

District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd, Aztec, NM 87410
District IV
1220 S St. Francis Dr, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-102
Revised October 12, 2005

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30546		² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 21996	⁵ Property Name San Juan 32-5 Unit Com		⁶ Well Number 115
⁷ OGRID No 162928	⁸ Operator Name Energen Resources Corporation		⁹ Elevation 6322'

¹⁰ Surface Location

UL or lot no P	Section 22	Township 32N	Range 06W	Lot Idn	Feet from the 120	North/South line South	Feet from the 50	East/West line East	County Rio Arriba
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. D	Section 22	Township 32N	Range 06W	Lot Idn	Feet from the 718	North/South line North	Feet from the 768	East/West line West	County Rio Arriba
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¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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RCVD OCT 24 '08
OIL CONS. DIV.

DIST. 3

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division <u>Vicki Donaghey</u> 10/23/08 Signature Date <u>Vicki Donaghey</u> Printed Name
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief <u>08/06/2007</u> Date of Survey Signature and Seal of Professional Surveyer <u>Original survey conducted and recorded by: David Russell</u>
	<u>10201</u> Certificate Number

1/4



Energen Resources

Actual

Schlumberger

Well		Location		Section	
San Juan 32-5 Unit #115		Rio Arriba, NM		22-32N-06W	
Mudlog Parameters		Mudlog Parameters		Mudlog Parameters	
Model	4516402507	Log	45172	Date	July 29, 2008
Mag Dec	111.14	Log Dec	111.14	Log Dec	111.14
Mudlog Parameters		Mudlog Parameters		Mudlog Parameters	
Model	4516402507	Log	45172	Date	July 29, 2008
Mag Dec	111.14	Log Dec	111.14	Log Dec	111.14

The data submitted in this report conforms to the standards and procedures as wellbore survey based on original survey data obtained at the well site. set forth by Schlumberger. This report represents a true and correct directional

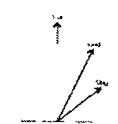
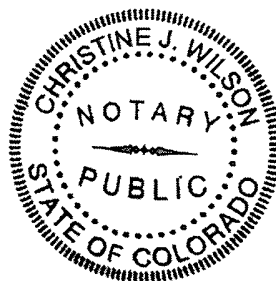
Oswaldo Salazar/DEC Engineer

This document has been subscribed and affirmed, or sworn before me in the county of Arapahoe, in the state of Colorado, on this 20th day of August 2008.

