

30-015-35347

Keltic Services, Inc
Box 1857
Artesia, NM
88211

505 748 3759

Temperature Survey

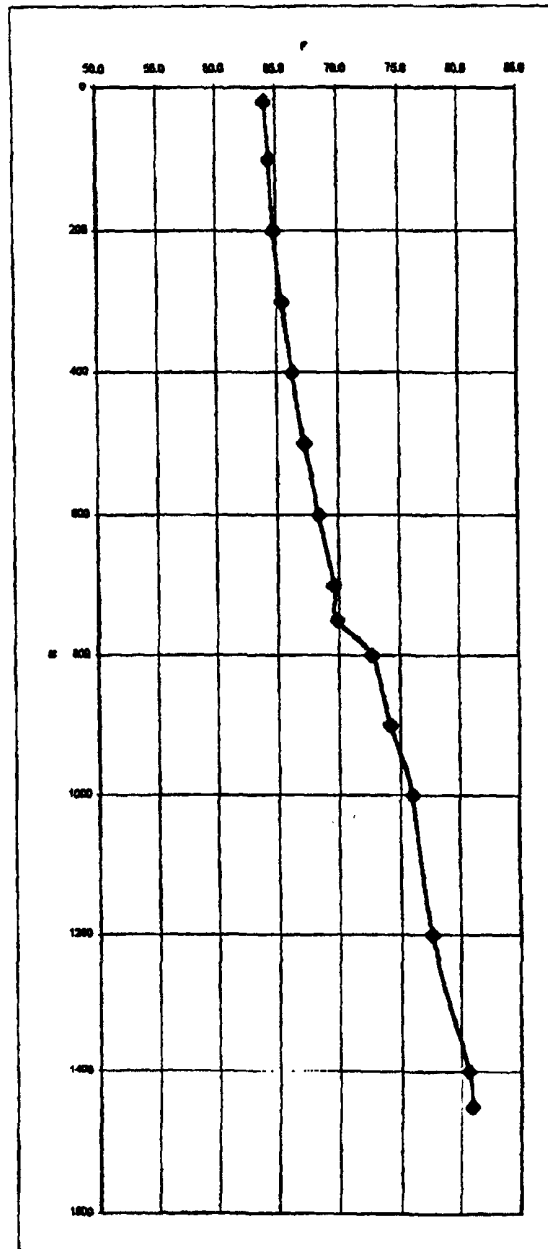
Company	PARALLEL PETROLEUM CORP.	Date	11/01/06
Well	JUTEBOX 1921-10 FED A-Y JUKE #1Y	Time Plug Down	1200 hrs
		Time Start Survey	430 hrs
		Time End Survey	530 hrs
Casing String	Intermediate	Depth Reached	1449 ft
Cement Top	750 ft		
Gauge	205		
Operator:	Julian	Witness:	RICK POINDEXTER

Keltic Services Inc
Temperature Survey

Company PARALLEL PETROLEUM CORP.
Well JUREBOX 1921-10 FEDAY
Juke #1Y
Cement Top 750 ft

Date 11/1/06
Plug Down 1200 hrs
Survey Start 430 hrs
Operator Julian

Depth ft	Temp. °F	Comments
20	64.1	
100	64.4	
200	64.8	
300	65.4	
400	66.2	
500	67.2	
600	68.4	
700	69.6	
750	69.8	CT
800	72.7	
900	74.2	
1000	76.0	
1200	77.5	
1400	80.6	
1449	80.9	



SLB MWD Survey Survey Report

Report Date: November 20, 2006
Client: Parallel Petroleum
Field: Eddy County, New Mexico (Parallel Pet.)
Structure / Slot: Sec.10, T18S&R21E(Juke Box 1921-10) / Juke Box 1921-10 Fed # 1
Well: Juke Box 1921-10 Fed # 1
Borehole: Juke Box 1921 10 Fed # 1 Wolfcamp
UNMAPS:
Survey Name / Date: SLB Horizontal Survey Juke Box #1 / November 20, 2006
Tort / AMD / DOI / ERD ratio: 159.584" / 3379.92 ft / 5.961 / 0.774
Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone, US Feet
Location Lat/Long: N 32 40 7.932, W 104 46 31.539
Location Grid ME YD: N 807329.300 RUS, E 363958.800 RUS
Grid Convergence Angle: -0.2363628°
Grid Scale Factor: 0.9993029

