

Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
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NM OIL CONSERVATION
ARTESIA DISTRICT
Schlumberger DEC 02 2016

RECEIVED

Well Reference:
22, 24S, 29E, EDDY NM
N 32.19841 W -103.97972

I, Kalu Chibueze Uga certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of September 29, 2016 through October 09, 2016, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 470.00 feet to a depth of 13365.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY USA INC. for the CEDAR CANYON 22 FEDERAL COM 6Y Well (Original Hole) API No. 30-015-43906 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
Kalu Chibueze Uga
FS

Kalu Chibueze Uga

Subscribed and Sworn to before me this 19th day of October (month) 2016 (yr)

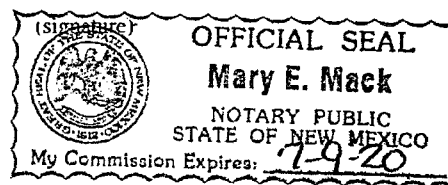
My Commission expires:

7-9-20

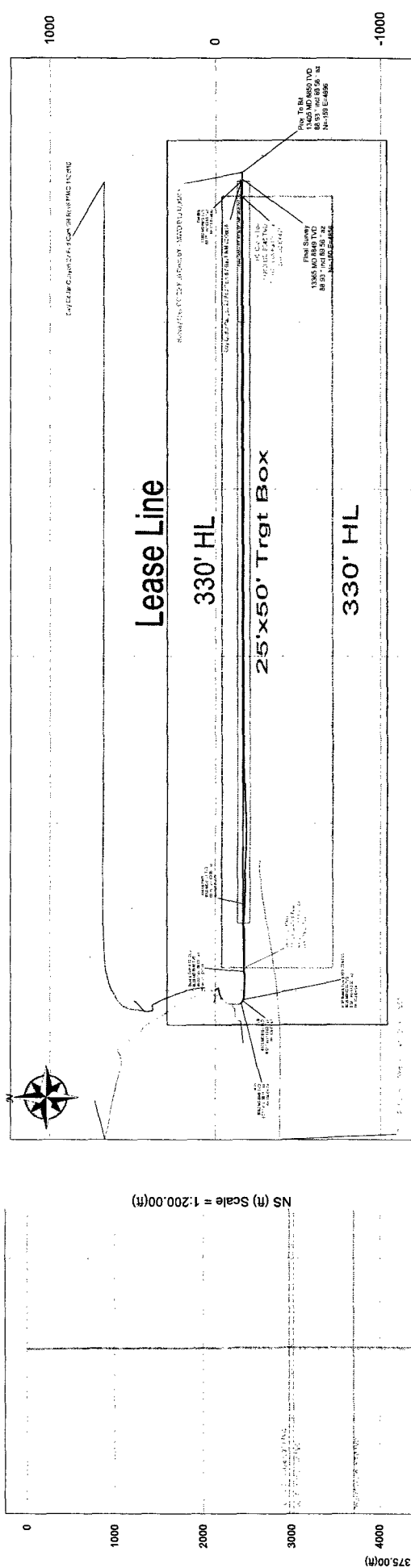
Mary E. Mack

Notary Public

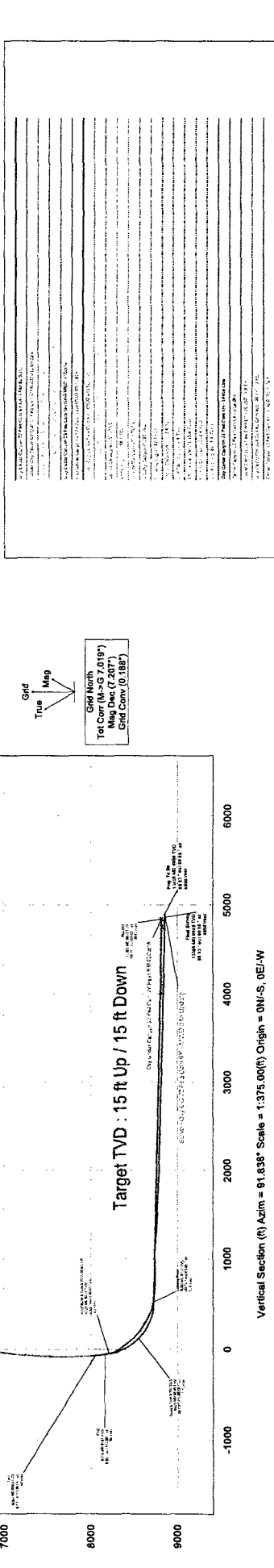
Eddy New Mexico
(County State)



