

Oxy Cedar Canyon 23-24 Federal 32H MWD 0-17,665' Survey Geodetic Report (Def Survey)



Report Date: July 28, 2017 - 12:05 PM
 Client: OXY
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Oxy Cedar Canyon 23-24 Federal 32H / Oxy Cedar Canyon 23-24 Federal 32H
 Well: Oxy Cedar Canyon 23-24 Federal 32H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Oxy Cedar Canyon 23-24 Federal 32H MWD 0-17,665'
 Survey Date: June 20, 2017
 Tort / AHD / DDI / ERD Ratio: 337 844' / 8981 671' / 6 722' / 0.583
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone US Feet
 Location Lat / Long: N 32° 12' 31.69021" W 103° 57' 51.49939"
 Location Grid N/E Y/X: N 439692 500 RUS, E 655472 100 RUS
 CRS Grid Convergence Angle: 0.1967°
 Grid Scale Factor: 0.99992401
 Version / Patch: 2.10.544.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 58.270° (Grid North)
 Vertical Section Origin: 0.000 ft. 0.000 ft.
 TVD Reference Datum: RKB+26.5'
 TVD Reference Elevation: 2570.100 ft above MSL
 Seated / Ground Elevation: 2943.690 ft above MSL
 Magnetic Declination: 7.126°
 Total Gravity Field Strength: 998.4695mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48106.251 nT
 Magnetic Dip Angle: 60.015°
 Declination Date: July 22, 2017
 Magnetic Declination Model: IIGM 2017
 North Reference: Grid North
 Grid Convergence Used: 0.1967°
 Total Corr Mag North-Grid: 6.9296°
 North: Well Head
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SINL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	439692.50	655472.10	N 32 12 31.69	W 103 57 51.50
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	439692.50	655472.10	N 32 12 31.69	W 103 57 51.50
	90.37	0.09	351.10	90.37	-0.01	0.05	-0.01	0.14	439692.55	655472.09	N 32 12 31.69	W 103 57 51.50
	181.37	0.38	124.62	181.37	0.23	-0.05	0.23	0.49	439692.45	655472.33	N 32 12 31.69	W 103 57 51.50
	272.37	0.41	118.75	272.37	0.81	-0.38	0.76	0.08	439692.12	655472.86	N 32 12 31.69	W 103 57 51.49
	363.64	0.32	101.20	363.64	1.37	-0.59	1.30	0.16	439691.91	655473.40	N 32 12 31.68	W 103 57 51.48
	454.37	0.39	87.23	454.36	1.93	-0.82	1.86	0.12	439691.88	655473.06	N 32 12 31.68	W 103 57 51.48
	544.37	0.31	77.66	544.36	2.46	-0.55	2.40	0.11	439691.95	655474.50	N 32 12 31.68	W 103 57 51.47
	634.37	0.05	153.63	634.36	2.70	-0.55	2.65	0.25	439691.95	655474.75	N 32 12 31.68	W 103 57 51.47
	724.37	0.07	192.70	724.36	2.72	-0.65	2.65	0.04	439691.85	655474.75	N 32 12 31.68	W 103 57 51.47
	813.37	0.06	185.21	813.36	2.72	-0.74	2.64	0.01	439691.78	655474.74	N 32 12 31.68	W 103 57 51.47
