O No: RC3097
Date: 04-05-91

CORE 3

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

MILLIDARCY-METRES OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

Permeability Cut Off	Metres		Capacity Lost		Capacity Remaining		Wt. Avg. Geom.	
	Lost	Remaining	mD-Metres	%	mD-Metres	%	Mean	Median
0.000	.00	17.45	.000	.00	771.817	100.00	.816	1.642
0.010	3.94	13.51	.015	.00	771.801	100.00	2.048	4.067
0.020	5.08	12.37	.038	.00	771.778	100.00	3.377	5.382
0.040	6.31	11.14	.080	.01	771.736	99.99	7.434	10.317
0.080	6.50	10.95	.094	.01	771.723	99.99	10.331	13.602
0.160	6.81	10.64	.133	.02	771.683	99.98	11.741	15.346
0.320	7.61	9.84	.331	.04	771.486	99.96	16.071	20.601
0.640	8.01	9.44	.571	.07	771.246	99.93	18.474	22.746
1.250	8.67	8.78	1.154	.15	770.662	99.85	23.279	26.784
2.500	8.81	8.64	1.395	.18	770.422	99.82	24.283	27.729
5.000	10.59	6.86	7.571	.98	764.245	99.02	40.562	41.892
10.000	11.58	5.87	13.647	1.77	758.170	98.23	55.847	48.793
20.000	12.47	4.98	28.137	3.65	743.679	96.35	69.924	55.963
40.000	13.87	3.58	64.313	8.33	707.503	91.67	104.630	
80.000	16.12	1.33	189.697	24.58	582.120	75.42	310.981	
160.000	16.74	.71	264.645	34.29	507.172	65.71	709.742	
320.000	16.74	.71	264.645	34.29	507.172	65.71	709.742	
640.000	16.74	.71	264.645	34.29	507.172	65.71	709.742	
1280.000	17.45	.00	771.817	100.00	.000	.00	.000	

Total Flow Capacity in Millidarcy-Metres (Arithmetic) = 771.817

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 1 & 2

AGAT LABORATORIES

Page: 30
W/O No: RC3093
Date: 04-05-90

SUMMARY OF CORE DATA REPORT

PERMEABILITY RANGES, MILLIDARCY

	Total	100.00 +	10.00 - 99.99	1.00 - 9.99	0.50 - 0.99	0.10 - 0.49	0.01 - 0.09	< 0.01
Thickness (m)	12.72	1.51	2.93	3.82	1.24	.92	2.30	.00
Fraction of analyzed core		.119	.230	.300	.097	.072	.181	.00
Porosity thickness (por-m)	1.155	.292	.332	.302	.086	.048	.094	.00
Permeability thickness (mD-m)	505.79	387.60	104.07	12.73	1.06	.22	.11	-
Wt. average Porosity	.091	.193	.113	.079	.070	.052	.041	.00
Wt. average Permeability	39.76	256.69	35.52	3.33	.85	.24	.05	-
Wt. average Residual Oil	.246	.226	.285	.263	.232	.281	.176	.00
Wt. average Residual Water	.160	.149	.119	.152	.219	.151	.206	.00
Wt. average (geom.) Kmax., mD for All Samples =			2.74					
Wt. average (harm.) Kmax., mD for All Samples =			.14					