Borehole:		Well:		Field:		Structure:	
Oxy CC 22 Fed Com 6Y - Orig. Hole		Oxy Cedar Canyon 22 Fed Com 6Y		NM Eddy County (NAD 27)		Oxy Cedar Canyon 22 Fed Com 6Y - NSHL	
Geology & Logistical Parameters		Location		Coordinates		Measurements	
Model: HCOM 2016	Dip: 85.847°	Lat: N 32 11 54.28	Northings: 4308617.2015	Grid Contour: 0.184'	Oxy Cedar Canyon 22 Fed	TVD Ref: 1902/2007 JR above MSL	
Logbook: 7.207	FS: 48.046 27.117	Long: W 103 58 47.01	Eastings: 603486.3603	Scale Point: 0.0002779	Plan:	Oxy Cedar Canyon 22 Fed Com 6Y Part NM 900416	



TVD (ft) Scale = 1:375.00(ft)	EW (ft) Scale = 1:200.00(ft)															5000	
	0	1000	2000	3000	4000	5000											
Comments	Survey Method	Inclination(deg)	Azimuth(deg)	TVD(ft)	Sub-Sea TVD	VS(ft)	NS(ft)	EW(ft)	Latitude(deg)	Longitude(deg)	Easting(ft)	Northing(ft)	Closure(ft)	Measure Azimuth(deg)	Measure NS(ft)	Measure EW(ft)	Tool Face(deg)
KOP Build & Turn 9 70°/100 ft DLS Build & Turn 9 70° DLS Landing Point Plat BHL	8062.00	8.53	130.15	8048.94	5081.64	-69.38	-156.46	-74.44	N 32 11 52.735	W 103 58 47.879	60306.13	435925.27	173.27	205.44	4.82	-79.58	0.00
	8715.00	8.50	110.00	8160.74	5193.44	-55.65	-165.55	-60.99	N 32 11 52.644	W 103 58 47.723	60319.57	435916.17	176.44	200.22	3.65	0.00	0.00
	8225.00	8.50	110.00	8210.19	5242.89	-48.53	-168.09	-54.05	N 32 11 52.619	W 103 58 47.642	60326.51	435913.64	176.57	197.83	0.00	-26.97	0.00
	8608.78	45.00	85.00	8547.62	5590.32	119.67	-173.24	114.17	N 32 11 52.563	W 103 58 45.685	60349.72	435908.49	207.48	146.61	9.70	2.67	0.00
	9060.11	88.75	89.85	8720.61	5753.31	524.23	-166.75	519.15	N 32 11 52.614	W 103 58 40.972	60899.67	435914.38	545.27	107.81	9.70	0.00	0.00
	13382.04	88.75	89.85	8915.00	5847.70	4842.53	-155.33	4840.03	N 32 11 52.593	W 103 57 50.589	61420.21	435926.40	4842.53	91.84	0.00	0.00	0.00



Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD Survey Geodetic Report

(Def Survey)