	903.37	0.07	189.54	903.36	2.72	-0.85	2.62	0.01	439691.65	655474.72	N 32 12 31.68	W 103 57 51.47
	993.37	0.06	191.61	993.36	2.71	-0.95	2.60	0.01	439691.55	655474.70	N 32 12 31.68	W 103 57 51.47
	1027.37	0.07	187.42	1027.36	2.71	-0.98	2.60	0.04	439691.52	655474.70	N 32 12 31.68	W 103 57 51.47
	1121.37	0.07	192.56	1121.36	2.71	-1.10	2.58	0.01	439691.40	655474.68	N 32 12 31.68	W 103 57 51.47
	1216.37	0.08	192.07	1216.36	2.70	-1.22	2.55	0.01	439691.28	655474.65	N 32 12 31.68	W 103 57 51.47
	1311.37	0.07	189.45	1311.36	2.68	-1.34	2.52	0.01	439691.16	655474.62	N 32 12 31.68	W 103 57 51.47
	1405.37	0.07	228.34	1405.36	2.64	-1.43	2.46	0.04	439691.07	655474.56	N 32 12 31.68	W 103 57 51.47
	1500.37	0.09	192.40	1500.36	2.59	-1.54	2.40	0.06	439690.95	655474.50	N 32 12 31.67	W 103 57 51.47
	1595.37	0.07	186.26	1595.36	2.59	-1.67	2.37	0.02	439690.83	655474.47	N 32 12 31.67	W 103 57 51.47
	1689.37	0.08	194.43	1689.36	2.59	-1.79	2.35	0.02	439690.71	655474.45	N 32 12 31.67	W 103 57 51.47
	1784.37	0.08	199.71	1784.36	2.56	-1.92	2.31	0.01	439690.58	655474.41	N 32 12 31.67	W 103 57 51.47
	1878.37	0.08	208.84	1878.36	2.53	-2.04	2.26	0.01	439690.46	655474.38	N 32 12 31.67	W 103 57 51.47
	1973.37	0.10	238.47	1973.36	2.44	-2.14	2.16	0.05	439690.36	655474.26	N 32 12 31.67	W 103 57 51.47
	2068.37	0.10	234.09	2068.36	2.32	-2.23	2.02	0.01	439690.27	655474.12	N 32 12 31.67	W 103 57 51.46
	2162.37	0.07	226.70	2162.36	2.22	-2.32	1.91	0.03	439690.18	655474.01	N 32 12 31.67	W 103 57 51.46
	2257.37	0.14	219.42	2257.36	2.13	-2.45	1.79	0.07	439690.05	655473.89	N 32 12 31.67	W 103 57 51.46
	2352.37	0.15	256.02	2352.36	1.95	-2.57	1.60	0.10	439689.93	655473.70	N 32 12 31.66	W 103 57 51.46
	2446.37	0.08	236.13	2446.36	1.79	-2.84	1.43	0.08	439689.86	655473.53	N 32 12 31.66	W 103 57 51.46
	2541.37	0.07	285.65	2541.36	1.68	-2.88	1.31	0.04	439689.82	655473.41	N 32 12 31.66	W 103 57 51.46
	2635.37	0.08	222.41	2635.36	1.59	-2.73	1.21	0.08	439689.77	655473.31	N 32 12 31.66	W 103 57 51.46
	2730.37	0.11	29.10	2730.36	1.59	-2.70	1.21	0.20	439689.80	655473.31	N 32 12 31.66	W 103 57 51.46
	2825.37	0.08	236.67	2825.36	1.57	-2.66	1.20	0.19	439689.84	655473.30	N 32 12 31.66	W 103 57 51.46
	2919.37	0.12	203.86	2919.36	1.49	-2.78	1.11	0.07	439689.72	655473.21	N 32 12 31.66	W 103 57 51.46
	3014.37	0.15	204.61	3014.36	1.43	-2.89	1.01	0.03	439689.61	655473.11	N 32 12 31.66	W 103 57 51.46
	3109.37	0.12	213.69	3109.36	1.36	-2.91	0.91	0.04	439689.52	655473.01	N 32 12 31.66	W 103 57 51.46
	3203.37	0.12	216.63	3203.36	1.27	-3.34	0.79	0.01	439689.16	655472.89	N 32 12 31.66	W 103 57 51.46
