

30-039-29576

sperry-sun
DRILLING SERVICES

End of Well Report

surface 915/S 1165/E M.D.
BHL 1634/S 2976/W TRD.
V.L. J Soc 12 31N6W

Rosa Unit #225A

Williams Production Company



8/9/2005

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HALLIBURTON

9800 W RENO • OKLA CITY, OK 73127
PHONE 405.324.2222 • FAX 405.324.1009

August 10, 2005

Re: Williams Production Co.
Rosa Unit #225-A
Sec. 12-T31N-R06W
Rio Arriba County, New Mexico

Enclosed please find the original and one copy of the surveys performed on the referenced well by Halliburton/Sperry Drilling Services.

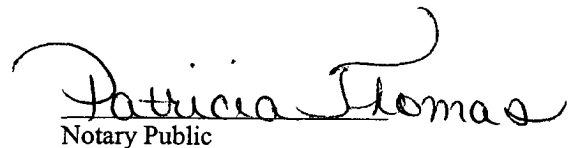
<u>Name & Title of Supervisor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Dennis Cook Field Supervisor	Original	350' – 3,315'	07/31/05 – 08/02/05	MWD
Dennis Cook Field Supervisor	Projection to TD	3,315' – 3,385'		MWD

If any other information is required, please contact the undersigned at the letterhead address and phone number.

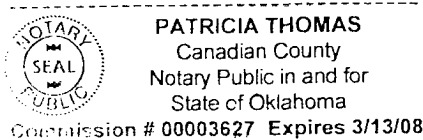


Dennis Cook
Field Supervisor

My Commission Expires March 13, 2008



Notary Public





**Williams Production Company
New Mexico
Rio Arriba County
Sec. 12-T31N-R06W
Rosa Unit #225A - MWD Survey**

Halliburton Sperry-Drilling Survey Report

8 August, 2005

Surface Coordinates: 2150373.14 N, 623442.59 E (36° 54' 32.0000" N, 107° 24' 40.0000" W)
Grid Coordinate System: NAD27 New Mexico State Planes, Western Zone

Surface Coordinates relative to Global Coordinates: 645382.02 N, 325761.82 E (Grid)
Surface Coordinates relative to SW Corner of Sec. 12: 715.00 N, 3313.76 E (True)
Kelly Bushing Elevation: 6515.00ft above Mean Sea Level
Kelly Bushing Elevation: 29.00ft above Ground Level