Report Date: October 20, 2016 - 09:45 AM
 Client: OXY
 Field: NM Eddy County (NAD 27)
 Structure / Slot: Oxy Cedar Canyon 22 Fed Com 6Y - NSHL / Oxy Cedar Canyon 22 Fed Com 6H - NSHL
 Well: Oxy Cedar Canyon 22 Fed Com 6Y
 Borehole: Oxy CC 22 Fed Com 6Y - Orig. Hole
 UWI / API#: Unknown / Unknown
 Survey Name: Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD
 Survey Date: September 27, 2016
 Tort / AHD / DDI / ERD Ratio: 184.355 * / 5204.801 ft / 6.162 / 0.588
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 11' 54.28070", W 103° 58' 47.00705"
 Location Grid N/E Y/X: N 436081.720 HUS, E 609380.560 HUS
 CRS Grid Convergence Angle: 0.1884 °
 Grid Scale Factor: 0.99992279
 Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 91.838 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 2967.300 ft above MSL
 Seabed / Ground Elevation: 2939.100 ft above MSL
 Magnetic Declination: 7.208 °
 Total Gravity Field Strength: 998.4670mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48197.757 nT
 Magnetic Dip Angle: 60.047 °
 Declination Date: September 27, 2016
 Magnetic Declination Model: HDGM 2016
 North Reference: Gnd North
 Grid Convergence Used: 0.1884 °
 Total Corr Mag North->Grid North: 7.0200 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	0.00	0.00	0.00	0.00	-2967.30	0.00	0.00	0.00	N/A	436081.72	609380.56	N 32 11 54.28	W 103 58 47.01
RKB	28.20	0.00	0.00	28.20	-2939.10	0.00	0.00	0.00	0.00	436081.72	609380.56	N 32 11 54.28	W 103 58 47.01
	470.00	1.54	118.52	469.95	-2497.35	5.30	-2.83	5.22	0.35	436078.89	609385.78	N 32 11 54.25	W 103 58 46.95
	531.00	0.46	133.11	530.94	-2436.36	6.22	-3.39	6.12	1.80	436078.33	609386.68	N 32 11 54.25	W 103 58 46.94
	621.00	0.07	242.02	620.94	-2346.36	6.45	-3.67	6.33	0.54	436078.05	609386.89	N 32 11 54.24	W 103 58 46.93
	711.00	0.04	177.47	710.94	-2256.36	6.40	-3.72	6.28	0.07	436078.00	609386.84	N 32 11 54.24	W 103 58 46.93
	802.00	0.07	13.53	801.94	-2165.36	6.41	-3.70	6.30	0.12	436078.02	609386.86	N 32 11 54.24	W 103 58 46.93
	893.00	0.11	84.04	892.94	-2074.36	6.51	-3.64	6.40	0.12	436078.08	609386.96	N 32 11 54.24	W 103 58 46.93
	983.00	0.07	114.01	982.94	-1984.36	6.65	-3.65	6.53	0.07	436078.07	609387.09	N 32 11 54.24	W 103 58 46.93
	1074.00	0.02	171.29	1073.94	-1893.36	6.70	-3.69	6.59	0.07	436078.03	609387.15	N 32 11 54.24	W 103 58 46.93
	1168.00	0.11	116.78	1167.94	-1799.36	6.79	-3.75	6.67	0.11	436077.97	609387.23	N 32 11 54.24	W 103 58 46.93
	1262.00	0.07	98.55	1261.94	-1705.36	6.93	-3.80	6.81	0.05	436077.92	609387.37	N 32 11 54.24	W 103 58 46.93
	1356.00	0.46	301.83	1355.93	-1611.37	6.66	-3.61	6.54	0.56	436078.12	609387.10	N 32 11 54.24	W 103 58 46.93
	1450.00	0.15	226.24	1449.93	-1517.37	6.24	-3.49	6.13	0.48	436078.23	609386.69	N 32 11 54.25	W 103 58 46.94
	1544.00	0.51	144.14	1543.93	-1423.37	6.41	-3.92	6.29	0.54	436077.80	609386.85	N 32 11 54.24	W 103 58 46.93