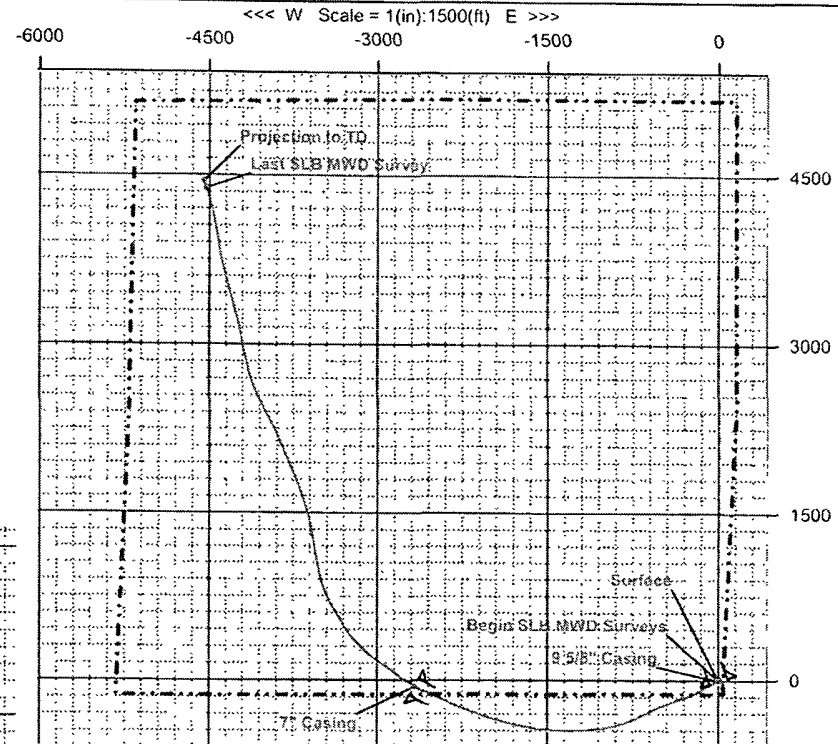
Christine J. Wilson

My commission expires: 12-19-09

December 19, 2009

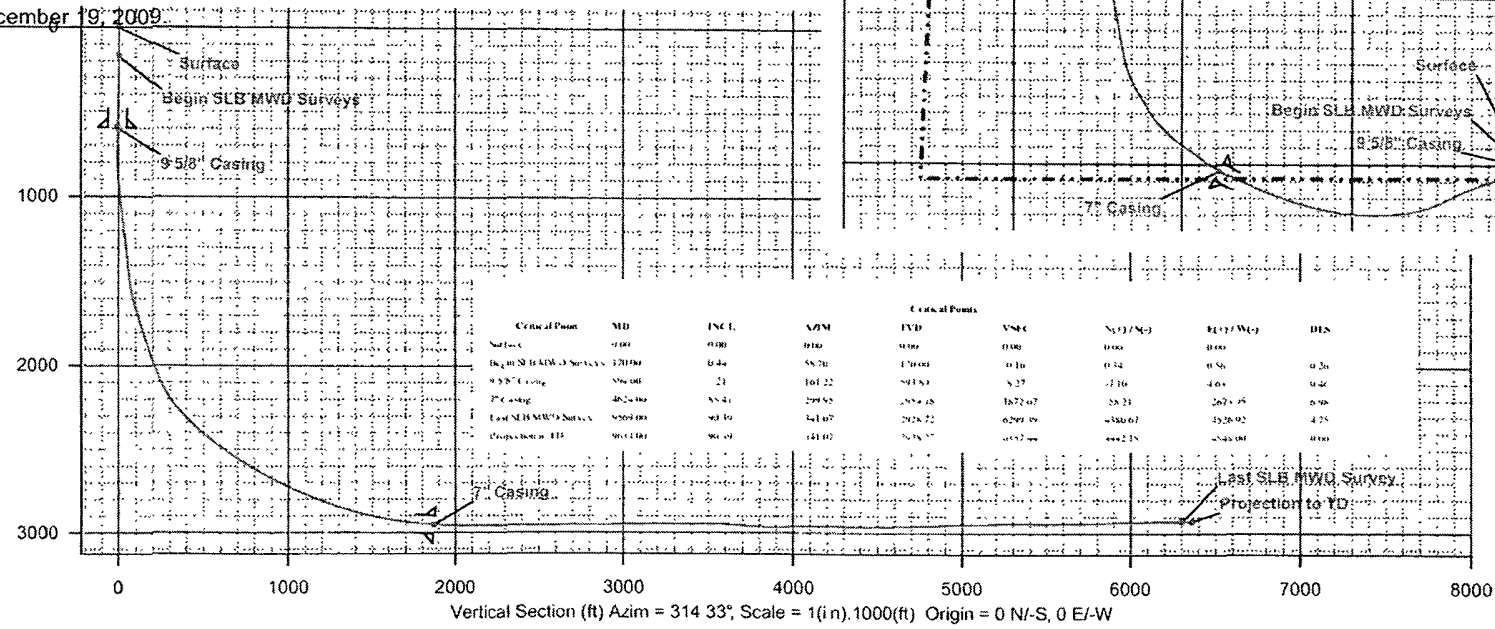


True North
Grid Cont. (Mag. 111.14) 1900
Mag. Dec. 111.14 (FON.)
Grid Cont. 111.14 (FON.)



Scale = 1(in) 1500(ft) N

TVD Scale = 1(in) 1000(ft)



Vertical Section (ft) Azim = 314.33°, Scale = 1(in) 1000(ft) Origin = 0 N-S, 0 E-W

Core Point	MD	INC.	AZIM	TVD	VSCE	N(1)/W(2)	E(1)/W(2)	DHS
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin SLB MWD Surveys	120.00	0.44	58.70	120.00	0.10	0.54	0.56	0.26
9 5/8" Casing	596.00	2.1	103.22	593.93	5.27	2.16	4.04	0.42
7" Casing	4624.00	88.41	299.82	4594.25	1672.07	28.21	2674.94	0.98
Last SLB MWD Surveys	5929.00	90.19	341.07	2928.72	6299.89	4380.67	2928.92	4.75
Projection to TD	5912.00	90.00	341.07	2928.72	6299.89	4380.67	2928.92	4.75