Survey Ref: svy9140

HALLIBURTON
Sperry Drilling Services

HALLIBURTON

Sperry Drilling Services

Williams Production Company

New Mexico

Rio Arriba County

Survey Report for Sec. 12-T31N-R06W - Rosa Unit #225A - MWD Survey

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates		Dogleg Severit (°/100ft)	Lease Calls		Global Coordinates	
					N-S (ft)	E-W (ft)		FNL-FSL (ft)	FEL-FWL (ft)	Grid Y (ft)	Grid X (ft)
0.00	0.000	0.000	0.00	0.00	0.00 N	0.00 E		715.00 FSL	3313.76 FWL	2150373.14 N	623442.59 E
350.00	0.170	75.250	350.00	-0.05	0.13 N	0.50 E	0.05	715.13 FSL	3314.26 FWL	2150373.28 N	623443.09 E
381.00	0.070	10.640	381.00	-0.04	0.16 N	0.55 E	0.50	715.16 FSL	3314.31 FWL	2150373.31 N	623443.13 E
411.00	0.620	320.470	411.00	0.13	0.31 N	0.45 E	1.93	715.30 FSL	3314.21 FWL	2150373.45 N	623443.03 E
442.00	1.460	321.310	441.99	0.66	0.74 N	0.10 E	2.71	715.74 FSL	3313.85 FWL	2150373.89 N	623442.68 E
473.00	2.260	316.860	472.98	1.60	1.50 N	0.57 W	2.62	716.50 FSL	3313.19 FWL	2150374.64 N	623442.01 E
504.00	2.840	323.500	503.95	2.90	2.56 N	1.44 W	2.10	717.56 FSL	3312.31 FWL	2150375.70 N	623441.13 E
534.00	3.590	329.360	533.90	4.54	3.97 N	2.36 W	2.73	718.97 FSL	3311.39 FWL	2150377.10 N	623440.20 E
565.00	4.520	334.440	564.82	6.71	5.90 N	3.39 W	3.21	720.90 FSL	3310.37 FWL	2150379.03 N	623439.17 E
596.00	5.490	338.310	595.70	9.41	8.38 N	4.46 W	3.31	723.38 FSL	3309.29 FWL	2150381.51 N	623438.09 E
627.00	6.450	337.840	626.53	12.63	11.37 N	5.67 W	3.10	726.37 FSL	3308.09 FWL	2150384.49 N	623436.87 E
658.00	7.190	338.320	657.31	16.31	14.79 N	7.04 W	2.39	729.79 FSL	3306.71 FWL	2150387.90 N	623435.48 E
688.00	8.060	340.130	687.05	20.29	18.51 N	8.45 W	3.01	733.51 FSL	3305.31 FWL	2150391.62 N	623434.06 E
719.00	8.880	340.350	717.71	24.86	22.81 N	9.99 W	2.65	737.81 FSL	3303.76 FWL	2150395.91 N	623432.49 E
750.00	9.840	340.640	748.30	29.90	27.56 N	11.68 W	3.10	742.56 FSL	3302.08 FWL	2150400.65 N	623430.79 E
781.00	10.900	339.590	778.79	35.48	32.81 N	13.58 W	3.47	747.81 FSL	3300.18 FWL	2150405.89 N	623428.87 E
811.00	11.690	339.240	808.21	41.36	38.31 N	15.64 W	2.64	753.31 FSL	3298.11 FWL	2150411.38 N	623426.78 E
843.00	12.830	340.120	839.48	48.15	44.68 N	18.00 W	3.61	759.68 FSL	3295.75 FWL	2150417.74 N	623424.39 E
874.00	13.710	339.060	869.65	55.27	51.35 N	20.49 W	2.95	766.35 FSL	3293.27 FWL	2150424.40 N	623421.88 E
905.00	14.770	339.590	899.70	62.89	58.48 N	23.18 W	3.45	773.48 FSL	3290.58 FWL	2150431.52 N	623419.15 E
936.00	15.470	339.590	929.62	70.98	66.06 N	26.00 W	2.26	781.06 FSL	3287.76 FWL	2150439.09 N	623416.30 E
967.00	16.700	340.640	959.41	79.57	74.14 N	28.92 W	4.08	789.14 FSL	3284.84 FWL	2150447.15 N	623413.35 E
999.00	18.020	340.470	989.95	89.11	83.14 N	32.10 W	4.13	798.14 FSL	3281.66 FWL	2150456.14 N	623410.13 E
1031.00	19.070	341.170	1020.29	99.29	92.75 N	35.44 W	3.35	807.75 FSL	3278.31 FWL	2150465.74 N	623406.74 E
1062.00	20.040	342.050	1049.50	109.66	102.60 N	38.72 W	3.27	817.60 FSL	3275.04 FWL	2150475.57 N	623403.43 E

