

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 26 2019

Form C-102

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT
AS-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-44548	Pool Code 96229	Pool Name MESA VERDE BONE Spring
Property Code 320828	Property Name MESA VERDE BS Unit	Well Number 19H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3586.7'

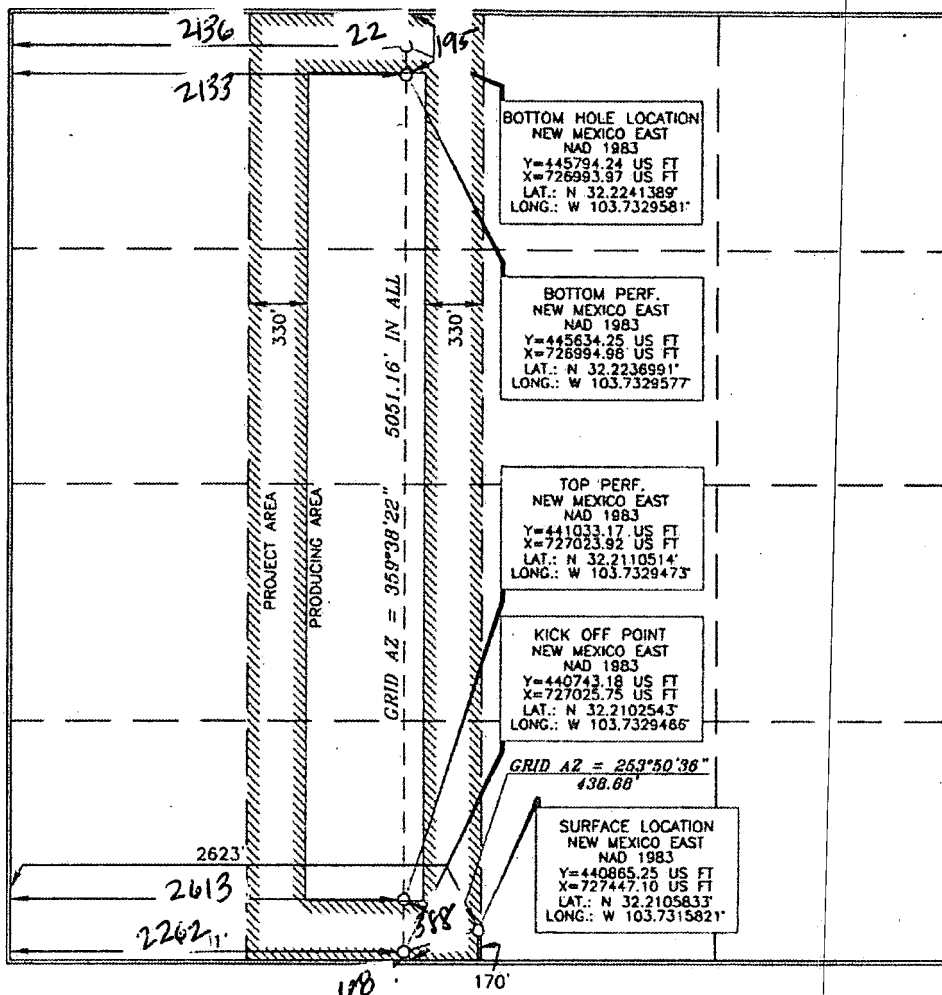
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	13	24 SOUTH	31 EAST, N.M.P.M.		170'	SOUTH	2623'	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	13	24 SOUTH	31 EAST, N.M.P.M.		22	NORTH	2136	WEST	EDDY
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.	FTP: 388' FSL 2413' FWL LTP: 195' FNL 2133' FWL					

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order to be approved by the division.

