

Chisholm Ocotillo 6-31 State Com WCB 2H Pilot Off to 10595ft Definitive Survey Geodetic Report (Def Survey)

Report Date: April 18, 2019 - 11:37 AM
 Client: Chisholm Energy Operating, LLC
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Chisholm Ocotillo 6-31 State Com WCB 2H / Chisholm Ocotillo 6-31 State Com WCB 2H
 Well: Chisholm Ocotillo 6-31 State Com WCB 2H
 Borehole: Pilot Hole
 UWI / API#: Unknown / 30-015-44835-01
 Survey Name: Chisholm Ocotillo 6-31 State Com WCB 2H Pilot Off to 10595ft Definitive
 Survey Date: February 22, 2019
 Tort / AHD / DDI / ERD Ratio: 68.248 * / 618.224 ft / 4.626 / 0.058
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 19' 36.98989", W 104° 19' 41.63316"
 Location Grid N/E Y/X: N 482673.570 ftUS, E 542913.390 ftUS
 CRS Grid Convergence Angle: 0.0027 °
 Grid Scale Factor: 0.99990909
 Version / Patch: 2.10.753.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 2.170 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB = 32 ft (JDC 12)
 TVD Reference Elevation: 3442,900 ft above MSL
 Seabed / Ground Elevation: 3410,900 ft above MSL
 Magnetic Declination: 7.317 °
 Total Gravity Field Strength: 998.4648mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47895.276 nT
 Magnetic Dip Angle: 59.972 °
 Declination Date: February 22, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.0027 °
 Total Corr Mag North->Grid North: 7.3142 °
 Local Coord Reference To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	482673.57	542913.39	N 32 19 36.99	W 104 19 41.63
	144.00	2.18	140.15	143.97	-2.03	-2.10	1.76	1.51	482671.47	542915.15	N 32 19 36.97	W 104 19 41.61
	237.00	2.67	135.80	236.88	-4.84	-5.01	4.40	0.56	482668.56	542917.79	N 32 19 36.94	W 104 19 41.58
	330.00	3.44	127.31	329.75	-7.94	-8.26	8.13	0.96	482665.31	542921.52	N 32 19 36.91	W 104 19 41.54
Last Surface - SLB	407.00	3.83	118.48	406.59	-10.41	-10.88	12.23	0.88	482662.69	542925.61	N 32 19 36.88	W 104 19 41.49
	486.00	3.99	113.20	485.41	-12.57	-13.23	17.07	0.50	482660.35	542930.46	N 32 19 36.86	W 104 19 41.43
	577.00	3.34	86.15	576.23	-13.43	-14.29	22.63	2.01	482659.28	542936.01	N 32 19 36.85	W 104 19 41.37
	670.00	2.79	74.31	669.10	-12.45	-13.50	27.51	0.90	482660.07	542940.90	N 32 19 36.86	W 104 19 41.31
	769.00	2.37	73.49	768.00	-11.05	-12.27	31.79	0.43	482661.30	542945.18	N 32 19 36.87	W 104 19 41.26
	864.00	1.90	76.91	862.93	-10.01	-11.35	35.21	0.51	482662.22	542948.60	N 32 19 36.88	W 104 19 41.22
	959.00	1.14	62.60	957.90	-9.13	-10.56	37.58	0.89	482663.01	542950.97	N 32 19 36.89	W 104 19 41.20
	1052.00	1.43	74.57	1050.88	-8.32	-9.83	39.52	0.42	482663.74	542952.91	N 32 19 36.89	W 104 19 41.17
	1147.00	1.93	101.85	1145.84	-8.23	-9.84	42.23	0.98	482663.73	542955.62	N 32 19 36.89	W 104 19 41.14
	1242.00	2.73	108.04	1240.76	-9.12	-10.87	45.95	0.88	482662.70	542959.33	N 32 19 36.88	W 104 19 41.10
	1336.00	3.04	113.24	1334.64	-10.63	-12.55	50.37	0.43	482661.03	542963.75	N 32 19 36.87	W 104 19 41.05
	1527.00	2.64	107.97	1525.40	-13.65	-15.90	59.20	0.25	482657.67	542972.59	N 32 19 36.83	W 104 19 40.94
	1594.00	2.51	97.18	1592.34	-14.20	-16.56	62.13	0.75	482657.01	542975.51	N 32 19 36.83	W 104 19 40.91
	1726.00	1.90	99.83	1724.24	-14.74	-17.30	67.15	0.47	482656.28	542980.53	N 32 19 36.82	W 104 19 40.85
	1821.00	2.09	104.09	1819.18	-15.31	-17.99	70.38	0.25	482655.59	542983.77	N 32 19 36.81	W 104 19 40.81
	1916.00	2.16	100.22	1914.11	-15.92	-18.73	73.82	0.17	482654.85	542987.21	N 32 19 36.80	W 104 19 40.77
	2012.00	2.12	99.73	2010.05	-16.40	-19.35	77.36	0.05	482654.23	542990.74	N 32 19 36.80	W 104 19 40.73
	2106.00	1.97	103.57	2103.99	-16.95	-20.02	80.64	0.22	482653.55	542994.02	N 32 19 36.79	W 104 19 40.69
	2202.00	2.01	104.31	2199.93	-17.63	-20.82	83.87	0.05	482652.75	542997.26	N 32 19 36.78	W 104 19 40.66
	2295.00	1.80	97.98	2292.88	-18.12	-21.43	86.90	0.32	482652.14	543000.28	N 32 19 36.78	W 104 19 40.62
	2389.00	1.77	95.94	2386.83	-18.37	-21.78	89.81	0.07	482651.79	543003.19	N 32 19 36.77	W 104 19 40.59
	2483.00	1.80	94.59	2480.79	-18.53	-22.05	92.72	0.05	482651.52	543006.10	N 32 19 36.77	W 104 19 40.55
	2578.00	1.79	95.01	2575.74	-18.66	-22.30	95.69	0.02	482651.27	543009.07	N 32 19 36.77	W 104 19 40.52
	2673.00	1.81	98.81	2670.69	-18.91	-22.66	98.65	0.13	482650.91	543012.03	N 32 19 36.77	W 104 19 40.48
	2768.00	1.79	94.27	2765.65	-19.14	-23.00	101.61	0.15	482650.57	543014.99	N 32 19 36.76	W 104 19 40.45
