

"As Drilled"

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 30-039-30468	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 37168	⁵ Property Name Carracas Unit	⁶ Well Number 16
⁷ OGRID No 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 7360'

¹⁰ Surface Location

UL or lot no. K	Section 10	Township 32N	Range 05W	Lot. Idn	Feet from the 2015	North/South line South	Feet from the 1400	East/West line West	County Rio Arriba
--------------------	---------------	-----------------	--------------	----------	-----------------------	---------------------------	-----------------------	------------------------	----------------------

¹¹ Bottom Hole Location If Different From Surface

UL or lot no. I	Section 10	Township 32N	Range 05W	Lot. Idn	Feet from the 1388'	North/South line South	Feet from the 110'	East/West line East	County Rio Arriba
--------------------	---------------	-----------------	--------------	----------	------------------------	---------------------------	-----------------------	------------------------	----------------------

¹² Dedicated Acres 320 S/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No
--	-------------------------------	----------------------------------	------------------------

RCVD OCT 22 '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

¹⁶				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 Signature: Vicki Donaghey Date: 10/21/08 Printed Name: Vicki Donaghey
				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 Date of Survey: 10/21/2005 Signature and Seal of Professional Surveyer: original survey conducted and recorded by: David Russell Certificate Number: 10201

1400'

SHL

2015'

1796'

2585'

110'

BHL

1388'

11/6



REC'D OCT 22 '68
U.S. AIR FORCE
B-57



6501 S. Fiddler's Green Circle, Suite 400
Greenwood Village, CO 80111
(303) 486-3200

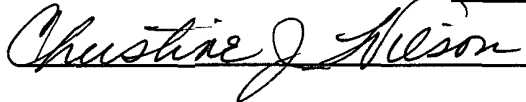
SUB-SURFACE SURVEY CERTIFICATION REPORT

<u>Energen Resources</u> Company	<u>October 9, 2008</u> Date
<u>Lease</u>	<u>Carracas 10 A #16</u> <u>Rio Arriba, NM</u> County/State
Survey Depths	<u>287</u> to <u>7361</u> ft
Type of Survey	<u>Measurements While Drilling (MWD)</u>
Survey Depths	<u>7361</u> to <u>7420</u> ft
Type of Survey	<u>Projection to Bit</u>
Survey Depths	_____ to _____ ft
Type of Survey	_____
Site Supervisor	<u>Artie Sutherland</u>

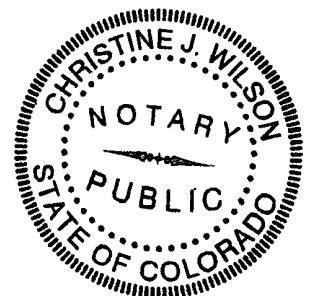
The data submitted in this report conforms to the standards and procedures as set forth by Schlumberger. This report represents a true and correct directional wellbore survey based on original survey data obtained at the well site.


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, this 9th day of October, 2008.