Wellbore Path
Directional Survey
MWD Surveys
Casing
Surface

RCVD OCT 24 '08
OIL CONS. DIV.
DIST. 3



San Juan 32-5 Unit #115 MWD DMAG Final 0' to 9634' Survey Report

Report Date: August 14, 2008	Survey / DLS Computation Method: Minimum Curvature / Local
Client: Energen Resources	Vertical Section Azimuth: 314.330°
Field: NM, Rio Arriba (NA083)	Vertical Section Origin: N 0 000' E 0 000'
Structure / Slot: Energen 22-32N-06W (San Juan 32-5 Unit #115)	TVD Reference Datum: RKB
Well: San Juan 32-5 Unit #115	TVD Reference Elevation: 6334.0' relative to MSL
Borehole: Original Hole	Sea Bed / Ground Level Elevation: 6322.030' relative to MSL
UWI/API:	Magnetic Declination: 10.198°
Survey Name / Date: San Juan 32-5 Unit #115 MWD DMAG Final 0' to 9634' July 20, 2008	Total Field Strength: 51.90 096 nT
Tort / AHD / DDI / ERO ratio: 287.981° / 7860.031' / 5.868' / 2.65'	Magnetic Dip: 63.797°
Grid Coordinate System: NA083 New Mexico State Planes, Western Zone, US Feet	Declination Date: July 20, 2008
Location Lat/Long: N 36 57 32.364, W 107 26 12.336	Magnetic Declination Model: BGM 2007
Location Grid N/E Y/X: N 2168643.550 NUS E 2838956.723 NUS	North Reference: True North
Grid Convergence Angle: +0.23843950°	Total Corr Mag North -> True North: +10.198°
Grid Scale Factor: 0.99993203	Local Coordinates Referenced To: Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2168643.55	2838956.72	N 36 57 32.364	W 107 26 12.336
Begin SLB MWD Surveys	170.00	0.44	58.70	170.00	-0.16	0.34	0.56	0.26	2168643.89	2838957.28	N 36 57 32.367	W 107 26 12.329
	280.00	0.93	115.40	259.99	-0.94	0.21	1.51	0.87	2168643.76	2838958.23	N 36 57 32.366	W 107 26 12.317
	350.00	1.59	150.80	349.97	-2.83	-1.20	2.78	1.10	2168642.36	2838959.51	N 36 57 32.352	W 107 26 12.302
	515.00	1.48	171.55	514.91	-6.72	-5.30	4.21	0.34	2168638.26	2838960.96	N 36 57 32.312	W 107 26 12.284
9 5/8" Casing	594.00	1.21	161.22	593.89	-8.27	-7.10	4.63	0.46	2168636.47	2838961.38	N 36 57 32.294	W 107 26 12.279
	609.00	1.16	158.73	608.89	-8.55	-7.39	4.74	0.46	2168636.18	2838961.49	N 36 57 32.291	W 107 26 12.278
	669.00	1.15	162.59	668.88	-9.64	-8.53	5.14	0.13	2168635.04	2838961.89	N 36 57 32.280	W 107 26 12.273
	700.00	1.16	157.97	699.87	-10.20	-9.12	5.35	0.30	2168634.45	2838962.11	N 36 57 32.274	W 107 26 12.270
	730.00	1.58	213.34	729.86	-10.55	-9.75	5.23	4.42	2168633.83	2838962.00	N 36 57 32.268	W 107 26 12.272
	761.00	3.60	246.82	760.83	-10.26	-10.49	4.10	7.88	2168633.08	2838960.87	N 36 57 32.260	W 107 26 12.285
	822.00	8.58	246.60	821.47	-7.80	-13.05	-1.84	8.16	2168630.49	2838954.94	N 36 57 32.235	W 107 26 12.359
	883.00	11.76	252.28	881.50	-3.17	-16.75	-11.94	5.46	2168626.75	2838944.86	N 36 57 32.198	W 107 26 12.483
	944.00	14.40	247.35	940.92	2.72	-21.56	-24.86	4.69	2168621.88	2838931.95	N 36 57 32.151	W 107 26 12.642
	1005.00	17.23	243.65	999.60	8.67	-28.50	-39.96	4.92	2168614.89	2838916.88	N 36 57 32.082	W 107 26 12.828
	1065.00	18.96	242.26	1056.63	14.61	-36.98	-56.55	2.97	2168606.34	2838900.33	N 36 57 31.998	W 107 26 13.033
	1126.00	20.68	241.12	1114.02	20.78	-46.79	-74.76	2.89	2168596.45	2838882.17	N 36 57 31.901	W 107 26 13.257
	1188.00	22.27	241.03	1171.71	27.31	-57.77	-94.62	2.57	2168585.39	2838862.35	N 36 57 31.793	W 107 26 13.502
	1250.00	22.82	240.08	1228.97	33.95	-69.46	-115.32	1.06	2168573.62	2838841.70	N 36 57 31.677	W 107 26 13.757
	1310.00	22.40	240.11	1284.36	40.22	-80.96	-135.32	0.70	2168562.03	2838821.75	N 36 57 31.584	W 107 26 14.003
	1371.00	22.49	239.43	1340.74	46.42	-92.69	-155.44	0.45	2168550.23	2838801.68	N 36 57 31.448	W 107 26 14.251
	1465.00	23.20	239.63	1427.37	55.99	-111.19	-186.89	0.76	2168531.59	2838770.31	N 36 57 31.265	W 107 26 14.639
	1527.00	24.11	240.70	1484.16	62.78	-123.56	-208.47	1.62	2168519.13	2838748.78	N 36 57 31.142	W 107 26 14.905
	1589.00	26.49	243.99	1540.21	71.00	-135.83	-231.95	4.46	2168506.77	2838725.36	N 36 57 31.021	W 107 26 15.194
	1650.00	29.24	248.95	1594.14	81.79	-147.15	-258.09	5.89	2168495.34	2838699.27	N 36 57 30.909	W 107 26 15.516
	1712.00	32.61	251.27	1647.32	95.67	-157.95	-288.05	5.76	2168484.41	2838669.35	N 36 57 30.802	W 107 26 15.885
	1775.00	33.87	251.99	1700.01	111.52	-168.83	-320.82	2.10	2168473.40	2838636.63	N 36 57 30.695	W 107 26 16.289
	1837.00	33.45	251.50	1751.62	127.34	-179.50	-353.46	0.81	2168462.50	2838604.04	N 36 57 30.588	W 107 26 16.691
	1898.00	35.92	251.20	1801.77	143.10	-190.70	-388.34	4.06	2168451.26	2838571.20	N 36 57 30.478	W 107 26 17.096
	1960.00	38.41	249.86	1851.18	159.63	-203.19	-421.65	4.22	2168438.62	2838535.95	N 36 57 30.355	W 107 26 17.531
	2021.00	39.67	247.26	1898.56	175.38	-217.25	-457.40	3.39	2168424.42	2838500.26	N 36 57 30.216	W 107 26 17.971
	2081.00	42.06	246.74	1943.93	190.51	-232.59	-493.53	4.02	2168408.93	2838464.20	N 36 57 30.064	W 107 26 18.417
	2140.00	45.01	244.43	1986.70	205.22	-249.40	-530.52	5.68	2168391.96	2838427.28	N 36 57 29.898	W 107 26 18.872
	2202.00	48.07	244.30	2029.34	220.63	-268.87	-571.09	4.94	2168372.33	2838386.80	N 36 57 29.706	W 107 26 19.372
	2274.00	50.86	243.18	2076.13	238.80	-293.09	-620.15	4.05	2168347.91	2838337.84	N 36 57 29.466	W 107 26 19.977
	2335.00	53.92	243.09	2113.35	254.38	-314.92	-663.25	5.02	2168325.89	2838294.84	N 36 57 29.250	W 107 26 20.508
	2396.00	57.19	244.56	2147.85	271.17	-337.10	-708.39	5.72	2168303.53	2838249.79	N 36 57 29.031	W 107 26 21.064
	2457.00	58.13	247.72	2180.49	290.32	-357.93	-755.52	4.64	2168282.50	2838202.75	N 36 57 28.825	W 107 26 21.644
	2517.00	58.90	249.93	2211.83	311.54	-376.41	-803.23	3.39	2168263.83	2838155.12	N 36 57 28.642	W 107 26 22.232
	2579.00	59.10	253.43	2243.77	335.95	-393.11	-853.67	4.85	2168246.92	2838104.76	N 36 57 28.477	W 107 26 22.854
	2640.00	59.68	255.25	2274.83	362.21	-407.28	-904.22	2.74	2168232.54	2838054.27	N 36 57 28.337	W 107 26 23.476
	2701.00	60.41	257.39	2305.29	390.21	-419.77	-955.56	3.27	2168219.84	2838002.98	N 36 57 28.213	W 107 26 24.109
	2761.00	60.79	259.49	2334.75	419.52	-430.24	-1008.77	3.11	2168209.15	2837951.82	N 36 57 28.110	W 107 26 24.740
	2822.00	60.75	261.76	2364.54	451.03	-438.91	-1059.29	3.25	2168200.26	2837899.34	N 36 57 28.024	W 107 26 25.387
	2884.00	61.15	264.41	2394.65	484.96	-445.44	-1113.09	3.79	2168193.52	2837845.58	N 36 57 27.960	W 107 26 26.050
	2945.00	61.26	265.66	2424.03	519.82	-450.06	-1166.34	1.80	2168188.67	2837792.34	N 36 57 27.914	W 107 26 26.706
	3005.00	61.70	267.41	2452.08	555.23	-453.25	-1218.96	2.87	2168185.27	2837739.74	N 36 57 27.882	W 107 26 27.354
	3068.00	61.96	269.30	2482.43	593.83	-454.84	-1274.47	2.68	2168183.44	2837684.24	N 36 57 27.866	W 107 26 28.038
	3129.00	62.86	270.69	2510.68	632.50	-454.84	-1328.54	2.50	2168183.22	2837630.18	N 36 57 27.866	W 107 26 28.704
	3192.00	63.47	272.21	2539.12	673.69	-453.42	-1384.73	2.36	2168184.41	2837573.99	N 36 57 27.881	W 107 26 29.397
	3254.00	64.35	273.77	2566.39	715.50	-450.51	-1440.33	2.67	2168187.08	2837518.38	N 36 57 27.909	W 107 26 30.082
	3316.00	64.37	275.53	2593.24	758.50	-445.98	-1496.03	2.56	2168191.38	2837462.67	N 36 57 27.954	W 107 26 30.768
	3376.00	64.51	277.08	2619.15	801.13	-440.04	-1549.82	2.35	2168197.10	2837408.86	N 36 57 28.013	W 107 26 31.431