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates N-S (ft)	E-W (ft)	Dogleg Severit (°/100ft)	Lease Calls FNL-FSL (ft)	FEL-FWL (ft)	Global Coordinates Grid Y (ft)	Grid X (ft)
1094.00	20.740	341.170	1079.50	120.80	113.18 N	42.23 W	2.39	828.17 FSL	3271.52 FWL	2150486.14 N	623399.86 E
1125.00	22.150	341.870	1108.35	132.13	123.93 N	45.83 W	4.62	838.92 FSL	3267.93 FWL	2150496.87 N	623396.23 E
1157.00	22.940	341.350	1137.90	144.39	135.57 N	49.70 W	2.55	850.57 FSL	3264.06 FWL	2150508.49 N	623392.30 E
1188.00	23.820	341.350	1166.36	156.69	147.22 N	53.63 W	2.84	862.22 FSL	3260.12 FWL	2150520.13 N	623388.32 E
1219.00	24.780	341.350	1194.61	169.44	159.31 N	57.72 W	3.10	874.31 FSL	3256.04 FWL	2150532.20 N	623384.18 E
1251.00	25.400	340.640	1223.59	183.00	172.14 N	62.14 W	2.15	887.14 FSL	3251.62 FWL	2150545.01 N	623379.71 E
1282.00	26.540	340.290	1251.46	196.58	184.93 N	66.68 W	3.71	899.93 FSL	3247.08 FWL	2150557.78 N	623375.11 E
1314.00	27.330	339.410	1279.99	211.07	198.54 N	71.67 W	2.77	913.53 FSL	3242.08 FWL	2150571.37 N	623370.06 E
1344.00	27.420	338.710	1306.63	224.86	211.42 N	76.61 W	1.11	926.42 FSL	3237.15 FWL	2150584.23 N	623365.07 E
1375.00	28.300	338.530	1334.04	239.35	224.91 N	81.89 W	2.85	939.91 FSL	3231.87 FWL	2150597.70 N	623359.73 E
1407.00	28.560	338.530	1362.18	254.58	239.08 N	87.47 W	0.81	954.08 FSL	3226.29 FWL	2150611.85 N	623354.09 E
1469.00	28.740	338.180	1416.59	284.30	266.71 N	98.43 W	0.40	981.71 FSL	3215.32 FWL	2150639.43 N	623343.00 E
1532.00	29.090	338.360	1471.73	314.75	295.01 N	109.72 W	0.57	1010.01 FSL	3204.04 FWL	2150667.68 N	623331.60 E
1594.00	27.860	339.590	1526.23	344.31	322.59 N	120.33 W	2.20	1037.59 FSL	3193.43 FWL	2150695.22 N	623320.87 E
1657.00	27.420	339.940	1582.04	373.53	350.02 N	130.44 W	0.74	1065.01 FSL	3183.31 FWL	2150722.59 N	623310.64 E
1719.00	27.070	338.360	1637.16	401.91	376.54 N	140.54 W	1.30	1091.54 FSL	3173.21 FWL	2150749.07 N	623300.42 E
1782.00	27.690	339.240	1693.11	430.88	403.55 N	151.02 W	1.18	1118.55 FSL	3162.73 FWL	2150776.04 N	623289.83 E
1845.00	28.300	339.770	1748.74	460.45	431.25 N	161.38 W	1.05	1146.25 FSL	3152.38 FWL	2150803.69 N	623279.35 E
1907.00	28.480	339.060	1803.28	489.93	458.84 N	171.75 W	0.62	1173.84 FSL	3142.01 FWL	2150831.24 N	623268.86 E
1969.00	28.480	338.180	1857.78	519.49	486.37 N	182.53 W	0.68	1201.37 FSL	3131.23 FWL	2150858.72 N	623257.96 E
2032.00	28.390	337.660	1913.18	549.47	514.17 N	193.81 W	0.42	1229.17 FSL	3119.95 FWL	2150886.47 N	623246.57 E
2095.00	28.390	336.950	1968.60	579.40	541.80 N	205.37 W	0.54	1256.80 FSL	3108.39 FWL	2150914.06 N	623234.89 E
2158.00	28.480	337.830	2024.00	609.37	569.49 N	216.90 W	0.68	1284.49 FSL	3096.85 FWL	2150941.70 N	623223.23 E
2219.00	28.480	339.840	2077.62	638.45	596.61 N	227.41 W	1.57	1311.61 FSL	3086.35 FWL	2150968.77 N	623212.61 E
2282.00	27.860	341.000	2133.16	668.19	624.63 N	237.38 W	1.31	1339.63 FSL	3076.38 FWL	2150996.75 N	623202.52 E
2314.00	27.860	340.820	2161.45	683.14	638.76 N	242.27 W	0.26	1353.76 FSL	3071.48 FWL	2151010.86 N	623197.56 E
2346.00	26.980	339.770	2189.85	697.88	652.64 N	247.24 W	3.14	1367.63 FSL	3066.51 FWL	2151024.71 N	623192.54 E
2377.00	26.370	337.830	2217.55	711.79	665.61 N	252.27 W	3.43	1380.61 FSL	3061.48 FWL	2151037.66 N	623187.45 E
2409.00	25.580	338.010	2246.32	725.80	678.60 N	257.54 W	2.48	1393.59 FSL	3056.21 FWL	2151050.62 N	623182.12 E
2440.00	24.170	338.890	2274.44	738.84	690.72 N	262.34 W	4.70	1405.72 FSL	3051.42 FWL	2151062.73 N	623177.28 E