My commission expires: 12-19-09



Carracas 10 A #16 MWD 0' to 7420' Final Survey Report

Report Date: October 9, 2008 Client: Energen Resources Field: NM, Rio Arriba (NAD83) Structure / Slot: Energen 10-32N-05W (Carracas 10 A #16) / Carracas 10 A #16 Well: Carracas 10 A #16 Borehole: Sidetrack 01 UWI/API#: Survey Name / Date: Carracas 10 A #16 MWD 0' to 7420' Final / September 4, 2008 Tort / AHD / DDI / ERD ratio: 254.296° / 4180 77 ft / 6 285 / 1 022 Grid Coordinate System: NAD83 New Mexico State Planes, Central Zone, US Feet Location Lat/Long: N 36 59 35 000, W 107 21 14.000 Location Grid N/E Y/X: N 2182637.041 ftUS, E 1318042 649 ftUS Grid Convergence Angle: -0.66428317° Grid Scale Factor: 1.00001890	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 99 240° Vertical Section Origin: N 0 000 ft, E 0 000 ft TVD Reference Datum: RKB TVD Reference Elevation: 7573.0 ft relative to MSL Sea Bed / Ground Level Elevation: 7556.000 ft relative to MSL Magnetic Declination: 10 075° Total Field Strength: 51219 092 nT Magnetic Dip: 63 874° Declination Date: September 04, 2008 Magnetic Declination Model: BGGM 2008 North Reference: True North Total Corr Mag North -> True North: +10 075° 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	2182637.04	1318042.65	N 36 59 35.000	W 107 21 14.000
9 5/8" Casing	232.00	0.41	252.02	232.00	-0.74	-0.26	-0.79	0.18	2182636.79	1318041.85	N 36 59 34.997	W 107 21 14.010
Begin SLB MWD Surveys	287.00	0.51	252.02	287.00	-1.14	-0.39	-1.21	0.18	2182636.66	1318041.43	N 36 59 34.996	W 107 21 14.015
	350.00	0.62	251.00	349.99	-1.69	-0.59	-1.80	0.18	2182636.47	1318040.84	N 36 59 34.994	W 107 21 14.022
	509.00	0.45	231.04	508.99	-2.86	-1.26	-3.10	0.16	2182635.81	1318039.53	N 36 59 34.987	W 107 21 14.038
	635.00	0.35	238.04	634.98	-3.48	-1.78	-3.81	0.09	2182635.31	1318038.81	N 36 59 34.982	W 107 21 14.047
	762.00	0.19	158.58	761.98	-3.66	-2.18	-4.07	0.29	2182634.91	1318038.56	N 36 59 34.978	W 107 21 14.050
	889.00	0.49	170.59	888.98	-3.38	-2.91	-3.90	0.24	2182634.17	1318038.71	N 36 59 34.971	W 107 21 14.048
	1016.00	1.01	187.37	1015.97	-3.17	-4.56	-3.96	0.44	2182632.53	1318038.64	N 36 59 34.955	W 107 21 14.049
	1047.00	1.05	186.37	1046.96	-3.15	-5.11	-4.02	0.14	2182631.98	1318038.57	N 36 59 34.949	W 107 21 14.050
	1111.00	1.46	185.21	1110.95	-3.06	-6.51	-4.16	0.64	2182630.58	1318038.41	N 36 59 34.936	W 107 21 14.051
	1142.00	1.77	189.72	1141.94	-3.04	-7.37	-4.28	1.08	2182629.72	1318038.29	N 36 59 34.927	W 107 21 14.053
	1173.00	1.88	187.44	1172.92	-3.03	-8.35	-4.42	0.43	2182628.75	1318038.13	N 36 59 34.917	W 107 21 14.055
	1203.00	2.01	190.50	1202.90	-3.02	-9.35	-4.58	0.55	2182627.74	1318037.96	N 36 59 34.908	W 107 21 14.056
	1233.00	2.17	191.95	1232.88	-3.06	-10.43	-4.80	0.56	2182626.67	1318037.73	N 36 59 34.897	W 107 21 14.059
	1294.00	2.53	199.41	1293.83	-3.35	-12.83	-5.48	0.77	2182624.28	1318037.02	N 36 59 34.873	W 107 21 14.068
	1325.00	2.48	197.16	1324.80	-3.57	-14.11	-5.91	0.36	2182623.00	1318036.58	N 36 59 34.860	W 107 21 14.073