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
	3438.00	64.94	278.67	2645.63	846.23	-432.35	-1605.35	2.42	2168204.55	2837353.30	N 36 57 28.089	W 107 26 32.115
	3499.00	65.90	280.30	2671.00	891.75	-423.21	-1660.06	2.90	2168213.46	2837298.55	N 36 57 28.179	W 107 26 32.789
	3561.00	66.43	280.91	2696.06	938.92	-412.77	-1715.80	1.24	2168223.67	2837242.77	N 36 57 28.282	W 107 26 33.476
	3623.00	67.03	282.61	2720.55	986.92	-401.16	-1771.56	2.70	2168235.05	2837186.97	N 36 57 28.397	W 107 26 34.163
	3684.00	68.11	283.88	2743.83	1035.20	-388.24	-1826.44	2.61	2168247.74	2837132.04	N 36 57 28.525	W 107 26 34.839
	3747.00	69.11	284.93	2766.80	1086.04	-373.65	-1883.26	2.22	2168262.09	2837075.17	N 36 57 28.669	W 107 26 35.539
	3809.00	70.43	285.48	2788.24	1136.86	-358.39	-1939.39	2.29	2168277.12	2837018.97	N 36 57 28.820	W 107 26 36.231
	3871.00	71.52	286.84	2808.45	1188.53	-342.08	-1995.69	2.72	2168293.20	2836962.61	N 36 57 28.981	W 107 26 36.924
	3934.00	72.39	288.52	2827.97	1242.07	-323.88	-2052.76	2.89	2168311.15	2836905.47	N 36 57 29.161	W 107 26 37.627
	3995.00	73.40	289.84	2845.91	1294.84	-304.73	-2107.82	2.65	2168330.08	2836850.34	N 36 57 29.350	W 107 26 38.306
	4057.00	74.40	290.69	2863.11	1349.23	-284.09	-2163.70	2.08	2168350.47	2836794.38	N 36 57 29.554	W 107 26 38.994
	4119.00	75.75	290.92	2879.07	1404.16	-262.82	-2219.70	2.21	2168371.52	2836738.29	N 36 57 29.765	W 107 26 39.684
	4182.00	77.13	291.20	2893.84	1460.42	-240.81	-2276.85	2.23	2168393.29	2836681.05	N 36 57 29.982	W 107 26 40.388
	4244.00	78.63	292.58	2906.86	1516.45	-218.21	-2333.10	3.25	2168415.65	2836624.72	N 36 57 30.206	W 107 26 41.081
	4306.00	80.10	294.32	2918.31	1573.38	-193.96	-2388.99	3.64	2168439.67	2836568.72	N 36 57 30.445	W 107 26 41.770
	4369.00	80.93	295.46	2928.69	1631.97	-167.80	-2445.36	2.22	2168465.58	2836512.26	N 36 57 30.704	W 107 26 42.464
	4400.00	81.42	294.90	2933.44	1660.91	-154.77	-2473.08	2.38	2168478.50	2836484.48	N 36 57 30.833	W 107 26 42.806
	4431.00	83.13	294.64	2937.61	1689.85	-141.90	-2500.97	5.58	2168491.25	2836456.54	N 36 57 30.950	W 107 26 43.150
	4461.00	84.61	294.80	2940.81	1717.95	-129.43	-2528.07	4.96	2168503.61	2836429.39	N 36 57 31.083	W 107 26 43.484
	4491.00	85.09	295.06	2943.51	1746.13	-116.83	-2555.16	1.82	2168516.09	2836402.25	N 36 57 31.208	W 107 26 43.817
	4520.00	84.72	294.79	2946.08	1773.38	-104.66	-2581.36	1.58	2168528.16	2836376.01	N 36 57 31.328	W 107 26 44.140
	4549.00	85.13	294.93	2948.65	1800.61	-92.52	-2607.57	1.49	2168540.19	2836349.75	N 36 57 31.448	W 107 26 44.463
	4580.00	85.34	296.77	2951.22	1829.91	-79.05	-2635.37	5.95	2168553.54	2836321.89	N 36 57 31.581	W 107 26 44.806
	4610.00	85.37	298.97	2953.65	1858.58	-65.07	-2661.80	7.31	2168567.41	2836295.41	N 36 57 31.719	W 107 26 45.131
7" Casing	4624.00	85.41	299.95	2954.78	1872.07	-58.21	-2673.55	6.98	2168574.22	2836283.23	N 36 57 31.787	W 107 26 45.281
	4641.00	85.45	301.14	2956.13	1888.53	-49.60	-2688.54	6.98	2168582.77	2836268.60	N 36 57 31.872	W 107 26 45.461
	4673.00	86.66	302.64	2958.34	1919.70	-32.73	-2715.65	6.01	2168599.52	2836241.43	N 36 57 32.039	W 107 26 45.795
	4704.00	87.48	303.64	2959.92	1950.07	-15.81	-2741.57	4.17	2168616.34	2836215.44	N 36 57 32.206	W 107 26 46.114
	4751.00	88.43	305.75	2961.60	1996.38	10.93	-2780.18	4.92	2168642.91	2836176.71	N 36 57 32.471	W 107 26 46.590
	4780.00	89.39	306.65	2962.15	2025.08	28.05	-2803.58	4.54	2168659.93	2836153.25	N 36 57 32.640	W 107 26 46.878
	4810.00	90.18	307.67	2962.26	2054.84	46.17	-2827.49	4.30	2168677.95	2836129.28	N 36 57 32.819	W 107 26 47.173
	4841.00	90.91	307.05	2961.97	2085.61	64.98	-2852.13	3.09	2168696.66	2836104.55	N 36 57 33.005	W 107 26 47.476
	4872.00	90.56	306.87	2961.57	2116.36	83.62	-2876.90	1.27	2168715.19	2836079.70	N 36 57 33.189	W 107 26 47.782
	4902.00	89.94	306.26	2961.44	2146.08	101.49	-2900.99	2.90	2168732.96	2836055.54	N 36 57 33.366	W 107 26 48.079
	4932.00	89.91	304.85	2961.48	2175.73	118.94	-2925.40	4.70	2168750.30	2836031.06	N 36 57 33.538	W 107 26 48.379
	4962.00	89.74	303.84	2961.57	2205.27	135.86	-2950.17	3.41	2168767.12	2836006.22	N 36 57 33.706	W 107 26 48.684