	2863.00	1.70	98.27	2860.60	-19.34	-23.31	104.49	0.16	482650.26	543017.87	N 32 19 36.76	W 104 19 40.42
	2958.00	1.58	101.35	2955.56	-19.70	-23.77	107.16	0.16	482649.80	543020.54	N 32 19 36.75	W 104 19 40.38
	3052.00	2.53	80.58	3049.50	-19.49	-23.69	110.48	1.27	482649.88	543023.86	N 32 19 36.76	W 104 19 40.35
	3147.00	4.39	74.62	3144.33	-17.97	-22.38	116.06	1.99	482651.19	543029.44	N 32 19 36.77	W 104 19 40.28
	3242.00	5.29	69.40	3238.99	-15.18	-19.88	123.66	1.05	482653.69	543037.04	N 32 19 36.79	W 104 19 40.19
	3337.00	5.02	69.57	3333.60	-11.89	-16.89	131.66	0.28	482656.69	543045.03	N 32 19 36.82	W 104 19 40.10
	3432.00	4.55	66.10	3428.27	-8.63	-13.91	139.00	0.58	482659.66	543052.37	N 32 19 36.85	W 104 19 40.01
	3527.00	4.16	65.67	3523.00	-5.44	-10.96	145.58	0.41	482662.61	543058.96	N 32 19 36.88	W 104 19 39.94
	3620.00	5.66	62.59	3615.65	-1.67	-7.46	152.73	1.64	482666.11	543066.10	N 32 19 36.92	W 104 19 39.85
	3715.00	6.10	62.00	3710.15	3.18	-2.93	161.34	0.47	482670.64	543074.72	N 32 19 36.96	W 104 19 39.75
	3810.00	5.88	61.44	3804.63	8.20	1.76	170.07	0.24	482675.33	543083.45	N 32 19 37.01	W 104 19 39.65
	3904.00	5.77	59.53	3898.15	13.21	6.46	178.37	0.24	482680.03	543091.75	N 32 19 37.05	W 104 19 39.55
	4000.00	5.69	58.89	3993.67	18.42	11.37	186.61	0.11	482684.94	543099.98	N 32 19 37.10	W 104 19 39.46
	4095.00	5.58	60.26	4088.21	23.45	16.09	194.65	0.18	482689.66	543108.02	N 32 19 37.15	W 104 19 39.36
	4190.00	5.57	58.30	4182.76	28.46	20.80	202.58	0.20	482694.37	543115.95	N 32 19 37.20	W 104 19 39.27
	4285.00	5.71	57.81	4277.30	33.70	25.74	210.50	0.16	482699.31	543123.88	N 32 19 37.24	W 104 19 39.18
	4380.00	5.50	57.00	4371.85	38.99	30.74	218.32	0.24	482704.31	543131.69	N 32 19 37.29	W 104 19 39.09
	4474.00	5.49	53.28	4465.42	44.40	35.88	225.70	0.38	482709.45	543139.07	N 32 19 37.34	W 104 19 39.00
	4568.00	5.63	58.82	4558.97	49.76	40.96	233.25	0.59	482714.53	543146.62	N 32 19 37.40	W 104 19 38.91
	4663.00	5.62	58.43	4653.52	54.91	45.81	241.20	0.04	482719.37	543154.57	N 32 19 37.44	W 104 19 38.82
	4756.00	5.95	65.78	4746.04	59.58	50.17	249.48	0.87	482723.73	543162.85	N 32 19 37.49	W 104 19 38.73
	4851.00	5.77	77.60	4840.55	62.97	53.21	258.63	1.28	482726.78	543172.00	N 32 19 37.52	W 104 19 38.62
	4946.00	5.72	80.49	4935.07	65.13	55.02	267.97	0.31	482728.59	543181.33	N 32 19 37.53	W 104 19 38.51
	5041.00	5.34	81.20	5029.63	66.93	56.48	277.01	0.41	482730.05	543190.37	N 32 19 37.55	W 104 19 38.40
	5136.00	5.20	84.57	5124.23	68.34	57.56	285.66	0.36	482731.13	543199.02	N 32 19 37.56	W 104 19 38.30
	5231.00	4.88	84.90	5218.86	69.42	58.33	293.97	0.34	482731.90	543207.33	N 32 19 37.57	W 104 19 38.21
	5326.00	4.68	90.04	5313.53	70.08	58.69	301.87	0.50	482732.25	543215.23	N 32 19 37.57	W 104 19 38.12
	5421.00	4.66	89.81	5408.22	70.38	58.70	309.61	0.03	482732.26	543222.97	N 32 19 37.57	W 104 19 38.03
	5517.00	4.31	87.81	5503.92	70.81	58.85	317.11	0.40	482732.41	543230.47	N 32 19 37.57	W 104 19 37.94
	5596.00	3.59	86.00	5582.74	71.31	59.13	322.54	0.92	482732.70	543235.90	N 32 19 37.57	W 104 19 37.87
	5691.00	3.15	88.20	5677.57	71.81	59.42	328.12	0.48	482732.99	543241.48	N 32 19 37.58	W 104 19 37.81
	5786.00	4.08	82.20	5772.38	72.57	59.66	334.08	1.06	482733.53	543247.44	N 32 19 37.58	W 104 19 37.74
	5881.00	4.14	82.24	5867.14	73.75	60.89	340.82	0.06	482734.45	543254.18	N 32 19 37.59	W 104 19 37.66
	5975.00	4.57	81.56	5960.87	75.02	61.89	347.89	0.46	482735.46	543261.25	N 32 19 37.60	W 104 19 37.58
	6070.00	5.02	83.40	6055.53	76.35	62.93	355.76	0.50	482736.49	543269.12	N 32 19 37.61	W 104 19 37.49
	6165.00	4.93	84.59	6150.17	77.53	63.79	363.95	0.14	482737.35	543277.31	N 32 19 37.62	W 104 19 37.39
	6260.00	4.95	87.00	6244.82	78.43	64.39	372.11	0.22	482737.95	543285.47	N 32 19 37.63	W 104 19 37.30
	6355.00	4.94	90.70	6338.47	78.91	64.55	380.29	0.34	482738.12	543293.65	N 32 19 37.63	W 104 19 37.20
	6449.00	4.77	93.16	6433.13	78.94	64.29	388.24	0.29	482737.85	543301.60	N 32 19 37.63	W 104 19 37.11
	6543.00	4.78	95.36	6526.80	78.66	63.71	396.05	0.20	482737.27	543309.40	N 32 19 37.62	W 104 19 37.02
	6637.00	4.55	97.36	6620.49	78.10	62.86	403.64	0.30	482736.43	543317.00	N 32 19 37.61	W 104 19 36.93
	6732.00	3.67	96.63	6715.25	77.53	62.03	410.40	0.93	482735.59	543323.75	N 32 19 37.60	W 104 19 36.85
	6828.00	2.62	94.67	6811.10	77.19	61.50	415.64	1.10	482735.06	543328.99	N 32 19 37.60	W 104 19 36.79
	6922.00	2.53	93.73	6843.07	77.14	61.39	417.07	0.31	482734.96	543330.42	N 32 19 37.60	W 104 19 36.77
	6922.0.											