Signature: *Sarah Chapman* Date: *8/21/18*
Printed Name: *Sarah Chapman*
E-mail Address: *sarah_chapman@oxy.com*

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes by actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

Date of Survey: *10/20/2015*
Signature and Seal of Professional Surveyor: *ERRY J. ASE*
Certificate Number: *15079*

Intent ☐ As Drilled ☒

API # 30-015-44548		
Operator Name: Oxy USA Inc.	Property Name: HUA VERDE BS UNIT	Well Number 19H

Kick Off Point (KOP)

UL P	Section 13	Township 24S	Range 31E	Lot	Feet 68	From N/S SOUTH	Feet 2262	From E/W WEST	County EDDY
Latitude 32.21031					Longitude -103.73275				NAD

First Take Point (FTP)

UL N	Section 13	Township 24S	Range 31E	Lot	Feet 388	From N/S SOUTH	Feet 2613	From E/W WEST	County EDDY
Latitude 32.21119					Longitude -103.73280				NAD NAD83

Last Take Point (LTP)

UL C	Section 13	Township 24S	Range 31E	Lot	Feet 195	From N/S NORTH	Feet 2133	From E/W WEST	County EDDY
Latitude 32.22410					Longitude -103.73304				NAD NAD83

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Oilfield Services, Central U.S. Land
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)

Schlumberger

August 7, 2018

OXY USA Inc.

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 26 2019

RECEIVED

Re:

13, 24S, 31E, Eddy NM
32.21058 103.73158

CLIENT: OXY USA Inc.
WELL: Mesa Verde BS Unit 19H
FIELD: Mesa Verde Bone Springs

RIG: HP 656
COUNTY: Eddy
API NO: 30-015-44548
JOB NO: 18MLD1240

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Chris Heimann FE	Mesa Verde BS Unit 19H Original Hole	1082.00 Ft to 15246.00 Ft	July 16, 2018 to August 5, 2018	TelePacer SlimPulse

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Josh Rubash
Field Service Manager

Oilfield Services, Central U.S. Land
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)

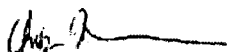
Schlumberger

Well Reference:

13, 24S, 31E, Eddy NM
32.21058 103.73158

I, Chris Heimann certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of July 16, 2018 through August 05, 2018, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 1082.00 feet to a depth of 15246.00 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 Mesa Verde BS Unit 19H Well (Original Hole) API No. 30-015-44548 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
Chris Heimann
FE

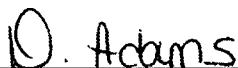


Subscribed and Sworn to before me this 7th day of August (month) 2018 (yr)

My Commission expires:

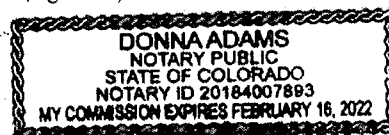
2-16-2022

Notary Public



Adams County Colorado
(County State)

(signature)





Vertical Section (ft) Azim = 354.90° Scale = 1:1900.00(ft) Origin = 0N/-S, 0E/-W

Oxy Mesa Verde BS Unit 19H Gyro+MWD 0-15,291' MD Survey Geodetic Report

(Def Survey)