	4992.00	90.15	304.25	2961.60	2234.79	152.66	-2975.02	1.93	2168783.81	2835981.30	N 36 57 33.872	W 107 26 48.991
	5023.00	90.94	306.58	2961.30	2265.41	170.62	-3000.29	7.94	2168801.67	2835955.96	N 36 57 34.049	W 107 26 49.302
	5052.00	91.08	306.57	2960.79	2294.14	187.90	-3023.57	0.48	2168818.85	2835932.61	N 36 57 34.220	W 107 26 49.589
	5083.00	90.87	307.05	2960.26	2324.87	206.47	-3048.39	1.69	2168837.32	2835907.72	N 36 57 34.404	W 107 26 49.895
	5113.00	91.63	308.75	2959.61	2354.67	224.89	-3072.05	6.21	2168855.64	2835883.98	N 36 57 34.586	W 107 26 50.186
	5144.00	92.25	311.32	2958.56	2385.37	244.82	-3095.77	8.52	2168875.47	2835860.17	N 36 57 34.783	W 107 26 50.479
	5174.00	90.80	313.32	2957.76	2415.54	265.01	-3117.94	8.23	2168895.56	2835837.92	N 36 57 34.983	W 107 26 50.752
	5235.00	89.56	316.07	2957.57	2476.53	307.91	-3161.30	4.95	2168938.28	2835794.39	N 36 57 35.407	W 107 26 51.286
	5265.00	89.53	317.17	2957.81	2506.50	329.71	-3181.91	3.67	2168959.99	2835773.70	N 36 57 35.622	W 107 26 51.540
	5294.00	90.11	318.73	2957.90	2535.44	351.24	-3201.33	5.74	2168981.44	2835754.18	N 36 57 35.835	W 107 26 51.779
	5324.00	89.94	320.39	2957.89	2565.32	374.07	-3220.79	5.56	2169004.19	2835734.63	N 36 57 36.061	W 107 26 52.019
	5355.00	91.11	323.38	2957.60	2596.04	398.46	-3239.92	10.36	2169028.50	2835715.40	N 36 57 36.302	W 107 26 52.255
	5385.00	91.80	325.91	2956.84	2625.55	422.92	-3257.27	8.74	2169052.88	2835697.95	N 36 57 36.544	W 107 26 52.469
	5414.00	91.56	327.24	2955.99	2653.87	447.11	-3273.24	4.66	2169077.00	2835681.88	N 36 57 36.783	W 107 26 52.665
	5445.00	91.46	329.27	2955.17	2683.95	473.46	-3289.54	6.55	2169103.29	2835665.47	N 36 57 37.043	W 107 26 52.866
	5474.00	90.22	329.26	2954.75	2711.97	498.39	-3304.36	4.28	2169128.15	2835650.55	N 36 57 37.290	W 107 26 53.049
	5504.00	89.80	329.48	2954.74	2740.94	524.20	-3319.65	1.58	2169153.89	2835635.16	N 36 57 37.545	W 107 26 53.237
	5535.00	90.35	329.47	2954.70	2770.86	550.90	-3335.39	1.77	2169180.53	2835619.30	N 36 57 37.809	W 107 26 53.431
	5565.00	90.25	329.41	2954.54	2799.82	576.74	-3350.64	0.39	2169206.30	2835603.94	N 36 57 38.064	W 107 26 53.619
	5596.00	90.15	328.45	2954.44	2829.82	603.29	-3366.64	3.11	2169232.78	2835587.83	N 36 57 38.327	W 107 26 53.817
	5627.00	90.25	329.31	2954.33	2859.83	629.83	-3382.66	2.79	2169259.25	2835571.70	N 36 57 38.589	W 107 26 54.014
	5657.00	90.29	329.10	2954.19	2888.82	655.60	-3398.02	0.71	2169284.95	2835556.24	N 36 57 38.844	W 107 26 54.203
	5687.00	91.11	331.04	2953.82	2917.69	681.59	-3412.99	7.02	2169310.89	2835541.17	N 36 57 39.101	W 107 26 54.388
	5719.00	91.21	332.62	2953.17	2948.21	709.80	-3428.09	4.95	2169339.02	2835525.95	N 36 57 39.380	W 107 26 54.574
	5751.00	91.35	334.31	2952.46	2978.43	738.42	-3442.38	5.30	2169367.58	2835511.54	N 36 57 39.653	W 107 26 54.750
	5782.00	91.39	336.52	2951.72	3007.34	766.60	-3455.28	7.13	2169395.71	2835498.53	N 36 57 39.942	W 107 26 54.909
	5813.00	91.04	338.09	2951.06	3035.88	795.19	-3467.23	5.19	2169424.25	2835486.45	N 36 57 40.224	W 107 26 55.056
	5845.00	90.22	340.60	2950.71	3064.87	825.13	-3478.52	8.25	2169454.14	2835475.04	N 36 57 40.520	W 107 26 55.195
	5877.00	90.18	342.50	2950.60	3093.33	855.48	-3488.65	5.94	2169484.45	2835464.79	N 36 57 40.820	W 107 26 55.320
	5908.00	90.66	344.62	2950.37	3120.38	885.21	-3497.42	7.01	2169514.14	2835455.89	N 36 57 41.114	W 107 26 55.428
	5940.00	90.53	346.06	2950.04	3147.80	916.17	-3505.52	4.52	2169545.06	2835447.67	N 36 57 41.420	W 107 26 55.528
	5971.00	90.35	346.64	2949.80	3174.08	946.29	-3512.83	1.96	2169575.15	2835440.23	N 36 57 41.718	W 107 26 55.618
	6003.00	90.39	347.29	2949.59	3201.03	977.46	-3520.05	2.04	2169606.29	2835432.88	N 36 57 42.026	W 107 26 55.707
	6035.00	90.49	347.96	2949.35	3227.78	1008.72	-3526.91	2.12	2169637.51	2835425.89	N 36 57 42.335	W 107 26 55.792
	6066.00	90.53	349.26	2949.07	3253.39	1039.11	-3533.03	4.20	2169667.87	2835419.65	N 36 57 42.636	W 107 26 55.867
	6098.00	90.63	349.78	2948.75	3279.54	1070.57	-3538.86	1.59	2169699.31	2835413.69	N 36 57 42.947	W 107 26 55.939

