

Results of Directional Survey

API number:	30-025-41025		
OGRID:		Operator:	COG OPERATING LLC
		Property:	CONDOR STATE # 2H

surface	ULSTR:	C	20	T 18S	R 35E
				60 FNL	2180 FWL

BH Loc	ULSTR:	N	20	T 18S	R 35E
14042	MD	9806.8	TVD	330 FSL	2270 FWL
				4950 FNL	

Top Perf/OH	ULSTR:	C	20	T 18S	R 35E
9882	MD	9292.2	TVD	825 FNL	2216 FWL

Bot Perf/OH	ULSTR:	N	20	T 18S	R 35E
13950	MD	9798.8	TVD	422 FNL	2265 FWL
				4858 FNL	

	MD	N/S	E/W	VD
	9848	-730.96	37.16	9288.63
TOP PERFS/OH	9882	-764.75	35.74	9292.17
	9943	-825.36	33.19	9298.53
	13932	-4780.26	84.24	9797.24
BOT PERFS/OH	13950	-4798.17	85.22	9798.80
	14042	-4889.68	90.22	9806.77

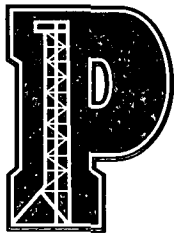
NEXT TO LAST	13932	-4780.26	84.24	9797.24
LAST READING	14042	-4889.68	90.22	9806.77
TD	14042	-4889.68	90.22	9806.77

Surface Location	60	FN	2180	FW
Projected BHL	4950	FN	2270	FW
Location of				
Top Perfs/OH	825	FN	2216	FW
Bottom Perfs/OH	4858	FN	2265	FW

SUMMARY of Subsurface Locations

Surface Location	C-20-18S-35E	60	FN	2180	FW	Vert. Depth
Top Perfs/OH	C-20-18S-35E	825	FN	2216	FW	9292.17
Bottom Perfs/OH	N-20-18S-35E	4858	FN	2265	FW	9798.80
Projected TD	N-20-18S-35E	4950	FN	2270	FW	9806.77

AUG 28 2013



PATRIOT DRILLING, LLC

HOBBS OCD

JUL 18 2013

RECEIVED

30-025-41025

OPERATOR: COG Operating, LLC
WELL/LEASE: Condor State # 2 H
COUNTY: ~~LEO~~ Eddy Co., New Mexico
Sec. 20, T18S, R35E

STATE OF NEW MEXICO
DEVIATION REPORT

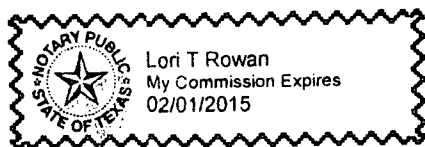
<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
302	1/4	3,559	1 1/2
748	1/2	3,842	1
1,090	1	4,460	1 1/2
1,407	1/2	4,717	1 1/4
1,700	1 1/4	5,258	1 1/2
2,000	1 3/4	5,551	1
2,320	1 1/4	5,897	3/4
2,624	1 1/2	6,147	3/4
2,919	1 3/4	6,865	2
3,270	1 1/4	7,025	2 1/2
		7,114	2 1/2

Patriot Drilling, LLC

M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 6th day of May, 2013 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015



Lori T. Rowan
Notary Public for Ector Co., Texas



A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

April 29, 2013

HOBBS OCD

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

JUL 18 2013

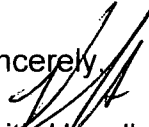
RECEIVED

Attn: Kanicia Castillo

RE: **Condor State No. 002H**

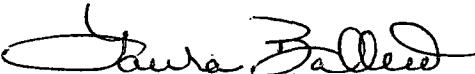
Please find enclosed a copy of the survey from 0.00' to 8593.00' ran on the above referenced well.

Sincerely,

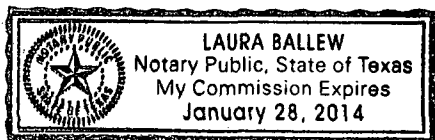

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 29th day of April,
A.D., 2013, by Keith Havelka.