Survey / DLS Computation Method: Minimum Curvature / Lubinski
Vertical Section Azimuth: 273.770°
Vertical Section Origin: N 0.000 ft, E 0.000 ft
TVD Reference Datum: KB
TVD Reference Elevation: 4324.0 ft relative to
See Bed / Ground Level Elevation: 0.000 ft relative to
Magnetic Declination: 8.736°
Total Field Strength: 49234.473 nT
Magnetic Dip: 60.512°
Declination Date: November 20, 2006
Magnetic Declination Model: BGM 2006
North Reference: Grid North
Total Corr Mag North -> Grid North: +8.975°
Local Coordinates Referenced To: Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Ming / Grow Tool Face (deg)
Tie-In/Gyro SVY.	3869.36	8.35	4.48	3868.35	6.29	55.19	-2.67	55.25	357.23	0.18	43.07L
	3904.00	12.52	348.38	3900.41	7.28	61.38	-3.23	61.46	358.99	14.58	29.58L
	3936.00	16.89	340.15	3931.36	10.04	69.15	-5.51	69.37	355.44	15.10	16.80L
	3967.00	20.69	336.83	3960.70	14.32	78.43	-8.19	78.98	353.32	12.70	11.85L
	3999.00	24.88	334.85	3990.20	20.13	89.73	-14.26	90.85	350.97	13.33	21.96L
	4031.00	27.86	332.30	4018.87	27.29	102.44	-20.60	104.49	348.63	9.96	47.34L
	4063.00	30.30	327.26	4046.84	36.00	115.86	-28.45	119.30	346.20	10.80	66.08L
	4094.00	32.05	320.57	4073.37	46.29	128.79	-37.90	134.26	343.80	12.51	53.52L
	4126.00	34.54	314.94	4100.12	58.94	141.76	-49.72	150.23	340.67	12.40	45.73L
	4158.00	37.15	310.64	4128.08	73.50	154.47	-63.48	167.01	337.66	11.33	38.86L
	4190.00	41.09	305.77	4150.89	90.16	166.92	-79.36	184.82	334.57	15.81	37.99L
	4221.00	44.64	301.90	4173.61	106.41	178.63	-98.88	203.21	331.53	14.25	51.94L
	4253.00	48.72	298.35	4196.97	128.92	190.11	-116.68	223.06	328.46	10.26	53.50L
	4285.00	48.63	295.00	4217.52	150.71	200.72	-137.82	243.48	325.53	9.77	34.40L
	4316.00	51.19	292.77	4237.48	172.98	210.31	-159.50	263.95	322.82	9.92	30.23L
	4347.00	54.16	290.65	4256.28	196.43	219.42	-182.40	285.33	320.28	11.02	38.08L
	4377.00	57.47	287.82	4273.13	220.35	227.58	-205.83	306.85	317.87	13.51	34.01L
	4408.00	61.00	285.12	4288.99	246.33	235.12	-231.37	329.87	315.48	13.62	34.68L
	4439.00	64.32	282.59	4303.23	273.43	241.70	-258.10	353.60	313.12	12.93	28.09L
	4470.00	67.59	280.71	4315.86	301.47	247.41	-285.82	378.03	310.88	11.91	29.48L
	4501.00	70.57	278.93	4326.93	330.26	252.35	-314.35	403.11	308.76	11.01	27.92L
	4531.00	73.51	277.31	4336.18	358.72	256.37	-342.90	427.90	306.81	11.06	32.90L
	4562.00	75.90	275.72	4344.35	388.58	259.78	-372.31	453.97	304.90	9.16	23.67L
	4596.00	78.61	274.51	4349.65	411.98	261.85	-396.62	474.42	303.50	12.32	23.71R
	4616.00	82.82	276.37	4354.49	441.57	264.66	-425.06	500.74	301.91	15.31	21.11L
	4647.00	85.04	275.51	4357.76	472.37	267.85	-455.74	528.62	300.44	7.87	44.69L
	4678.00	86.11	274.45	4360.16	503.27	270.53	-486.53	556.69	299.08	4.85	64.09L
	4709.00	86.80	273.03	4362.07	534.21	272.55	-517.41	584.80	297.78	5.08	47.07L
	4740.00	88.00	271.74	4363.48	565.16	273.84	-548.35	612.92	296.54	5.68	75.62L
	4771.00	88.38	270.26	4364.46	596.11	274.38	-579.33	641.02	295.34	4.93	27.05L
	4801.00	90.28	269.29	4364.81	626.04	274.28	-609.32	668.20	294.23	7.11	120.96L
	4863.00	89.59	268.14	4364.88	687.79	272.87	-671.30	724.84	292.12	2.16	52.25R
	4966.00	89.83	268.45	4365.35	780.37	270.10	-764.28	810.59	289.46	0.42	58.74R
	5048.00	90.17	269.01	4365.35	872.01	268.06	-856.24	897.22	287.38	0.71	71.15L
	5141.00	90.31	268.60	4364.96	964.66	266.12	-949.22	985.82	285.66	0.47	85.50R
	5233.00	90.38	269.49	4364.41	1056.35	264.59	-1041.20	1074.29	284.26	0.97	62.28R
	5326.00	90.69	270.08	4363.54	1149.12	264.24	-1134.20	1164.57	283.11	0.72	44.62R
	5421.00	91.48	270.86	4361.74	1243.94	265.02	-1229.18	1257.42	282.17	1.17	22.37R
	5516.00	91.82	271.00	4359.00	1338.78	266.56	-1324.12	1350.69	281.36	0.39	45.78R
	5611.00	92.51	271.71	4355.42	1433.63	268.81	-1419.03	1444.26	280.73	1.04	170.26L
	5705.00	91.17	271.48	4352.40	1527.51	271.42	-1512.94	1537.09	280.17	1.45	27.19R
	5801.00	91.89	271.85	4349.83	1623.41	274.21	-1608.86	1632.07	279.67	0.84	94.39R
	5897.00	91.86	272.24	4346.69	1719.32	277.63	-1704.75	1727.21	279.25	0.41	160.41R
	5992.00	91.27	272.45	4344.10	1814.25	281.52	-1799.64	1821.52	278.89	0.86	23.19R
	6087.00	91.34	272.48	4341.93	1909.20	285.60	-1894.52	1915.93	278.57	0.06	120.41L
	6182.00	89.76	269.79	4341.02	2004.09	287.48	-1989.49	2010.15	278.22	3.28	37.95R
	6215.00	90.76	270.57	4340.87	2037.02	287.59	-2022.49	2042.83	278.09	3.84	76.02L
	6309.00	91.20	268.80	4339.27	2130.78	287.07	-2118.47	2135.85	277.72	1.94	39.80R
	6373.00	91.44	269.00	4337.79	2194.52	285.84	-2180.44	2199.10	277.47	0.49	126.36L
	6469.00	89.93	266.95	4336.64	2290.01	282.45	-2276.37	2293.82	277.07	2.65	48.99R