Report Date: August 06, 2018 - 03:14 PM
 Client: OXY
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Oxy Mesa Verde BS Unit 19H / Mesa Verde BS Unit 19H
 Well: Mesa Verde BS Unit 19H
 Borehole: Original Borehole
 UWI / API#: Unknown / 30-015-44548
 Survey Name: Oxy Mesa Verde BS Unit 19H Gyro+MWD 0-15,291' MD
 Survey Date: July 30, 2018
 Tort / AHD / DDI / ERD Ratio: 176.510' / 5590.322 ft / 6.162 / 0.538
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 12' 38.10001", W 103° 43' 53.69548"
 Location Grid N/E Y/X: N 440865.250 RUS, E 727447.100 RUS
 CRS Grid Convergence Angle: 0.3208°
 Grid Scale Factor: 0.99994876
 Version / Patch: 2.10.740.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 354.900° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB=26.5'
 TVD Reference Elevation: 3613.200 ft above MSL
 Seabed / Ground Elevation: 3586.700 ft above MSL
 Magnetic Declination: 6.817°
 Total Gravity Field Strength: 998.4260mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47979.877 nT
 Magnetic Dip Angle: 59.920°
 Declination Date: July 30, 2018
 Magnetic Declination Model: HDGM 2018
 North Reference: Grid North
 Grid Convergence Used: 0.3208°
 Total Corr Mag North→Grid: 6.4960°
 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 (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	440865.25	727447.10	N 32 12 38.10	W 103 43 53.70
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	440865.25	727447.10	N 32 12 38.10	W 103 43 53.70
	99.10	0.21	340.57	99.10	0.13	0.13	-0.04	0.29	440865.38	727447.06	N 32 12 38.10	W 103 43 53.70
	189.70	0.41	305.85	189.70	0.50	0.47	-0.36	0.29	440865.72	727446.74	N 32 12 38.10	W 103 43 53.70
	280.10	0.56	306.30	280.10	1.01	0.92	-0.98	0.17	440866.17	727446.12	N 32 12 38.11	W 103 43 53.71
	374.50	0.72	293.86	374.49	1.60	1.44	-1.89	0.22	440866.69	727445.21	N 32 12 38.11	W 103 43 53.72
	468.80	0.81	283.55	468.78	2.10	1.83	-3.08	0.17	440867.08	727444.02	N 32 12 38.12	W 103 43 53.73
	563.10	0.69	279.94	563.07	2.46	2.09	-4.29	0.14	440867.34	727442.81	N 32 12 38.12	W 103 43 53.75
	657.20	0.53	256.69	657.17	2.54	2.08	-5.27	0.31	440867.33	727441.83	N 32 12 38.12	W 103 43 53.76
	751.60	0.54	244.98	751.56	2.33	1.79	-6.10	0.12	440867.04	727441.00	N 32 12 38.12	W 103 43 53.77
	845.90	0.34	225.27	845.86	2.00	1.41	-6.70	0.26	440866.66	727440.40	N 32 12 38.11	W 103 43 53.77
	940.20	0.28	214.80	940.16	1.65	1.02	-7.03	0.09	440866.27	727440.07	N 32 12 38.11	W 103 43 53.78
Last Gyro	1009.60	0.28	226.84	1009.56	1.41	0.77	-7.25	0.08	440866.02	727439.85	N 32 12 38.11	W 103 43 53.78
	1082.00	0.11	201.77	1081.96	1.24	0.58	-7.41	0.26	440865.83	727439.69	N 32 12 38.11	W 103 43 53.78
	1177.00	0.06	314.08	1176.96	1.20	0.53	-7.48	0.15	440865.78	727439.62	N 32 12 38.11	W 103 43 53.78
	1271.00	0.06	225.06	1270.96	1.20	0.53	-7.55	0.09	440865.78	727439.55	N 32 12 38.11	W 103 43 53.78
