

NM OIL CONSERVATION

ARTESIA DISTRICT

OCT 02 2017

RECEIVED

Schlumberger

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)
Fax : (432) 742-5606 (Shared)

Well Reference:

21, 24S, 29E, Eddy NM
N 32.20935 W -103.98206

I, Kurt Valentine certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of August 01, 2017 through August 14, 2017, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 529.00 feet to a depth of 14686.00 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 21 FedCom 31H Well (Original Hole) API No. 30-015-44182 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
Kurt Valentine
FS

Kurt Valentine

Subscribed and Sworn to before me this 28th day of August (month) 2017 (yr)

My Commission expires:

12-20-2020

J. Allemand

Notary Public

Adams County, Colorado
(County State)

JENNIFER ALLEMAND
signature) Notary Public
State of Colorado
Notary ID # 20164047962
My Commission Expires 12-20-2020

Schlumberger



Borehole:

Original Borehole

Well:

Oxy Cedar Canyon 21 Federal Com 31H

Field:

NM Eddy County (NAD 83)

Structure:

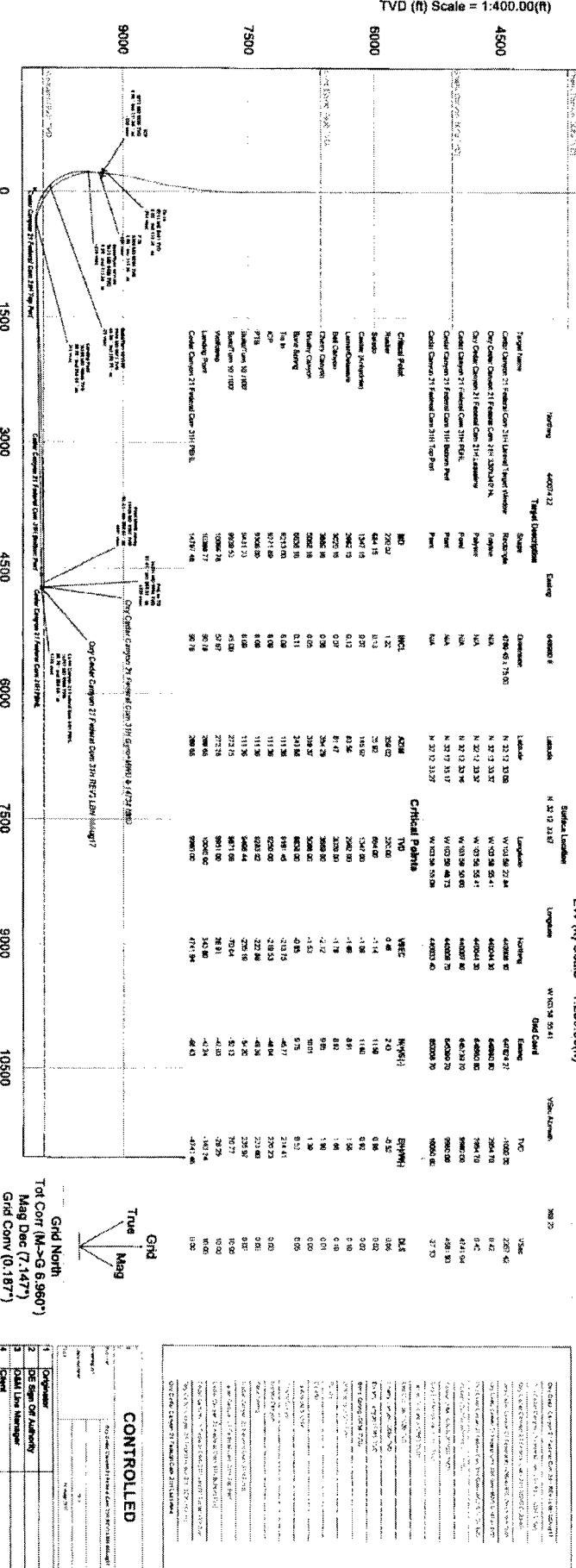
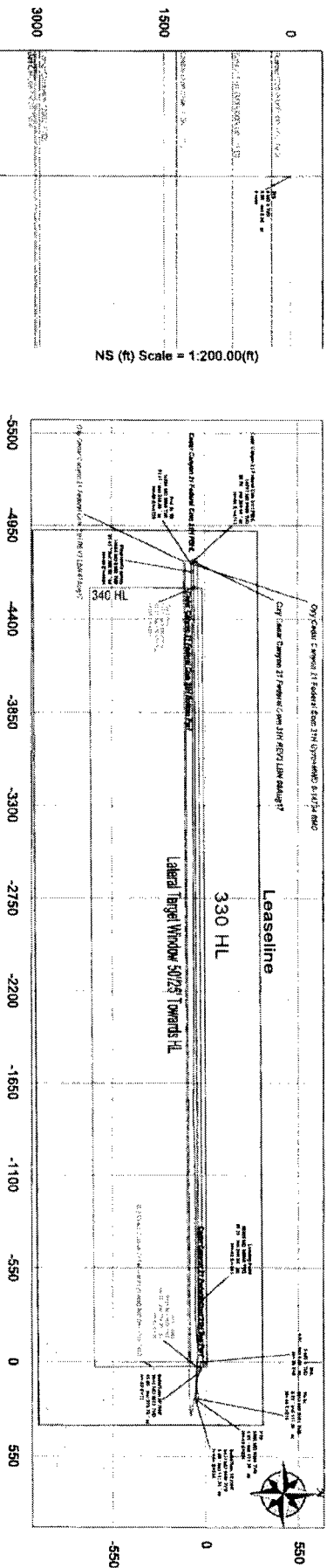
Oxy Cedar Canyon 21 Federal Com 31H