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates		Dogleg Severit (°/100ft)	Lease Calls		Global Coordinates	
					N-S (ft)	E-W (ft)		FNL-FSL (ft)	FEL-FWL (ft)	Grid Y (ft)	Grid X (ft)
2471.00	23.030	340.290	2302.85	751.25	702.35 N	266.67 W	4.10	1417.35 FSL	3047.09 FWL	2151074.34 N	623172.90 E
2502.00	22.060	341.350	2331.48	763.13	713.57 N	270.58 W	3.39	1428.57 FSL	3043.18 FWL	2151085.55 N	623168.94 E
2533.00	22.240	342.050	2360.19	774.81	724.67 N	274.25 W	1.03	1439.67 FSL	3039.51 FWL	2151096.63 N	623165.22 E
2565.00	22.060	342.230	2389.83	786.86	736.15 N	277.95 W	0.60	1451.15 FSL	3035.81 FWL	2151108.09 N	623161.47 E
2597.00	21.360	341.520	2419.56	798.69	747.40 N	281.63 W	2.34	1462.40 FSL	3032.12 FWL	2151119.33 N	623157.74 E
2628.00	20.830	341.170	2448.48	809.84	757.97 N	285.20 W	1.76	1472.97 FSL	3028.55 FWL	2151129.88 N	623154.12 E
2660.00	20.650	340.290	2478.41	821.17	768.67 N	288.94 W	1.12	1483.67 FSL	3024.81 FWL	2151140.56 N	623150.34 E
2691.00	20.210	339.590	2507.46	831.99	778.84 N	292.65 W	1.62	1493.83 FSL	3021.10 FWL	2151150.71 N	623146.58 E
2722.00	19.600	339.490	2536.61	842.55	788.72 N	296.34 W	1.97	1503.72 FSL	3017.41 FWL	2151160.58 N	623142.85 E
2754.00	19.340	340.470	2566.78	853.21	798.74 N	300.00 W	1.30	1513.74 FSL	3013.76 FWL	2151170.59 N	623139.15 E
2783.00	18.980	341.870	2594.17	862.73	807.75 N	303.07 W	2.01	1522.75 FSL	3010.68 FWL	2151179.58 N	623136.04 E
2815.00	18.540	342.930	2624.47	873.01	817.56 N	306.18 W	1.74	1532.56 FSL	3007.57 FWL	2151189.38 N	623132.88 E
2846.00	18.110	342.750	2653.90	882.74	826.87 N	309.06 W	1.40	1541.87 FSL	3004.69 FWL	2151198.68 N	623129.97 E
2877.00	17.670	342.400	2683.40	892.25	835.96 N	311.91 W	1.46	1550.96 FSL	3001.84 FWL	2151207.75 N	623127.07 E
2909.00	16.080	341.170	2714.02	901.53	844.78 N	314.81 W	5.09	1559.78 FSL	2998.94 FWL	2151216.56 N	623124.14 E
2940.00	15.640	342.400	2743.84	910.00	852.83 N	317.46 W	1.79	1567.83 FSL	2996.29 FWL	2151224.60 N	623121.45 E
2972.00	15.120	340.820	2774.70	918.48	860.88 N	320.14 W	2.09	1575.88 FSL	2993.61 FWL	2151232.64 N	623118.74 E
3001.00	14.150	340.470	2802.76	925.81	867.79 N	322.57 W	3.36	1582.79 FSL	2991.19 FWL	2151239.54 N	623116.28 E
3034.00	12.740	340.470	2834.85	933.48	875.02 N	325.13 W	4.27	1590.02 FSL	2988.62 FWL	2151246.76 N	623113.69 E
3065.00	11.690	339.770	2865.15	940.04	881.19 N	327.36 W	3.42	1596.19 FSL	2986.39 FWL	2151252.92 N	623111.43 E
3097.00	10.810	339.590	2896.53	946.28	887.05 N	329.53 W	2.75	1602.05 FSL	2984.22 FWL	2151258.76 N	623109.24 E
3128.00	9.670	340.120	2927.04	951.79	892.22 N	331.43 W	3.69	1607.22 FSL	2982.32 FWL	2151263.93 N	623107.31 E
3160.00	8.700	341.700	2958.63	956.90	897.05 N	333.11 W	3.13	1612.04 FSL	2980.65 FWL	2151268.75 N	623105.62 E
3191.00	7.470	343.630	2989.32	961.25	901.20 N	334.41 W	4.06	1616.20 FSL	2979.34 FWL	2151272.90 N	623104.30 E
3222.00	6.860	346.440	3020.08	965.10	904.94 N	335.41 W	2.27	1619.94 FSL	2978.34 FWL	2151276.63 N	623103.28 E
3253.00	6.240	348.380	3050.87	968.60	908.39 N	336.19 W	2.12	1623.39 FSL	2977.57 FWL	2151280.07 N	623102.49 E
3283.00	5.270	350.660	3080.72	971.57	911.34 N	336.74 W	3.32	1626.34 FSL	2977.02 FWL	2151283.03 N	623101.92 E
last MWD survey											
3315.00	4.390	350.310	3112.61	974.21	914.00 N	337.19 W	2.75	1629.00 FSL	2976.57 FWL	2151285.68 N	623101.47 E
projection to end run											
3385.00	4.390	350.310	3182.40	979.48	919.28 N	338.09 W	0.00	1634.28 FSL	2975.67 FWL	2151290.96 N	623100.54 E

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to True North.