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
CORE 3

AGAT LABORATORIES

Page: 31
W/O No: RC3097
Date: 04-05-91

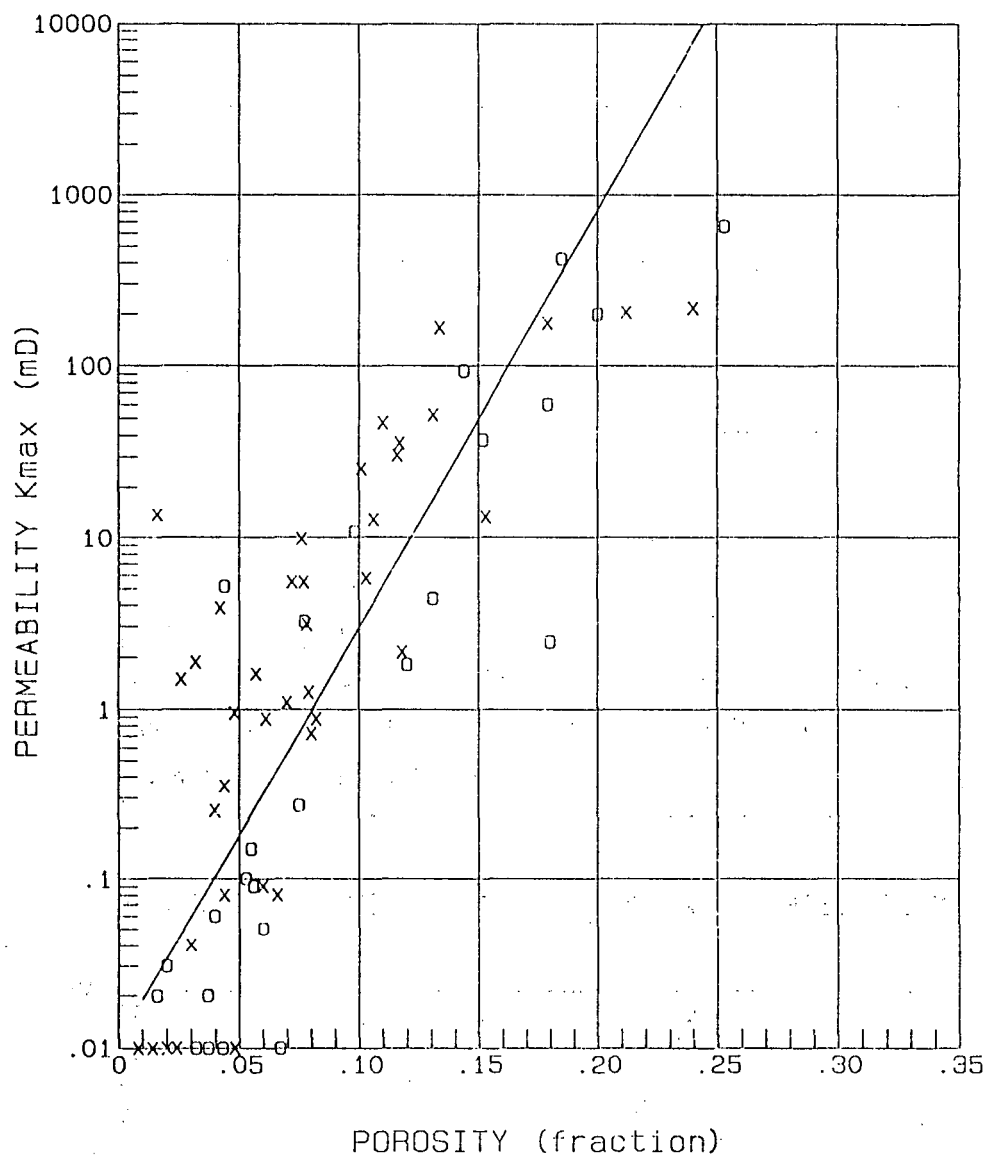
SUMMARY OF CORE DATA REPORT

PERMEABILITY RANGES, MILLIDARCY

	Total	100.00 +	10.00 - 99.99	1.00 - 9.99	0.50 - 0.99	0.10 - 0.49	0.01 - 0.09	< 0.01
Thickness (m)	14.78	1.33	4.54	3.19	.78	1.11	3.83	.00
Fraction of analyzed core		.090	.307	.216	.053	.075	.259	.00
Porosity thickness (por-m)	.711	.129	.233	.139	.031	.037	.142	.00
Permeability thickness (mD-m)	771.81	582.12	176.05	12.82	.50	.24	.09	-
Wt. average Porosity	.048	.097	.051	.044	.040	.033	.037	.00
Wt. average Permeability	52.22	437.70	38.78	4.02	.64	.21	.02	-
Wt. average Residual Oil	.163	.085	.159	.147	.001	.143	.248	.00
Wt. average Residual Water	.205	.193	.234	.185	.179	.205	.197	.00
Wt. average (geom.) Kmax., mD for All Samples =			2.05					
Wt. average (harm.) Kmax., mD for All Samples =			.06					

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 1
 LOCATION: 60-11N-117-39W W/O NO: RC3093
 INTERVAL: 1363.00 - 1390.60m DATE: 04-05-90
 FORMATION: SULPHUR POINT

POROSITY - PERMEABILITY (K_{max}) CORRELATION



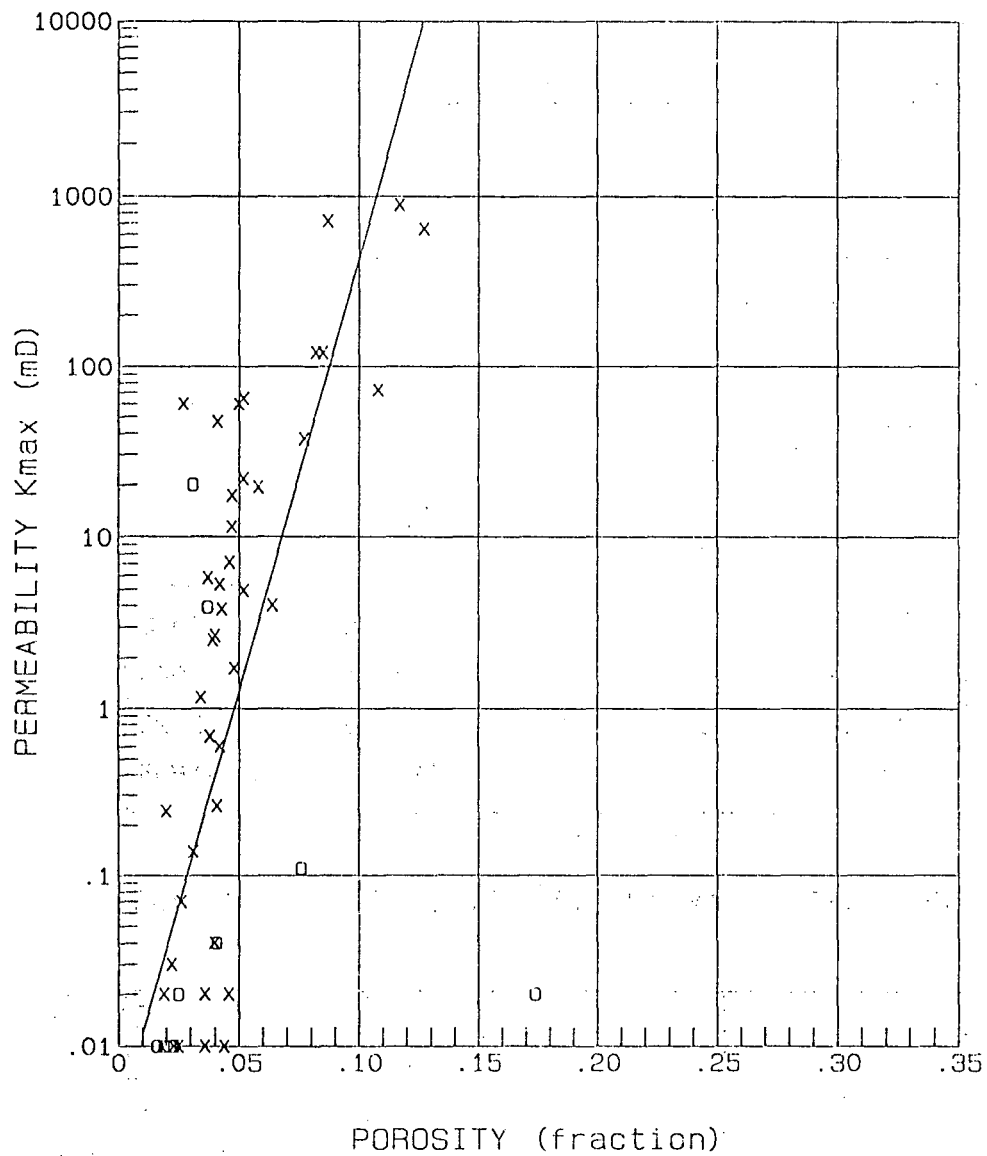
x - FULL DIAMETER o - SMALL PLUG

NOTE: Samples are not weighted

Equation: $\text{Log } (K_{\text{max}}) = -1.97 + 24.38 * \text{Porosity}$
 Correlation Coefficient: $r = .811$

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 2
 LOCATION: 60-11N-117-39W W/O NO: RC3097
 INTERVAL: 1478.00 - 1496.20m DATE: 04-05-91
 FORMATION: KEG RIVER