	1638.00	0.73	152.57	1637.93	-1329.37	6.96	-4.79	6.81	0.25	436076.93	609387.37	N 32 11 54.23	W 103 58 46.93
	1732.00	0.88	158.86	1731.92	-1235.38	7.54	-5.99	7.35	0.18	436075.73	609387.91	N 32 11 54.22	W 103 58 46.92
	1826.00	0.88	167.68	1825.91	-1141.39	7.99	-7.37	7.76	0.14	436074.55	609388.32	N 32 11 54.21	W 103 58 46.92
	1919.00	0.77	179.49	1918.90	-1048.40	8.19	-8.69	7.92	0.22	436073.03	609388.48	N 32 11 54.19	W 103 58 46.92
	2108.00	1.30	141.11	2107.87	-859.43	9.65	-11.63	9.28	0.45	436070.09	609389.84	N 32 11 54.17	W 103 58 46.90
	2296.00	0.46	126.00	2295.84	-671.46	11.66	-13.73	11.23	0.46	436067.99	609391.79	N 32 11 54.14	W 103 58 46.88
	2484.00	0.31	158.90	2483.84	-483.46	12.48	-14.65	12.02	0.14	436067.07	609392.58	N 32 11 54.14	W 103 58 46.87
	2578.00	0.46	155.93	2577.84	-389.46	12.75	-15.23	12.27	0.16	436066.49	609392.82	N 32 11 54.13	W 103 58 46.86
	2767.00	0.57	151.54	2766.83	-290.47	13.55	-16.75	13.02	0.06	436064.97	609393.58	N 32 11 54.11	W 103 58 46.86
	2955.00	0.53	124.06	2954.82	-12.48	14.76	-18.06	14.19	0.14	436063.66	609394.75	N 32 11 54.10	W 103 58 46.84
	3049.00	0.09	47.80	3048.82	81.52	15.18	-18.26	14.60	0.55	436063.47	609395.16	N 32 11 54.10	W 103 58 46.84
	3237.00	0.04	49.20	3236.82	269.52	15.34	-18.11	14.76	0.03	436063.61	609395.32	N 32 11 54.10	W 103 58 46.84
	3332.00	0.04	13.05	3331.82	364.52	15.37	-18.06	14.80	0.03	436063.66	609395.35	N 32 11 54.10	W 103 58 46.84
	3520.00	0.04	324.91	3519.82	552.52	15.34	-17.94	14.77	0.02	436063.78	609395.33	N 32 11 54.10	W 103 58 46.84
	3708.00	0.09	241.94	3707.82	740.52	15.17	-17.96	14.60	0.05	436063.76	609395.16	N 32 11 54.10	W 103 58 46.84
	3802.00	0.07	30.87	3801.82	834.52	15.14	-17.94	14.57	0.16	436063.78	609395.13	N 32 11 54.10	W 103 58 46.84
	3897.00	0.04	120.68	3896.82	929.52	15.19	-17.91	14.63	0.08	436063.81	609395.19	N 32 11 54.10	W 103 58 46.84
	3991.00	0.04	270.58	3990.82	1023.52	15.19	-17.93	14.62	0.08	436063.79	609395.18	N 32 11 54.10	W 103 58 46.84
	4179.00	0.04	319.90	4178.82	1211.52	15.08	-17.88	14.51	0.02	436063.85	609395.07	N 32 11 54.10	W 103 58 46.84
	4367.00	0.04	331.01	4366.82	1399.52	15.00	-17.77	14.44	0.00	436063.95	609395.00	N 32 11 54.10	W 103 58 46.84
	4461.00	0.04	17.02	4460.82	1493.52	15.00	-17.71	14.43	0.03	436064.01	609394.99	N 32 11 54.10	W 103 58 46.84
	4555.00	0.09	159.13	4554.82	1587.52	15.03	-17.75	14.47	0.13	436063.98	609395.03	N 32 11 54.10	W 103 58 46.84
	4743.00	0.07	65.34	4742.82	1775.52	15.19	-17.84	14.63	0.06	436063.89	609395.19	N 32 11 54.10	W 103 58 46.84
	4931.00	0.53	70.47	4930.82	1963.52	16.10	-17.50	15.55	0.24	436064.22	609396.11	N 32 11 54.11	W 103 58 46.83
	5025.00	0.07	242.49	5024.81	2057.51	16.46	-17.38	15.91	0.64	436064.34	609396.47	N 32 11 54.11	W 103 58 46.82
	5213.00	0.04	170.52	5212.81	2245.51	16.37	-17.50	15.82	0.04	436064.22	609396.38	N 32 11 54.11	W 103 58 46.82