	1356.00	2.65	198.62	1355.77	-3.78	-15.43	-6.34	0.59	2182621.68	1318036.13	N 36 59 34.847	W 107 21 14.078
	1385.00	2.90	195.68	1384.74	-3.97	-16.77	-6.75	0.99	2182620.35	1318035.71	N 36 59 34.834	W 107 21 14.083
	1416.00	3.04	194.73	1415.70	-4.13	-18.32	-7.17	0.48	2182618.80	1318035.27	N 36 59 34.819	W 107 21 14.088
	1422.00	2.96	195.79	1421.69	-4.17	-18.63	-7.25	1.62	2182618.50	1318035.18	N 36 59 34.816	W 107 21 14.089
	1451.00	2.60	195.24	1450.65	-4.32	-19.98	-7.63	1.24	2182617.15	1318034.79	N 36 59 34.802	W 107 21 14.094
	1482.00	2.58	194.00	1481.62	-4.45	-21.34	-7.98	0.19	2182615.80	1318034.42	N 36 59 34.789	W 107 21 14.098
	1513.00	2.55	194.30	1512.59	-4.57	-22.68	-8.32	0.11	2182614.46	1318034.07	N 36 59 34.776	W 107 21 14.103
	1543.00	2.56	195.95	1542.56	-4.71	-23.97	-8.67	0.25	2182613.17	1318033.70	N 36 59 34.763	W 107 21 14.107
	1558.00	2.60	196.31	1557.54	-4.79	-24.62	-8.86	0.29	2182612.52	1318033.51	N 36 59 34.757	W 107 21 14.109
	1588.00	2.65	196.23	1587.51	-4.96	-25.94	-9.24	0.17	2182611.21	1318033.11	N 36 59 34.744	W 107 21 14.114
	1620.00	2.68	207.78	1619.48	-5.29	-27.31	-9.80	1.68	2182609.84	1318032.53	N 36 59 34.730	W 107 21 14.121
	1651.00	4.03	238.52	1650.43	-6.34	-28.52	-11.07	7.11	2182608.65	1318031.25	N 36 59 34.718	W 107 21 14.136
	1681.00	6.38	252.19	1680.30	-8.63	-29.58	-13.55	8.80	2182607.62	1318028.76	N 36 59 34.707	W 107 21 14.167
	1712.00	8.72	257.95	1711.03	-12.35	-30.60	-17.49	7.92	2182606.64	1318024.80	N 36 59 34.697	W 107 21 14.216
	1743.00	10.86	258.72	1741.58	-17.27	-31.66	-22.65	6.92	2182605.64	1318019.63	N 36 59 34.687	W 107 21 14.279
	1774.00	12.55	258.68	1771.93	-23.16	-32.90	-28.82	5.45	2182604.48	1318013.45	N 36 59 34.675	W 107 21 14.355
	1805.00	13.85	259.44	1802.11	-29.81	-34.24	-35.77	4.23	2182603.22	1318006.48	N 36 59 34.661	W 107 21 14.441
	1835.00	15.17	262.54	1831.16	-36.95	-35.40	-43.19	5.10	2182602.14	1317999.05	N 36 59 34.650	W 107 21 14.532
	1865.00	16.05	267.73	1860.05	-44.77	-36.08	-51.23	5.50	2182601.56	1317991.00	N 36 59 34.643	W 107 21 14.631
	1895.00	17.19	273.34	1888.80	-53.25	-35.98	-59.80	6.56	2182601.75	1317982.44	N 36 59 34.644	W 107 21 14.737
	1927.00	18.57	278.76	1919.26	-63.05	-34.93	-69.56	6.75	2182602.92	1317972.69	N 36 59 34.655	W 107 21 14.857
	1957.00	18.65	284.80	1947.69	-72.60	-32.98	-78.92	6.43	2182604.98	1317963.35	N 36 59 34.674	W 107 21 14.973
	1988.00	17.17	290.31	1977.19	-82.02	-30.12	-88.00	7.25	2182607.94	1317954.30	N 36 59 34.702	W 107 21 15.085
	2018.00	15.87	297.48	2005.95	-90.27	-26.69	-95.79	8.05	2182611.46	1317946.55	N 36 59 34.736	W 107 21 15.181
	2049.00	13.98	303.66	2035.91	-97.70	-22.66	-102.67	7.96	2182615.57	1317939.72	N 36 59 34.776	W 107 21 15.266
	2079.00	11.70	305.08	2065.16	-103.74	-18.91	-108.18	7.67	2182619.39	1317934.26	N 36 59 34.813	W 107 21 15.333
	2110.00	9.76	304.35	2095.61	-108.95	-15.62	-112.92	6.27	2182622.74	1317929.55	N 36 59 34.846	W 107 21 15.392
	2140.00	8.02	300.66	2125.25	-113.20	-13.11	-116.82	6.10	2182625.28	1317925.68	N 36 59 34.870	W 107 21 15.440