	3298.37	0.02	24.33	3298.36	1.22	-3.41	0.74	0.15	439689.09	655472.84	N 32 12 31.66	W 103 57 51.46
	3393.37	0.10	180.85	3393.36	1.24	-3.47	0.75	0.12	439689.03	655472.85	N 32 12 31.66	W 103 57 51.46
	3487.37	0.10	211.88	3487.36	1.22	-3.63	0.70	0.06	439688.87	655472.80	N 32 12 31.66	W 103 57 51.46
	3580.37	0.09	216.00	3580.36	1.15	-3.75	0.62	0.01	439688.75	655472.72	N 32 12 31.66	W 103 57 51.46
	3677.37	0.10	211.63	3677.36	1.08	-3.89	0.53	0.01	439688.61	655472.63	N 32 12 31.66	W 103 57 51.46
	3772.37	0.09	292.77	3772.36	1.03	-4.03	0.45	0.02	439688.47	655472.55	N 32 12 31.66	W 103 57 51.46
	3866.37	0.09	213.99	3866.36	0.98	-4.16	0.38	0.02	439688.34	655472.48	N 32 12 31.66	W 103 57 51.50
	3961.37	0.08	185.52	3961.36	0.95	-4.25	0.34	0.05	439688.21	655472.44	N 32 12 31.66	W 103 57 51.50
	4056.37	1.00	185.58	4056.36	0.85	-5.17	0.11	0.96	439687.73	655472.21	N 32 12 31.64	W 103 57 51.50
	4150.37	1.00	184.52	4150.34	0.65	-5.75	-0.32	0.01	439685.85	655471.78	N 32 12 31.62	W 103 57 51.50
	4245.37	5.63	195.16	4245.15	-0.01	-12.05	-1.76	4.87	439680.45	655470.34	N 32 12 31.57	W 103 57 51.52
	4340.37	11.00	195.55	4339.12	-1.78	-25.27	-5.47	5.65	439687.23	655466.63	N 32 12 31.44	W 103 57 51.56
	4434.37	15.32	193.65	4430.63	-4.14	-45.97	-10.87	4.83	439646.53	655461.23	N 32 12 31.74	W 103 57 51.63
	4529.37	16.14	191.88	4522.07	-6.15	-71.09	-16.55	1.00	439621.41	655455.55	N 32 12 30.99	W 103 57 51.69
	4623.37	15.63	191.06	4612.48	-7.59	-96.30	-21.67	0.59	439796.20	655450.44	N 32 12 30.74	W 103 57 51.76
	4718.37	15.44	187.32	4704.01	-8.00	-121.41	-25.73	1.07	439771.10	655446.37	N 32 12 30.49	W 103 57 51.80
	4813.37	12.47	206.56	4796.25	-11.08	-143.11	-32.00	5.84	439749.40	655440.10	N 32 12 30.28	W 103 57 51.86
	4908.37	14.12	216.23	4688.71	-19.80	-161.80	-43.50	2.83	439736.93	655428.60	N 32 12 30.09	W 103 57 52.01
	5003.37	15.97	209.90	4680.46	-30.05	-182.28	-56.86	2.60	439710.23	655415.24	N 32 12 29.89	W 103 57 52.17
	5097.37	15.46	209.78	5070.94	-39.31	-204.42	-65.44	0.57	439698.10	655402.67	N 32 12 29.67	W 103 57 52.32
	5192.37	12.79	231.85	5163.13	-51.11	-221.98	-83.91	6.39	439670.54	655388.19	N 32 12 29.50	W 103 57 52.48
	5287.37	11.81	243.09	5255.97	-68.31	-232.87	-100.85	2.72	439658.54	655371.25	N 32 12 29.39	W 103 57 52.68
	5381.37	11.99	231.50	5347.96	-80.86	-243.31	-117.08	2.55	439649.21	655355.03	N 32 12 29.26	W 103 57 52.87
	5476.37	11.99	220.80	5440.90	-92.90	-256.94	-131.22	2.38	439635.59	655340.89	N 32 12 29.15	W 103 57 53.04