	5402.00	0.07	231.76	5401.81	2434.51	16.30	-17.63	15.74	0.03	436064.09	609396.30	N 32 11 54.11	W 103 58 46.82
	5590.00	0.07	254.25	5589.81	2622.51	16.10	-17.74	15.54	0.01	436063.99	609396.10	N 32 11 54.10	W 103 58 46.83
	5778.00	0.07	124.75	5777.81	2810.51	16.09	-17.83	15.52	0.07	436063.89	609396.08	N 32 11 54.10	W 103 58 46.83
	5967.00	0.07	149.23	5966.81	2999.51	16.25	-18.00	15.68	0.02	436063.72	609396.24	N 32 11 54.10	W 103 58 46.83
	6155.00	0.09	163.43	6154.81	3187.51	16.35	-18.24	15.78	0.01	436063.48	609396.34	N 32 11 54.10	W 103 58 46.82
	6343.00	0.02	172.22	6342.81	3375.51	16.41	-18.41	15.82	0.04	436063.31	609396.38	N 32 11 54.10	W 103 58 46.82
	6532.00	2.82	258.12	6531.75	3564.45	12.21	-19.33	11.60	1.39	436062.39	609392.16	N 32 11 54.09	W 103 58 46.87
	6627.00	5.36	259.54	6626.51	3659.21	5.77	-20.59	5.11	2.89	436061.14	609385.67	N 32 11 54.08	W 103 58 46.95
	6720.00	7.01	261.01	6718.96	3751.66	-4.05	-22.26	-4.77	1.78	436059.46	609375.79	N 32 11 54.06	W 103 58 47.06
	6809.00	7.45	245.57	6808.48	3839.18	-26.37	-29.13	-27.32	1.05	436052.59	609353.25	N 32 11 53.99	W 103 58 47.33
	7003.00	7.52	245.00	6999.68	4032.38	-37.32	-34.25	-38.44	0.11	436047.47	609342.12	N 32 11 53.94	W 103 58 47.46
	7098.00	7.58	233.36	7093.86	4126.56	-47.77	-40.82	-49.10	1.81	436041.10	609331.48	N 32 11 53.88	W 103 58 47.59
	7192.00	8.55	221.53	7186.94	4219.64	-57.09	-49.55	-58.71	2.04	436032.17	609321.85	N 32 11 53.79	W 103 58 47.69
	7286.00	10.81	211.97	7279.80	4312.30	-65.98	-62.26	-68.01	2.34	436019.46	609312.55	N 32 11 53.67	W 103 58 47.80
	7390.00	9.03	204.32	7382.04	4414.74	-74.00	-77.97	-76.54	2.13	436003.75	609304.03	N 32 11 53.51	W 103 58 47.90
	7474.00	7.36	201.50	7465.18	4497.88	-78.33	-88.99	-81.23	2.04	435992.74	609299.34	N 32 11 53.40	W 103 58 47.96
	7568.00	6.35	186.83	7558.52	4591.22	-80.81	-99.75	-84.05	2.14	435981.97	609286.52	N 32 11 53.30	W 103 58 47.99
	7662.00	5.87	175.56	7651.99	4684.69	-80.73	-109.71	-84.30	1.37	435972.02	609276.27	N 32 11 53.20	W 103 58 47.99
	7756.00	7.27	178.27	7745.37	4778.07	-79.84	-120.44	-83.74	1.53	435961.28	609266.81	N 32 11 53.09	W 103 58 47.99
	7850.00	8.11	177.84	7838.52	4871.22	-79.01	-133.02	-83.32	0.90	435948.71	609257.25	N 32 11 52.97	W 103 58 47.98
	7944.00	6.04	184.55	7931.81	4964.51	-77.07	-144.41	-81.75	2.79	435937.32	609248.82	N 32 11 52.85	W 103 58 47.96
	8038.00	7.45	141.12	8025.17	5057.87	-71.83	-153.92	-76.60	3.26	435927.81	609230.96	N 32 11 52.76	W 103 58 47.90
	8062.00	8.53	138.15	8048.94	5081.64	-69.38	-156.46	-74.44	4.82	435925.27	609206.13	N 32 11 52.73	W 103 58 47.88
	8206.00	11.19	116.42	8190.85	5223.55	-49.29	-170.84	-54.79	3.15	435911.09	609325.77	N 32 11 52.59	W 103 58 47.65
	8234.00	12.42	99.50	8218.26	5250.96	-43.83	-172.35	-49.39	13.06	435909.39	609331.18	N 32 11 52.58	W 103 58 47.59
	8265.00	16.43	87.95	8248.28	5280.98	-36							