2171.00	6.92	289.97	2155.99	-117.05	-11.37	-120.44	5.70	2182627.07	1317922.09	N 36 59 34.888	W 107 21 15.485
2202.00	5.66	278.40	2186.80	-120.41	-10.51	-123.70	5.75	2182627.96	1317918.83	N 36 59 34.896	W 107 21 15.525
2233.00	3.88	277.31	2217.69	-122.99	-10.15	-126.26	5.75	2182628.35	1317916.28	N 36 59 34.900	W 107 21 15.556
2263.00	2.84	299.32	2247.64	-124.70	-9.66	-127.91	5.46	2182628.86	1317914.63	N 36 59 34.904	W 107 21 15.577
2294.00	2.72	317.74	2278.61	-126.00	-8.74	-129.08	2.89	2182629.80	1317913.48	N 36 59 34.914	W 107 21 15.591
2325.00	2.47	317.96	2309.58	-127.09	-7.70	-130.02	0.81	2182630.85	1317912.55	N 36 59 34.924	W 107 21 15.603
2356.00	2.53	314.54	2340.55	-128.17	-6.72	-130.95	0.52	2182631.83	1317911.62	N 36 59 34.934	W 107 21 15.614
2386.00	2.36	308.82	2370.52	-129.25	-5.87	-131.91	0.99	2182632.70	1317910.68	N 36 59 34.942	W 107 21 15.626
2418.00	2.32	303.62	2402.49	-130.41	-5.10	-132.96	0.67	2182633.48	1317909.64	N 36 59 34.950	W 107 21 15.639
2448.00	2.30	307.07	2432.47	-131.50	-4.40	-133.94	0.47	2182634.19	1317908.66	N 36 59 34.956	W 107 21 15.651
2479.00	2.03	326.03	2463.45	-132.43	-3.57	-134.75	2.46	2182635.03	1317907.87	N 36 59 34.965	W 107 21 15.661
2509.00	2.27	353.70	2493.43	-132.95	-2.54	-135.11	3.51	2182636.07	1317907.52	N 36 59 34.975	W 107 21 15.665
2539.00	3.43	7.55	2523.39	-133.13	-1.06	-135.06	4.47	2182637.55	1317907.59	N 36 59 34.990	W 107 21 15.665
2569.00	4.16	5.27	2553.32	-133.24	0.91	-134.84	2.48	2182639.52	1317907.83	N 36 59 35.009	W 107 21 15.662
2599.00	4.61	7.65	2583.23	-133.35	3.19	-134.58	1.62	2182641.79	1317908.11	N 36 59 35.032	W 107 21 15.659
2630.00	4.68	15.87	2614.13	-133.23	5.64	-134.07	2.16	2182644.24	1317908.65	N 36 59 35.056	W 107 21 15.653
2661.00	5.10	30.94	2645.02	-132.58	8.04	-133.01	4.34	2182646.62	1317909.74	N 36 59 35.079	W 107 21 15.640
2696.00	6.38	48.94	2679.85	-130.76	10.65	-130.75	6.27	2182649.21	1317912.03	N 36 59 35.105	W 107 21 15.612
2722.00	7.54	57.52	2705.66	-128.56	12.52	-128.22	5.98	2182651.04	1317914.58	N 36 59 35.124	W 107 21 15.580
2758.00	8.67	66.59	2741.30	-124.52	14.86	-123.74	4.73	2182653.34	1317919.09	N 36 59 35.147	W 107 21 15.525
2785.00	9.75	73.06	2767.95	-120.75	16.34	-119.68	5.54	2182654.77	1317923.16	N 36 59 35.162	W 107 21 15.475
2817.00	11.04	75.84	2799.42	-115.51	17.88	-114.12	4.32	2182656.24	1317928.74	N 36 59 35.177	W 107 21 15.407
2850.00	12.07	78.51	2831.76	-109.38	19.34	-107.67	3.52	2182657.63	1317935.21	N 36 59 35.191	W 107 21 15.327
2880.00	13.22	80.10	2861.03	-103.21	20.55	-101.22	4.00	2182658.77	1317941.67	N 36 59 35.203	W 107 21 15.248
2911.00	14.52	82.79	2891.12	-96.13	21.65	-93.87	4.68	2182659.78	1317949.03	N 36 59 35.214	W 107 21 15.157
2943.00	16.18	85.16	2921.98	-87.96	22.53	-85.45	5.54	2182660.56	1317957.47	N 36 59 35.223	W 107 21 15.053
2974.00	18.30	87.69	2951.59	-79.00	23.09	-76.28	7.25	2182661.01	1317966.64	N 36 59 35.228	W 107 21 14.940
3006.00	19.97	90.12	2981.82	-68.68	23.28	-65.80	5.78	2182661.08	1317977.13	N 36 59 35.230	W 107 21 14.811
3039.00	20.95	94.43	3012.74	-57.24	22.81	-54.28	5.44	2182660.48	1317988.64	N 36 59 35.226	W 107 21 14.669
3072.00	21.91	96.47	3043.46	-45.21	21.66	-42.28	3.68	2182659.19	1318000.63	N 36 59 35.214	W 107 21 14.521
3104.00	23.06	96.08	3073.02	-32.99	20.33	-30.11	3.62	2182657.72	1318012.77	N 36 59 35.201	W 107 21 14.371
3136.00	24.17	95.23	3102.34	-20.19	19.07	-17.36	3.63	2182656.31	1318025.51	N 36 59 35.189	W 107 21 14.214