	1365.00	0.06	250.70	1364.96	1.16	0.48	-7.63	0.03	440865.73	727439.47	N 32 12 38.11	W 103 43 53.78
	1460.00	0.06	281.37	1459.96	1.16	0.47	-7.73	0.03	440865.72	727439.38	N 32 12 38.11	W 103 43 53.79
	1554.00	0.06	183.82	1553.96	1.12	0.44	-7.78	0.10	440865.69	727439.32	N 32 12 38.10	W 103 43 53.79
	1655.00	0.00	176.67	1654.96	1.07	0.38	-7.78	0.06	440865.63	727439.32	N 32 12 38.10	W 103 43 53.79
	1844.00	0.06	122.15	1843.96	1.01	0.33	-7.70	0.03	440865.58	727439.40	N 32 12 38.10	W 103 43 53.79
	1939.00	0.06	220.47	1938.96	0.95	0.27	-7.69	0.10	440865.52	727439.41	N 32 12 38.10	W 103 43 53.78
	2033.00	0.06	322.63	2032.96	0.96	0.27	-7.75	0.10	440865.52	727439.35	N 32 12 38.10	W 103 43 53.79
	2128.00	0.06	269.47	2127.96	1.00	0.31	-7.83	0.06	440865.56	727439.27	N 32 12 38.10	W 103 43 53.79
	2222.00	0.06	200.02	2221.96	0.96	0.26	-7.89	0.07	440865.51	727439.21	N 32 12 38.10	W 103 43 53.79
	2317.00	0.06	43.26	2316.96	0.95	0.25	-7.88	0.12	440865.50	727439.22	N 32 12 38.10	W 103 43 53.79
	2411.00	0.06	105.29	2410.96	0.96	0.27	-7.80	0.07	440865.52	727439.30	N 32 12 38.10	W 103 43 53.79
	2506.00	0.06	80.62	2505.96	0.95	0.27	-7.70	0.03	440865.52	727439.40	N 32 12 38.10	W 103 43 53.79
	2600.00	0.00	211.96	2599.96	0.95	0.28	-7.65	0.06	440865.53	727439.45	N 32 12 38.10	W 103 43 53.78
	2695.00	0.06	349.27	2694.96	1.00	0.32	-7.66	0.06	440865.57	727439.44	N 32 12 38.10	W 103 43 53.78
	2789.00	0.06	163.69	2788.96	1.00	0.33	-7.66	0.13	440865.58	727439.45	N 32 12 38.10	W 103 43 53.78
	2884.00	0.06	303.62	2883.96	0.99	0.30	-7.68	0.12	440865.55	727439.42	N 32 12 38.10	W 103 43 53.78
	2979.00	0.06	159.06	2978.96	0.97	0.29	-7.71	0.12	440865.54	727439.39	N 32 12 38.10	W 103 43 53.79
	3074.00	0.06	256.39	3073.96	0.91	0.23	-7.74	0.09	440865.48	727439.36	N 32 12 38.10	W 103 43 53.79
	3168.00	0.13	331.54	3167.96	1.01	0.31	-7.84	0.14	440865.56	727439.26	N 32 12 38.10	W 103 43 53.79
	3263.00	0.13	354.95	3262.96	1.21	0.51	-7.90	0.06	440865.76	727439.20	N 32 12 38.11	W 103 43 53.79
	3358.00	0.13	90.03	3357.96	1.31	0.62	-7.80	0.20	440865.87	727439.30	N 32 12 38.11	W 103 43 53.79
	3458.00	0.06	4.99	3457.96	1.35	0.67	-7.68	0.14	440865.92	727439.42	N 32 12 38.11	W 103 43 53.78
	3552.00	0.11	331.31	3551.96	1.48	0.80	-7.72	0.07	440866.05	727439.38	N 32 12 38.11	W 103 43 53.79
	3647.00	0.25	315.02	3646.96	1.73	1.03	-7.91	0.16	440866.28	727439.19	N 32 12 38.11	W 103 43 53.79
	3741.00	0.45	324.28	3740.95	2.20	1.47	-8.27	0.22	440866.72	727438.83	N 32 12 38.12	W 103 43 53.79
	3836.00	0.06	334.99	3835.95	2.57	1.82	-8.51	0.41	440867.07	727438.59	N 32 12 38.12	W 103 43 53.79
	3930.00	0.08	192.00	3929.95	2.55	1.80	-8.54	0.14	440867.05	727438.56	N 32 12 38.12	W 103 43 53.79
	4025.00	0.13	134.71	4024.95	2.41	1.66	-8.48	0.12	440866.91	727438.62	N 32 12 38.12	W 103 43 53.79
	4119.00	0.23	178.68	4118.95	2.14	1.40	-8.40	0.17	440866.64	727438.70	N 32 12 38.12	W 103 43 53.79