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	8672.00	52.82	89.21	8586.23	5598.93	209.46	-175.04	203.95	7.03	435906.89	609584.49	N 32 11 52.54	W 103 58 44.64
	8703.00	56.11	89.30	8584.25	5616.95	234.65	-174.71	229.17	10.62	435907.02	609609.71	N 32 11 52.54	W 103 58 44.35
	8734.00	58.33	89.51	8601.03	5633.73	290.69	-174.44	255.23	7.18	435907.29	609635.77	N 32 11 52.55	W 103 58 44.04
	8766.00	59.45	89.32	8617.56	5650.26	288.06	-174.16	282.62	3.54	435907.57	609663.16	N 32 11 52.55	W 103 58 43.72
	8797.00	60.49	88.65	8633.08	5665.78	314.87	-173.69	309.46	3.84	435908.05	609689.99	N 32 11 52.55	W 103 58 43.41
	8827.00	61.77	87.77	8647.56	5680.26	341.09	-172.87	335.71	4.98	435908.87	609716.25	N 32 11 52.56	W 103 58 43.11
	8859.00	63.48	88.20	8662.28	5694.98	369.44	-171.87	364.11	5.48	435909.87	609744.64	N 32 11 52.57	W 103 58 42.78
	8890.00	65.14	90.54	8675.72	5708.42	397.34	-171.56	392.04	8.66	435910.17	609772.57	N 32 11 52.57	W 103 58 42.45
	8922.00	66.78	92.05	8688.75	5721.45	426.57	-172.23	421.26	6.70	435909.51	609801.78	N 32 11 52.56	W 103 58 42.11
	8953.00	70.29	93.52	8700.09	5732.79	455.41	-173.63	450.07	12.15	435908.10	609830.59	N 32 11 52.55	W 103 58 41.78
	8985.00	74.19	94.03	8709.85	5742.55	485.86	-175.64	480.47	12.28	435906.09	609860.99	N 32 11 52.53	W 103 58 41.42
	9015.00	80.39	92.38	8716.45	5749.15	515.10	-177.27	509.67	21.35	435904.46	609890.19	N 32 11 52.51	W 103 58 41.08
	9078.00	83.90	90.82	8725.06	5757.76	577.49	-179.01	572.05	6.09	435902.73	609952.56	N 32 11 52.49	W 103 58 40.36
	9144.00	85.59	90.39	8731.11	5763.81	643.20	-179.70	637.76	2.64	435902.03	610016.27	N 32 11 52.48	W 103 58 39.59
	9331.00	92.44	92.71	8734.32	5767.02	830.05	-184.76	824.54	3.87	435896.97	610205.04	N 32 11 52.43	W 103 58 37.42
	9425.00	90.83	90.03	8731.64	5764.34	923.99	-187.01	918.47	3.32	435894.73	610298.95	N 32 11 52.40	W 103 58 36.33
	9518.00	90.38	87.80	8730.65	5763.35	1016.86	-185.25	1011.44	2.45	435896.49	610391.92	N 32 11 52.41	W 103 58 35.24
	9612.00	84.49	87.08	8734.86	5767.56	1110.45	-181.05	1105.21	6.31	435900.68	610485.68	N 32 11 52.45	W 103 58 34.15
	9705.00	86.59	87.50	8742.09	5774.79	1202.87	-176.67	1197.82	2.30	435905.06	610578.28	N 32 11 52.49	W 103 58 33.07
	9799.00	85.90	88.08	8748.25	5780.95	1296.43	-173.05	1291.55	0.96	435908.68	610672.00	N 32 11 52.53	W 103 58 31.98
	9893.00	86.18	88.61	8754.74	5787.44	1390.03	-170.35	1385.28	0.64	435911.39	610765.73	N 32 11 52.55	W 103 58 30.89