3168.00	24.73	95.06	3131.47	-6.98	17.88	-4.17	1.76	2182654.97	1318038.69	N 36 59 35.177	W 107 21 14.051
3200.00	25.55	96.17	3160.44	6.58	16.55	9.36	2.96	2182653.48	1318052.20	N 36 59 35.164	W 107 21 13.885
3232.00	26.49	98.25	3189.20	20.61	14.78	23.29	4.09	2182651.55	1318066.11	N 36 59 35.146	W 107 21 13.713
3264.00	27.52	99.59	3217.71	35.14	12.53	37.64	3.74	2182649.13	1318080.43	N 36 59 35.124	W 107 21 13.536
3295.00	28.73	100.29	3245.05	49.75	10.00	52.03	4.05	2182646.44	1318094.80	N 36 59 35.099	W 107 21 13.359
3327.00	29.95	100.15	3272.94	65.43	7.22	67.46	3.82	2182643.48	1318110.19	N 36 59 35.071	W 107 21 13.168
3362.00	30.24	97.66	3303.23	82.98	4.51	84.80	3.66	2182640.56	1318127.50	N 36 59 35.045	W 107 21 12.955
3389.00	29.86	99.19	3326.60	96.49	2.53	98.17	3.17	2182638.43	1318140.85	N 36 59 35.025	W 107 21 12.790
3422.00	30.63	100.18	3355.11	113.12	-0.27	114.56	2.78	2182635.44	1318157.20	N 36 59 34.997	W 107 21 12.588
3452.00	32.23	99.84	3380.70	128.76	-2.99	129.96	5.37	2182632.54	1318172.57	N 36 59 34.970	W 107 21 12.398
3484.00	33.69	98.66	3407.55	146.17	-5.79	147.15	4.98	2182629.55	1318189.72	N 36 59 34.943	W 107 21 12.186
3515.00	35.06	98.29	3433.14	163.67	-8.36	164.46	4.47	2182626.77	1318207.00	N 36 59 34.917	W 107 21 11.973
3546.00	36.34	98.57	3458.31	181.75	-11.02	182.35	4.16	2182623.91	1318224.86	N 36 59 34.891	W 107 21 11.752
3576.00	37.48	99.50	3482.30	199.77	-13.85	200.14	4.23	2182620.87	1318242.62	N 36 59 34.863	W 107 21 11.533
3637.00	40.58	101.06	3529.68	238.17	-20.72	237.93	5.33	2182613.57	1318280.33	N 36 59 34.795	W 107 21 11.067
3668.00	42.02	101.49	3552.97	258.62	-24.72	257.99	4.73	2182609.33	1318300.34	N 36 59 34.756	W 107 21 10.820
3698.00	43.41	101.65	3575.01	278.95	-28.80	277.93	4.65	2182605.02	1318320.23	N 36 59 34.715	W 107 21 10.574
3729.00	44.39	101.77	3597.35	300.42	-33.16	298.98	3.17	2182600.41	1318341.23	N 36 59 34.672	W 107 21 10.315
3760.00	45.48	102.31	3619.29	322.29	-37.73	320.39	3.73	2182595.60	1318362.59	N 36 59 34.627	W 107 21 10.051
3791.00	46.28	102.10	3640.87	344.52	-42.44	342.14	2.63	2182590.64	1318384.28	N 36 59 34.580	W 107 21 9.783
3823.00	47.03	102.03	3662.84	367.76	-47.30	364.90	2.35	2182585.51	1318406.98	N 36 59 34.532	W 107 21 9.502
3854.00	47.84	101.75	3683.81	390.57	-52.00	387.24	2.70	2182580.55	1318429.27	N 36 59 34.486	W 107 21 9.227
3886.00	48.71	101.55	3705.10	414.43	-56.83	410.63	2.76	2182575.46	1318452.60	N 36 59 34.438	W 107 21 8.938
3918.00	49.82	101.45	3725.99	438.66	-61.66	434.39	3.48	2182570.35	1318476.31	N 36 59 34.390	W 107 21 8.646
3949.00	50.86	101.57	3745.77	462.50	-66.42	457.78	3.37	2182565.31	1318499.63	N 36 59 34.343	W 107 21 8.357
3980.00	52.07	101.93	3765.08	486.73	-71.36	481.52	4.01	2182560.10	1318523.32	N 36 59 34.294	W 107 21 8.065
4012.00	53.38	101.59	3784.46	512.17	-76.55	506.45	4.18	2182554.62	1318548.18	N 36 59 34.243	W 107 21 7.757
4043.00	54.08	101.52	3802.80	537.14	-81.56	530.93	2.27	2182549.33	1318572.61	N 36 59 34.194	W 107 21 7.456
4076.00	55.22	101.50	3821.90	564.03	-86.93	557.31	3.45	2182543.66	1318598.92	N 36 59 34.140	W 107 21 7.131
4107.00	56.71	101.47	3839.25	589.70	-92.04	582.48	4.81	2182538.25	1318624.03	N 36 59 34.090	W 107 21 6.820
4139.00	58.13	101.35	3856.48	616.65	-97.38	608.91	4.45	2182532.61	1318650.40	N 36 59 34.037	W 107 21 6.494
4172.00	59.89	100.76	3873.47	644.92	-102.80	636.68	5.55	2182526.86	1318678.10	N 36 59 33.984	W 107 21 6.152
4204.00	61.40	100.10	3889.15	672.81	-107.85	664.11	5.05	2182521.50	1318705.47	N 36 59 33.934	W 107 21 5.814