6564.00	91.13	268.33	4335.76	2384.48	278.54	-2371.28	2387.58	278.70	1.92	32.50R
6659.00	91.93	268.84	4333.23	2479.04	278.19	-2468.21	2481.63	278.39	1.00	123.37L
6755.00	90.48	266.64	4331.21	2574.48	272.41	-2562.11	2578.55	278.07	2.74	53.23R
6850.00	91.10	267.47	4329.90	2668.81	287.53	-2658.97	2670.41	275.75	1.09	88.08L
6945.00	91.13	266.57	4328.05	2763.14	282.59	-2751.83	2764.33	275.46	0.95	96.73L
7041.00	90.89	265.01	4326.36	2858.19	255.55	-2847.55	2858.99	275.13	1.84	94.35L
7136.00	90.65	261.87	4325.08	2951.63	244.69	-2941.91	2952.08	274.75	3.31	75.52L
7231.00	90.89	260.94	4323.80	3044.42	230.50	-3035.83	3044.57	274.34	1.01	150.42L
7326.00	90.15	260.52	4322.94	3136.96	215.20	-3129.58	3136.97	273.93	0.90	37.66R
7337.00	90.72	260.98	4322.86	3147.68	213.43	-3148.44	3147.68	273.89	6.55	89.39L
7406.00	90.77	258.00	4321.96	3214.21	199.65	-3208.02	3214.23	273.56	7.19	—