	5571.37	11.97	213.16	5533.83	-102.32	-272.68	-143.03	1.62	439619.84	655329.08	N 32 12 29.00	W 103 57 53.17
	5665.37	11.76	198.52	5629.85	-108.13	-289.93	-151.41	3.20	439602.59	655320.70	N 32 12 28.83	W 103 57 53.27
	5760.37	11.81	185.89	5718.86	-105.45	-308.78	-155.48	2.71	439583.74	655316.03	N 32 12 28.64	W 103 57 53.32
	5855.37	12.15	173.71	5811.81	-106.53	-328.40	-155.39	2.68	439564.31	655316.73	N 32 12 28.45	W 103 57 53.32
	5949.37	12.41	159.51	5903.68	-99.18	-347.59	-150.76	3.22	439544.83	655321.35	N 32 12 28.25	W 103 57 53.27
	6044.37	13.42	152.91	5896.28	-87.89	-367.07	-142.17	1.88	439525.46	655329.94	N 32 12 28.06	W 103 57 53.17
	6139.37	14.61	144.93	6088.46	-73.29	-386.70	-130.26	2.39	439505.83	655341.85	N 32 12 27.87	W 103 57 53.03
	6234.37	15.71	143.05	6180.15	-55.93	-406.78	-115.65	1.27	439485.75	655356.46	N 32 12 27.67	W 103 57 52.86
	6328.37	16.87	140.83	6270.56	-37.32	-427.04	-99.78	0.75	439465.49	655372.33	N 32 12 27.47	W 103 57 52.58
	6423.37	15.53	141.72	6361.97	-18.40	-447.22	-83.60	0.62	439445.37	655388.51	N 32 12 27.27	W 103 57 52.49
	6518.37	16.22	140.94	6453.35	0.59	-467.50	-67.36	0.76	439425.03	655404.75	N 32 12 27.07	W 103 57 52.30
	6612.37	16.92	142.44	6543.44	20.05	-488.54	-50.75	0.87	439404.00	655421.38	N 32 12 26.86	W 103 57 52.11

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S/°)	Longitude (E/W/°)
	7181.37	16.40	166.10	7086.84	125.22	-632.41	34.61	2.41	439260.14	655506.71	N 32 12 25.43	W 103 57 51.12
	7279.37	15.40	165.96	7178.21	136.07	-657.67	40.80	1.05	439234.88	655512.99	N 32 12 25.18	W 103 57 51.05
	7371.37	13.82	169.76	7270.18	143.41	-680.91	45.95	2.12	439211.64	655518.04	N 32 12 24.95	W 103 57 50.99
	7460.37	14.81	176.89	7362.27	149.36	-704.05	48.59	2.23	439168.51	655520.69	N 32 12 24.72	W 103 57 50.96
	7561.37	16.74	187.69	7453.23	157.05	-731.11	52.43	4.93	439161.44	655524.93	N 32 12 24.45	W 103 57 50.92
	7653.37	16.84	161.71	7542.74	169.37	-759.81	59.85	2.87	439131.74	655531.94	N 32 12 24.18	W 103 57 50.83
	7750.37	14.68	157.56	7634.16	180.57	-783.01	68.76	2.56	439109.55	655540.86	N 32 12 23.94	W 103 57 50.73
	7845.37	13.13	159.80	7725.39	191.97	-804.26	77.08	1.73	439068.30	655549.18	N 32 12 23.73	W 103 57 50.63
	7940.37	14.29	165.32	7816.67	201.68	-825.73	83.78	1.84	439066.83	655555.87	N 32 12 23.52	W 103 57 50.56
	8034.37	17.12	168.78	7909.16	210.82	-850.53	89.41	3.17	439042.03	655561.51	N 32 12 23.27	W 103 57 50.49
	8129.37	18.84	169.27	7999.51	220.48	-879.32	94.99	1.82	439013.25	655567.08	N 32 12 22.98	W 103 57 50.43