	4214.00	0.25	217.10	4213.95	1.79	1.04	-8.52	0.17	440866.29	727438.58	N 32 12 38.11	W 103 43 53.79
	4308.00	0.18	210.16	4307.95	1.52	0.75	-8.72	0.08	440866.00	727438.38	N 32 12 38.11	W 103 43 53.80
	4403.00	0.28	280.81	4402.95	1.46	0.66	-9.02	0.29	440865.91	727438.08	N 32 12 38.11	W 103 43 53.80
	4497.00	0.55	289.04	4496.95	1.71	0.85	-9.67	0.29	440866.10	727437.43	N 32 12 38.11	W 103 43 53.81
	4592.00	0.18	328.65	4591.95	2.03	1.13	-10.18	0.45	440866.38	727436.92	N 32 12 38.11	W 103 43 53.81
	4686.00	0.08	341.65	4685.95	2.23	1.32	-10.28	0.11	440866.57	727436.82	N 32 12 38.11	W 103 43 53.82
	4781.00	0.00	81.35	4780.95	2.29	1.38	-10.30	0.08	440866.63	727436.80	N 32 12 38.11	W 103 43 53.82
	4970.00	0.06	194.79	4969.95	2.20	1.28	-10.33	0.03	440866.53	727436.77	N 32 12 38.11	W 103 43 53.82
	5064.00	0.06	6.62	5063.95	2.20	1.29	-10.33	0.13	440866.54	727436.77	N 32 12 38.11	W 103 43 53.82
	5159.00	0.06	209.31	5158.95	2.21	1.29	-10.35	0.12	440866.54	727436.75	N 32 12 38.11	W 103 43 53.82
	5253.00	0.06	322.72	5252.95	2.21	1.29	-10.41	0.11	440866.54	727436.70	N 32 12 38.11	W 103 43 53.82
	5348.00	0.06	87.99	5347.95	2.25	1.33	-10.39	0.11	440866.58	727436.71	N 32 12 38.11	W 103 43 53.82
	5442.00	0.06	339.87	5441.95	2.29	1.38	-10.35	0.10	440866.63	727436.75	N 32 12 38.11	W 103 43 53.82
	5631.00	0.08	348.16	5630.95	2.52	1.60	-10.41	0.01	440866.85	727436.69	N 32 12 38.12	W 103 43 53.82
	5725.00	0.06	94.07	5724.95	2.58	1.66	-10.38	0.12	440866.91	727436.72	N 32 12 38.12	W 103 43 53.82
	5820.00	0.08	290.17	5819.95	2.60	1.68	-10.39	0.15	440866.93	727436.71	N 32 12 38.12	W 103 43 53.82
	6103.00	0.08	17.24	6102.95	2.86	1.94	-10.52	0.04	440867.19	727436.58	N 32 12 38.12	W 103 43 53.82
	6198.00	0.06	329.29	6197.95	2.97	2.04	-10.52	0.06	440867.29	727436.58	N 32 12 38.12	W 103 43 53.82
	6292.00	0.20	200.64	6291.95	2.87	1.93	-10.61	0.26	440867.18	727436.49	N 32 12 38.12	W 103 43 53.82
	6387.00	0.64	207.87	6386.94	2.27	1.31	-10.91	0.47	440866.56	727436.19	N 32 12 38.11	W 103 43 53.82
	6481.00	0.95	212.33	6480.93	1.21	0.18	-11.58	0.34	440865.43	727435.52	N 32 12 38.10	W 103 43 53.83
	6662.00	1.28	234.03	6661.90	-1.02	-2.27	-14.01	0.29	440862.98	727433.09	N 32 12 38.08	W 103 43 53.86
	6756.00	1.25	219.97	6755.88	-2.28	-3.67	-15.52	0.33	440861.58	727431.58	N 32 12 38.06	W 103 43 53.88
	6851.00	2.02	220.75	6850.84	-4.18	-5.74	-17.28	0.81	440859.51	727429.82	N 32 12 38.04	W 103 43 53.90
	6945.00	2.69	219.86	6944.76	-6.89	-8.68	-19.78	0.71	440856.57	727427.32	N 32 12 38.02	W 103 43 53.93
	7040.00	3.21	222.87	7039.63	-10.25	-12.34	-23.02	0.57	440852.91	727424.09	N 32 12 37.98	W 103 43 53.96
	7134.00	4.31	242.95	7133.43	-13.33	-15.88	-27.95	1.81	440849.37	727419.15	N 32 12 37.94	W 103 43 54.02
	7229.00	5.68	253.88	7228.07	-15.57	-18.81	-36.65	1.75	440846.44	727411.45	N 32 12 37.92	W 103 43 54.11
	7323.00	7.39	262.26	7321.46	-16.73	-20.92	-46.11	2.08	440844.34	727400.99	N 32 12 37.90	W 103 43 54.23