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	7017.00	1.00	71.89	6999.99	77.35	61.42	421.90	1.00	482734.99	543335.25	N 32 19 37.60	W 104 19 36.72
	7111.00	1.75	119.85	7093.96	76.97	60.96	423.93	1.39	482734.53	543337.28	N 32 19 37.59	W 104 19 36.69
	7206.00	2.59	129.62	7188.90	74.99	58.87	426.84	0.96	482732.44	543340.19	N 32 19 37.57	W 104 19 36.66
	7300.00	3.81	136.67	7282.75	71.51	55.24	430.62	1.36	482728.81	543343.97	N 32 19 37.54	W 104 19 36.61
	7394.00	5.03	147.39	7376.47	65.84	49.50	434.98	1.56	482723.07	543348.33	N 32 19 37.48	W 104 19 36.56
	7489.00	5.01	158.34	7471.11	58.72	42.14	438.76	1.01	482715.70	543352.11	N 32 19 37.41	W 104 19 36.52
	7584.00	3.20	170.24	7565.86	52.33	35.67	440.74	2.10	482709.24	543354.09	N 32 19 37.34	W 104 19 36.50
	7679.00	3.34	170.49	7660.71	47.03	30.33	441.64	0.15	482703.89	543354.99	N 32 19 37.29	W 104 19 36.49
	7775.00	3.89	128.74	7756.53	42.35	25.53	444.65	2.73	482699.10	543357.99	N 32 19 37.24	W 104 19 36.45
	7870.00	4.93	151.81	7851.26	36.90	19.91	449.09	2.14	482693.48	543362.44	N 32 19 37.19	W 104 19 36.40
	7964.00	6.49	147.51	7944.79	29.05	11.87	453.85	1.72	482685.44	543367.20	N 32 19 37.11	W 104 19 36.34
	8061.00	6.64	150.90	8041.15	19.75	2.35	459.52	0.43	482675.92	543372.87	N 32 19 37.01	W 104 19 36.28
	8155.00	6.46	153.61	8134.54	10.46	-7.14	464.52	0.38	482666.43	543377.86	N 32 19 36.92	W 104 19 36.22
	8250.00	6.16	156.08	8228.96	1.19	-16.58	468.96	0.43	482656.99	543382.30	N 32 19 36.83	W 104 19 36.17
	8345.00	5.67	160.84	8323.46	-7.76	-25.68	472.56	0.73	482647.90	543385.91	N 32 19 36.74	W 104 19 36.13
	8441.00	5.09	173.92	8419.04	-16.40	-34.39	474.57	1.41	482639.18	543387.92	N 32 19 36.65	W 104 19 36.10
	8497.00	4.69	179.96	8474.83	-21.14	-39.15	474.84	1.16	482634.42	543388.18	N 32 19 36.60	W 104 19 36.10
	8527.00	3.94	184.96	8504.46	-30.91	-48.91	474.45	0.64	482624.66	543387.80	N 32 19 36.51	W 104 19 36.10
	8722.00	3.96	184.65	8699.24	-37.45	-55.44	473.91	0.03	482618.14	543387.25	N 32 19 36.44	W 104 19 36.11
	8817.00	3.04	194.27	8794.06	-43.19	-61.15	473.02	1.15	482612.43	543386.37	N 32 19 36.38	W 104 19 36.12
	8913.00	2.49	200.01	8889.95	-47.67	-65.57	471.68	0.64	482608.00	543385.02	N 32 19 36.34	W 104 19 36.14
	9007.00	2.50	207.52	8983.86	-51.46	-69.31	470.03	0.35	482604.27	543383.38	N 32 19 36.30	W 104 19 36.16
	9102.00	0.65	3.68	9078.83	-52.80	-70.61	469.11	3.27	482602.97	543382.46	N 32 19 36.29	W 104 19 36.17
	9196.00	0.73	348.76	9172.83	-51.68	-69.49	469.03	0.21	482604.09	543382.37	N 32 19 36.30	W 104 19 36.17
	9290.00	0.66	323.95	9266.82	-50.67	-68.47	468.59	0.33	482605.11	543381.94	N 32 19 36.31	W 104 19 36.17
	9384.00	0.32	37.06	9360.82	-50.03	-67.82	468.43	0.69	482605.76	543381.78	N 32 19 36.32	W 104 19 36.17
	9479.00	0.28	26.31	9455.82	-49.60	-67.40	468.69	0.07	482606.18	543382.04	N 32 19 36.32	W 104 19 36.17
	9573.00	0.28	310.87	9549.82	-49.25	-67.04	468.62	0.36	482606.53	543381.97	N 32 19 36.33	W 104 19 36.17
	9669.00	0.40	263.43	9645.81	-49.15	-66.93	468.11	0.31	482606.65	543381.46	N 32 19 36.33	W 104 19 36.18
	9763.00	1.19	15.47	9739.81	-48.25	-66.02	468.05	1.48	482607.55	543381.39	N 32 19 36.34	W 104 19 36.18
	9857.00	0.89	357.65	9833.79	-46.58	-64.35	468.28	0.47	482609.22	543381.62	N 32 19 36.35	W 104 19 36.18
	9951.00	0.82	316.54	9927.78	-45.38	-63.14	467.78	0.64	482610.44	543381.13	N 32 19 36.36	W 104 19 36.18
	10045.00	0.98	311.99	10021.77	-44.39	-62.11	466.72	0.19	482611.47	543380.07	N 32 19 36.38	W 104 19 36.19
	10140.00	1.27	8.65	10116.76	-42.83	-60.53	466.28	1.16	482613.05	543379.63	N 32 19 36.39	W 104 19 36.20
	10233.00	0.86	353.89	10209.74	-41.11	-58.81	466.36	0.53	482614.76	543379.71	N 32 19 36.41	W 104 19 36.20
	10327.00	0.83	325.02	10303.73	-39.87	-57.55	465.89	0.45	482616.02	543379.24	N 32 19 36.42	W 104 19 36.20
	10421.00	1.07	321.12	10397.72	-38.67	-56.31	464.95	0.26	482617.26	543378.30	N 32 19 36.43	W 104 19 36.21
	10516.00	0.84	310.80	10492.70	-37.56	-55.17	463.87	0.30	482618.41	543377.22	N 32 19 36.44	W 104 19 36.23
Last Pilot SLB	10541.00	0.80	307.01	10517.70	-37.35	-54.94	463.59	0.27	482618.63	543376.94	N 32 19 36.45	W 104 19 36.23
Survey	10595.00	0.80	307.01	10571.70	-36.92	-54.49	462.99	0.00	482619.09	543376.34	N 32 19 36.45	W 104 19 36.24
Proj. to Bit												

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	32.000	1/98.425	30.000	30.000	NAL_MWD_1.0_DEG-Depth Only	Pilot Hole / Chisholm Ocotillo 6-31 State Com WCB 2H Pilot 0ft to 10595ft Definitive
	1	32.000	32.000	Act Stns	30.000	30.000	NAL_MWD_1.0_DEG-Depth Only	Pilot Hole / Chisholm Ocotillo 6-31 State Com WCB 2H Pilot 0ft to 10595ft Definitive