Survey & Mapping Information
 Date: 08-01-2017
 Time: 08:15:00
 Station: 001
 Elevation: 10000.00
 Azimuth: 0.00
 Scale: 1:1000

Location Information
 UTM Zone: 18Q
 UTM Easting: 640000.00
 UTM Northing: 4400000.00
 UTM Scale: 1:1000

Well Information
 Well Name: Oxy Cedar Canyon 21
 Well Type: Oil
 Well Status: Active
 Well Depth: 10000.00
 Well Completion: 10000.00

Well Information
 Well Name: Oxy Cedar Canyon 21
 Well Type: Oil
 Well Status: Active
 Well Depth: 10000.00
 Well Completion: 10000.00



Grid North
 Mag Dec (7.147°)
 Grid Conv (0.187°)

Well Name	Well Type	Well Status	Well Depth	Well Completion
Oxy Cedar Canyon 21	Oil	Active	10000.00	10000.00

CONTROLLED

Oxy Cedar Canyon 21 Federal Com 31H Gyro+MWD 0-14734 ftMD Survey

Geodetic Report

(Def Survey)



Report Date: August 14, 2017 - 01:39 PM
 Client: OXY
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Oxy Cedar Canyon 21 Federal Com 31H / Oxy Cedar Canyon 21 Federal Com 31H
 Well: Oxy Cedar Canyon 21 Federal Com 31H
 Borehole: Original Borehole
 UWM / API#: Unknown / Unknown
 Survey Name: Oxy Cedar Canyon 21 Federal Com 31H Gyro+MWD 0-14734 RMD
 Survey Date: July 28, 2017
 Tort / AHD / DDI / ERD Ratio: 186.957' / 5239.072' ft / 6.154 / 0.522
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 12' 33.67056" W 103° 58' 55.40890"
 Location Grid N/E Y/X: N 440074.220 RUS. E 649980.800 RUS
 CRS Grid Convergence Angle: 0.1872°
 Grid Scale Factor: 0.99992261
 Version / Patch: 2.10.544.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 269.197° (Grid North)
 Vertical Section Origin: 0.000 ft. 0.000 ft
 TVD Reference Datum: RKB=28.5'
 TVD Reference Elevation: 2954.700 ft above MSL
 Seabed / Ground Elevation: 2926.200 ft above MSL
 Magnetic Declination: 7.147°
 Total Gravity Field Strength: 998.4693mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48100.186 nT
 Magnetic Dip Angle: 60.017°
 Declination Date: August 08, 2017
 HDGM 2017
 Magnetic Declination Model: Grid North
 North Reference: Grid North
 Grid Convergence Used: 0.1872°
 Total Cor Mag North->Grid North: 6.9600°
 Local Coord Referenced To: Well Head