Laura Ballew
Notary Public, State of Texas





Company: COG Operating LLC (Concho)
 Lease/Well: Condor State / No. 002H
 Location: S20 T18s R33e
 Rig Name: Patriot 6
 State/County: New Mexico/ Lea
 Latitude: 32.74, Longitude: -103.48
 GRID North is 0.46 Degrees East of True North
 VS-Azi: 0.00 Degrees



RKB : 17'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: condor state #2h gyro survey.ut

Minimum Curvature Method

Report Date/Time: 4/29/2013 / 09:06

Vaughn Energy Services

Gardendale, Texas

432-563-5444

Survey Engineer: Dustin Wedel

Condor State No. 002H / API 30-025-41025

HOBBS OCD

JUL 18 2013

RECEIVED

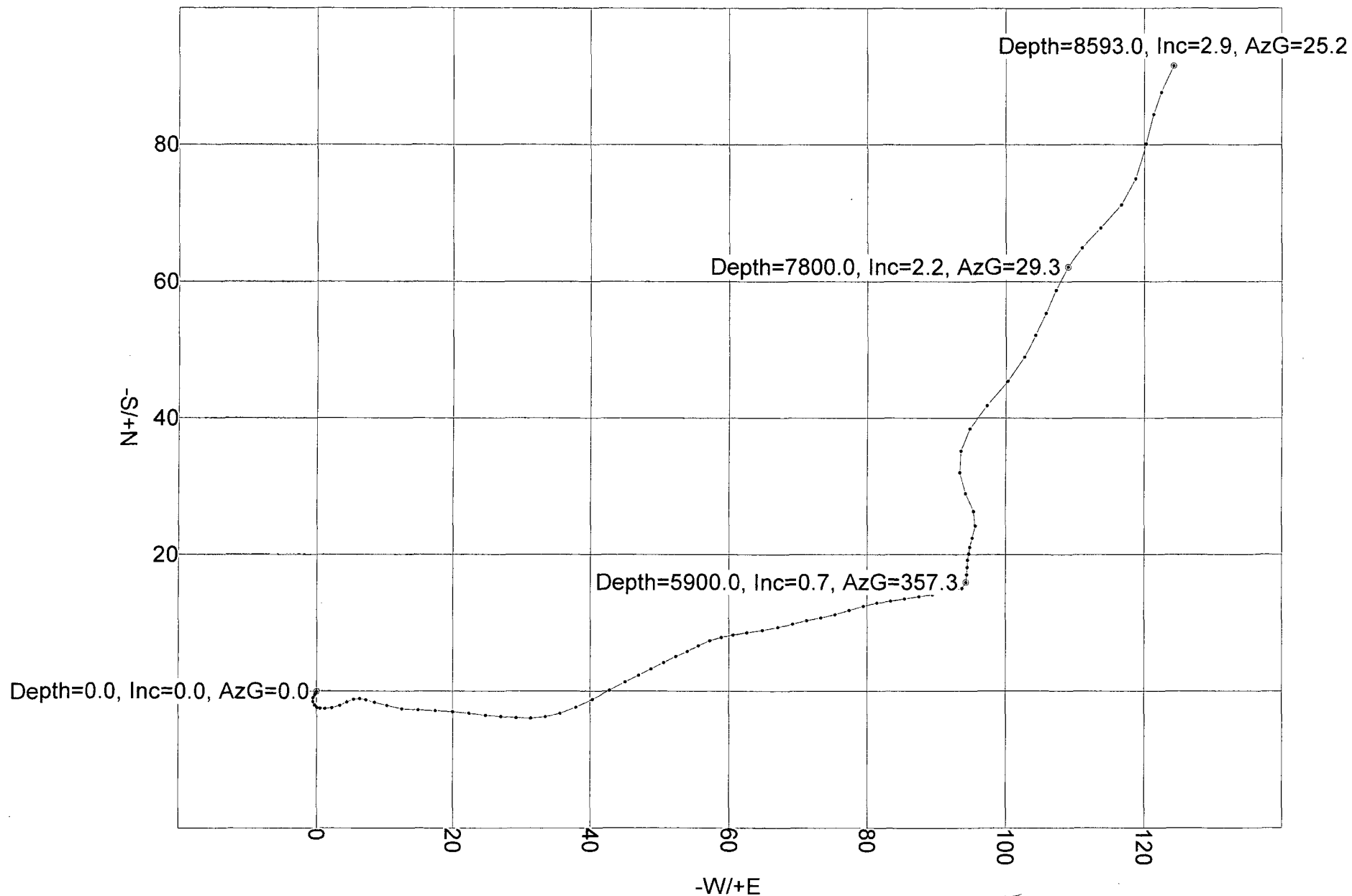
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.07	181.70	100.00	-0.06	0.00	0.06	181.70	0.07
200.00	0.15	213.71	200.00	-0.23	-0.07	0.25	197.67	0.09
300.00	0.24	218.67	300.00	-0.50	-0.27	0.57	208.70	0.09
400.00	0.34	204.85	400.00	-0.93	-0.53	1.07	209.57	0.12
500.00	0.37	158.71	500.00	-1.50	-0.53	1.59	199.55	0.28
600.00	0.27	143.69	599.99	-2.00	-0.27	2.02	187.81	0.13
700.00	0.26	123.00	699.99	-2.31	0.06	2.31	178.54	0.10
800.00	0.36	100.89	799.99	-2.50	0.56	2.56	167.46	0.15
900.00	0.48	88.11	899.99	-2.54	1.28	2.84	153.35	0.15
1000.00	0.68	80.82	999.98	-2.43	2.28	3.33	136.92	0.21
1100.00	0.73	67.02	1099.98	-2.09	3.44	4.03	121.26	0.18
1200.00	0.62	61.32	1199.97	-1.58	4.51	4.77	109.35	0.12
1300.00	0.57	74.25	1299.96	-1.19	5.46	5.59	102.25	0.14