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
	6130.00	90.63	350.13	2948.39	3305.56	1102.08	-3544.44	1.16	2169730.79	2835407.97	N 36 57 43.259 W	107 26 56.008
	6162.00	90.01	349.74	2948.21	3331.57	1133.58	-3550.03	2.29	2169762.27	2835402.25	N 36 57 43.570 W	107 26 56.077
	6193.00	90.25	350.72	2948.14	3356.68	1164.13	-3555.30	3.25	2169792.80	2835396.86	N 36 57 43.872 W	107 26 56.142
	6225.00	89.80	351.45	2948.13	3382.32	1195.75	-3560.25	2.68	2169824.39	2835391.77	N 36 57 44.185 W	107 26 56.203
	6257.00	89.80	351.07	2948.24	3407.90	1227.38	-3565.12	1.19	2169855.99	2835386.78	N 36 57 44.497 W	107 26 56.263
	6289.00	89.94	350.39	2948.31	3433.66	1258.96	-3570.27	2.17	2169887.55	2835381.49	N 36 57 44.810 W	107 26 56.326
	6321.00	90.05	349.61	2948.32	3459.65	1290.47	-3575.83	2.46	2169919.04	2835375.81	N 36 57 45.121 W	107 26 56.395
	6352.00	90.11	349.39	2948.27	3485.00	1320.95	-3581.48	0.74	2169949.49	2835370.03	N 36 57 45.423 W	107 26 56.465
	6384.00	89.91	348.81	2948.27	3511.28	1352.37	-3587.53	1.92	2169980.89	2835363.85	N 36 57 45.733 W	107 26 56.539
	6416.00	89.29	347.58	2948.49	3537.85	1383.70	-3594.07	4.30	2170012.18	2835357.17	N 36 57 46.043 W	107 26 56.620
	6447.00	89.08	346.48	2948.93	3563.94	1413.90	-3601.03	3.61	2170042.36	2835350.09	N 36 57 46.342 W	107 26 56.706
	6480.00	87.74	345.68	2949.85	3591.99	1445.92	-3608.97	4.73	2170074.34	2835342.02	N 36 57 46.658 W	107 26 56.804
	6511.00	85.71	344.73	2951.62	3618.55	1475.84	-3616.87	7.23	2170104.22	2835334.00	N 36 57 46.954 W	107 26 56.901
	6543.00	85.36	344.33	2954.11	3646.12	1506.59	-3625.38	1.66	2170134.93	2835325.36	N 36 57 47.258 W	107 26 57.006
	6575.00	85.33	343.71	2956.71	3673.83	1537.25	-3634.16	1.93	2170165.56	2835316.45	N 36 57 47.561 W	107 26 57.114
	6606.00	86.09	342.74	2959.03	3700.89	1566.85	-3643.08	3.97	2170195.11	2835307.41	N 36 57 47.854 W	107 26 57.224
	6638.00	87.02	342.17	2950.95	3729.06	1597.30	-3652.71	3.41	2170225.53	2835297.65	N 36 57 48.155 W	107 26 57.343
	6669.00	87.47	341.83	2952.44	3756.48	1626.75	-3662.28	1.82	2170254.93	2835287.96	N 36 57 48.446 W	107 26 57.461
	6701.00	87.91	340.88	2953.73	3784.97	1657.05	-3672.50	3.27	2170285.18	2835277.62	N 36 57 48.746 W	107 26 57.587
	6733.00	88.29	340.22	2964.79	3813.66	1687.20	-3683.15	2.38	2170315.29	2835266.84	N 36 57 49.044 W	107 26 57.718
	6764.00	88.81	339.83	2965.58	3841.58	1716.33	-3693.74	2.10	2170344.37	2835256.13	N 36 57 49.332 W	107 26 57.848
	6796.00	89.43	339.06	2966.07	3870.55	1746.29	-3704.97	3.09	2170374.28	2835244.78	N 36 57 49.628 W	107 26 57.987
	6828.00	89.87	338.47	2966.26	3899.69	1776.11	-3716.56	2.30	2170404.06	2835233.06	N 36 57 49.923 W	107 26 58.130
	6860.00	90.90	337.50	2966.05	3929.00	1805.78	-3728.56	4.42	2170433.67	2835220.95	N 36 57 50.216 W	107 26 58.278
	6891.00	92.01	337.49	2965.26	3957.49	1834.41	-3740.42	3.58	2170462.25	2835208.97	N 36 57 50.499 W	107 26 58.424
	6923.00	91.59	337.33	2964.25	3986.91	1863.94	-3752.70	1.40	2170491.73	2835196.56	N 36 57 50.791 W	107 26 58.575
	6954.00	91.28	336.90	2963.48	4015.48	1892.49	-3764.75	1.71	2170520.23	2835184.39	N 36 57 51.073 W	107 26 58.724
	6986.00	90.77	335.66	2962.91	4045.16	1921.78	-3777.63	4.19	2170549.46	2835171.40	N 36 57 51.363 W	107 26 58.882
	7018.00	89.87	336.43	2962.73	4074.89	1951.02	-3790.62	3.70	2170578.65	2835158.29	N 36 57 51.652 W	107 26 59.043
	7049.00	89.56	336.83	2962.88	4103.37	1979.48	-3802.91	1.63	2170607.05	2835145.87	N 36 57 51.933 W	107 26 59.194
	7081.00	89.74	336.51	2963.08	4133.17	2008.86	-3815.59	1.15	2170636.38	2835133.08	N 36 57 52.224 W	107 26 59.350
	7144.00	89.63	336.53	2963.42	4191.50	2066.65	-3840.69	0.18	2170694.05	2835107.74	N 36 57 52.795 W	107 26 59.660
	7176.00	90.15	337.34	2963.48	4221.04	2096.09	-3853.22	3.01	2170723.44	2835095.08	N 36 57 53.086 W	107 26 59.814
	7207.00	89.77	336.71	2963.51	4249.64	2124.63	-3865.32	2.37	2170751.93	2835082.86	N 36 57 53.369 W	107 26 59.963
	7238.00	90.15	337.88	2963.53	4278.18	2153.23	-3877.29	3.97	2170780.47	2835070.76	N 36 57 53.651 W	107 27 0.111