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 ° ' "
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	440074.22	649980.80	N 32 12 33.67 W 103 58 55.41	
	72.60	0.53	337.23	72.60	0.13	0.31	-0.13	0.73	440074.53	649980.87	N 32 12 33.67 W 103 58 55.41	
	164.80	0.90	349.36	164.79	0.41	1.41	-0.43	0.43	440075.63	649980.37	N 32 12 33.68 W 103 58 55.41	
	256.80	1.44	3.00	256.57	0.46	3.27	-0.50	0.66	440077.49	649980.30	N 32 12 33.70 W 103 58 55.41	
	346.80	1.80	7.61	346.73	0.16	5.89	-0.24	0.53	440080.11	649980.56	N 32 12 33.73 W 103 58 55.41	
	437.40	2.07	13.24	437.28	-0.46	8.57	0.33	0.28	440083.19	649981.13	N 32 12 33.76 W 103 58 55.40	
	529.40	0.48	11.54	529.25	-0.84	10.97	0.79	1.72	440085.19	649981.59	N 32 12 33.78 W 103 58 55.40	
	621.30	0.14	24.91	621.15	-1.08	11.46	0.91	0.39	440085.88	649981.71	N 32 12 33.78 W 103 58 55.40	
	712.80	0.12	26.46	712.65	-1.17	11.65	1.00	0.02	440085.87	649981.80	N 32 12 33.79 W 103 58 55.40	
	803.70	0.11	5.63	803.55	-1.22	11.82	1.06	0.05	440086.04	649981.86	N 32 12 33.79 W 103 58 55.40	
	895.50	0.06	199.22	895.35	-1.21	11.85	1.05	0.18	440086.08	649981.85	N 32 12 33.79 W 103 58 55.40	
	985.80	0.11	283.31	985.65	-1.12	11.85	0.95	0.14	440086.07	649981.75	N 32 12 33.79 W 103 58 55.40	
	1077.40	0.11	332.97	1077.25	-1.00	11.96	0.83	0.08	440086.18	649981.63	N 32 12 33.79 W 103 58 55.40	
	1168.70	0.07	159.00	1168.55	-0.98	11.99	0.81	0.20	440086.21	649981.61	N 32 12 33.79 W 103 58 55.40	
	1260.40	0.07	145.87	1260.25	-1.03	11.89	0.86	0.02	440086.11	649981.68	N 32 12 33.79 W 103 58 55.40	
	1323.40	0.07	148.06	1323.25	-1.07	11.83	0.91	0.00	440086.05	649981.71	N 32 12 33.79 W 103 58 55.40	
	1418.00	0.06	138.45	1417.85	-1.13	11.74	0.97	0.02	440085.96	649981.77	N 32 12 33.79 W 103 58 55.40	
	1512.60	0.13	193.07	1512.45	-1.14	11.60	0.98	0.11	440085.82	649981.78	N 32 12 33.79 W 103 58 55.40	
	1607.20	0.30	218.52	1607.05	-0.96	11.30	0.80	0.20	440085.52	649981.60	N 32 12 33.78 W 103 58 55.40	
	1701.80	0.21	191.05	1701.65	-0.77	10.94	0.81	0.16	440085.16	649981.41	N 32 12 33.78 W 103 58 55.40	
	1796.50	0.17	198.38	1796.35	-0.88	10.83	0.53	0.05	440084.85	649981.33	N 32 12 33.78 W 103 58 55.40	
	1891.50	0.19	208.09	1891.35	-0.96	10.36	0.42	0.04	440084.58	649981.22	N 32 12 33.77 W 103 58 55.40	
	1986.20	0.16	197.07	1986.05	-0.44	10.10	0.30	0.05	440084.32	649981.10	N 32 12 33.77 W 103 58 55.40	
	2080.90	0.19	200.85	2080.75	-0.35	9.82	0.21	0.03	440084.04	649981.01	N 32 12 33.77 W 103 58 55.41	
	2175.40	0.09	161.85	2175.25	-0.31	9.61	0.18	0.14	440083.83	649980.98	N 32 12 33.77 W 103 58 55.41	