	8224.37	18.85	161.79	8089.95	231.62	-907.48	102.15	3.19	438985.09	655574.24	N 32 12 22.71	W 103 57 50.35
	8319.37	15.45	156.52	8181.20	244.42	-932.17	111.50	2.13	438960.61	655583.59	N 32 12 22.46	W 103 57 50.24
	8413.37	15.17	152.11	8271.87	258.27	-954.52	122.24	1.27	438938.05	655594.35	N 32 12 22.24	W 103 57 50.11
	8506.37	15.42	144.61	8363.52	274.32	-975.81	135.37	2.10	438916.77	655607.48	N 32 12 22.03	W 103 57 49.96
	8603.37	15.96	135.17	8454.75	294.13	-995.53	152.45	3.20	438896.64	655624.94	N 32 12 21.83	W 103 57 49.78
	8697.37	14.13	136.23	8545.31	314.14	-1013.95	170.06	3.03	438878.53	655642.15	N 32 12 21.65	W 103 57 49.56
	8792.37	7.40	139.61	8638.59	327.89	-1028.99	182.05	3.03	438865.59	655654.15	N 32 12 21.52	W 103 57 49.47
	8887.37	4.31	140.03	8733.08	335.15	-1034.39	188.32	3.25	438858.19	655668.00	N 32 12 21.45	W 103 57 49.35
	8981.37	1.68	144.08	8828.95	338.75	-1038.21	191.40	2.81	438854.37	655663.48	N 32 12 21.41	W 103 57 49.31
	9076.37	1.68	143.85	8921.90	340.69	-1040.47	193.04	0.01	438852.11	655665.12	N 32 12 21.39	W 103 57 49.29
	9171.37	0.21	111.00	9016.89	341.84	-1041.65	194.02	1.58	438850.83	655666.10	N 32 12 21.38	W 103 57 49.28
	9266.37	0.19	115.91	9111.89	342.16	-1041.79	194.32	0.03	438850.80	655666.41	N 32 12 21.37	W 103 57 49.28
	9360.37	0.22	114.68	9205.89	342.08	-1041.93	194.63	0.03	438850.85	655666.71	N 32 12 21.37	W 103 57 49.28
	9454.00	0.68	120.17	9305.51	342.01	-1041.25	194.26	0.49	438851.33	655665.34	N 32 12 21.38	W 103 57 49.28
	9548.00	0.47	120.68	9403.51	341.61	-1040.97	193.89	0.74	438851.62	655665.99	N 32 12 21.38	W 103 57 49.28
	9643.00	11.93	126.56	9501.27	350.05	-1045.67	201.73	12.62	438846.91	655673.82	N 32 12 21.34	W 103 57 49.19
	9738.00	26.16	115.85	9601.57	378.95	-1076.71	223.90	15.47	438832.87	655703.88	N 32 12 21.20	W 103 57 48.88
	9832.00	37.04	117.40	9697.51	425.60	-1081.84	272.82	11.81	438810.78	655744.93	N 32 12 20.98	W 103 57 48.37
	9927.00	42.58	116.93	9770.45	483.13	-1105.59	326.32	5.85	438783.00	655793.00	N 32 12 20.70	W 103 57 47.74
	10022.00	52.32	114.60	9834.62	549.83	-1139.87	389.92	10.40	438752.72	655861.99	N 32 12 20.40	W 103 57 47.01
	10116.00	63.62	110.32	9894.41	626.98	-1170.08	463.49	12.62	438722.51	655935.55	N 32 12 20.10	W 103 57 46.15
	10210.00	70.18	103.13	9921.71	713.30	-1195.07	547.09	9.79	438697.53	656019.15	N 32 12 19.85	W 103 57 45.18
	10304.00	71.85	97.43	9952.33	802.08	-1210.90	634.50	6.01	438681.70	656106.55	N 32 12 19.60	W 103 57 44.15
	10400.00	78.21	91.35	9976.08	893.55	-1217.84	725.92	9.11	438674.75	656197.96	N 32 12 19.61	W 103 57 43.10