	1	32.000	10595.000	Act Stns	30.000	30.000	NAL_MWD_1.0_DEG	Pilot Hole / Chisholm Ocotillo 6-31 State Com WCB 2H Pilot 0ft to

...Pilot Hole/Chisholm Ocotillo 6-31 State Com WCB 2H Pilot 0ft to 10595ft Definitive

Chisholm Ocotillo 6-31 State Com WCB 2H ST01 MWD 8627ft to 19156ft

Survey Geodetic Report

(Def Survey)



Report Date: April 19, 2019 - 03:11 PM
 Client: Chisholm Energy Operating, LLC
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Chisholm Ocotillo 6-31 State Com WCB 2H / Chisholm Ocotillo 6-31 State Com WCB 2H
 Well: Chisholm Ocotillo 6-31 State Com WCB 2H
 Borehole: ST01
 UWI / API#: Unknown / 30-015-44835-01
 Survey Name: Chisholm Ocotillo 6-31 State Com WCB 2H ST01 MWD 8627ft to 19156ft
 Survey Date: March 28, 2019
 Tort / AHD / DDI / ERD Ratio: 268.532' / 10716.158 ft / 6.776 / 1.161
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 19' 36.98989", W 104° 19' 41.63316"
 Location Grid N/E Y/X: N 482673.570 ftUS, E 542913.390 ftUS
 CRS Grid Convergence Angle: 0.0027°
 Grid Scale Factor: 0.99990909
 Version / Patch: 2.10.753.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 2.170° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB = 32 ft (JDC 12)
 TVD Reference Elevation: 3442.900 ft above MSL
 Seabed / Ground Elevation: 3410.900 ft above MSL
 Magnetic Declination: 7.307°
 Total Gravity Field Strength: 998.464mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47885.205 nT
 Magnetic Dip Angle: 59.969°
 Declination Date: March 28, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.0027°
 Total Corr Mag North->Grid North: 7.3043°
 Local Coord Reference To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	482673.57	542913.39	N 32° 19' 36.99	W 104° 19' 41.63
	144.00	2.18	140.15	143.97	-2.03	-2.10	1.76	1.51	482671.47	542915.15	N 32° 19' 36.97	W 104° 19' 41.61
	237.00	2.67	135.80	236.88	-4.84	-5.01	4.40	0.56	482668.56	542917.79	N 32° 19' 36.94	W 104° 19' 41.58
	330.00	3.44	127.31	329.75	-7.94	-8.26	8.13	0.96	482665.31	542921.52	N 32° 19' 36.91	W 104° 19' 41.54
Last Surface - SLB	407.00	3.83	118.48	406.59	-10.41	-10.88	12.23	0.88	482662.69	542925.61	N 32° 19' 36.88	W 104° 19' 41.49
	486.00	3.99	113.20	485.41	-12.57	-13.23	17.07	0.50	482660.35	542930.46	N 32° 19' 36.86	W 104° 19' 41.43
	577.00	3.34	86.15	576.23	-13.43	-14.29	22.63	2.01	482659.28	542936.01	N 32° 19' 36.85	W 104° 19' 41.37
	670.00	2.79	74.31	669.10	-12.45	-13.50	27.51	0.90	482660.07	542940.90	N 32° 19' 36.86	W 104° 19' 41.31
	769.00	2.37	73.49	768.00	-11.05	-12.27	31.79	0.43	482661.30	542945.18	N 32° 19' 36.87	W 104° 19' 41.26
	864.00	1.90	76.91	862.93	-10.01	-11.35	35.21	0.51	482662.22	542948.60	N 32° 19' 36.88	W 104° 19' 41.22
	959.00	1.44	62.60	957.90	-9.13	-10.56	37.58	0.89	482663.01	542950.97	N 32° 19' 36.89	W 104° 19' 41.20
	1052.00	1.43	74.57	1050.88	-8.32	-9.83	39.52	0.42	482663.74	542952.91	N 32° 19' 36.89	W 104° 19' 41.17
	1147.00	1.93	101.85	1145.84	-8.23	-9.84	42.23	0.98	482663.73	542955.62	N 32° 19' 36.89	W 104° 19' 41.14
	1242.00	2.73	108.04	1240.76	-9.12	-10.87	45.95	0.88	482662.70	542959.33	N 32° 19' 36.88	W 104° 19' 41.10
	1336.00	3.04	113.24	1334.64	-10.63	-12.55	50.37	0.43	482661.03	542963.75	N 32° 19' 36.87	W 104° 19' 41.05
	1527.00	2.64	107.97	1525.40	-13.65	-15.90	59.20	0.25	482657.67	542972.59	N 32° 19' 36.83	W 104° 19' 40.94
	1594.00	2.51	97.18	1592.34	-14.20	-16.56	62.13	0.75	482657.01	542975.51	N 32° 19' 36.83	W 104° 19' 40.91
	1726.00	1.90	99.83	1724.24	-14.74	-17.30	67.15	0.47	482656.28	542980.53	N 32° 19' 36.82	W 104° 19' 40.85
	1821.00	2.09	104.09	1819.18	-15.31	-17.99	70.38	0.25	482655.59	542983.77	N 32° 19' 36.81	W 104° 19' 40.81
	1916.00	2.16	100.22	1914.11	-15.92	-18.73	73.82	0.17	482654.85	542987.21	N 32° 19' 36.80	W 104° 19' 40.77
	2012.00	2.12	99.73	2010.05	-16.40	-19.35	77.36	0.05	482654.23	542990.74	N 32° 19' 36.80	W 104° 19' 40.73
	2106.00	1.97	103.57	2103.99	-16.95	-20.02	80.64	0.22	482653.55	542994.02	N 32° 19' 36.79	W 104° 19' 40.69
	2202.00	2.01	104.31	2199.93	-17.63	-20.82	83.87	0.05	482652.75	542997.26	N 32° 19' 36.78	W 104° 19' 40.66
	2295.00	1.80	97.98	2292.88	-18.12	-21.43	86.90	0.32	482652.14	543000.28	N 32° 19' 36.78	W 104° 19' 40.62
	2389.00	1.77	95.94	2386.83	-18.37	-21.78	89.81	0.07	482651.79	543003.19	N 32° 19' 36.77	W 104° 19' 40.59
	2483.00	1.80	94.59	2480.79	-18.53	-22.05	92.72	0.05	482651.52	543006.10	N 32° 19' 36.77	W 104° 19' 40.55
	2578.00	1.79	95.01	2575.74	-18.66	-22.30	95.69	0.02	482651.27	543009.07	N 32° 19' 36.77	W 104° 19' 40.52