	4235.00	62.87	99.59	3903.64	700.21	-112.53	691.11	4.96	2182516.50	1318732.42	N 36 59 33.887	W 107 21 5 481
	4267.00	63.77	99.44	3918.01	728.80	-117.26	719.31	2.84	2182511.45	1318760.56	N 36 59 33.841	W 107 21 5.134
	4299.00	65.49	98.88	3931.72	757.71	-121.86	747.85	5.60	2182506.52	1318789.05	N 36 59 33.795	W 107 21 4 782
	4331.00	66.97	98.90	3944.62	787.00	-126.39	776.78	4.63	2182501.66	1318817.93	N 36 59 33.750	W 107 21 4.425
	4362.00	68.72	99.19	3956.31	815.71	-130.90	805.14	5.71	2182496.81	1318846.23	N 36 59 33.706	W 107 21 4 076
	4395.00	70.56	99.52	3967.79	846.64	-135.93	835.66	5.65	2182491.43	1318876.69	N 36 59 33.656	W 107 21 3 699
	4427.00	72.15	99.53	3978.02	876.96	-140.95	865.56	4.97	2182486.07	1318906.53	N 36 59 33.606	W 107 21 3.331
	4458.00	74.02	99.79	3987.04	906.62	-145.92	894.80	6.09	2182480.75	1318935.71	N 36 59 33.557	W 107 21 2.971
	4490.00	75.83	99.94	3995.36	937.52	-151.22	925.24	5.67	2182475.10	1318966.09	N 36 59 33.505	W 107 21 2.595
	4522.00	77.98	99.74	4002.61	968.68	-156.54	955.95	6.75	2182469.42	1318996.73	N 36 59 33.452	W 107 21 2.217
	4553.00	79.42	99.44	4008.68	999.08	-161.61	985.92	4.74	2182464.01	1319026.65	N 36 59 33.402	W 107 21 1.847
	4585.00	80.37	99.99	4014.30	1030.58	-166.92	1016.97	3.42	2182458.33	1319057.64	N 36 59 33.349	W 107 21 1.465
	4616.00	81.83	100.25	4019.10	1061.20	-172.31	1047.12	4.78	2182452.60	1319087.72	N 36 59 33.296	W 107 21 1.093
	4648.00	84.05	100.33	4023.03	1092.95	-177.98	1078.37	6.94	2182446.57	1319118.90	N 36 59 33.240	W 107 21 0.708
	4679.00	85.81	100.79	4025.77	1123.82	-183.64	1108.72	5.87	2182440.56	1319149.19	N 36 59 33.184	W 107 21 0.334
	4712.00	87.50	101.04	4027.69	1156.75	-189.87	1141.07	5.18	2182433.95	1319181.46	N 36 59 33.122	W 107 20 59.935
	4744.00	89.11	100.82	4028.64	1188.72	-195.94	1172.47	5.08	2182427.52	1319212.79	N 36 59 33.062	W 107 20 59.548
	4776.00	89.87	101.11	4028.92	1220.71	-202.03	1203.89	2.54	2182421.07	1319244.13	N 36 59 33.002	W 107 20 59.161
	4807.00	90.08	100.81	4028.94	1251.69	-207.92	1234.32	1.18	2182414.82	1319274.50	N 36 59 32.944	W 107 20 58.786
	4823.00	90.04	100.52	4028.92	1267.69	-210.88	1250.05	1.83	2182411.68	1319290.19	N 36 59 32.915	W 107 20 58.592
7" Casing	4869.00	89.77	100.58	4029.00	1313.67	-219.30	1295.27	0.60	2182402.73	1319335.31	N 36 59 32.831	W 107 20 58.034
	4928.00	89.42	100.65	4029.42	1372.66	-230.17	1353.26	0.60	2182391.20	1319393.17	N 36 59 32.724	W 107 20 57.320
	4957.00	89.62	101.33	4029.66	1401.64	-235.70	1381.72	2.44	2182385.34	1319421.57	N 36 59 32.669	W 107 20 56.969
	4988.00	88.49	101.81	4030.17	1432.61	-241.91	1412.09	3.96	2182378.77	1319451.86	N 36 59 32.608	W 107 20 56.594
	5020.00	87.49	102.01	4031.29	1464.56	-248.51	1443.38	3.19	2182371.81	1319483.08	N 36 59 32.542	W 107 20 56.209
	5053.00	86.66	102.35	4032.98	1497.47	-255.47	1475.60	2.72	2182364.48	1319515.21	N 36 59 32.474	W 107 20 55.812
	5088.00	89.52	103.98	4034.14	1532.36	-263.43	1509.65	9.40	2182356.12	1319549.17	N 36 59 32.395	W 107 20 55.392
	5123.00	88.11	104.06	4034.87	1567.23	-271.91	1543.60	4.04	2182347.25	1319583.02	N 36 59 32.311	W 107 20 54.973
	5154.00	88.24	105.31	4035.85	1598.08	-279.76	1573.57	4.05	2182339.05	1319612.90	N 36 59 32.233	W 107 20 54.604
	5186.00	88.62	106.41	4036.73	1629.85	-288.51	1604.34	3.64	2182329.95	1319643.57	N 36 59 32.147	W 107 20 54.225
	5219.00	87.65	107.04	4037.80	1662.55	-298.00	1635.93	3.50	2182320.09	1319675.04	N 36 59 32.053	W 107 20 53.835
	5250.00	88.75	108.54	4038.78	1693.19	-307.46	1665.43	6.00	2182310.28	1319704.43	N 36 59 31.959	W 107 20 53.472
	5282.00	89.68	110.29	4039.22	1724.68	-318.10	1695.61	6.19	2182299.30	1319734.48	N 36 59 31.854	W 107 20 53.100