	10505.00	87.17	88.43	9988.96	886.66	-1217.64	820.04	9.91	438674.06	656292.08	N 32 12 19.61	W 103 57 42.00
	10607.00	94.93	86.25	9996.57	1096.35	-1212.46	931.64	2.79	438680.14	656403.67	N 32 12 19.66	W 103 57 40.71
	10742.00	85.87	86.93	10004.29	1189.09	-1206.82	1026.17	1.22	438665.77	656498.18	N 32 12 19.71	W 103 57 39.63
	10836.00	86.42	87.32	10010.61	1281.10	-1202.12	1119.83	0.72	438650.47	656591.85	N 32 12 19.76	W 103 57 38.51
	10931.00	87.32	86.57	10015.80	1374.11	-1197.06	1214.56	1.23	438695.53	656689.96	N 32 12 19.60	W 103 57 37.41
	11025.00	88.42	86.19	10018.29	1468.03	-1191.13	1308.30	1.24	438701.45	656780.30	N 32 12 19.66	W 103 57 36.32
	11120.00	89.11	83.85	10021.34	1558.47	-1182.89	1402.91	2.57	438709.70	656874.61	N 32 12 19.94	W 103 57 35.22
	11214.00	88.65	82.91	10023.01	1649.30	-1172.05	1498.27	1.03	438720.54	656969.26	N 32 12 20.04	W 103 57 34.13
	11309.00	88.07	84.00	10025.55	1741.11	-1161.23	1590.62	1.42	438731.36	657062.59	N 32 12 20.15	W 103 57 33.03
	11404.00	87.52	87.09	10028.21	1833.70	-1153.86	1685.25	3.30	438738.73	657157.22	N 32 12 20.21	W 103 57 31.93
	11498.00	88.11	88.82	10032.79	1926.24	-1151.32	1779.14	2.97	438741.26	657251.10	N 32 12 20.24	W 103 57 30.84
	11593.00	88.18	91.91	10035.67	2020.40	-1152.78	1874.07	2.20	438738.83	657346.02	N 32 12 20.22	W 103 57 29.73
	11688.00	88.65	94.55	10041.98	2208.59	-1163.40	2067.68	1.42	438729.19	657394.82	N 32 12 20.11	W 103 57 27.54
	11782.00	89.14	95.54	10042.90	2303.41	-1171.79	2157.28	1.16	438720.84	657492.23	N 32 12 20.02	W 103 57 26.44
	11877.00	89.14	95.54	10042.90	2397.22	-1175.77	2250.93	1.51	438712.82	657572.25	N 32 12 19.94	W 103 57 25.35
	11971.00	88.55	94.25	10044.80	2491.89	-1185.68	2345.73	1.83	438706.91	657671.85	N 32 12 19.88	W 103 57 24.25
	12066.00	89.62	92.88	10046.31	2586.31	-1188.99	2440.66	1.92	438703.61	657792.67	N 32 12 19.84	W 103 57 23.14
	12161.00	88.17	91.11	10047.32	2679.21	-1188.34	2534.64	3.20	438704.25	658006.64	N 32 12 19.84	W 103 57 22.05
	12255.00	89.04	88.10	10048.78	2772.28	-1182.98	2629.46	2.81	438709.61	658101.36	N 32 12 19.89	W 103 57 20.94
	12350.00	88.90	85.43	10050.49	2863.40	-1173.40	2722.93	2.88	438719.20	658194.82	N 32 12 19.99	W 103 57 19.85
	12444.00	88.04	82.86	10053.00	2955.17	-1162.51	2817.25	1.17	438730.08	658289.13	N 32 12 20.09	W 103 57 18.76
	12539.00	87.97	83.97	10056.31	3047.06	-1158.51	2910.98	5.07	438736.08	658382.86	N 32 12 20.15	W 103 57 17.67
	12633.00	88.49	88.14	10059.22	3140.98	-1158.02	3005.86	2.19	438736.57	658477.82	N 32 12 20.15	W 103 57 16.56