	2270.10	0.11	153.85	2269.95	-0.37	9.45	0.24	0.03	440083.67	649981.04	N 32 12 33.78 W 103 58 55.41	
	2364.70	0.06	52.15	2364.55	-0.45	9.40	0.32	0.14	440083.62	649981.12	N 32 12 33.76 W 103 58 55.40	
	2459.30	0.06	68.19	2459.15	-0.54	9.45	0.40	0.02	440083.67	649981.20	N 32 12 33.76 W 103 58 55.40	
	2553.90	0.11	135.42	2553.75	-0.65	9.40	0.51	0.11	440083.62	649981.31	N 32 12 33.76 W 103 58 55.40	
	2648.30	0.14	135.45	2648.15	-0.79	9.28	0.66	0.03	440083.46	649981.48	N 32 12 33.76 W 103 58 55.40	
	2742.80	0.21	117.88	2742.75	-1.02	9.09	0.89	0.09	440083.31	649981.69	N 32 12 33.76 W 103 58 55.40	
	2837.60	0.21	110.86	2837.45	-1.33	8.95	1.21	0.03	440083.17	649981.82	N 32 12 33.76 W 103 58 55.39	
	2932.20	0.15	84.08	2932.05	-1.62	8.90	1.49	0.11	440083.12	649982.29	N 32 12 33.76 W 103 58 55.39	
	3026.90	0.08	80.97	3026.75	-1.79	8.92	1.67	0.10	440083.14	649982.47	N 32 12 33.76 W 103 58 55.39	
	3121.40	0.06	109.47	3121.25	-1.89	8.91	1.76	0.03	440083.13	649982.58	N 32 12 33.76 W 103 58 55.39	
	3216.00	0.05	99.00	3215.85	-1.97	8.89	1.85	0.07	440083.11	649982.65	N 32 12 33.76 W 103 58 55.39	
	3310.80	0.05	95.84	3310.44	-2.05	8.88	1.93	0.00	440083.10	649982.73	N 32 12 33.76 W 103 58 55.39	
	3405.30	0.05	110.09	3405.14	-2.13	8.86	2.01	0.01	440083.08	649982.81	N 32 12 33.76 W 103 58 55.39	
	3500.10	0.05	335.17	3499.94	-2.16	8.88	2.03	0.10	440083.10	649982.83	N 32 12 33.76 W 103 58 55.38	
	3595.00	0.05	347.34	3594.84	-2.13	8.96	2.01	0.01	440083.18	649982.81	N 32 12 33.76 W 103 58 55.39	
	3689.80	0.06	354.33	3689.64	-2.12	9.05	1.99	0.01	440083.27	649982.79	N 32 12 33.76 W 103 58 55.39	
	3784.60	0.05	345.83	3784.44	-2.10	9.14	1.98	0.01	440083.36	649982.76	N 32 12 33.76 W 103 58 55.39	
	3879.40	0.05	336.17	3879.24	-2.08	9.22	1.95	0.01	440083.44	649982.75	N 32 12 33.76 W 103 58 55.39	
	3974.10	0.03	315.86	3973.94	-2.05	9.28	1.92	0.03	440083.49	649982.72	N 32 12 33.76 W 103 58 55.39	
	4068.80	0.04	328.59	4068.64	-2.01	9.32	1.88	0.01	440083.54	649982.68	N 32 12 33.76 W 103 58 55.39	
	4163.40	0.04	325.69	4163.24	-1.98	9.35	1.84	0.00	440083.60	649982.64	N 32 12 33.76 W 103 58 55.39	
	4258.10	0.05	324.97	4257.94	-1.93	9.44	1.80	0.01	440083.66	649982.60	N 32 12 33.76 W 103 58 55.39	
	4352.80	0.05	326.55	4352.64	-1.89	9.51	1.76	0.00	440083.72	649982.55	N 32 12 33.76 W 103 58 55.39	
	4447.40	0.05	328.88	4447.24	-1.84	9.57	1.71	0.00	440083.79	649982.51	N 32 12 33.77 W 103 58 55.39	
	4542.00	0.05	325.08	4541.84	-1.80	9.64	1.66	0.00	440083.86	649982.46	N 32 12 33.77 W 103 58 55.39	
	4636.80	0.05	327.19	4636.64	-1.75	9.71	1.62	0.00	440083.93	649982.42	N 32 12 33.77 W 103 58 55.39	