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 ° ' ")
	7890.00	8.53	256.96	7881.33	-15.35	-27.49	-135.32	0.73	440837.76	727311.79	N 32 12 37.84	W 103 43 55.27
	7985.00	8.78	256.38	7975.20	-17.06	-30.48	-148.63	0.60	440834.77	727297.48	N 32 12 37.81	W 103 43 55.44
	8080.00	8.66	255.85	8069.10	-19.26	-33.94	-163.61	0.15	440831.31	727283.50	N 32 12 37.77	W 103 43 55.60
	8174.00	8.44	256.05	8162.05	-21.44	-37.33	-177.17	0.24	440827.92	727269.94	N 32 12 37.74	W 103 43 55.76
	8268.00	8.52	253.61	8255.03	-23.86	-40.96	-190.54	0.39	440824.29	727256.57	N 32 12 37.71	W 103 43 55.92
	8363.00	8.20	251.20	8349.02	-26.84	-45.13	-203.71	0.50	440820.12	727243.41	N 32 12 37.66	W 103 43 56.07
	8457.00	8.16	250.09	8442.06	-30.14	-49.57	-216.34	0.17	440815.68	727230.77	N 32 12 37.62	W 103 43 56.22
Bone Spring Intersection	8468.00	8.16	250.27	8452.95	-30.54	-50.10	-217.81	0.31	440815.15	727229.30	N 32 12 37.62	W 103 43 56.23
	8518.00	8.06	251.12	8502.45	-32.27	-52.43	-224.47	0.31	440812.82	727222.65	N 32 12 37.59	W 103 43 56.31
	8552.00	8.06	250.40	8536.11	-33.43	-54.00	-228.97	0.30	440811.25	727218.15	N 32 12 37.58	W 103 43 56.36
	8646.00	8.16	248.20	8629.17	-37.00	-58.69	-241.37	0.35	440806.96	727205.74	N 32 12 37.53	W 103 43 56.51
	8741.00	7.04	239.74	8723.34	-41.41	-64.13	-252.66	1.66	440801.13	727194.46	N 32 12 37.48	W 103 43 56.64
	8835.00	7.85	234.15	8816.55	-47.14	-70.79	-262.84	1.16	440794.47	727184.28	N 32 12 37.41	W 103 43 56.76
	8929.00	8.63	238.64	8909.58	-53.55	-78.22	-274.06	1.08	440787.04	727173.05	N 32 12 37.34	W 103 43 56.89
	9024.00	7.66	240.90	9003.62	-59.28	-85.01	-285.68	1.08	440780.25	727161.43	N 32 12 37.27	W 103 43 57.03
	9118.00	7.33	246.78	9096.82	-63.69	-90.42	-296.67	0.89	440774.84	727150.45	N 32 12 37.22	W 103 43 57.15
	9213.00	7.15	251.57	9191.06	-66.94	-94.68	-307.84	0.66	440770.58	727139.27	N 32 12 37.18	W 103 43 57.28
	9307.00	8.03	254.60	9284.23	-69.46	-98.27	-319.72	1.03	440766.99	727127.39	N 32 12 37.15	W 103 43 57.42
	9401.00	6.92	259.25	9377.44	-71.19	-101.07	-331.62	1.34	440764.19	727115.50	N 32 12 37.12	W 103 43 57.56
	9496.00	6.15	263.75	9471.82	-71.86	-102.69	-342.30	0.97	440762.56	727104.82	N 32 12 37.10	W 103 43 57.69
KOP Actual	9590.00	5.90	270.66	9565.30	-71.47	-103.18	-352.14	0.82	440762.07	727094.98	N 32 12 37.10	W 103 43 57.80
	9672.00	6.11	284.36	9646.85	-69.60	-102.05	-360.58	1.76	440763.20	727086.54	N 32 12 37.11	W 103 43 57.90
100' FSL Cross	9861.00	10.41	347.51	9834.18	-49.27	-82.84	-374.05	4.96	440782.41	727073.07	N 32 12 37.30	W 103 43 58.05
	9906.00	18.26	351.90	9877.75	-38.18	-71.88	-375.92	17.59	440793.37	727071.20	N 32 12 37.41	W 103 43 58.08
	9956.00	27.02	353.83	9923.85	-18.96	-52.80	-378.25	17.59	440812.46	727068.87	N 32 12 37.60	W 103 43 58.10