POROSITY - PERMEABILITY (Kmax) CORRELATION



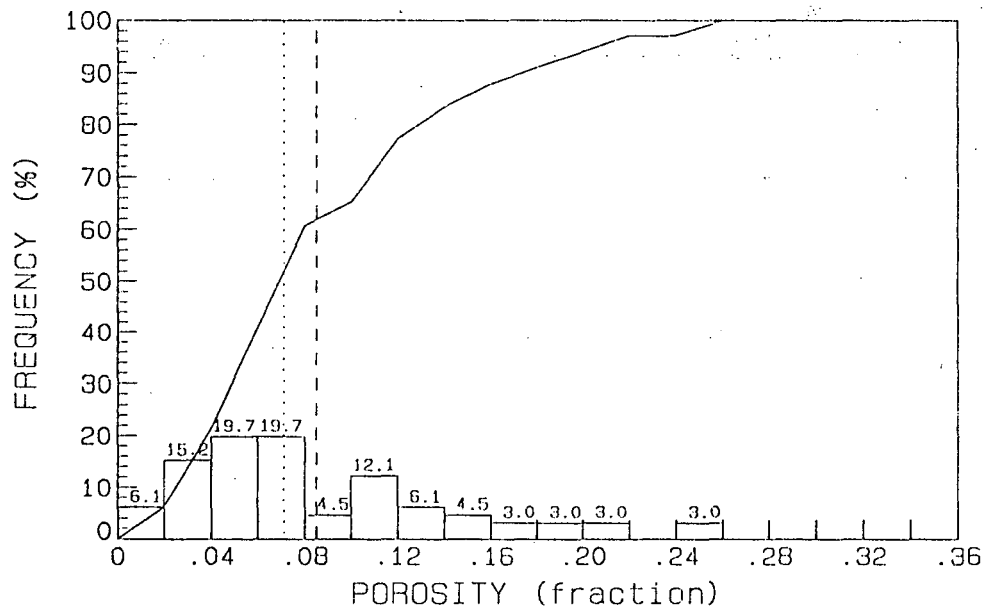
x - FULL DIAMETER o - SMALL PLUG

NOTE: Samples are not weighted

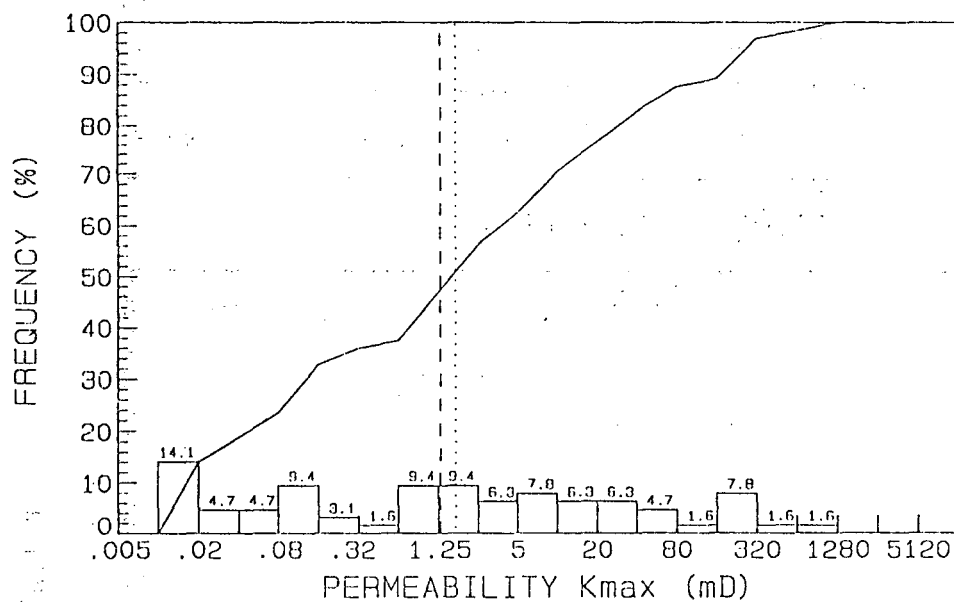
Equation: $\text{Log (Kmax)} = -2.44 + 50.62 * \text{Porosity}$
 Correlation Coefficient: $r = .479$

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 3
 LOCATION: 60-11N-117-39W W/O NO: RC3093
 INTERVAL: 1363.00 - 1390.60m DATE: 04-05-90
 FORMATION: SULPHUR POINT

POROSITY FREQUENCY DISTRIBUTION



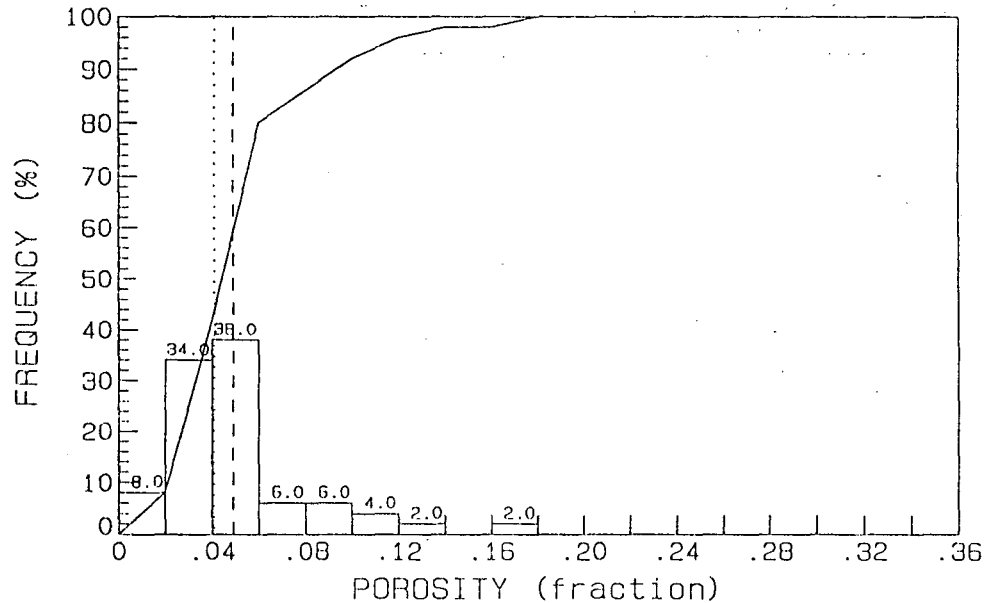
PERMEABILITY Kmax FREQUENCY DISTRIBUTION



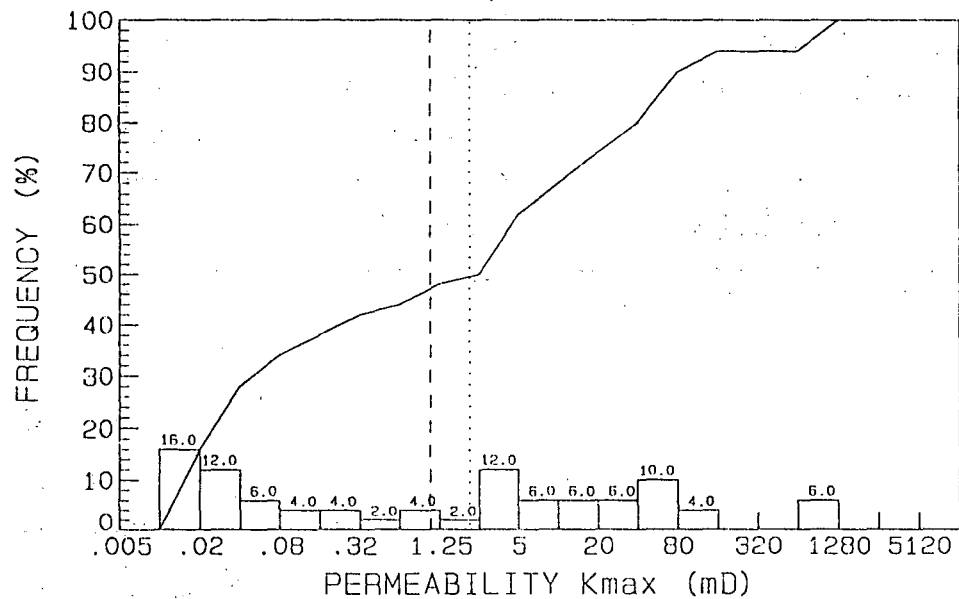
Arith. Mean Porosity	---	POROSITY	-	Arith. Mean:	.005
Geom. Mean Permeability	---			Median:	.071
Cumulative Frequency %	—	PERMEABILITY	-	Geom. Mean:	1.31
Median				Median:	1.70