HALLIBURTON

Sperry Drilling Services

Williams Production Company
New Mexico
Rio Arriba County

Survey Report for Sec. 12-T31N-R06W - Rosa Unit #225A - MWD Survey

Vertical depths are relative to RKB(6503' +12' KB). Northings and Eastings are relative to Wellhead.

Based upon Minimum Curvature type calculations, at a Measured Depth of 3385.00ft.,
The Bottom Hole Displacement is 979.48ft., in the Direction of 339.815° (True).

Survey Report for Sec. 12-T31N-R06W - Rosa Unit #225A - MWD Survey

Comments

Measured Depth (ft)	Station Coordinates		Comment
	TVD (ft)	Northings (ft)	
3315.00	3112.61	914.00 N	last MWD survey
3385.00	3182.40	919.28 N	projection to end run

North Reference Sheet for Sec. 12-T31N-R06W - Rosa Unit #225A

Coordinate System is NAD27 New Mexico State Planes, Western Zone, US Foot
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

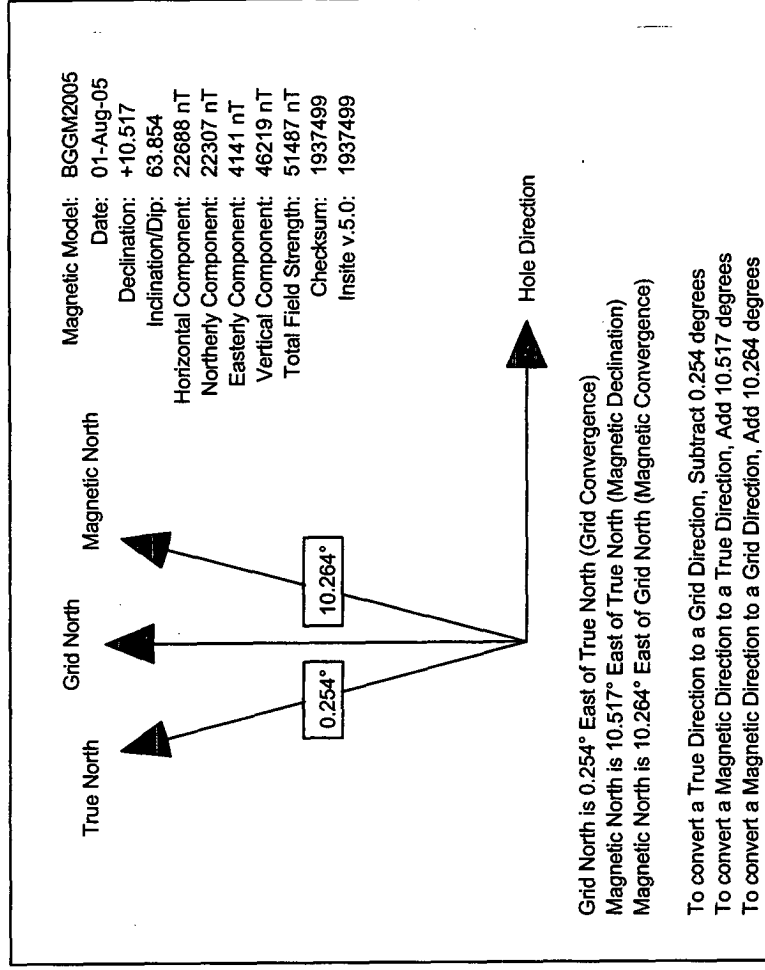
Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1866
Equatorial Radius: 6378206.400m.
Polar Radius: 6356583.800m.
Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection

Central Meridian is -107.833°
Longitude Origin: 0.000°
Latitude Origin: 31.000°
False Easting: 152400.00m
False Northing: 0.00m
Scale Reduction: 0.99991667

Grid Coordinates of Well: 2150373.14 N, 623442.59 E
Geographical Coordinates of Well: 36° 54' 32.0000" N, 107° 24' 40.0000" W
Surface Elevation of Well: 6515.00ft
Grid Convergence at Surface is +0.254°
Magnetic Declination at Surface is +10.517° (1 August, 2005)