	10050.00	30.68	358.28	10006.18	-26.35	-7.58	-381.27	4.51	440857.67	727065.85	N 32 12 38.05	W 103 43 58.13
	10144.00	37.44	357.88	10084.01	-78.88	-45.01	-383.05	7.20	440910.26	727064.07	N 32 12 38.57	W 103 43 58.15
	10239.00	44.11	354.63	10155.92	-140.86	-106.86	-387.21	7.37	440972.10	727059.91	N 32 12 39.18	W 103 43 58.20
	10333.00	48.96	354.29	10220.56	-209.06	-174.74	-393.81	5.17	441039.98	727053.32	N 32 12 39.85	W 103 43 58.27
	10427.00	51.61	355.54	10280.62	-281.36	-246.76	-400.20	3.00	441112.00	727046.92	N 32 12 40.56	W 103 43 58.34
	10522.00	64.93	356.30	10330.47	-361.96	-327.18	-405.90	14.04	441192.41	727041.23	N 32 12 41.36	W 103 43 58.40
	10617.00	83.24	355.90	10356.41	-452.91	-417.93	-412.10	19.28	441283.16	727035.02	N 32 12 42.26	W 103 43 58.46
	10711.00	86.05	355.85	10365.18	-546.48	-511.27	-418.83	2.99	441376.49	727028.29	N 32 12 43.18	W 103 43 58.54
	10755.00	85.67	355.43	10368.36	-590.36	-555.03	-422.17	1.29	441420.25	727024.96	N 32 12 43.62	W 103 43 58.57
	10850.00	86.73	355.96	10374.65	-685.14	-649.55	-429.28	1.25	441514.77	727017.84	N 32 12 44.55	W 103 43 58.65
	10944.00	88.07	355.68	10378.92	-779.03	-743.20	-436.13	1.46	441608.41	727011.00	N 32 12 45.48	W 103 43 58.72
	11039.00	86.87	356.09	10383.11	-873.92	-837.86	-442.94	1.33	441703.07	727004.19	N 32 12 46.42	W 103 43 58.80
	11134.00	89.24	356.11	10386.34	-968.84	-932.58	-449.39	2.49	441797.78	726997.73	N 32 12 47.35	W 103 43 58.87
	11228.00	89.62	356.34	10387.27	-1062.81	-1026.37	-455.58	0.47	441891.57	726991.54	N 32 12 48.28	W 103 43 58.93
	11322.00	89.59	355.73	10387.92	-1156.79	-1120.15	-462.08	0.65	441985.34	726985.04	N 32 12 49.21	W 103 43 59.00
	11417.00	89.62	359.29	10388.57	-1251.67	-1215.04	-466.21	3.75	442080.22	726980.92	N 32 12 50.15	W 103 43 59.04
	11511.00	90.96	359.96	10388.10	-1345.35	-1309.03	-468.82	1.59	442174.21	726980.30	N 32 12 51.08	W 103 43 59.04
	11606.00	89.59	0.37	10387.64	-1439.94	-1404.03	-468.55	1.51	442269.20	726980.58	N 32 12 52.02	W 103 43 59.03
	11700.00	89.24	0.72	10388.60	-1533.48	-1498.02	-465.66	0.53	442363.19	726981.47	N 32 12 52.95	W 103 43 59.02
	11795.00	89.62	0.66	10389.55	-1627.99	-1593.01	-464.51	0.40	442458.17	726982.61	N 32 12 53.89	W 103 43 59.00
	11889.00	89.66	1.13	10390.14	-1721.48	-1686.99	-463.04	0.50	442552.15	726984.08	N 32 12 54.82	W 103 43 58.98
	11983.00	89.59	0.59	10390.75	-1814.97	-1780.98	-461.63	0.58	442646.14	726985.49	N 32 12 55.75	W 103 43 58.95
	12078.00	89.93	359.98	10391.15	-1909.55	-1875.98	-461.16	0.74	442741.13	726985.96	N 32 12 56.69	W 103 43 58.94
	12173.00	89.79	359.39	10391.38	-2004.21	-1970.98	-461.68	0.64	442836.12	726985.44	N 32 12 57.63	W 103 43 58.94
	12268.00	89.90	359.43	10391.64	-2098.92	-2065.97	-462.66	0.12	442931.11	726984.46	N 32 12 58.57	W 103 43 58.95
	12362.00	90.03	359.90	10391.70	-2192.59	-2159.97	-463.21	0.52	443025.10	726983.91	N 32 12 59.50	W 103 43 58.95