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 4
 LOCATION: 60-11N-117-39W W/O NO: RC3097
 INTERVAL: 1478.00 - 1496.20m DATE: 04-05-91
 FORMATION: KEG RIVER

POROSITY FREQUENCY DISTRIBUTION



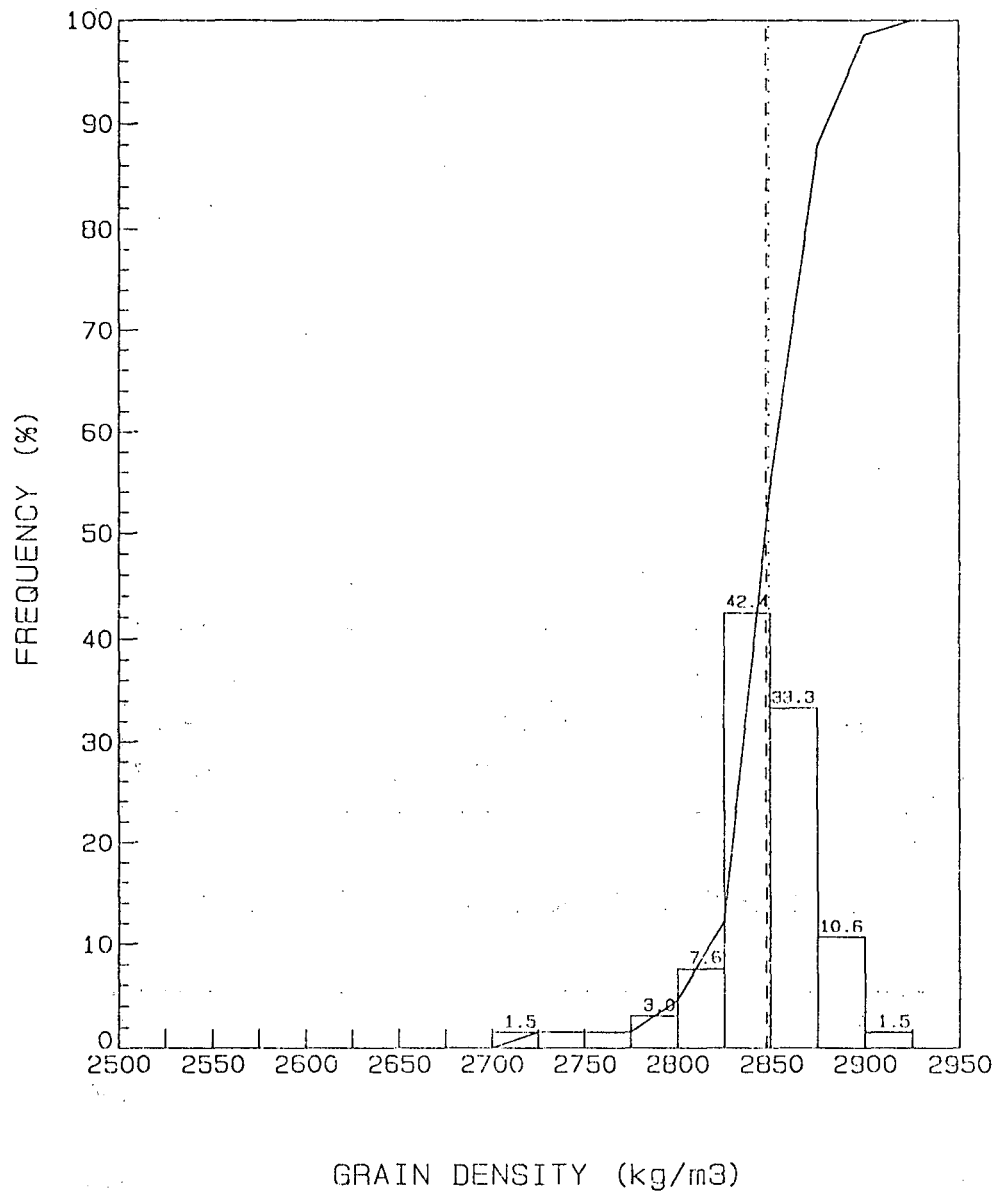
PERMEABILITY Kmax FREQUENCY DISTRIBUTION



Arith. Mean Porosity	----- POROSITY	Arith. Mean: .049
Geom. Mean Permeability	-----	Median: .041
Cumulative Frequency %	———— PERMEABILITY	Geom. Mean: 1.10
Median		Median: 2.12

COMPANY: PARAMOUNT RESOURCES LTD: FIGURE: 5
 LOCATION: 60-11N-117-39W W/O NO: RC3093
 INTERVAL: 1363.00 - 1390.60m DATE: 04-05-90
 FORMATION: SULPHUR POINT