	12728.00	89.14	90.69	10062.31	3234.12	-1156.95	3098.94	0.44	438735.64	658571.60	N 32 12 20.14	W 103 57 15.47
	12822.00	89.48	89.48	10063.59	3328.06	-1156.55	3194.93	1.71	438736.36	658668.78	N 32 12 20.14	W 103 57 14.36
	12917.00	88.62	89.07	10063.59	3414.87	-1155.33	3283.89	0.62	438737.26	658765.71	N 32 12 20.14	W 103 57 13.26
	13016.00	89.97	90.19	10067.68	3508.98	-1156.07	3378.87	1.75	438736.52	658859.70	N 32 12 20.13	W 103 57 12.16
	13110.00	90.55	90.70	10068.28	3608.98	-1157.96	3478.87	1.14	438734.63	658950.50	N 32 12 20.11	W 103 57 11.06
	13201.00	89.97	91.80	10067.63	3702.28	-1157.96	3572.85	0.25	438731.96	659044.67	N 32 12 20.11	W 103 57 9.96
	13295.00	90.21	91.62	10067.68	3796.52	-1160.63	3667.81	0.25	438729.53	659139.63	N 32 12 20.08	W 103 57 8.86
	13390.00	90.24	91.35	10067.32	3889.96	-1163.05	3761.78	0.29	438727.58	659233.59	N 32 12 20.05	W 103 57 7.77
	13484.00	90.24	90.88	10066.92	3984.22	-1164.91	3856.76	0.49	438727.58	659328.56	N 32 12 20.03	W 103 57 6.66
	13579.00	90.34	88.58	10066.44	4078.20	-1164.80	3951.75	2.00	438727.80	659423.55	N 32 12 20.03	W 103 57 5.55
	13674.00	88.25	85.71	10067.06	4263.75	-1156.04	4140.52	1.82	438736.55	659512.30	N 32 12 20.11	W 103 57 4.44
	13768.00	89.55	86.78	10068.02	4355.68	-1148.87	4234.31	1.15	438742.72	659606.08	N 32 12 20.17	W 103 57 3.33
	13863.00	90.21	86.45	10068.22	4448.72	-1144.24	4329.15	0.77	438748.35	659699.81	N 32 12 20.22	W 103 57 2.22
	13957.00	89.25	93.63	10071.39	4535.61	-1144.37	4417.99	3.99	438748.22	659793.73	N 32 12 20.21	W 103 57 1.11
	14052.00	88.80	96.38	10075.81	4730.34	-1152.65	4612.51	3.10	438739.94	660084.25	N 32 12 20.12	W 103 57 0.00
	14147.00	85.80	94.56	10088.01	4918.71	-1170.83	4800.24	1.10	438721.96	660277.97	N 32 12 19.94	W 103 56 55.66
	14241.00	85.32	93.10	10094.54	5013.20	-1176.96	4894.80	1.63	438715.63	660366.52	N 32 12 19.87	W 103 56 54.58
	14336.00	89.24	92.12	10101.86	52							

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 ° ' ")
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey				
	1	0.000	26.500	1/88.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Cedar Canyon 23-24 Federal 32H MWD 0-17,665'				
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Cedar Canyon 23-24 Federal 32H MWD 0-17,665'				
	1	26.500	9360.370	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Cedar Canyon 23-24 Federal 32H MWD 0-17,665'				
	1	9360.370	17685.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0 5_DEG	Original Borehole / Oxy Cedar Canyon 23-24 Federal 32H MWD				