	5315.00	87.41	109.02	4040.05	1757.13	-329.19	1726.67	7.88	2182287.84	1319765.42	N 36 59 31.745	W 107 20 52.717
	5348.00	86.97	109.38	4041.67	1789.59	-340.03	1757.80	1.72	2182276.64	1319796.42	N 36 59 31.637	W 107 20 52.333
	5376.00	88.10	109.40	4042.88	1817.13	-349.32	1784.19	4.04	2182267.05	1319822.69	N 36 59 31.546	W 107 20 52.008
	5412.00	89.58	110.10	4043.61	1852.51	-361.48	1818.06	4.55	2182254.50	1319856.43	N 36 59 31.425	W 107 20 51.590
	5443.00	89.54	110.51	4043.84	1882.94	-372.24	1847.13	1.33	2182243.40	1319885.37	N 36 59 31.319	W 107 20 51.232
	5475.00	90.10	110.70	4043.94	1914.31	-383.50	1877.09	1.85	2182231.80	1319915.19	N 36 59 31.208	W 107 20 50.863
	5507.00	90.47	111.05	4043.79	1945.65	-394.90	1906.98	1.59	2182220.05	1319944.96	N 36 59 31.095	W 107 20 50.494
	5538.00	89.03	111.20	4043.92	1975.98	-406.08	1935.90	4.67	2182208.54	1319973.74	N 36 59 30.984	W 107 20 50.138
	5570.00	88.03	111.48	4044.74	2007.26	-417.72	1965.70	3.25	2182196.55	1320003.40	N 36 59 30.869	W 107 20 49.771
	5603.00	87.82	112.11	4045.94	2039.45	-429.96	1996.32	2.01	2182183.96	1320033.88	N 36 59 30.748	W 107 20 49.393
	5635.00	88.13	112.00	4047.07	2070.64	-441.97	2025.96	1.03	2182171.60	1320063.38	N 36 59 30.629	W 107 20 49.028
	5668.00	88.58	111.84	4048.01	2102.82	-454.28	2056.56	1.45	2182158.94	1320093.84	N 36 59 30.508	W 107 20 48.651
	5699.00	89.30	111.74	4048.59	2133.07	-465.79	2085.34	2.34	2182147.10	1320122.48	N 36 59 30.394	W 107 20 48.296
	5732.00	89.79	111.86	4048.85	2165.28	-478.04	2115.98	1.53	2182134.49	1320152.98	N 36 59 30.273	W 107 20 47.918
	5764.00	89.24	112.20	4049.12	2196.49	-490.05	2145.64	2.02	2182122.14	1320182.50	N 36 59 30.154	W 107 20 47.553
	5796.00	87.44	111.52	4050.05	2227.70	-501.96	2175.32	6.01	2182109.89	1320212.04	N 36 59 30.036	W 107 20 47.187
	5828.00	88.24	111.08	4051.25	2258.97	-513.57	2205.12	2.85	2182097.93	1320241.70	N 36 59 29.921	W 107 20 46.820
	5860.00	88.38	110.36	4052.20	2290.31	-524.89	2235.03	2.29	2182086.27	1320271.49	N 36 59 29.809	W 107 20 46.451
	5892.00	87.69	109.75	4053.29	2321.73	-535.86	2265.08	2.88	2182074.95	1320301.40	N 36 59 29.701	W 107 20 46.081
	5924.00	88.96	109.94	4054.23	2353.17	-546.71	2295.16	4.01	2182063.75	1320331.36	N 36 59 29.593	W 107 20 45.710
	5957.00	88.99	109.38	4054.82	2385.62	-557.81	2326.23	1.70	2182052.28	1320362.30	N 36 59 29.484	W 107 20 45.327
	5989.00	88.58	109.39	4055.50	2417.11	-568.43	2356.41	1.28	2182041.32	1320392.35	N 36 59 29.379	W 107 20 44.955
	6021.00	88.03	109.48	4056.45	2448.59	-579.08	2386.58	1.74	2182030.32	1320422.39	N 36 59 29.273	W 107 20 44.583
	6053.00	88.89	108.22	4057.31	2480.13	-589.41	2416.85	4.77	2182019.64	1320452.54	N 36 59 29.171	W 107 20 44.210
	6085.00	86.83	106.26	4058.50	2511.79	-598.89	2447.38	8.88	2182009.81	1320482.97	N 36 59 29.077	W 107 20 43.834
	6117.00	86.34	104.58	4060.41	2543.55	-607.38	2478.18	5.46	2182000.96	1320513.66	N 36 59 28.993	W 107 20 43.454
	6149.00	88.17	103.68	4061.94	2575.39	-615.18	2509.17	6.37	2181992.80	1320544.56	N 36 59 28.916	W 107 20 43.072
	6181.00	89.34	101.80	4062.63	2607.32	-622.24	2540.37	6.92	2181985.38	1320575.68	N 36 59 28.847	W 107 20 42.687
	6213.00	89.54	100.49	4062.95	2639.30	-628.42	2571.77	4.14	2181978.83	1320607.00	N 36 59 28.785	W 107 20 42.300
	6245.00	91.78	98.93	4062.58	2671.30	-633.82	2603.31	8.53	2181973.07	1320638.48	N 36 59 28.732	W 107 20 41.912
	6277.00	88.92	96.90	4062.38	2703.28	-638.22	2635.00	10.96	2181968.30	1320670.11	N 36 59 28.688	W 107 20 41.521
	6309.00	88.75	95.73	4063.03	2735.24	-641.74	2666.79	3.69	2181964.41	1320701.87	N 36 59 28.654	W 107 20 41.129
	6340.00	89.92	94.31	4063.39	2766.15	-644.46	2697.67	5.93	2181961.34	1320732.71	N 36 59 28.627	W 107 20 40.749