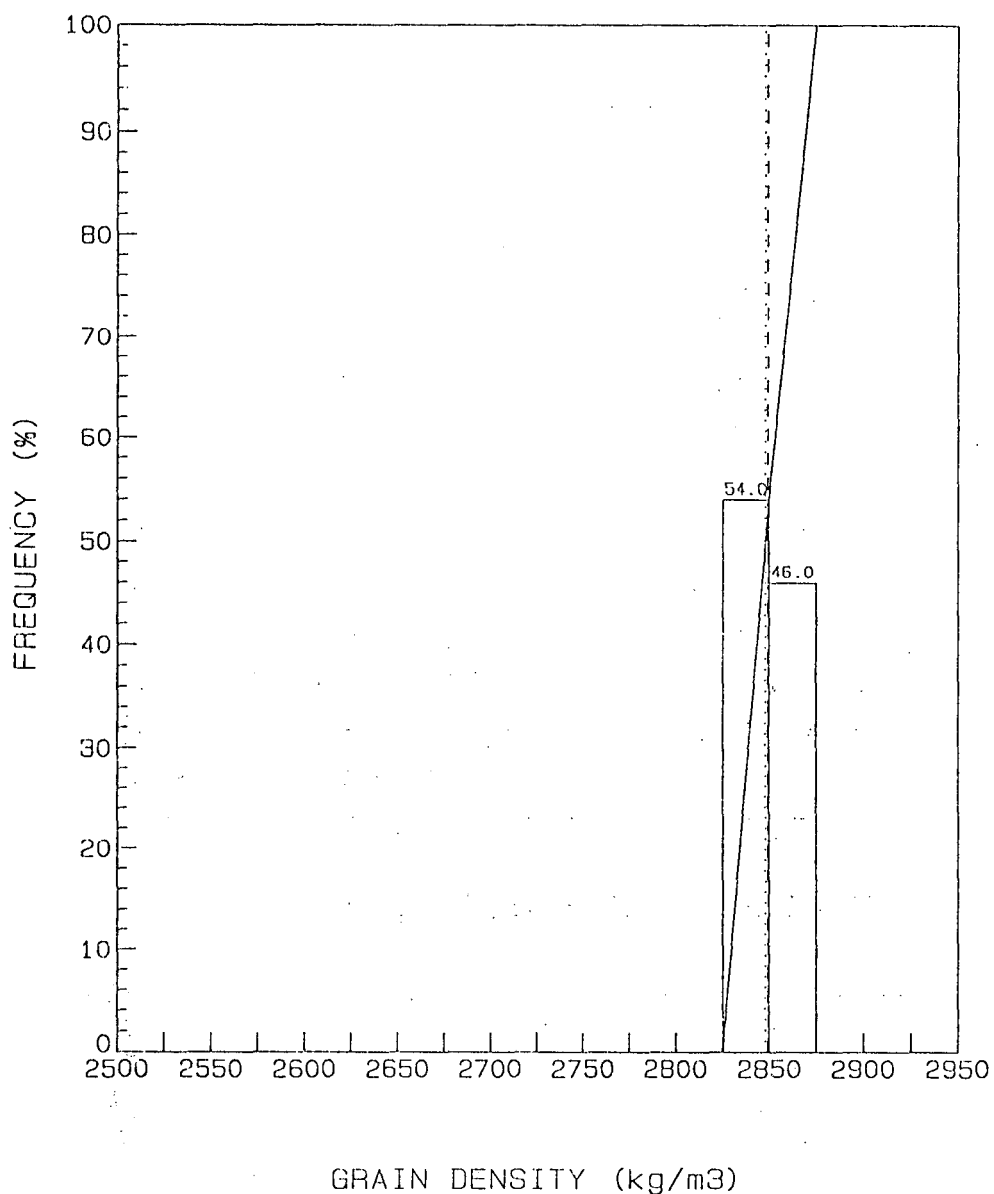
GRAIN DENSITY FREQUENCY DISTRIBUTION



Arithmetic Mean - - - - Wt. Avg. Arith. Mean: 2847
 Median
 Cumulative Frequency % ——— Grain Density Median: 2849

COMPANY: PARAMOUNT RESOURCES LTD. FIGURE: 6
LOCATION: 60-11N-117-39W W/O NO: RC3097
INTERVAL: 1478.00 - 1496.20m DATE: 04-05-91
FORMATION: KEG RIVER

GRAIN DENSITY FREQUENCY DISTRIBUTION



Arithmetic Mean - - - - Wt. Avg. Arith. Mean: 2849
Median Grain Density Median: 2848
Cumulative Frequency % ————

SAMPLE HANDLING

AGAT LABORATORIES CORE SERVICES

SAMPLE HANDLING AND ANALYSIS INFORMATION

Company: PARAMOUNT RESOURCES LTD.
Well: PARA et al SWEDE A-52
Location: 60-11N-117-39W
Field:

Coring Equipment: Diamond
Coring Fluid: Water Base Mud
Core Diameter: 0.10 m
Total Cored: 45.80 m
Total Recovered: 45.70 m

Job Number: RC3093/97
Date: Apr. 05, 1991

HANDLING

Core Transported in: Boxes
Cutting Solution: Water
Cleaning solvent: Toluene
Extraction: CO2-Toluene
Cleaning time: 960 Hours
Drying Equipment: Convectional oven
Drying Time: 48 hours at 108°C

ANALYSIS

Grain volume measured by Boyle's Law using helium
Bulk volume measured by calipering on right-cylindrical samples
Bulk volume measured by archimedes principle using H₂O on non-cylindrical samples
Fluid saturations by retort on end pieces
Permeability measured on 0.10 m full diameter samples
Permeability measured on 38.1 mm diameter drilled plugs
Full diameter core sandblasted before Kh measurements

REMARKS

UV and Color Photographs to follow at a later date.

. **ABBREVIATIONS**

COMMON ABBREVIATIONS

abnt	Abundant	c	Coarse (ly)	f	Fine (ly)
abv	Above	calc	Calcite (areous)	fau	Fauna
Alg	Algae (al)	carb	Carbonaceous	Fe	Iron-Ferruginous
alt	Altered (ing)	cbl	Cobble (64-256 mm)	Fe-mag	Feromagnesian
amor	Amorphous	Ceph	Cephalopod	fenst	Fenestral
Amph	Amphipora	cgl	Conglomerate	fis	Fiissile
ang	Angular	chk	Chalk (y)	fl	Fill (ed)
anhy	Anhydrite (ic)	chlor	Chlorite	fld	Feldspar (thic)
app	Appear	cht	Chert	flk	Flake
apr	Apparent	chty	Cherty	flky	Flaky
aprox	Approximate (ly)	cl	Clastic	flor	Fluorescence
arg	Argillaceous	cln	Clean	flt	Fault (ed)
ark	Arkose (ic)	clr	Clear	fltq	Floating
asph	Asphalt (ic)	cly	Clay (ey)	foram	Foraminifera
apha	Aphanitic	cmt	Cement (ed)	fos	Fossil (iferous)
		col	Color (ed)	fr	Fair
bcm	Become (ing)	com	Common	frac	Fracture (ed)
bd	Bed	coq	Coquina	frag	Fragment (al)
bdd	Bedded	Cor	Coral	fri	Friable
bdg	Bedding	crbnt	Carbonate	frmwk	Framework
Belm	Belemnites	Crin	Crinoid (al)	fros	Frosted
bent	Bentonite (ic)	crm	Cream		
bf	Buff	crpxl	Cryptocrystalline	g	Good
biocl	Bioclastic	ctc	Contact	Gast	Gastropod
bioturb	Bioturbated			gl	Glass (y)
bit	Bitumen (inous)	deb	Debris	glau	Glauconite (ic)
bl	Blue (ish)	decr	Decrease (ing)	gn	Green
blk	Black	desi	Desiccation	gr	Grain (ed)
blkv	Blocky	dism	Disseminated	gran	Granular
bnd	Band (ed)	dk	Dark (er)	grd	Grade (ed)
Brac	Brachiopod	dns	Dense (er)	grnl	Granule (2-4 mm)
brec	Breccia (ted)	dol	Dolomite (ic)	gy	Grey
bri	Bright	drsy	Druse (y)	gyp	Gypsum (iferous)
brit	Brittle	dtrl	Detrital (us)		
brn	Brown			hd	Hard
Bry	Bryozoa	elg	Elongate	hfrac	Horizontal Fracture
bulb	Bulbous	euhed	Euhedral		
bur	Burrowed				