	4731.40	0.05	328.23	4731.24	-1.71	9.78	1.57	0.00	440084.00	649982.37	N 32 12 33.77 W 103 58 55.39	
	4825.90	0.05	319.76	4825.74	-1.66	9.85	1.52	0.01	440084.07	649982.32	N 32 12 33.77 W 103 58 55.39	
	4920.60	0.05	323.90	4920.44	-1.61	9.91	1.47	0.00	440084.13	649982.27	N 32 12 33.77 W 103 58 55.39	
	5015.30	0.05	318.22	5015.14	-1.56	9.98	1.42	0.01	440084.19	649982.22	N 32 12 33.77 W 103 58 55.39	
	5110.20	0.05	320.29	5110.04	-1.51	10.04	1.37	0.00	440084.26	649982.17	N 32 12 33.77 W 103 58 55.39	
	5205.10	0.05	325.77	5204.94	-1.46	10.10	1.32	0.01	440084.32	649982.12	N 32 12 33.77 W 103 58 55.39	
	5299.80	0.05	327.20	5299.64	-1.41	10.17	1.27	0.00	440084.39	649982.07	N 32 12 33.77 W 103 58 55.39	
	5394.60	0.05	331.86	5394.44	-1.37	10.24	1.23	0.00	440084.46	649982.03	N 32 12 33.77 W 103 58 55.39	
	5489.40	0.05	327.38	5489.24	-1.33	10.32	1.19	0.00	440084.53	649981.99	N 32 12 33.77 W 103 58 55.39	
	5584.40	0.05	328.43	5584.24	-1.29	10.39	1.14	0.00	440084.60	649981.94	N 32 12 33.77 W 103 58 55.40	
	5679.20	0.05	320.74	5679.04	-1.24	10.46	1.09	0.01	440084.67	649981.89	N 32 12 33.77 W 103 58 55.40	
	5773.90	0.06	213.84	5773.74	-1.19	10.44	1.04	0.09	440084.66	649981.84	N 32 12 33.77 W 103 58 55.40	
	5868.50	0.05	215.02	5868.34	-1.13	10.37	0.99	0.01	440084.59	649981.79	N 32 12 33.77 W 103 58 55.40	
	5963.20	0.06	210.09	5963.04	-1.08	10.29	0.94	0.01	440084.51	649981.74	N 32 12 33.77 W 103 58 55.40	
	6057.80	0.06	212.58	6057.64	-1.03	10.21	0.89	0.00	440084.43	649981.69	N 32 12 33.77 W 103 58 55.40	
	6152.50	0.06	213.50	6152.34	-0.98	10.12	0.84	0.00	440084.34	649981.64	N 32 12 33.77 W 103 58 55.40	
	6247.30	0.06	218.84	6247.14	-0.92	10.04	0.78	0.01	440084.26	649981.58	N 32 12 33.77 W 103 58 55.40	
	6342.10	0.05	214.73	6341.94	-0.86	9.97	0.72	0.01	440084.19	649981.52	N 32 12 33.77 W 103 58 55.40	
	6436.80	0.05	210.08	6436.64	-0.82	9.90	0.68	0.00	440084.12	649981.46	N 32 12 33.77 W 103 58 55.40	
	6531.50	0.05	214.91	6531.34	-0.77	9.83	0.63	0.00	440084.05	649981.43	N 32 12 33.77 W 103 58 55.40	
	6626.10	0.10	242.45	6625.94	-0.67	9.76	0.54	0.05	440083.98	649981.34	N 32 12 33.77 W 103 58 55.40	
	6720.90	0.15	249.32	6720.74	-0.46	9.68	0.35	0.05	440083.90	649981.15	N 32 12 33.77 W 103 58 55.41	
	6815.40	0.50	268.58	6815.24	0.05	9.62	-0.18	0.38	440083.84	649980.62	N 32 12 33.77 W 103 58 55.41	
	6910.10	0.83	280.94	6909.94	0.37	9.71	-0.11	0.19	440083.83	649980.37	N 32 12 33.77 W 103 58 55.42	
	7004.80	0.22	277.66	7004.83	1.66	9.94	-1.80	0.43	440084.06	649979.70	N 32 12 33.77 W 103 58 55.43.	