	9986.00	89.35	90.86	8758.37	5791.07	1482.88	-169.92	1478.19	4.18	435911.82	610858.64	N 32 11 52.55	W 103 58 29.81
	10081.00	87.45	89.77	8761.02	5793.72	1577.81	-170.44	1573.15	2.31	435911.29	610953.58	N 32 11 52.54	W 103 58 28.71
	10175.00	86.69	90.18	8765.82	5798.52	1671.63	-170.40	1667.02	0.92	435911.33	611047.45	N 32 11 52.54	W 103 58 27.61
	10269.00	88.17	89.57	8770.04	5802.74	1765.48	-170.19	1760.93	1.70	435911.54	611141.35	N 32 11 52.54	W 103 58 26.52
	10363.00	87.52	89.44	8773.57	5806.27	1859.33	-169.38	1854.86	0.71	435912.35	611235.27	N 32 11 52.54	W 103 58 25.43
	10458.00	86.25	89.95	8778.73	5811.43	1954.13	-168.88	1949.71	1.44	435912.86	611330.12	N 32 11 52.55	W 103 58 24.32
	10551.00	89.28	89.41	8782.36	5815.06	2046.98	-168.36	2042.63	3.31	435913.38	611423.03	N 32 11 52.55	W 103 58 23.24
	10646.00	89.07	89.87	8783.73	5816.43	2141.90	-167.76	2137.62	0.53	435913.97	611518.01	N 32 11 52.55	W 103 58 22.14
	10740.00	89.11	90.44	8785.22	5817.92	2235.84	-168.02	2231.80	0.61	435913.72	611611.99	N 32 11 52.54	W 103 58 21.04
	10833.00	88.49	89.76	8787.17	5819.87	2328.78	-168.18	2324.58	0.99	435913.56	611704.96	N 32 11 52.54	W 103 58 19.96
	10927.00	87.94	89.91	8790.10	5822.80	2422.68	-167.91	2418.54	0.61	435913.83	611798.90	N 32 11 52.54	W 103 58 18.87
	11021.00	89.07	89.90	8792.55	5825.25	2516.59	-167.75	2512.50	1.20	435913.98	611892.86	N 32 11 52.54	W 103 58 17.78
	11115.00	87.90	89.97	8795.03	5827.73	2610.50	-167.64	2606.47	1.25	435914.09	611986.82	N 32 11 52.54	W 103 58 16.68
	11209.00	89.07	90.22	8797.52	5830.22	2704.43	-167.80	2700.43	1.27	435913.93	612080.78	N 32 11 52.53	W 103 58 15.59
	11303.00	89.38	89.82	8798.79	5831.49	2798.37	-167.83	2794.42	0.54	435913.90	612174.76	N 32 11 52.53	W 103 58 14.49
	11397.00	87.90	89.75	8801.02	5833.72	2892.28	-167.48	2888.39	1.58	435914.25	612268.73	N 32 11 52.53	W 103 58 13.40
	11490.00	88.28	90.01	8804.12	5836.82	2985.17	-167.29	2981.34	0.50	435914.45	612361.67	N 32 11 52.53	W 103 58 12.32
	11584.00	88.04	90.10	8807.14	5839.84	3079.08	-167.38	3075.29	0.27	435914.36	612455.61	N 32 11 52.52	W 103 58 11.23
	11678.00	88.11	89.74	8810.30	5843.00	3172.97	-167.24	3169.24	0.39	435914.49	612549.55	N 32 11 52.52	W 103 58 10.13
	11771.00	87.90	89.76	8813.54	5846.24	3265.86	-166.84	3262.18	0.23	435914.89	612642.48	N 32 11 52.52	W 103 58 9.05
	11865.00	88.66	89.96	8816.36	5849.06	3359.76	-166.61	3356.14	0.84	435915.12	612736.43	N 32 11 52.52	W 103 58 7.96
	11959.00	89.07	90.71	8818.22	5850.92	3453.71	-167.16	3450.12	0.91	435914.57	612830.41	N 32 11 52.51	W 103 58 6.86