	2673.00	1.81	98.81	2670.69	-18.91	-22.66	98.65	0.13	482650.91	543012.03	N 32° 19' 36.77	W 104° 19' 40.48
	2768.00	1.79	94.27	2765.65	-19.14	-23.00	101.61	0.15	482650.57	543014.99	N 32° 19' 36.76	W 104° 19' 40.45
	2863.00	1.70	98.27	2860.60	-19.34	-23.31	104.49	0.16	482650.26	543017.87	N 32° 19' 36.76	W 104° 19' 40.42
	2958.00	1.58	101.35	2955.56	-19.70	-23.77	107.16	0.16	482649.80	543020.54	N 32° 19' 36.75	W 104° 19' 40.38
	3052.00	2.53	80.58	3049.50	-19.49	-23.69	110.48	1.27	482649.88	543023.66	N 32° 19' 36.76	W 104° 19' 40.35
	3147.00	4.39	74.62	3144.33	-17.97	-22.38	116.06	1.99	482651.19	543029.44	N 32° 19' 36.77	W 104° 19' 40.28
	3242.00	5.29	69.40	3238.99	-15.18	-19.88	123.66	1.05	482653.69	543037.04	N 32° 19' 36.79	W 104° 19' 40.19
	3337.00	5.02	69.57	3333.60	-11.89	-16.89	131.66	0.28	482656.69	543045.03	N 32° 19' 36.82	W 104° 19' 40.10
	3432.00	4.55	66.10	3428.27	-8.63	-13.91	139.00	0.58	482659.66	543052.37	N 32° 19' 36.85	W 104° 19' 40.01
	3527.00	4.16	65.67	3523.00	-5.44	-10.96	145.58	0.41	482662.61	543058.96	N 32° 19' 36.88	W 104° 19' 39.94
	3620.00	5.66	62.59	3615.65	-1.67	-7.46	152.73	1.64	482666.11	543066.10	N 32° 19' 36.92	W 104° 19' 39.85
	3715.00	6.10	62.00	3710.15	3.18	-2.93	161.34	0.47	482670.64	543074.72	N 32° 19' 36.96	W 104° 19' 39.75
	3810.00	5.88	61.44	3804.63	8.20	1.76	170.07	0.24	482675.33	543083.45	N 32° 19' 37.01	W 104° 19' 39.65
	3904.00	6.77	59.53	3898.15	13.21	6.46	178.37	0.24	482680.03	543091.75	N 32° 19' 37.05	W 104° 19' 39.55
	4000.00	5.69	58.89	3993.67	18.42	11.37	186.61	0.11	482684.94	543099.98	N 32° 19' 37.10	W 104° 19' 39.46
	4095.00	5.58	60.26	4088.21	23.45	16.09	194.65	0.18	482689.66	543108.02	N 32° 19' 37.15	W 104° 19' 39.36
	4190.00	5.57	58.30	4182.76	28.46	20.80	202.58	0.20	482694.37	543115.95	N 32° 19' 37.20	W 104° 19' 39.27
	4285.00	5.71	57.81	4277.30	33.70	25.74	210.50	0.16	482699.31	543123.88	N 32° 19' 37.24	W 104° 19' 39.18
	4380.00	5.50	57.00	4371.85	38.99	30.74	218.32	0.24	482704.31	543131.69	N 32° 19' 37.29	W 104° 19' 39.09
	4474.00	5.49	53.28	4465.42	44.40	35.88	225.70	0.38	482709.45	543139.07	N 32° 19' 37.34	W 104° 19' 39.00
	4568.00	5.63	58.82	4558.97	49.76	40.96	233.25	0.59	482714.53	543146.62	N 32° 19' 37.40	W 104° 19' 38.91
	4663.00	5.62	58.43	4653.52	54.91	45.81	241.20	0.04	482719.37	543154.57	N 32° 19' 37.44	W 104° 19' 38.82
	4756.00	5.95	65.78	4746.04	59.58	50.17	249.48	0.87	482723.73	543162.85	N 32° 19' 37.49	W 104° 19' 38.73
	4851.00	5.77	77.60	4840.55	62.97	53.21	258.63	1.28	482728.78	543172.00	N 32° 19' 37.52	W 104° 19' 38.62
	4946.00	5.72	80.49	4935.07	65.13	55.02	267.97	0.31	482728.59	543181.33	N 32° 19' 37.53	W 104° 19' 38.51
	5041.00	5.34	81.20	5029.63	66.93	56.48	277.01	0.41	482730.05	543190.37	N 32° 19' 37.55	W 104° 19' 38.40
	5136.00	5.20	84.57	5124.23	68.34	57.56	285.86	0.36	482731.13	543199.02	N 32° 19' 37.56	W 104° 19' 38.30
	5231.00	4.88	84.90	5218.86	69.42	58.33	293.97	0.34	482731.90	543207.33	N 32° 19' 37.57	W 104° 19' 38.21
	5326.00	4.68	90.04	5313.53	70.08	58.69	301.87	0.50	482732.25	543215.23	N 32° 19' 37.57	W 104° 19' 38.12
	5421.00	4.66	89.81	5408.22	70.38	58.70	309.61	0.40	482732.26	543222.97	N 32° 19' 37.57	W 104° 19' 38.03
	5517.00	4.31	87.81	5503.92	70.81	58.85	317.11	0.03	482732.41	543230.47	N 32° 19' 37.57	W 104° 19' 37.94
	5596.00	3.59	86.00	5582.74	71.31	59.13	322.54	0.92	482732.70	543235.90	N 32° 19' 37.57	W 104° 19' 37.87
	5691.00	3.15	88.20	5677.57	71.81	59.42	328.12	0.48	482732.99	543241.48	N 32° 19' 37.58	W 104° 19' 37.81
	5786.00	4.08	82.20	5772.38	72.57	59.96	334.08	1.06	482733.53	543247.44	N 32° 19' 37.58	W 104° 19' 37.74
	5881.00	4.14	82.24	5867.14	73.75	60.89	340.82	0.06	482734.45	543254.18	N 32° 19' 37.59	W 104° 19' 37.66
	5975.00	4.57	81.56	5960.87	75.02	61.89	347.89	0.46	482735.46	543261.25	N 32° 19' 37.60	W 104° 19' 37.58
	6070.00	5.02	83.40	6055.53	76.35	62.93	355.76	0.50	482736.49	543268.12	N 32° 19' 37.61	W 104° 19' 37.49
	6165.00	4.93	84.59	6150.17	77.53	63.79	363.95	0.14	482737.35	543277.31	N 32° 19' 37.62	W 104° 19' 37.39
	6260.00	4.95	87.00	6244.82	78.43	64.39	372.11	0.22	482737.95	543285.47	N 32° 19' 37.63	W 104° 19' 37.30
	6355.00	4.94	90.70	6339.47	78.91	64.55	380.29	0.34	482738.12	543293.65	N 32° 19' 37.63	W 104° 19' 37.20
	6449.00	4.77	93.16	6433.13	78.94	64.29	388.24	0.29	482737.85	543301.60	N 32° 19' 37.63	W 104° 19' 37.11
	6543.00	4.78	95.36	6528.80	78.66	63.71	396.05	0.20	482737.27	543309.40	N 32° 19' 37.62	W 104° 19' 37.02
	6637.00	4.55	97.36	6620.49	78.10	62.86	403.64	0.30	482736.43	543317.00	N 32° 19' 37.61	W 104° 19' 36.

Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	7017.00	1.00	71.89	6999.99	77.35	61.42	421.90	1.00	482734.99	543335.25	N 32 19 37.60	W 104 19 36.72	
	7111.00	1.75	119.85	7093.96	76.97	60.96	423.93	1.39	482734.53	543337.28	N 32 19 37.59	W 104 19 36.69	
	7206.00	2.59	129.62	7188.90	74.99	58.87	426.84	0.96	482732.44	543340.19	N 32 19 37.57	W 104 19 36.66	
	7300.00	3.81	136.67	7282.75	71.51	55.24	430.62	1.36	482728.81	543343.97	N 32 19 37.54	W 104 19 36.61	
	7394.00	5.03	147.39	7376.47	65.94	49.50	434.98	1.56	482723.07	543348.33	N 32 19 37.48	W 104 19 36.56	
	7489.00	5.01	158.34	7471.11	58.72	42.14	438.76	1.01	482715.70	543352.11	N 32 19 37.41	W 104 19 36.52	
	7584.00	3.20	170.24	7565.86	52.33	35.67	440.74	2.10	482709.24	543354.09	N 32 19 37.34	W 104 19 36.50	
	7679.00	3.34	170.49	7660.71	47.03	30.33	441.64	0.15	482703.89	543354.99	N 32 19 37.29	W 104 19 36.45	
	7775.00	3.89	128.74	7756.53	42.35	25.53	444.65	2.73	482699.10	543355.44	N 32 19 37.19	W 104 19 36.40	
	7870.00	4.93	151.81	7851.26	36.90	19.91	449.09	2.14	482693.48	543356.22	N 32 19 37.11	W 104 19 36.34	
	7964.00	6.49	147.51	7944.79	29.95	11.87	453.85	1.72	482685.44	543357.20	N 32 19 37.11	W 104 19 36.34	
	8061.00	6.64	150.90	8041.15	19.75	2.35	459.52	0.43	482675.92	543372.87	N 32 19 37.01	W 104 19 36.28	
	8155.00	6.45	153.61	8134.54	10.46	-7.14	464.52	0.38	482666.43	543377.86	N 32 19 36.92	W 104 19 36.22	
	8250.00	6.15	156.08	8228.96	1.19	-16.58	468.96	0.43	482656.99	543382.30	N 32 19 36.83	W 104 19 36.17	
	8345.00	5.67	160.84	8323.46	-7.76	-25.68	472.56	0.73	482647.90	543385.91	N 32 19 36.74	W 104 19 36.13	
	8441.00	5.09	173.92	8419.04	-16.40	-34.39	474.57	1.41	482639.18	543387.92	N 32 19 36.65	W 104 19 36.10	
Tie in to Pilot Hole	8497.00	4.69	179.96	8474.83	-21.14	-39.15	474.84	1.16	482634.42	543388.18	N 32 19 36.60	W 104 19 36.10	
Begin ST01 SLB MWD Survey	8585.00	4.82	182.70	8562.53	-28.43	-46.44	474.67	0.30	482627.13	543388.01	N 32 19 36.53	W 104 19 36.10	
	8698.00	2.60	92.71	8675.36	-33.21	-51.31	477.00	4.84	482622.27	543390.35	N 32 19 36.48	W 104 19 36.07	
	8730.00	3.31	54.25	8707.32	-32.65	-50.80	478.48	6.43	482622.77	543391.82	N 32 19 36.49	W 104 19 36.06	
	8762.00	5.83	30.76	8739.22	-30.65	-48.87	480.06	9.65	482624.71	543393.41	N 32 19 36.51	W 104 19 36.04	
	8793.00	9.61	13.53	8769.93	-26.73	-44.99	481.47	14.17	482628.58	543394.82	N 32 19 36.54	W 104 19 36.02	
	8825.00	13.70	10.15	8801.27	-20.36	-38.66	482.76	12.95	482634.91	543396.11	N 32 19 36.61	W 104 19 36.01	
	8856.00	16.83	11.65	8831.17	-12.29	-30.65	484.32	10.18	482642.92	543397.66	N 32 19 36.69	W 104 19 35.99	
	8888.00	18.93	14.30	8861.62	-2.65	-21.09	486.54	7.04	482652.49	543399.88	N 32 19 36.78	W 104 19 35.96	
	8919.00	22.39	14.80	8890.63	8.03	-10.50	489.29	11.18	482663.07	543402.63	N 32 19 36.89	W 104 19 35.93	
	8951.00	24.22	16.72	8920.01	20.33	1.68	492.73	6.19	482675.25	543406.08	N 32 19 37.01	W 104 19 35.89	
	8983.00	27.49	17.45	8948.81	33.82	15.01	496.84	10.27	482688.58	543410.18	N 32 19 37.14	W 104 19 35.84	
	9014.00	30.23	17.62	8975.95	48.24	29.28	501.35	8.84	482702.85	543414.69	N 32 19 37.28	W 104 19 35.79	
	9047.00	32.38	17.60	9004.15	64.77	45.62	506.53	6.52	482719.19	543419.88	N 32 19 37.44	W 104 19 35.73	
	9079.00	36.75	18.27	9030.49	82.23	62.89	512.13	13.71	482736.45	543425.47	N 32 19 37.61	W 104 19 35.66	
	9110.00	40.71	19.21	9054.67	100.82	81.25	518.36	12.91	482754.81	543431.71	N 32 19 37.79	W 104 19 35.59	
	9142.00	44.82	17.45	9078.16	121.68	101.87	525.18	13.37	482775.43	543438.52	N 32 19 38.00	W 104 19 35.51	
	9235.00	58.77	10.69	9135.58	193.03	172.61	542.48	16.04	482846.17	543455.82	N 32 19 38.70	W 104 19 35.31	
	9266.00	61.30	10.72	9151.06	219.59	199.00	547.47	8.16	482872.55	543460.81	N 32 19 38.96	W 104 19 35.25	
	9298.00	63.28	8.39	9165.94	247.68	226.93	552.17	8.93	482900.48	543465.51	N 32 19 39.24	W 104 19 35.20	
	9329.00	66.78	6.44	9179.03	275.66	254.79	555.79	12.65	482928.34	543469.13	N 32 19 39.51	W 104 19 35.16	
	9361.00	71.39	4.78	9190.45	305.49	284.53	558.70	15.20	482958.08	543472.04	N 32 19 39.81	W 104 19 35.12	
	9392.00	75.55	3.55	9199.27	335.18	314.17	560.86	13.95	482987.71	543474.20	N 32 19 40.10	W 104 19 35.10	
	9423.00	79.18	3.54	9206.05	365.41	344.35	562.73	11.71	483017.89	543476.07	N 32 19 40.40	W 104 19 35.07	
	9455.00	80.09	3.98	9211.80	396.88	375.76	564.79	3.15	483049.30	543478.13	N 32 19 40.71	W 104 19 35.05	