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 ° ' ")
	7194.00	0.81	263.07	7193.83	2.80	9.69	-2.94	0.86	440083.91	649977.86	N 32 12 33.77	W 103 58 55.44
	7288.50	1.14	264.05	7288.32	4.40	9.51	-4.54	0.35	440083.73	649976.26	N 32 12 33.76	W 103 58 55.46
	7383.10	0.14	249.19	7382.91	5.45	9.37	-5.58	1.06	440083.59	649975.22	N 32 12 33.76	W 103 58 55.47
	7477.70	0.06	185.44	7477.51	5.56	9.28	-5.69	0.13	440083.50	649975.11	N 32 12 33.76	W 103 58 55.47
	7572.30	0.18	220.09	7572.11	5.66	9.13	-5.78	0.12	440083.35	649975.02	N 32 12 33.76	W 103 58 55.48
	7666.80	0.67	168.80	7666.61	5.64	8.49	-5.78	0.62	440082.71	649975.04	N 32 12 33.75	W 103 58 55.48
	7761.40	2.83	141.63	7761.16	4.12	6.11	-4.20	2.38	440080.33	649976.90	N 32 12 33.73	W 103 58 55.46
	7855.90	4.37	133.74	7855.47	0.13	1.79	-0.15	1.71	440078.01	649980.85	N 32 12 33.69	W 103 58 55.41
	7950.80	6.14	122.87	7949.77	-6.66	-3.45	6.71	2.14	440070.77	649987.51	N 32 12 33.64	W 103 58 55.33
	8045.10	8.58	120.94	8043.48	-16.86	-9.82	17.00	2.59	440064.40	649997.80	N 32 12 33.57	W 103 58 55.21
	8139.80	9.50	124.47	8137.01	-29.25	-17.87	29.50	1.13	440056.35	650010.30	N 32 12 33.49	W 103 58 55.07
	8234.40	9.70	122.79	8230.28	-42.26	-26.61	42.64	0.36	440047.61	650023.43	N 32 12 33.41	W 103 58 54.91
	8329.10	9.48	118.89	8323.66	-55.68	-34.70	56.17	0.72	440039.53	650036.97	N 32 12 33.33	W 103 58 54.76
	8423.80	10.44	120.21	8416.73	-69.78	-42.75	70.39	1.04	440031.46	650051.18	N 32 12 33.25	W 103 58 54.59
	8518.30	11.95	112.39	8509.84	-86.15	-50.82	86.87	2.28	440023.41	650067.86	N 32 12 33.16	W 103 58 54.40
	8613.00	12.28	102.57	8602.24	-104.96	-56.74	105.78	2.20	440017.48	650086.56	N 32 12 33.11	W 103 58 54.16
	8707.50	13.43	88.81	8694.39	-125.71	-58.70	126.55	3.45	440015.52	650107.34	N 32 12 33.09	W 103 58 53.84
	8802.10	12.75	76.47	8786.55	-146.89	-56.03	147.69	3.03	440018.19	650128.48	N 32 12 33.11	W 103 58 53.89
	8896.80	12.33	75.09	8778.79	-168.84	-51.00	167.58	0.58	440023.23	650148.36	N 32 12 33.16	W 103 58 53.46
	8991.20	9.17	78.78	8971.72	-184.06	-46.93	184.73	3.42	440027.29	650165.52	N 32 12 33.20	W 103 58 53.28
	9086.00	7.99	81.73	9065.46	-198.02	-44.51	198.66	1.33	440029.71	650179.35	N 32 12 33.22	W 103 58 53.10
	9159.00	7.31	96.07	9137.82	-207.66	-44.27	208.30	2.77	440029.95	650189.09	N 32 12 33.23	W 103 58 52.99
	9172.00	7.05	100.64	9150.71	-209.27	-44.51	209.91	4.83	440029.71	650190.89	N 32 12 33.22	W 103 58 52.97
	9213.00	6.09	111.36	9191.45	-213.75	-45.77	214.41	3.79	440028.46	650195.19	N 32 12 33.21	W 103 58 52.92
	9347.00	4.09	144.57	9324.94	-223.05	-52.25	223.80	2.60	440021.97	650204.58	N 32 12 33.16	W 103 58 52.81
	9442.00	4.68	226.78	9418.74	-222.12	-57.86	222.95	6.07	440016.57	650203.74	N 32 12 33.08	W 103 58 52.82