	12457.00	89.86	359.62	10391.79	-2287.25	-2254.97	-463.61	0.34	443120.10	726983.52	N 32 13 0.44	W 103 43 58.94
	12551.00	90.76	0.17	10391.28	-2380.89	-2348.97	-463.78	1.12	443214.09	726983.34	N 32 13 1.37	W 103 43 58.94
	12646.00	91.00	359.41	10389.82	-2475.54	-2443.95	-464.13	0.84	443309.07	726983.00	N 32 13 2.31	W 103 43 58.94
	12740.00	90.69	359.90	10388.44	-2569.20	-2537.94	-464.69	0.62	443403.05	726982.43	N 32 13 3.24	W 103 43 58.94
	12835.00	92.41	359.64	10385.87	-2663.82	-2632.90	-465.08	1.83	443498.01	726982.05	N 32 13 4.18	W 103 43 58.94
	12930.00	90.69	0.09	10383.30	-2758.43	-2727.86	-465.30	1.87	443592.97	726981.83	N 32 13 5.12	W 103 43 58.93
	13119.00	90.45	0.37	10381.42	-2946.60	-2916.85	-464.54	0.20	443781.95	726982.58	N 32 13 6.99	W 103 43 58.91
	13213.00	90.14	0.09	10380.93	-3040.19	-3010.85	-464.16	0.44	443875.94	726982.96	N 32 13 7.92	W 103 43 58.90
	13308.00	90.34	359.78	10380.53	-3134.82	-3105.85	-464.27	0.39	443970.93	726982.85	N 32 13 8.86	W 103 43 58.90
	13402.00	89.86	359.12	10380.37	-3228.53	-3199.84	-465.17	0.87	444064.92	726981.95	N 32 13 9.79	W 103 43 58.90
	13497.00	91.48	1.50	10379.26	-3323.09	-3294.82	-464.66	3.03	444159.90	726982.47	N 32 13 10.73	W 103 43 58.89
	13592.00	90.82	359.46	10375.96	-3511.15	-3483.78	-463.08	1.19	444348.84	726984.05	N 32 13 12.60	W 103 43 58.86
	13687.00	90.21	0.03	10374.76	-3699.47	-3672.77	-463.92	0.34	444537.82	726983.21	N 32 13 14.47	W 103 43 58.86
	14064.00	90.07	0.30	10374.29	-3887.67	-3861.77	-463.37	0.16	444726.81	726983.75	N 32 13 16.34	W 103 43 58.84
	14254.00	88.97	358.58	10375.89	-4077.06	-4051.74	-465.23	1.07	444916.78	726981.89	N 32 13 18.22	W 103 43 58.85
	14348.00	90.00	0.40	10376.73	-4170.75	-4145.73	-466.07	2.22	445010.76	726981.06	N 32 13 19.15	W 103 43 58.85
	14443.00	89.41	0.98	10377.22	-4265.26	-4240.72	-464.92	0.87	445105.75	726982.20	N 32 13 20.09	W 103 43 58.83
	14538.00	92.10	2.35	10375.97	-4359.58	-4335.66	-462.16	3.18	445200.68	726984.96	N 32 13 21.03	W 103 43 58.79
	14633.00	87.22	359.96	10376.53	-4453.98	-4430.61	-460.25	5.72	445295.62	726986.88	N 32 13 21.97	W 103 43 58.76
	14728.00	88.69	359.54	10379.92	-4548.57	-4525.54	-460.66	1.61	445390.55	726986.46	N 32 13 22.91	W 103 43 58.76
	14822.00	91.13	355.59	10380.07	-4642.45	-4619.43	-464.66	4.94	445484.43	726982.47	N 32 13 23.83	W 103 43 58.80
	14917.00	91.20	356.30	10378.14	-4737.41	-4714.17	-471.37	0.75	445579.17	726975.75	N 32 13 24.77	W 103 43 58.88
	15011.00	91.20	358.35	10376.17	-4831.30	-4808.04	-475.76	2.18	445673.04	726971.37	N 32 13 25.70	W 103 43 58.92
	15106.00	91.17	357.54	10374.21	-4926.15	-4902.96	-479.16	0.85	445767.95	726967.96	N 32 13 26.64	W 103 43 58.95
100' FNL Cross	15211.00	91.25	357.55	10371.99	-5031.01	-5007.84	-483.66	0.07	445872.83	7269		