	6564.00	85.17	89.36	4069.25	2988.21	-653.77	2921.13	2.78	2181949.43	1320956.05	N 36 59 28.534	W 107 20 37.994
	6595.00	86.34	88.85	4071.54	3018.64	-653.29	2952.04	4.12	2181949.56	1320986.97	N 36 59 28.539	W 107 20 37.613
	6627.00	88.03	86.95	4073.11	3049.97	-652.12	2983.98	7.94	2181950.36	1321018.92	N 36 59 28.551	W 107 20 37.220
	6690.00	87.34	85.10	4075.66	3111.25	-647.75	3046.77	3.13	2181954.00	1321081.76	N 36 59 28.594	W 107 20 36.446
	6723.00	89.75	85.16	4076.50	3143.24	-644.95	3079.64	7.31	2181956.41	1321114.66	N 36 59 28.621	W 107 20 36.040
	6755.00	87.79	84.52	4077.18	3174.23	-642.08	3111.50	6.44	2181958.92	1321146.55	N 36 59 28.650	W 107 20 35.648
	6787.00	88.55	85.76	4078.21	3205.25	-639.37	3143.37	4.54	2181961.26	1321178.45	N 36 59 28.677	W 107 20 35.255
	6819.00	90.65	86.79	4078.43	3236.43	-637.29	3175.30	7.31	2181962.97	1321210.40	N 36 59 28.697	W 107 20 34.861
	6851.00	91.40	87.27	4077.86	3267.70	-635.63	3207.25	2.78	2181964.26	1321242.37	N 36 59 28.713	W 107 20 34.467
	6883.00	89.75	87.20	4077.54	3299.00	-634.09	3239.21	5.16	2181965.43	1321274.35	N 36 59 28.729	W 107 20 34.074
	6916.00	88.75	87.20	4077.97	3331.27	-632.48	3272.17	3.03	2181966.66	1321307.32	N 36 59 28.745	W 107 20 33.667
	6948.00	88.65	91.38	4078.69	3362.77	-632.08	3304.15	13.06	2181966.69	1321339.31	N 36 59 28.748	W 107 20 33.273
	7108.00	87.52	90.96	4084.04	3521.10	-635.34	3464.03	0.75	2181961.57	1321499.13	N 36 59 28.716	W 107 20 31.302
	7140.00	88.59	91.48	4085.13	3552.76	-636.03	3496.00	3.72	2181960.52	1321531.10	N 36 59 28.709	W 107 20 30.908
	7172.00	90.03	91.99	4085.51	3584.49	-636.99	3527.98	4.77	2181959.18	1321563.07	N 36 59 28.700	W 107 20 30.514
	7268.00	86.62	89.06	4088.32	3679.31	-637.88	3623.91	4.68	2181957.18	1321658.98	N 36 59 28.691	W 107 20 29.332
	7300.00	89.03	85.07	4089.53	3710.56	-636.24	3655.84	14.56	2181958.45	1321690.93	N 36 59 28.707	W 107 20 28.938
	7331.00	89.90	85.66	4089.82	3740.66	-633.73	3686.73	3.39	2181960.60	1321721.85	N 36 59 28.732	W 107 20 28.557
Last SLB MWD Survey	7361.00	89.04	86.23	4090.10	3769.85	-631.61	3716.66	3.44	2181962.37	1321751.80	N 36 59 28.753	W 107 20 28.189
Projection to Bit	7420.00	89.04	86.23	4091.09	3827.33	-627.73	3775.52	0.00	2181965.57	1321810.70	N 36 59 28.791	W 107 20 27.463

Survey Type: Non-Def Survey

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

Surveying Prog:

MD From (ft)

0.00

17.00

4823.00

5123.00

7361.00

MD To (ft)

17.00

4823.00

5123.00

7361.00

7420.00

EOU Freq

Act-Stns SLB_MWD+DMAG-Depth Only

Act-Stns SLB_MWD+DMAG

Act-Stns SLB_MWD-STD

Act-Stns SLB_MWD+DMAG

Act-Stns SLB_BLIND+TREND

Survey Tool Type

Borehole -> Survey

Sidetrack 01 -> Carracas 10 A #16 MWD 0' to 7420' Final

Sidetrack 01 -> Carracas 10 A #16 MWD 0' to 7420' Final

Sidetrack 01 -> Carracas 10 A #16 MWD 0' to 7420' Final

Sidetrack 01 -> Carracas 10 A #16 MWD 0' to 7420' Final

Sidetrack 01 -> Carracas 10 A #16 MWD 0' to 7420' Final