	9538.00	14.64	263.18	9514.33	-207.13	-61.78	208.02	11.70	440012.44	650188.80	N 32 12 33.05	W 103 58 52.99
	9633.00	19.83	272.86	9605.05	-179.09	-62.40	179.98	6.22	440011.82	650160.77	N 32 12 33.05	W 103 58 53.32
	9728.00	24.17	274.52	9693.11	-143.62	-60.07	144.48	4.61	440014.16	650125.27	N 32 12 33.07	W 103 58 53.73
	9823.00	34.81	273.50	9775.68	-87.09	-56.87	97.89	11.21	440017.35	650078.69	N 32 12 33.10	W 103 58 54.27
	9918.00	44.57	274.67	9848.70	-36.72	-52.49	37.46	10.30	440021.73	650018.25	N 32 12 33.15	W 103 58 54.97
	10013.00	56.79	272.32	9908.79	38.43	-48.15	-35.76	13.00	440026.07	649945.04	N 32 12 33.20	W 103 58 55.83
	10108.00	83.35	265.31	9956.21	118.84	-50.02	-117.95	9.41	440024.21	649862.86	N 32 12 33.18	W 103 58 56.78
	10202.00	68.95	264.05	9995.70	205.65	-57.94	-202.86	4.02	440016.29	649777.96	N 32 12 33.10	W 103 58 57.77
	10297.00	78.71	268.95	10023.72	294.13	-63.34	-293.27	13.32	440010.88	649687.95	N 32 12 33.05	W 103 58 58.62
	10392.00	89.20	272.51	10033.71	388.42	-62.11	-387.59	11.65	440012.11	649593.24	N 32 12 33.07	W 103 58 59.92
	10458.00	89.13	270.90	10034.64	452.35	-60.21	-451.55	2.52	440014.32	649528.28	N 32 12 33.09	W 103 59 0.87
	10489.00	89.28	269.83	10035.10	483.34	-59.97	-484.55	2.97	440014.25	649486.29	N 32 12 33.08	W 103 59 1.05
	10584.00	91.45	269.71	10034.49	580.33	-60.27	-579.54	2.30	440013.96	649401.31	N 32 12 33.09	W 103 59 2.16
	10679.00	92.24	270.41	10031.44	675.26	-60.17	-674.49	1.11	440014.06	649306.37	N 32 12 33.10	W 103 59 3.28
	10774.00	91.89	269.84	10027.93	770.19	-59.96	-769.42	0.65	440014.26	649211.44	N 32 12 33.10	W 103 59 4.37
	10869.00	91.51	270.08	10025.03	865.13	-60.03	-864.38	0.56	440014.20	649116.49	N 32 12 33.10	W 103 59 5.47
	10964.00	90.52	268.74	10023.35	960.12	-61.01	-959.35	1.75	440013.22	649021.52	N 32 12 33.10	W 103 59 6.58
	11059.00	91.41	270.23	10021.78	1055.10	-61.86	-1054.33	1.83	440012.38	648926.55	N 32 12 33.09	W 103 59 7.68
	11154.00	91.14	268.73	10019.83	1150.07	-62.72	-1149.30	1.60	440011.50	648831.59	N 32 12 33.09	W 103 59 8.79
	11249.00	92.48	269.73	10016.83	1245.02	-64.00	-1244.24	1.76	440010.23	648736.65	N 32 12 33.08	W 103 59 9.89
	11344.00	98.45	287.03	10015.86	1339.98	-66.66	-1339.17	5.11	440007.54	648641.73	N 32 12 33.05	W 103 59 11.00
	11434.00	92.52	270.80	10013.59	1529.88	-70.22	-1529.04	3.08	440003.94	648451.88	N 32 12 33.02	W 103 59 13.21
	11529.00	83.13	270.49	10008.57	1624.72	-69.28	-1623.91	0.39	440005.01	648257.02	N 32 12 33.04	W 103 59 14.31
	11624.00	82.82	289.84	10003.64	1719.57	-68.94	-1718.78	0.76	440005.28	648025.18	N 32 12 33.04	W 103 59 15.42
	11719.00	83.34	270.33	9998.54	1814.42	-68.80	-1813.64	0.75	440005.42	647817.30	N 32 12 33.05	W 103 59 16.52