	12053.00	88.59	89.50	8820.14	5852.84	3547.64	-167.33	3544.10	1.38	435914.40	612924.38	N 32 11 52.51	W 103 58 5.77
	12147.00	88.52	89.73	8822.51	5855.21	3641.54	-166.70	3638.06	0.26	435915.03	613018.34	N 32 11 52.51	W 103 58 4.68
	12242.00	88.62	89.51	8824.88	5857.58	3736.44	-166.07	3733.03	0.25	435915.66	613113.30	N 32 11 52.51	W 103 58 3.57
	12336.00	88.69	89.63	8827.09	5859.79	3830.34	-165.37	3827.00	0.15	435916.37	613207.26	N 32 11 52.52	W 103 58 2.48
	12430.00	88.56	89.89	8829.34	5862.04	3924.25	-164.97	3920.98	0.31	435916.76	613301.23	N 32 11 52.52	W 103 58 1.39
	12524.00	88.45	89.59	8831.79	5864.49	4018.16	-164.55	4014.94	0.34	435917.19	613395.19	N 32 11 52.52	W 103 58 0.29
	12617.00	88.66	89.11	8834.14	5866.84	4111.04	-163.49	4107.91	0.56	435918.24	613488.14	N 32 11 52.53	W 103 57 59.21
	12710.00	88.56	90.11	8836.40	5869.10	4203.94	-162.86	4200.88	1.08	435918.88	613581.10	N 32 11 52.53	W 103 57 58.13
	12803.00	88.69	89.75	8838.63	5871.33	4296.86	-162.74	4293.85	0.41	435918.99	613674.07	N 32 11 52.53	W 103 57 57.05
	12991.00	89.17	89.84	8842.14	5874.84	4484.71	-162.07	4481.82	0.26	435919.66	613862.02	N 32 11 52.53	W 103 57 54.86
	13084.00	88.62	89.31	8843.93	5876.63	4577.62	-161.38	4574.79	0.82	435920.35	613954.99	N 32 11 52.53	W 103 57 53.78
	13271.00	89.04	89.85	8847.75	5880.45	4764.43	-160.01	4761.75	0.37	435921.72	614141.93	N 32 11 52.54	W 103 57 51.60
Final Survey	13365.00	88.93	89.56	8849.41	5882.11	4858.35	-159.53	4855.73	0.33	435922.21	614235.91	N 32 11 52.54	W 103 57 50.51
Proj To Bit	13405.00	88.93	89.56	8850.16	5882.86	4898.31	-159.22	4895.73	0.00	435922.51	614275.90	N 32 11 52.54	W 103 57 50.04

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	28.200	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG- Depth Only	Oxy CC 22 Fed Com 6Y - Orig. Hole / Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD
	1	28.200	470.000	1/98.425	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Oxy CC 22 Fed Com 6Y - Orig. Hole / Survey Oxy CC 22 Fed
	1	470.000	13405.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Oxy CC 22 Fed Com 6Y - Orig. Hole / Survey Oxy CC 22 Fed

OXY USA Inc.
Cedar Canyon 22 Federal Com 6Y
API No. 30-015-43906

14-3/4" hole @ 440'
10-3/4" csg @ 435'
w/ 740sx-TOC-Surf Circ

9-7/8" hole @ 8175'
7-5/8" csg @ 8163'
w/ 1300sx-TOC-Surf Circ

6-3/4" hole @ 13405'
5-1/2" x 4-1/2" csg @ 13397'
w/ 540sx-TOC-7100' CBL

Perfs @ 8610-13196'

TD- 13405' M 8850'V