Survey Type: Non-Def Survey

Survey Error Model: SLB ISCWSA version 24 *** 3-D 95.00% Confidence 2.7968 sigma

Surveying Prog:

MD From (R)

MD To (R)

EQU Free Survey Tool Type

Borehole -> Survey

0.00

3889.38

Act-Stns SLB_UNKNOWN-Depth Only (default Original Hole -> Gyro Data Survey

3889.38

4324.00

Act-Stns SLB_UNKNOWN-Depth Only (default Juke Box 1921 10 Fed # 1 Wolfcamp -> SLB Horizontal Survey Juke Box #1

4324.00

7406.00

Act-Stns SLB_UNKNOWN (default tool used) Juke Box 1921 10 Fed # 1 Wolfcamp -> SLB Horizontal Survey Juke Box #1

*Italicized stations are NOT used in position calculations.

A Gyrodata Directional Survey

Field Copy Only, not definitive

for

PARALLEL PETROLEUM

Location: PATRIOT 1, EDDY COUNTY, NEW MEXICO
Lease: JUKE BOX 1921-10 Well: FEDERAL #1-Y, 4-1/2" DRILLPIPE

Job Number: MD1106G_309

Run Date: 1/31/2000 5:54:11 AM

Surveyor: THOMAS BOWDEN

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 34.670556 deg. N Longitude: 104.778889 deg. W

Azimuth Correction:

Gyro: Bearings are Relative to True North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

A Gyrodata Directional Survey

PARALLEL PETROLEUM

Location: PATRIOT 1, EDDY COUNTY, NEW MEXICO

Lease: JUKE BOX 1921-10 Well: FEDERAL #1-Y, 4-1/2" DRILLPIPE

Job Number: MD1106G_309

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLE SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 TO 7545" FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 4-1/2" DRILLPIPE ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO PATRIOT #1 R.K.B.						
100.00	0.24	4.01	0.24	100.00	0.2 4.0	0.21 N 0.01 E
200.00	0.29	308.43	0.25	200.00	0.6 343.5	0.58 N 0.17 W
300.00	0.29	308.38	0.00	300.00	1.1 327.5	0.89 N 0.57 W
400.00	0.62	272.33	0.42	399.99	1.7 309.4	1.08 N 1.31 W
500.00	0.66	262.35	0.12	499.99	2.6 292.9	1.02 N 2.41 W
600.00	0.68	295.71	0.38	599.98	3.7 288.8	1.20 N 3.52 W
700.00	0.26	125.42	0.94	699.98	4.1 288.9	1.33 N 3.87 W
820.40	0.83	115.28	0.48	820.37	3.0 285.6	0.80 N 2.86 W
915.68	1.13	111.37	0.32	915.64	1.4 276.7	0.16 N 1.36 W
1010.96	1.40	84.48	0.68	1010.90	0.7 95.9	0.07 S 0.68 E
1106.24	1.57	104.16	0.56	1106.15	3.1 95.1	0.28 S 3.11 E
1201.52	1.50	107.22	0.11	1201.39	5.7 99.9	0.97 S 5.57 E
1296.80	1.73	102.42	0.28	1296.63	8.3 101.4	1.65 S 8.16 E
1392.08	1.00	87.61	0.84	1391.89	10.6 100.5	1.92 S 10.40 E
1487.36	0.84	87.66	0.17	1487.15	12.1 98.8	1.86 S 11.93 E
1582.64	0.42	64.03	0.51	1582.43	13.0 97.4	1.67 S 12.94 E
1677.92	0.38	351.86	0.50	1677.71	13.3 95.2	1.20 S 13.21 E
1773.20	0.60	337.65	0.26	1772.98	13.0 91.9	0.43 S 12.97 E
1868.48	0.76	320.79	0.27	1868.26	12.4 87.6	0.52 N 12.39 E