COMMON ABBREVIATIONS (CONTINUED)

hd	Hard	m	Medium	pk	Pink
hfrac	Horizontal Fracture	mar	Maroon	plag	Plagioclase
hi	High	mas	Massive	plcy	Pelecypod
hrtl	Horizontal	mat	Material, matter	pl	Plant
hvy	Heavy	mica	Mica (ceous)	plty	Platy
hydc	Hydrocarbon	mic	Micro	por	Porous (sity)
		mky	Milky	pos	Possible (ility)
ig	Igneous	mnr	Minor	p-p	Pin-Point
imbed	Imbedded	mnrl	Mineral (ized)	pred	Predominant (ly)
imp	Impression	mnut	Minute	prim	Primary
incl	Included (sion)	Mol	Mollusca	prob	Probable (ly)
incr	Increase	mot	Mottled	prom	Prominent (ly)
indst	Indistinct	mrly	Marly	pt	Part (ly)
intbd	Interbedded	mtx	Matrix	ptch	Patch (es)
intcl	Intraclast (s)			ptg	Parting
intfrag	Interfragmental	n	No, none, non	purp	Purple
intgran	Intergranular	nod	Nodule	pyr	Pyrite (ic) (ized)
intlam	Interlaminated	num	Numerous	pyrbit	Pyrobitumen
intr	Intrusion (ive)				
intv	Interval	o	Oil	qtz	Quartz
intxl	Intercrystalline	occ	Occasional	qtzc	Quartzitic
ireg	Irregular	od	Odor	qtzs	Quartzose
ird	Iridescent	ool	Oolite (ic)		
intrsk	Intraskeletal	op	Opaque	rd	Round (ed)
		org	Organic	repl	Replaced (ing) (ment)
kao	Kaolin	orng	Orange	rex1	Recrystallized
		orth	Orthoclase	rmn	Remains (nant)
lam	Laminated	Ost	Ostracod	rr	Rare
lchd	Leached	ovgth	overgrowth	rsns	Resinous
len	Lentil (cular)	ox	Oxidized	rthy	Earthy
lith	Lithographic				
lmy	Limy	p	Preliminary (as suffix)	s	Small
lrg	Large (er)	pbl	Pebble (4-64 mm)	sa	Salt (y)
ls	Limestone	pel	Pellet	S	Sulphur
lse	Loose	perm	permeability	s&p	Salt & Pepper
lstr	Lustre	pet	Petroleum (iferous)	sat	Saturated
lt	Light (er)	phos	Phosphate (ic)	sb	Sub

COMMON ABBREVIATIONS (CONTINUED)

sc	Scales	thru	Throughout	*	Broken core
scat	Scattered	tr	Trace	>10000	Permeability over
sd	Sand (1/16 - 2mm)	trns1	Translucent		10000 mD
sdv	Sandy	trns	Transparent	<0.01	Permeability less
sec	Secondary	tt	Tight		than 0.01 mD
sed	Sediment (ary)	tub	Tubular	CC	Cracked Core
sft	Soft			DR	Drilled
sh	Shale	uncons	Unconsolidated	LC	Lost Core
shad	Shadow	unident	Unidentifiable	RU	Rubble
shy	Shaly	up	Upper	mD	milliDarcy
sid	Siderite (ic)				
sil	Silica	v	Very		
sks	Slickensided	var	Variable		
sl	Slight (ly)	vc1	Varicolored		
sln	Solution	vfrac	Vertical Fracture		
s1t	Silt	vgt	Varigated		
s1tst	Siltstone	vn	Vein		
s1ty	Silty	vr1	Vertical		
sm	Smooth	vug	Vug (gy) (ular)		
SP	Small Plug (as prefix)				
sp	Spot (ted) (ty)	/	With		
spec	Speck (led)	w	Well		
spl	Sample	wh	White		
srt	Sort (ed) (ing)	wk	Weak		
strg	Stringer	wthrd	Weathered		
Strom	Stromatoporoid	wtr	Water		
stromlt	Stromatolite	wvy	Wavy		
struc	Structure	wxy	Waxy		
styl	Stylolite (ic)	wsrt	Well sorted		
suc	Sucrosic				
sug	Sugary	xbd	Cross-bedded		
sup	Supported	xbdg	Cross-bedding		
surf	Surface	xl	Crystal (line)		
sz	Size	xlam	Cross-laminated		
tab	Tabular	yel	Yellow		
tex	Texture				
Tham	Thamnopora	zn	Zone		
thk	Thick				
thn	Thin				

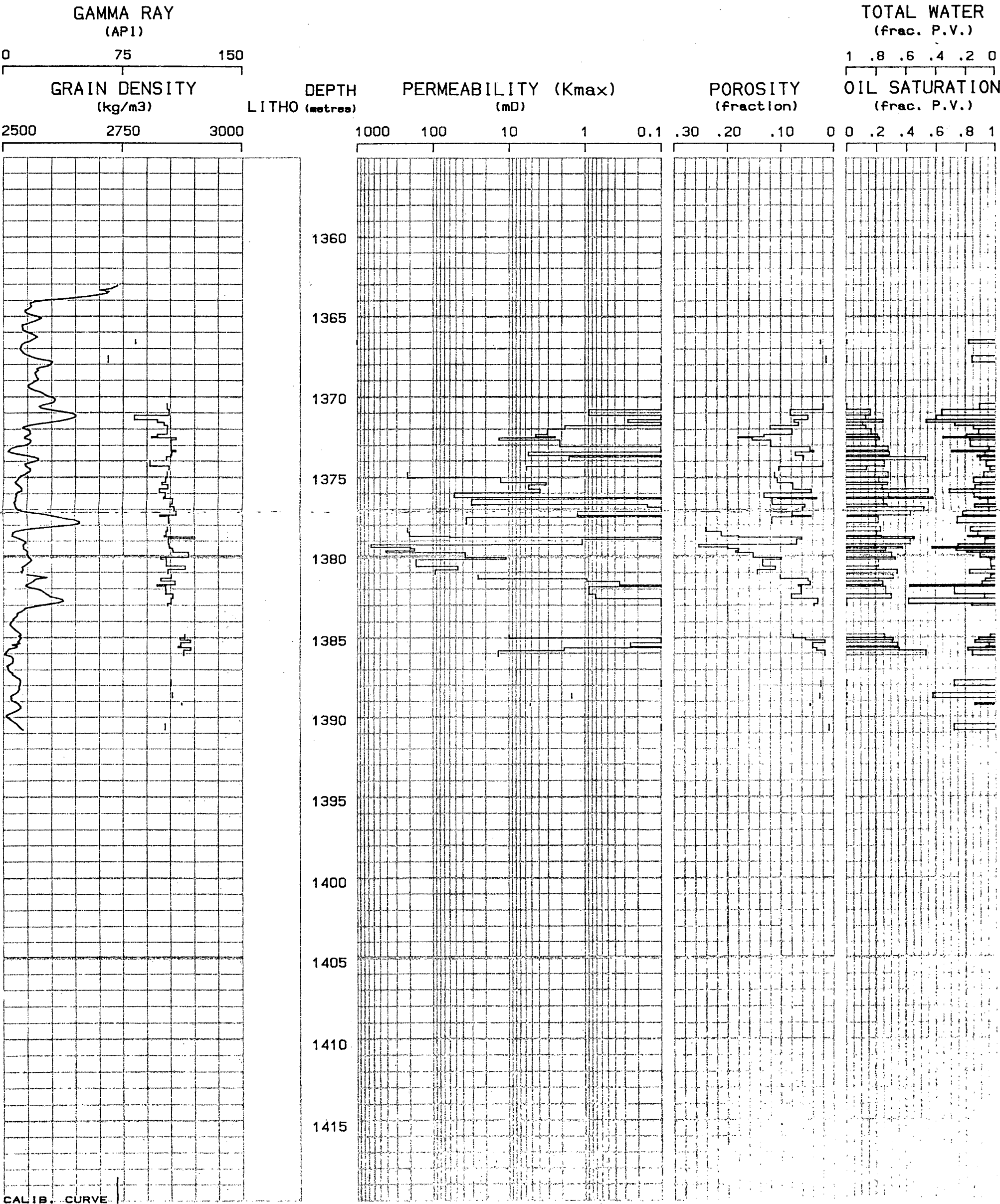
CORE LOG

COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FIELD:
FORMATION(S): SULPHUR POINT
W/O: RC3093
CORE 1 & 2



RECOVERY: 27.50m
CORED INTERVAL: 1363.00 - 1390.60
DRLG. FLD.: WATER BASE MUD
ELEVATION: KB:
GRD:

CORELOG



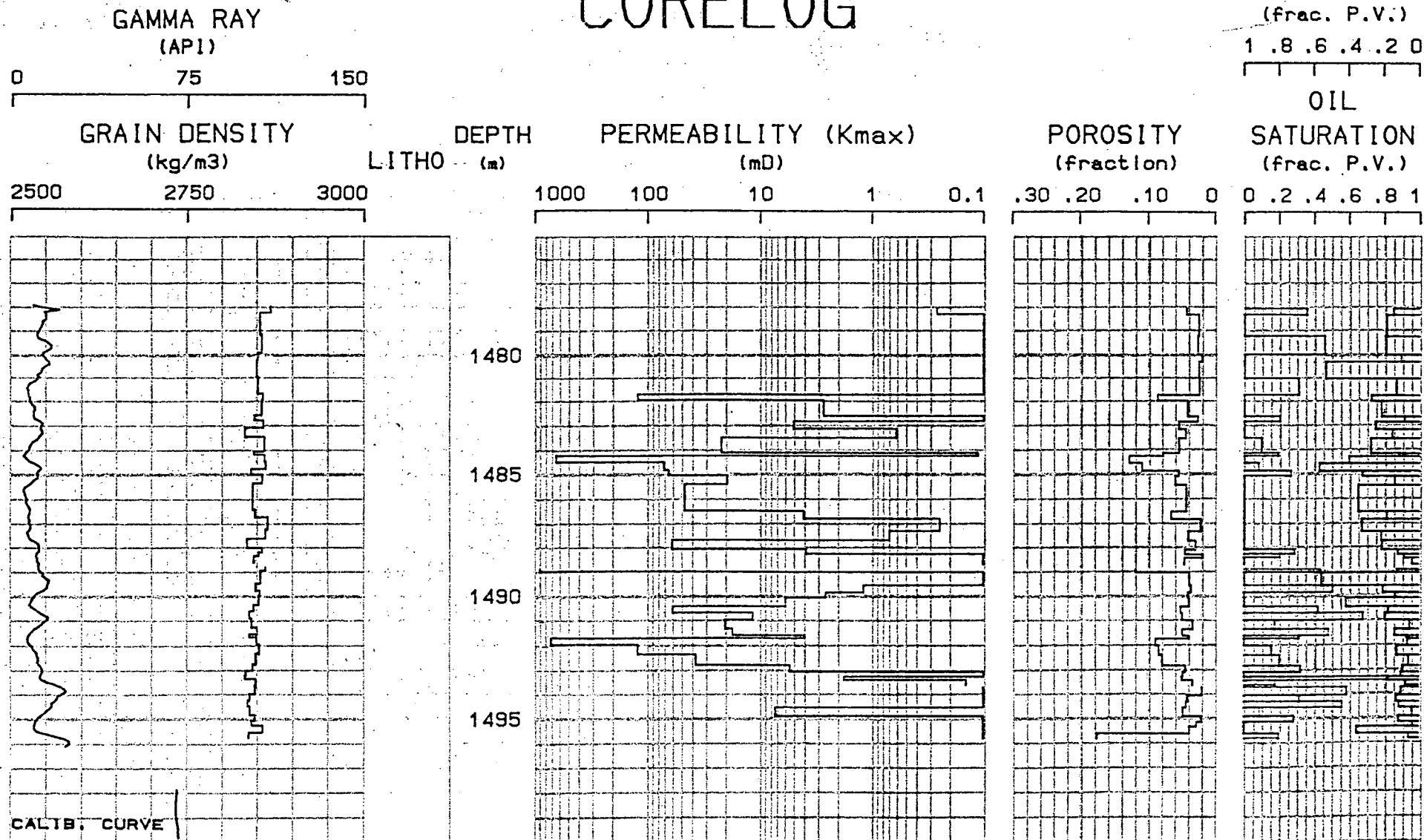
COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FIELD:
FORMATION(S): KEG RIVER
W/O: RC3097

CORE 3



RECOVERY: 18.20m
CORED INTERVAL: 1478.00 - 1496.20m
DRLG. FLD.: WATER BASE MUD
ELEVATION: KB:
GRD:

CORELOG



COMPANY: PARAMOUNT RESOURCES LTD.

WELL: PARA et al SWEDE A-52

LOCATION: 60-11N-117-39W

FIELD:

FORMATION(S): SULPHUR POINT

W/O: RC3093A

CORE 1



RECOVERY: 17.90M

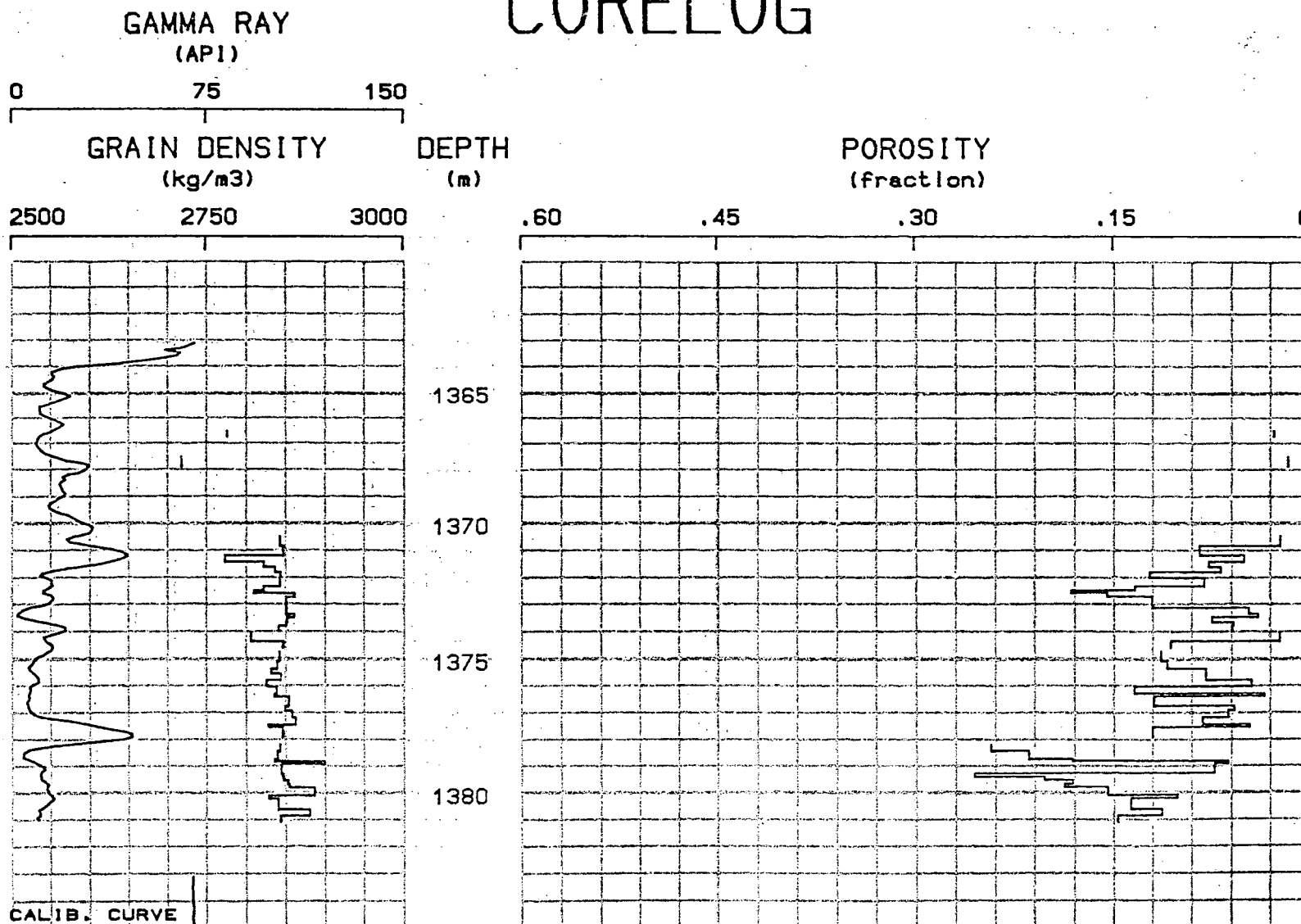
CORED INTERVAL: 1363.00 - 1381.00m

DRLG. FLD.: WATER BASE MUD

ELEVATION: KB:

GRD:

CORELOG



COMPANY: PARAMOUNT RESOURCES LTD.

WELL: PARA et al SWEDE A-52

LOCATION: 60-11N-117-39W

FIELD:

FORMATION(S): SULPHUR POINT

W/O: RC3093B

CORE 2



RECOVERY: 9.60m

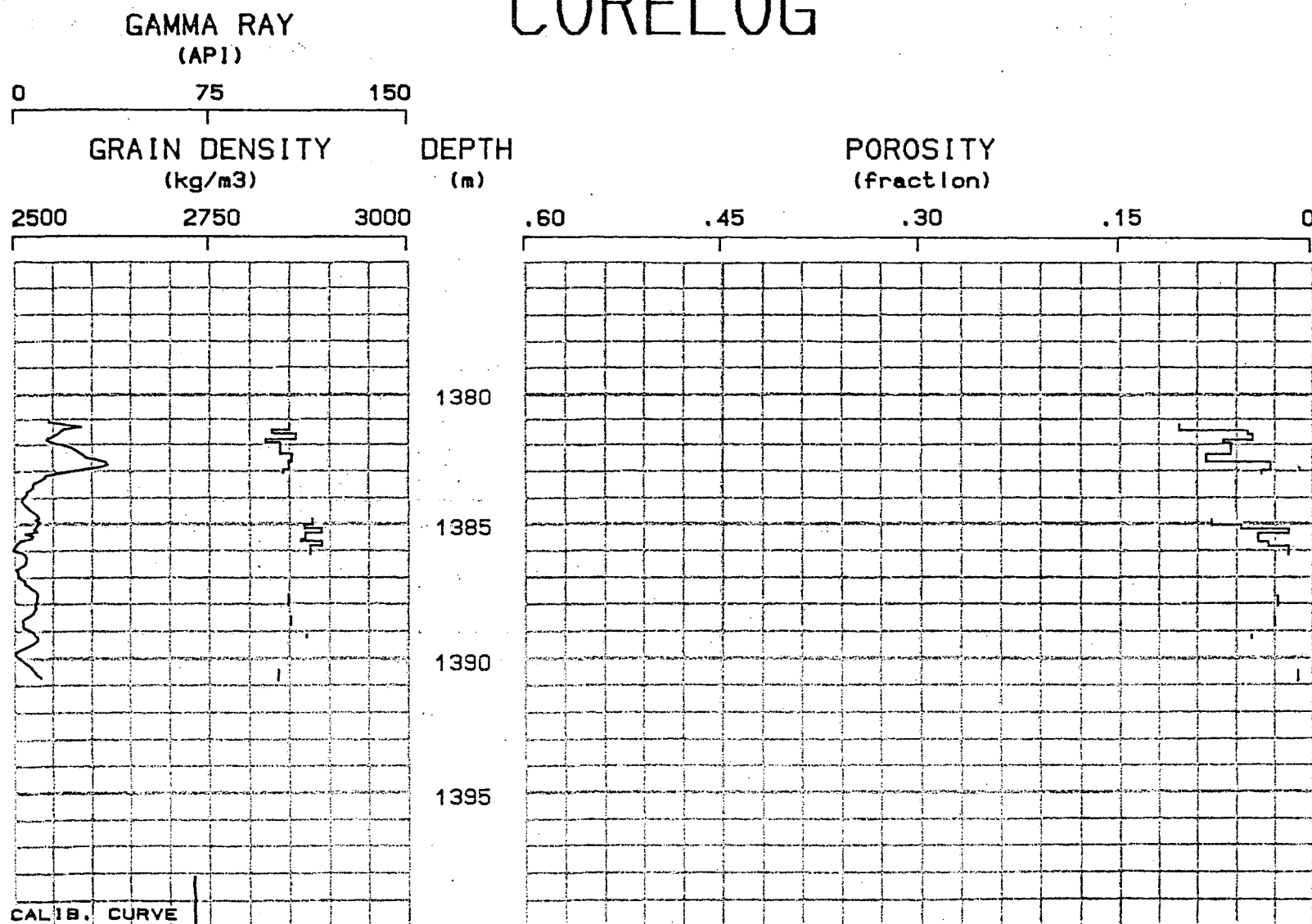
CORED INTERVAL: 1381.00 - 1390.60m

DRLG. FLD.: WATER BASE MUD

ELEVATION: KB:

GRD:

CORELOG



COMPANY: PARAMOUNT RESOURCES LTD.
WELL: PARA et al SWEDE A-52
LOCATION: 60-11N-117-39W
FIELD:
FORMATION(S): KEG RIVER
W/O: RC3097
CORE 3



RECOVERY: 18.20m
CORED INTERVAL: 1478.00 - 1496.20m
DRLG. FLD.: WATER BASE MUD
ELEVATION: KB:
GRD:

CORELOG