ROSA UNIT #225A BASIN FRUITLAND COAL

Surface Location:

715' FSL and 1165' FEL
SW/4 SE/4 Sec 12(O), T31N, R06W
Rio Arriba, NM

Bottom Hole Location:

1634' FSL and 2976' FWL
NW/4 SE/4 Sec 12(J), T31N, R06W
Rio Arriba, NM

Elevation: 6503' GR
API # 30-039-29576

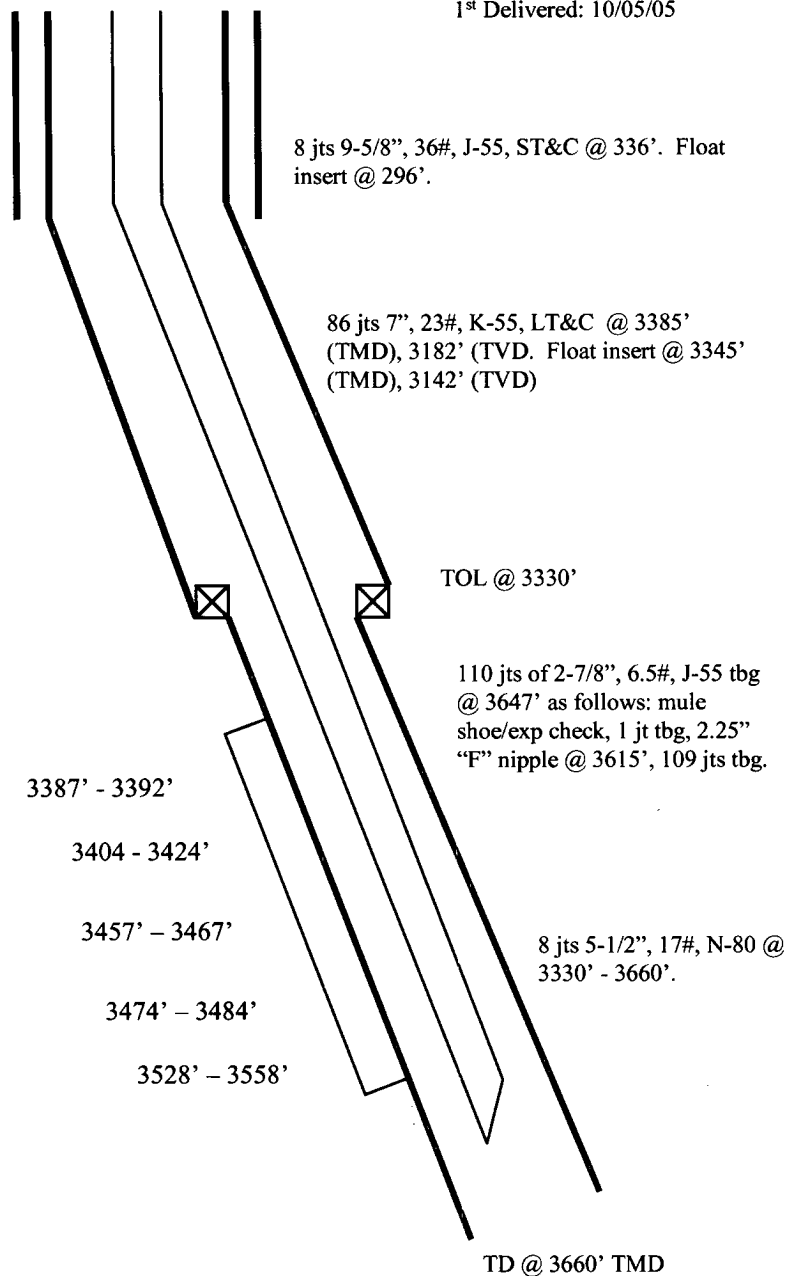
Spud: 07/30/05

Completed: 10/04/05

1st Delivered: 10/05/05

Top	MD Depth	TVD Depth
Ojo Alamo	2783'	2607'
Kirtland	2889'	2707'
Fruitland	3288'	3097'
Base of Coal	3549'	3357'

300 holes total



Hole Size	Casing	Cement	Volume	Top of Cmt
12-1/4"	9-5/8", 36#	162 sx	228 cu.ft.	Surface
8-3/4"	7", 23#	460 sx	1128 cu.ft.	Surface
6-1/4"	5-1/2", 17#	Did Not Cmt		