	9487.00	80.19	4.30	9217.28	428.39	407.21	567.07	1.03	483080.74	543480.41	N 32 19 41.02	W 104 19 35.02	
	9518.00	81.51	4.49	9222.21	458.97	437.72	569.41	4.30	483111.25	543482.75	N 32 19 41.32	W 104 19 35.00	
	9611.00	88.83	0.95	9230.04	551.56	530.21	573.79	8.74	483203.73	543487.13	N 32 19 42.24	W 104 19 34.95	
	9705.00	89.69	0.50	9231.25	645.52	624.20	574.98	1.03	483297.71	543488.32	N 32 19 43.17	W 104 19 34.93	
	9799.00	93.65	0.09	9228.51	739.41	718.14	575.47	4.24	483391.64	543488.80	N 32 19 44.10	W 104 19 34.93	
	9894.00	92.34	1.67	9223.55	834.25	812.99	576.92	2.16	483486.48	543490.26	N 32 19 45.03	W 104 19 34.91	
	9998.00	92.67	359.74	9219.01	938.11	916.88	578.20	1.88	483590.36	543491.54	N 32 19 46.06	W 104 19 34.89	
	10094.00	90.69	359.52	9216.19	1033.97	1012.83	577.58	2.08	483686.30	543490.92	N 32 19 47.01	W 104 19 34.90	
	10190.00	89.83	359.55	9215.76	1129.87	1108.82	576.80	0.90	483782.29	543490.14	N 32 19 47.96	W 104 19 34.91	
	10284.00	90.03	0.14	9215.87	1223.79	1202.82	576.55	0.66	483876.28	543489.89	N 32 19 48.89	W 104 19 34.91	
	10379.00	89.74	2.41	9216.06	1318.77	1297.79	578.66	2.41	483971.24	543492.00	N 32 19 49.83	W 104 19 34.89	
	10472.00	90.66	2.62	9215.74	1411.77	1390.70	582.74	1.01	484064.14	543496.08	N 32 19 50.75	W 104 19 34.84	
	10567.00	90.06	3.23	9215.14	1506.76	1485.58	587.59	0.90	484159.01	543500.93	N 32 19 51.69	W 104 19 34.78	
	10662.00	90.09	3.07	9215.01	1601.74	1580.43	592.81	0.17	484253.85	543506.15	N 32 19 52.63	W 104 19 34.72	
	10758.00	90.94	3.67	9214.15	1697.72	1676.26	598.45	1.08	484349.67	543511.79	N 32 19 53.58	W 104 19 34.66	
	10852.00	90.52	3.03	9212.95	1791.69	1770.09	603.95	0.81	484443.50	543517.28	N 32 19 54.50	W 104 19 34.59	
	10947.00	91.46	3.23	9211.31	1886.66	1864.93	609.13	1.01	484538.33	543522.47	N 32 19 55.44	W 104 19 34.53	
	11042.00	90.72	3.79	9209.51	1981.62	1959.74	614.95	0.98	484633.13	543528.28	N 32 19 56.38	W 104 19 34.47	
	11138.00	90.23	2.51	9208.71	2077.60	2055.59	620.22	1.43	484728.97	543533.56	N 32 19 57.33	W 104 19 34.40	
	11233.00	90.77	4.61	9207.88	2172.56	2150.39	626.12	2.28	484823.77	543539.45	N 32 19 58.27	W 104 19 34.33	
	11328.00	90.60	3.62	9206.75	2267.50	2245.14	632.94	1.06	484918.50	543546.27	N 32 19 59.21	W 104 19 34.26	
	11423.00	90.83	3.26	9205.56	2362.47	2339.96	638.64	0.45	485013.32	543551.97	N 32 20 0.14	W 104 19 34.19	
	11519.00	91.49	3.38	9203.62	2458.43	2435.78	644.20	0.70	485109.13	543557.53	N 32 20 1.09	W 104 19 34.12	
	11613.00	90.23	3.39	9202.21	2552.39	2529.61	649.75	1.34	485202.94	543563.08	N 32 20 2.02	W 104 19 34.06	
	11708.00	89.83	3.21	9202.16	2647.38	2624.45	655.21	0.46	485297.77	543568.54	N 32 20 2.96	W 104 19 34.00	
	11802.00	89.40	3.22	9202.79	2741.36	2718.30	660.49	0.46	485391.61	543573.81	N 32 20 3.89	W 104 19 33.93	
	11897.00	89.46	3.22	9203.73	2836.34	2813.14	665.82	0.06	485486.45	543579.15	N 32 20 4.83	W 104 19 33.87	
	11992.00	89.48	3.16	9204.61	2931.32	2907.99	671.81	0.07	485581.29	543584.44	N 32 20 5.76	W 104 19 33.81	
	12087.00	90.17	3.80	9204.90	3026.29	3002.81	676.17	0.99	485676.11	543589.90	N 32 20 6.70	W 104 19 33.74	
	12181.00	90.26	3.65	9204.55	3120.26	3096.62	682.98	0.19	485769.31	543596.31	N 32 20 7.63	W 104 19 33.67	
	12275.00	90.34	3.25	9204.06	3214.23	3190.44	688.64	0.43	485863.72	543601.96	N 32 20 8.56	W 104 19 33.61	
	12369.00	90.00	3.08	9203.78	3307.22	3283.30	693.77	0.41	485956.57	543607.10	N 32 20 9.48	W 104 19 33.55	
	12464.00	91.06	2.90	9202.89	3403.20	3379.16	698.78	1.12	486052.42	543612.10	N 32 20 10.43	W 104 19 33.49	
	12558.00	90.86	2.95	9201.32	3497.18	3473.03	703.58	0.22	486146.28	543616.90	N 32 20 11.36	W 104 19 33.43	
	12654.00	90.40	3.55	9200.26	3593.16	3568.87	709.02	0.79	486242.11	543622.34	N 32 20 12.30	W 104 19 33.37	
	12749.00	90.17	1.76	9199.79	3688.15	3663.76	713.42	1.90	486336.99	543626.74			

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	15581.00	90.74	1.83	9183.23	8519.74	6494.14	799.15	2.05	489167.10	543712.46	N 32 20 41.25	W 104 19 32.31
	15676.00	90.60	1.32	9182.12	8614.73	6589.09	801.76	0.56	489262.05	543715.07	N 32 20 42.19	W 104 19 32.28
	15771.00	89.91	1.47	9181.70	8709.72	6684.06	804.07	0.74	489357.01	543717.39	N 32 20 43.13	W 104 19 32.26
	15864.00	90.43	1.02	9181.42	8802.70	6777.04	806.09	0.74	489449.98	543719.41	N 32 20 44.05	W 104 19 32.23