	7269.00	89.08	337.12	2963.74	4306.68	2181.86	-3889.15	4.23	2170809.06	2835058.80	N 36 57 53.934 W	107 27 0.257
	7301.00	89.22	336.25	2964.21	4336.27	2211.25	-3901.82	2.75	2170838.39	2835046.01	N 36 57 54.225 W	107 27 0.413
	7333.00	89.70	335.44	2964.51	4366.04	2240.44	-3914.91	2.94	2170867.53	2835032.80	N 36 57 54.514 W	107 27 0.575
	7364.00	89.60	333.96	2964.70	4395.10	2268.47	-3928.16	4.79	2170895.50	2835019.44	N 36 57 54.791 W	107 27 0.738
	7396.00	89.25	331.94	2965.02	4425.42	2296.97	-3942.71	6.41	2170923.93	2835004.77	N 36 57 55.072 W	107 27 0.917
	7427.00	89.67	331.45	2965.32	4455.01	2324.26	-3957.41	2.08	2170951.16	2834989.96	N 36 57 55.342 W	107 27 1.098
	7459.00	90.73	332.15	2965.20	4485.53	2352.46	-3972.53	3.97	2170979.29	2834974.72	N 36 57 55.621 W	107 27 1.285
	7491.00	90.77	332.57	2964.78	4515.96	2380.80	-3987.37	1.32	2171007.58	2834959.76	N 36 57 55.901 W	107 27 1.468
	7523.00	90.70	332.91	2964.37	4546.32	2409.25	-4002.03	1.08	2171035.96	2834944.99	N 36 57 56.183 W	107 27 1.648
	7554.00	90.87	334.39	2963.95	4575.57	2437.02	-4015.78	4.81	2171063.67	2834931.11	N 36 57 56.457 W	107 27 1.818
	7586.00	90.80	335.04	2963.48	4605.56	2465.96	-4029.45	2.04	2171092.54	2834917.33	N 36 57 56.743 W	107 27 1.986
	7618.00	90.80	335.66	2963.04	4635.43	2495.04	-4042.80	1.94	2171121.57	2834903.86	N 36 57 57.031 W	107 27 2.151
	7649.00	90.77	336.31	2962.61	4664.24	2523.35	-4055.41	2.10	2171149.83	2834889.13	N 36 57 57.311 W	107 27 2.306
	7681.00	91.25	336.73	2962.05	4693.86	2552.70	-4068.16	1.99	2171179.12	2834878.26	N 36 57 57.601 W	107 27 2.463
	7713.00	91.32	337.44	2961.33	4723.36	2582.16	-4080.62	2.23	2171208.53	2834865.68	N 36 57 57.892 W	107 27 2.617
	7745.00	91.15	338.06	2960.64	4752.72	2611.77	-4092.73	2.01	2171238.09	2834853.45	N 36 57 58.185 W	107 27 2.766
	7776.00	91.28	338.74	2959.98	4781.02	2640.59	-4104.14	2.23	2171266.85	2834841.92	N 36 57 58.470 W	107 27 2.907
	7808.00	91.76	339.59	2959.13	4810.05	2670.49	-4115.52	3.05	2171296.70	2834830.42	N 36 57 58.765 W	107 27 3.047
	7839.00	92.18	341.74	2958.07	4837.81	2699.72	-4125.77	7.06	2171325.89	2834820.04	N 36 57 59.054 W	107 27 3.174
	7871.00	92.04	343.09	2956.89	4866.03	2730.20	-4135.43	4.24	2171356.33	2834810.25	N 36 57 59.356 W	107 27 3.293
	7902.00	92.25	345.00	2955.73	4892.93	2759.99	-4143.95	6.19	2171386.07	2834801.61	N 36 57 59.650 W	107 27 3.398
	7934.00	91.97	346.27	2954.55	4920.25	2790.96	-4151.88	4.06	2171417.02	2834793.55	N 36 57 59.957 W	107 27 3.495
	7966.00	91.80	346.79	2953.50	4947.31	2822.07	-4159.33	1.71	2171448.09	2834785.97	N 36 58 0.264 W	107 27 3.587
	7998.00	91.52	346.93	2952.57	4974.28	2853.21	-4166.60	0.98	2171479.20	2834778.57	N 36 58 0.572 W	107 27 3.677
	8029.00	91.80	347.04	2951.67	5000.37	2883.41	-4173.58	0.97	2171509.36	2834771.47	N 36 58 0.870 W	107 27 3.763
	8061.00	91.66	346.76	2950.71	5027.33	2914.56	-4180.83	0.98	2171540.48	2834764.09	N 36 58 1.179 W	107 27 3.852
	8093.00	91.70	346.44	2949.77	5054.37	2945.67	-4188.25	1.01	2171571.56	2834756.55	N 36 58 1.486 W	107 27 3.944
	8124.00	91.35	346.64	2948.94	5080.59	2975.81	-4195.46	1.30	2171601.67	2834749.21	N 36 58 1.784 W	107 27 4.033
	8155.00	91.66	346.94	2948.13	5106.74	3005.98	-4202.54	1.39	2171631.81	2834742.00	N 36 58 2.082 W	107 27 4.120
	8187.00	91.39	346.73	2947.28	5133.72	3037.13	-4209.83	1.07	2171662.92	2834734.59	N 36 58 2.390 W	107 27 4.210
	8219.00	91.46	347.13	2946.48	5160.67	3068.29	-4217.06	1.27	2171694.05	2834727.23	N 36 58 2.698 W	107 27 4.299
	8250.00	91.63	347.74	2945.65	5186.63	3098.54	-4223.80	2.04	2171724.27	2834720.36	N 36 58 2.998 W	107 27 4.382
	8281.00	91.21	347.66	2944.88	5212.51	3128.82	-4230.40	1.38	2171754.52	2834713.63	N 36 58 3.297 W	107 27 4.464
	8312.00	91.21	347.03	2944.22	5238.50	3159.05	-4237.19	2.03	2171784.73	2834706.72	N 36 58 3.596 W	107 27 4.547
	8344.00	91.15	346.41	2943.57	5265.51	3190.19	-4244.54	1.95	2171815.83	2834699.24	N 36 58 3.904 W	107 27 4.638
	8374.00	90.91	345.69	2943.03	5291.03	3219.30	-4251.77	2.53	2171844.91	2834691.89	N 36 58 4.192 W	107 27 4.727