	11814.00	92.68	270.11	9993.50	1910.28	-68.43	-1909.51	0.72	440005.79	648071.45	N 32 12 33.06	W 103 59 17.64
	11915.00	91.82	270.10	9989.94	2005.20	-68.26	-2004.44	1.12	440005.97	647976.52	N 32 12 33.06	W 103 59 18.74
	12010.00	91.13	270.05	9987.66	2100.16	-68.14	-2099.41	0.52	440006.09	647881.56	N 32 12 33.06	W 103 59 19.85
	12105.00	90.96	269.98	9985.92	2195.13	-68.11	-2194.39	0.19	440006.12	647786.58	N 32 12 33.07	W 103 59 20.95
	12200.00	90.65	269.91	9984.39	2290.11	-68.20	-2289.38	0.33	440006.02	647691.60	N 32 12 33.07	W 103 59 22.06
	12390.00	90.59	269.80	9983.56	2385.10	-68.44	-2384.38	0.13	440005.78	647596.61	N 32 12 33.07	W 103 59 23.16
	12485.00	90.82	269.84	9982.56	2480.09	-68.74	-2479.37	0.05	440005.49	647501.62	N 32 12 33.07	W 103 59 24.27
	12580.00	90.89	270.20	9981.47	2575.08	-68.71	-2574.37	0.39	440005.52	647406.64	N 32 12 33.07	W 103 59 25.37
	12675.00	90.48	269.80	9980.50	2670.06	-68.71	-2669.36	0.48	440005.52	647311.65	N 32 12 33.08	W 103 59 26.48
	12770.00	90.28	270.02	9979.87	2765.05	-68.85	-2764.36	0.31	440005.37	647216.66	N 32 12 33.08	W 103 59 27.59
	12865.00	91.03	270.39	9978.78	2860.03	-68.52	-2859.35	0.88	440005.71	647121.68	N 32 12 33.08	W 103 59 28.69
	12960.00	90.93	269.72	9977.16	2955.00	-68.43	-2954.34	0.71	440005.80	647026.70	N 32 12 33.09	W 103 59 29.80
	13055.00	91.03	269.57	9975.54	3049.98	-68.58	-3049.32	0.28	440005.01	646931.72	N 32 12 33.09	W 103 59 30.80
	13150.00	92.58	267.46	9972.54	3144.92	-70.81	-3144.24	3.10	440003.42	646836.61	N 32 12 33.07	W 103 59 32.01
	13245.00	90.48	270.08	9970.01	3239.87	-72.85	-3239.17	3.53	440001.38	646741.69	N 32 12 33.05	W 103 59 33.11
	13340.00	90.76	270.26	9968.98	3334.85	-72.57	-3334.16	0.35	440001.66	646646.90	N 32 12 33.06	W 103 59 34.22
	13435.00	90.89	270.11	9967.78	3429.83	-72.26	-3429.16	0.17	440001.97	646551.92	N 32 12 33.06	W 103 59 35.32
	13530.00	90.85	270.08	9966.66	3524.81	-72.10	-3524.15	0.05	440002.12	646456.93	N 32 12 33.07	W 103 59 36.43
	13625.00	90.21	269.35	9965.95	3619.81	-72.57	-3619.15	0.90	440001.65	646361.94	N 32 12 33.07	W 103 59 37.53
	13720.00	90.28	269.68	9965.55	3714.80	-73.38	-3714.14	0.36	440000.85	646266.95	N 32 12 33.06	W 103 59 38.64
	13815.00	90.72	269.66	9964.72	3809.80	-73.75	-3809.14	0.50	440000.47	646171.97	N 32 12 33.06	W 103 59 39.75
	13910.00	90.48	269.61	9963.72	3904.79	-74.20	-3904.13	0.36	440000.03	646076.98	N 32 12 33.06	W 103 59 40.85
	14010.00	90.34	269.19	9962.36	4009.78	-76.20	-4009.11	0.23	439999.03	645986.01	N 32 12 33.05	W 103 59 43.07
	14106.00	90.76	269.57	9961.44	4109.77	-77.23	-4109.10	0.60	439997.00	645791.03	N 32 12 33.04	W 103 59 44.18
	14201.00	91.55	270.22	9959.53	4205.75	-77.40	-4205.08	1.08	439996.82	645696.06	N 32 12 33.04	W 103 59 45.28
	14356.00	91.48	269.44	9957.02	4300.71	-77.68	-4300.05	0				