A Gyrodata Directional Survey

PARALLEL PETROLEUM

Location: PATRIOT 1, EDDY COUNTY, NEW MEXICO

Lease: JUKE BOX 1921-10 Well: FEDERAL #1-Y, 4-1/2" DRILLPIPE

Job Number: MD1106G_309

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DI ST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
1963.76	0.87	317.82	0.13	1963.53	11.6 82.3	1.54 N 11.50 E
2059.04	1.05	305.25	0.29	2058.79	10.6 75.9	2.59 N 10.30 E
2154.32	1.30	304.18	0.26	2154.05	9.4 67.0	3.70 N 8.69 E
2249.60	0.96	301.25	0.36	2249.31	8.5 56.5	4.71 N 7.12 E
2344.88	0.87	305.67	0.11	2344.58	8.1 46.5	5.55 N 5.85 E
2440.16	0.78	309.16	0.11	2439.85	8.0 36.7	6.38 N 4.76 E
2535.44	0.64	311.76	0.15	2535.13	8.1 28.4	7.14 N 3.87 E
2630.72	0.57	318.67	0.10	2630.40	8.5 21.9	7.85 N 3.16 E
2726.00	0.49	313.89	0.09	2725.68	8.9 16.7	8.49 N 2.55 E
2821.28	0.36	306.00	0.15	2820.95	9.2 12.7	8.95 N 2.01 E
2916.56	0.58	277.76	0.33	2916.23	9.3 8.0	9.19 N 1.29 E
3011.84	0.67	266.57	0.16	3011.50	9.2 1.6	9.22 N 0.25 E
3107.12	0.67	272.05	0.07	3106.78	9.3 354.6	9.21 N 0.87 W
3202.40	0.67	299.08	0.33	3202.05	9.7 348.6	9.50 N 1.91 W
3297.68	0.54	331.01	0.37	3297.33	10.5 345.6	10.17 N 2.62 W
3392.96	0.70	348.51	0.26	3392.60	11.5 345.1	11.13 N 2.95 W
3488.24	1.38	349.27	0.71	3487.86	13.2 345.7	12.83 N 3.28 W
3583.52	4.96	352.50	3.76	3582.98	18.5 347.4	18.04 N 4.03 W
3678.80	7.51	2.45	2.90	3677.70	28.7 351.4	28.34 N 4.30 W
3774.08	8.30	3.47	0.84	3772.07	41.6 355.0	41.43 N 3.62 W
3869.36	8.35	4.48	0.16	3866.34	55.3 357.2	55.19 N 2.66 W
3964.64	9.50	0.85	1.34	3960.47	70.0 358.4	69.95 N 2.01 W
4059.92	9.32	1.18	0.20	4054.47	85.5 358.8	85.52 N 1.73 W

A Gyrodata Directional Survey

PARALLEL PETROLEUM

Location: PATRIOT 1, EDDY COUNTY, NEW MEXICO

Lease: JUKE BOX 1921-10 Well: FEDERAL #1-Y, 4-1/2" DRILLPIPE

Job Number: MD1106G_309

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4155.20	8.51	0.52	0.86	4148.60	100.3 359.1	100.27 N 1.51 W
4250.48	8.20	0.10	0.32	4242.87	114.1 359.3	114.12 N 1.43 W
4345.76	7.67	0.32	0.56	4337.23	127.3 359.4	127.27 N 1.39 W
4441.04	7.42	1.50	0.31	4431.69	139.8 359.5	139.79 N 1.19 W
4536.32	6.69	1.49	0.77	4526.25	151.5 359.7	151.48 N 0.89 W
4631.60	5.60	3.60	1.17	4620.98	161.7 359.8	161.67 N 0.45 W
4726.88	5.40	3.81	0.21	4715.82	170.8 0.0	170.78 N 0.14 E
4822.16	5.04	5.65	0.42	4810.71	179.4 0.3	179.41 N 0.85 E
4917.44	4.75	4.68	0.31	4905.64	187.5 0.5	187.51 N 1.58 E
5012.72	4.38	4.13	0.39	5000.62	195.1 0.6	195.07 N 2.17 E
5108.00	4.11	359.68	0.44	5095.63	202.1 0.7	202.11 N 2.41 E
5203.28	4.87	4.62	0.89	5190.62	209.6 0.7	209.56 N 2.72 E
5298.56	5.27	11.08	0.74	5285.53	217.9 1.0	217.89 N 3.88 E
5393.84	4.79	10.55	0.51	5380.44	226.2 1.4	226.10 N 5.45 E
5489.12	4.14	11.33	0.68	5475.43	233.5 1.7	233.38 N 6.86 E
5584.40	4.13	10.79	0.04	5570.46	240.3 2.0	240.13 N 8.18 E
5679.68	3.93	9.46	0.24	5665.51	246.9 2.2	246.72 N 9.36 E
5774.96	3.39	6.11	0.61	5760.59	252.9 2.3	252.74 N 10.19 E
5870.24	2.84	358.81	0.71	5855.73	258.1 2.3	257.91 N 10.44 E
5965.52	2.08	8.39	0.91	5950.92	262.2 2.3	261.98 N 10.65 E
6060.80	1.68	5.72	0.42	6046.15	265.3 2.4	265.08 N 11.04 E
6156.08	1.67	7.74	0.06	6141.39	268.1 2.4	267.84 N 11.36 E
6251.36	1.64	15.34	0.23	6236.63	270.8 2.5	270.53 N 11.91 E