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	OLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
	8405.00	90.29	344.50	2942.70	5317.86	3249.26	-4259.75	4.33	2171874.83	2834683.79	N 36 58 4.488	W 107 27 4.825
	8436.00	89.98	344.63	2942.63	5344.44	3279.14	-4268.00	1.08	2171904.67	2834675.42	N 36 58 4.783	W 107 27 4.927
	8467.00	89.25	344.04	2942.84	5371.29	3308.99	-4276.37	3.03	2171934.48	2834666.92	N 36 58 5.078	W 107 27 5.030
	8498.00	89.12	344.34	2943.28	5398.17	3338.81	-4284.81	1.05	2171964.27	2834658.35	N 36 58 5.373	W 107 27 5.134
	8529.00	89.22	344.01	2943.73	5425.06	3368.63	-4293.26	1.11	2171994.05	2834649.78	N 36 58 5.668	W 107 27 5.239
	8561.00	89.80	344.77	2944.00	5452.75	3399.45	-4301.88	2.99	2172024.83	2834641.04	N 36 58 5.973	W 107 27 5.345
	8593.00	90.15	345.15	2944.01	5480.29	3430.36	-4310.18	1.61	2172055.70	2834632.61	N 36 58 6.278	W 107 27 5.447
	8624.00	90.18	344.59	2943.93	5506.98	3460.28	-4318.27	1.81	2172085.59	2834624.39	N 36 58 6.574	W 107 27 5.547
	8656.00	90.46	344.82	2943.75	5534.59	3491.15	-4326.71	1.13	2172116.42	2834615.82	N 36 58 6.879	W 107 27 5.651
	8688.00	90.39	345.19	2943.51	5562.11	3522.06	-4334.99	1.18	2172147.29	2834607.42	N 36 58 7.185	W 107 27 5.753
	8720.00	90.18	344.73	2943.35	5589.65	3552.96	-4343.29	1.58	2172178.16	2834598.99	N 36 58 7.490	W 107 27 5.856
	8751.00	90.66	345.53	2943.12	5616.27	3582.92	-4351.25	3.01	2172208.08	2834590.91	N 36 58 7.787	W 107 27 5.954
	8783.00	90.73	346.14	2942.73	5643.56	3613.95	-4359.08	1.92	2172239.07	2834582.95	N 36 58 8.093	W 107 27 6.050
	8815.00	90.32	345.92	2942.44	5670.78	3645.00	-4366.80	1.45	2172270.09	2834575.09	N 36 58 8.400	W 107 27 6.145
	8847.00	90.42	346.05	2942.23	5698.02	3678.04	-4374.55	0.51	2172301.10	2834567.22	N 36 58 8.707	W 107 27 6.241
	8879.00	90.29	346.04	2942.04	5725.24	3707.10	-4382.27	0.41	2172332.12	2834559.37	N 36 58 9.014	W 107 27 6.336
	8911.00	90.87	347.30	2941.71	5752.27	3738.23	-4389.65	4.33	2172363.22	2834551.86	N 36 58 9.322	W 107 27 6.427
	8943.00	91.46	346.26	2941.06	5779.27	3769.38	-4396.96	3.74	2172394.34	2834544.42	N 36 58 9.630	W 107 27 6.517
	8975.00	91.77	349.86	2940.16	5805.87	3800.67	-4403.58	11.29	2172425.60	2834537.67	N 36 58 9.940	W 107 27 6.599
	9006.00	92.11	351.54	2939.11	5830.82	3831.24	-4408.59	5.53	2172456.15	2834532.54	N 36 58 10.242	W 107 27 6.661
	9038.00	91.42	351.31	2938.12	5856.33	3862.87	-4413.36	2.27	2172487.75	2834527.64	N 36 58 10.555	W 107 27 6.719
	9070.00	91.35	351.32	2937.35	5881.88	3894.49	-4418.19	0.22	2172519.35	2834522.68	N 36 58 10.867	W 107 27 6.779
	9101.00	91.28	350.93	2936.64	5906.70	3925.11	-4422.97	1.28	2172549.95	2834517.77	N 36 58 11.170	W 107 27 6.838
	9133.00	91.77	351.14	2935.79	5932.35	3956.71	-4427.95	1.67	2172581.53	2834512.65	N 36 58 11.482	W 107 27 6.900
	9165.00	91.35	350.16	2934.92	5958.12	3988.28	-4433.15	3.33	2172613.08	2834507.32	N 36 58 11.794	W 107 27 6.964
	9196.00	91.18	349.75	2934.23	5983.31	4018.79	-4438.56	1.43	2172643.56	2834501.79	N 36 58 12.096	W 107 27 7.030
	9227.00	91.25	349.66	2933.58	6008.58	4049.29	-4444.10	0.37	2172674.03	2834496.13	N 36 58 12.398	W 107 27 7.099
	9259.00	91.08	349.17	2932.92	6034.76	4080.74	-4449.97	1.62	2172705.45	2834490.12	N 36 58 12.709	W 107 27 7.171
	9291.00	91.42	348.95	2932.23	6061.05	4112.15	-4456.04	1.27	2172736.83	2834483.92	N 36 58 13.019	W 107 27 7.246
	9322.00	91.35	348.51	2931.48	6086.63	4142.54	-4462.10	1.44	2172767.20	2834477.73	N 36 58 13.320	W 107 27 7.321
	9353.00	91.35	348.40	2930.75	6112.28	4172.90	-4468.30	0.35	2172797.53	2834471.41	N 36 58 13.620	W 107 27 7.397
	9385.00	90.73	346.85	2930.17	6139.02	4204.15	-4475.16	5.22	2172828.75	2834464.42	N 36 58 13.929	W 107 27 7.452
	9417.00	90.11	344.87	2929.93	6166.30	4235.18	-4482.98	6.48	2172859.74	2834456.48	N 36 58 14.236	W 107 27 7.578
	9448.00	90.39	343.87	2929.80	6193.13	4265.04	-4491.33	3.35	2172889.56	2834448.00	N 36 58 14.531	W 107 27 7.681
	9480.00	90.66	343.70	2929.50	6220.99	4295.76	-4500.26	1.00	2172920.25	2834438.94	N 36 58 14.835	W 107 27 7.791
	9512.00	90.39	342.89	2929.21	6248.99	4326.41	-4509.46	2.67	2172950.85	2834429.61	N 36 58 15.138	W 107 27 7.905
	9544.00	90.60	342.24	2928.93	6277.18	4356.94	-4519.05	2.13	2172981.34	2834419.90	N 36 58 15.439	W 107 27 8.023
Last SLB MWD Survey	9569.00	90.39	341.07	2928.72	6299.39	4380.67	-4526.92	4.75	2173005.03	2834411.93	N 36 58 15.674	W 107 27 8.120
Projection to TD	9634.00	90.39	341.07	2928.27	6357.44	4442.15	-4548.00	0.00	2173066.42	2834390.59	N 36 58 16.282	W 107 27 8.380

Survey Type: Definitive Survey

Survey Error Model: SLB ISCWSA version 24 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog.

MD From (ft)

MD To (ft)

EQU Freq Survey Tool Type

Borehole -> Survey

0.00

12.00

Act-Sins SLB_MWD-INC_ONLY-Depth Only

Original Hole -> San Juan 32-5 Unit #115 MWD DMAG Final 0' to 9634'

12.00

609.00

Act-Sins SLB_MWD-INC_ONLY

Original Hole -> San Juan 32-5 Unit #115 MWD DMAG Final 0' to 9634'

609.00

9569.00

Act-Sins SLB_MWD+DMAG

Original Hole -> San Juan 32-5 Unit #115 MWD DMAG Final 0' to 9634'

9569.00

9634.00

Act-Sins SLB_BLIND+TREND

Original Hole -> San Juan 32-5 Unit #115 MWD DMAG Final 0' to 9634'

*Italicized stations are NOT used in position calculations