	15958.00	90.95	3.00	9180.29	8896.69	6870.97	809.39	2.18	489543.90	543722.70	N 32 20 44.98	W 104 19 32.19
	16053.00	90.46	1.90	9179.12	8991.68	6965.88	813.45	1.27	489638.80	543726.76	N 32 20 45.92	W 104 19 32.15
	16148.00	90.72	1.03	9178.14	9086.67	7060.84	815.88	0.96	489733.75	543729.19	N 32 20 46.86	W 104 19 32.12
	16244.00	90.86	1.86	9176.82	9182.65	7156.80	818.30	0.88	489829.70	543731.61	N 32 20 47.81	W 104 19 32.09
	16337.00	90.43	1.20	9175.77	9275.64	7249.76	820.78	0.85	489922.65	543734.09	N 32 20 48.73	W 104 19 32.06
	16431.00	91.37	2.01	9174.29	9369.62	7343.71	823.41	1.32	490016.60	543736.73	N 32 20 49.66	W 104 19 32.03
	16526.00	92.41	1.22	9171.16	9464.56	7438.62	826.09	1.37	490111.49	543739.40	N 32 20 50.59	W 104 19 32.00
	16620.00	93.01	1.21	9166.72	9558.44	7532.49	828.08	0.64	490205.36	543741.39	N 32 20 51.52	W 104 19 31.98
	16713.00	93.47	0.09	9161.46	9651.26	7625.33	829.13	1.30	490298.19	543742.45	N 32 20 52.44	W 104 19 31.96
	16808.00	94.10	359.94	9155.19	9745.98	7720.13	829.16	0.68	490392.98	543742.47	N 32 20 53.38	W 104 19 31.96
	16901.00	94.39	359.58	9148.30	9838.65	7812.87	828.77	0.50	490485.71	543742.08	N 32 20 54.30	W 104 19 31.97
	16997.00	89.91	357.97	9144.70	9934.38	7908.75	826.72	4.96	490581.59	543740.03	N 32 20 55.25	W 104 19 31.99
	17092.00	89.28	0.77	9145.37	10029.26	8003.73	825.67	3.02	490676.56	543738.99	N 32 20 56.19	W 104 19 32.00
	17187.00	89.60	6.59	9146.30	10124.18	8098.49	831.77	6.14	490771.31	543745.08	N 32 20 57.12	W 104 19 31.93
	17282.00	90.34	10.57	9146.35	10218.57	8192.41	845.94	4.26	490865.22	543759.25	N 32 20 58.05	W 104 19 31.77
	17377.00	89.51	11.07	9146.48	10312.48	8285.72	863.77	1.02	490958.52	543777.08	N 32 20 58.98	W 104 19 31.56
	17472.00	88.54	7.39	9148.10	10406.73	8379.46	879.00	4.01	491052.25	543792.31	N 32 20 59.90	W 104 19 31.38
	17568.00	89.26	2.08	9149.94	10502.58	8475.08	886.92	5.58	491147.86	543800.23	N 32 21 0.85	W 104 19 31.29
	17663.00	89.23	0.12	9151.19	10597.55	8570.05	888.75	2.06	491242.82	543802.05	N 32 21 1.79	W 104 19 31.27
	17755.00	89.00	359.29	9152.61	10689.46	8662.04	888.27	0.94	491334.80	543801.58	N 32 21 2.70	W 104 19 31.27
	17851.00	89.14	357.99	9154.17	10785.26	8757.99	886.00	1.36	491430.75	543799.30	N 32 21 3.65	W 104 19 31.30
	17946.00	88.94	357.79	9155.76	10879.98	8852.92	882.50	0.30	491525.66	543795.81	N 32 21 4.59	W 104 19 31.34
	18040.00	89.00	358.11	9157.45	10973.71	8946.84	879.14	0.35	491619.58	543792.44	N 32 21 5.52	W 104 19 31.38
	18135.00	88.40	1.14	9159.61	11068.58	9041.80	878.51	3.25	491714.53	543791.82	N 32 21 6.46	W 104 19 31.39
	18231.00	89.06	1.11	9161.74	11164.54	9137.76	880.40	0.69	491810.48	543793.71	N 32 21 7.41	W 104 19 31.37
	18326.00	89.11	0.36	9163.25	11259.50	9232.74	881.62	0.79	491905.45	543794.93	N 32 21 8.35	W 104 19 31.35
	18421.00	89.20	0.49	9164.65	11354.45	9327.73	882.32	0.17	492000.43	543795.63	N 32 21 9.29	W 104 19 31.34
	18517.00	88.68	359.87	9166.43	11450.37	9423.71	882.62	0.84	492096.40	543795.93	N 32 21 10.24	W 104 19 31.34
	18611.00	87.57	358.94	9169.51	11544.21	9517.65	881.65	1.54	492190.34	543794.96	N 32 21 11.17	W 104 19 31.35
	18706.00	87.05	358.91	9173.96	11638.95	9612.53	879.87	0.55	492285.21	543793.18	N 32 21 12.10	W 104 19 31.37
	18801.00	87.94	358.71	9178.12	11733.70	9707.42	877.90	0.96	492380.08	543791.21	N 32 21 13.04	W 104 19 31.39
	18897.00	87.57	357.93	9181.88	11829.41	9803.30	875.08	0.90	492475.96	543788.39	N 32 21 13.99	W 104 19 31.43
	18992.00	86.82	357.37	9186.53	11924.00	9898.11	871.19	0.98	492570.76	543784.50	N 32 21 14.93	W 104 19 31.47
Last SLB Survey	19070.00	86.50	356.76	9191.07	12001.55	9975.87	867.21	0.88	492648.51	543780.52	N 32 21 15.70	W 104 19 31.52
Proj. to Bit	19156.00	86.50	356.76	9196.32	12087.01	10061.57	862.36	0.00	492734.21	543775.67	N 32 21 16.55	W 104 19 31.57

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	32.000	1/98.425	30.000	30.000	NAL_MWD_1.0_DEG-Depth Only	Pilot Hole / Chisholm Ocotillo 6-31 State Com WCB 2H Pilot 0ft to 10595ft Definitive
	1	32.000	32.000	Act Stns	30.000	30.000	NAL_MWD_1.0_DEG-Depth Only	Pilot Hole / Chisholm Ocotillo 6-31 State Com WCB 2H Pilot 0ft to 10595ft Definitive
	1	32.000	8497.000	Act Stns	30.000	30.000	NAL_MWD_1.0_DEG	Pilot Hole / Chisholm Ocotillo 6-31 State Com WCB 2H Pilot 0ft to ST01 / Chisholm Ocotillo 6-31
	1	8497.000	19156.000	Act Stns	30.000	30.000	NAL_MWD_1.0_DEG	State Com WCB 2H ST01 MWD