A Gyrodata Directional Survey

PARALLEL PETROLEUM

Location: PATRIOT 1, EDDY COUNTY, NEW MEXICO

Lease: JUKE BOX 1921-10 Well: FEDERAL #1-Y, 4-1/2" DRILLPIPE

Job Number: MD1106G_309

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
6346.64	1.43	6.04	0.34	6331.88	273.3 2.6	273.02 N 12.39 E
6441.92	1.07	0.34	0.40	6427.14	275.4 2.6	275.09 N 12.53 E
6537.20	1.01	355.74	0.11	6522.40	277.1 2.6	276.82 N 12.47 E
6632.48	1.12	351.29	0.15	6617.66	278.9 2.5	278.58 N 12.26 E
6727.76	0.97	345.17	0.20	6712.93	280.5 2.4	280.29 N 11.92 E
6823.04	1.02	329.98	0.28	6808.19	282.0 2.3	281.80 N 11.29 E
6918.32	1.07	328.36	0.06	6903.46	283.5 2.1	283.29 N 10.39 E
7013.60	1.28	340.29	0.34	6998.72	285.2 1.9	285.05 N 9.57 E
7108.88	1.35	337.86	0.09	7093.97	287.2 1.8	287.10 N 8.78 E
7204.16	1.60	336.75	0.26	7189.22	289.5 1.6	289.36 N 7.84 E
7299.44	1.70	348.97	0.38	7284.46	292.0 1.4	291.96 N 7.04 E
7394.72	2.87	15.08	1.61	7379.67	295.7 1.4	295.65 N 7.39 E
7490.00	3.53	354.97	1.35	7474.80	301.0 1.5	300.87 N 7.76 E
7521.00	3.90	347.40	1.99	7505.74	302.9 1.4	302.85 N 7.44 E
7545.00	4.34	342.75	2.30	7529.67	304.6 1.3	304.51 N 7.00 E

Final Station Closure: Distance: 304.59 ft Az: 1.32 deg.



Petroleum Corporation

1004 N. Big Spring Street, Suite 400 • Midland, TX 79701 • Ph: 915-684-3727 • Fax: 915-685-6580

DEANE DURHAM
Operations Engineer

December 14, 2006

Ms. Dinah Negrete
United States Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220

Re: Juke Box 1921-10 Federal #1Y
Parallel Petroleum Corporation
Sec. 10, T-19-S, R-21-E
Eddy County, New Mexico

Dear Ms. Negrete:

This letter is to clarify the contents of the package you have in hand on the referenced well. This is as much for my benefit as it is for yours so that I can keep straight all I have sent you. I have corrected the well name where applicable.

The package contains:

Form 3160-3 with the new well name (Y designator)

All actual information is included for the well as it was drilled and cased.

Form 3160-5 with our intent to plug the old surface hole and move 10' south

Form 3160-5 dated 11-28-2006 with work performed to plug old hole, move, spud and set and cement surface casing on new hole

Keltic temperature survey (2 pages)

Form 3160-5 with work performed to TD horizontal well and set 5.5" casing

Gyrodata – gyro survey (5 pages)

Schlumberger – MWD survey (2 pages)

Should you need additional information regarding this issue, please contact me.

Sincerely,

Deane Durham
New Mexico Operations Engineer

CC: Carmen Reno, EMNRD