1400.00	0.49	92.39	1399.96	-1.07	6.37	6.46	99.52	0.19
1500.00	0.59	109.37	1499.96	-1.26	7.28	7.38	99.79	0.19
1600.00	0.93	104.42	1599.95	-1.63	8.55	8.70	100.78	0.35
1700.00	1.21	104.35	1699.93	-2.09	10.35	10.56	101.42	0.27
1800.00	1.33	100.81	1799.91	-2.57	12.51	12.77	101.60	0.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.45	88.33	1899.88	-2.75	14.92	15.17	100.44	0.33
2000.00	1.49	95.86	1999.84	-2.85	17.48	17.71	99.25	0.20
2100.00	1.44	90.82	2099.81	-3.00	20.02	20.25	98.51	0.14
2200.00	1.37	99.89	2199.78	-3.22	22.46	22.69	98.16	0.23
2300.00	1.29	94.21	2299.75	-3.51	24.76	25.01	98.06	0.15
2400.00	1.26	94.73	2399.73	-3.68	26.98	27.23	97.77	0.03
2500.00	1.24	95.59	2499.70	-3.88	29.15	29.41	97.57	0.03
2600.00	1.18	86.61	2599.68	-3.92	31.26	31.50	97.15	0.20
2700.00	1.28	83.56	2699.66	-3.74	33.40	33.61	96.38	0.12
2800.00	1.34	71.21	2799.63	-3.23	35.62	35.76	95.19	0.29
2900.00	1.49	66.71	2899.60	-2.34	37.92	37.99	93.53	0.19
3000.00	1.59	63.39	2999.57	-1.20	40.36	40.37	91.71	0.14
3100.00	1.58	58.58	3099.53	0.13	42.77	42.77	89.82	0.13
3200.00	1.35	64.49	3199.50	1.36	45.01	45.03	88.27	0.27
3300.00	1.16	62.26	3299.47	2.34	46.97	47.03	87.15	0.20
3400.00	1.18	62.54	3399.45	3.28	48.78	48.89	86.15	0.02
3500.00	1.20	63.29	3499.43	4.23	50.63	50.81	85.22	0.03
3600.00	1.05	64.71	3599.41	5.09	52.39	52.64	84.45	0.16
3700.00	1.02	65.66	3699.39	5.85	54.02	54.34	83.82	0.03
3800.00	1.05	60.74	3799.38	6.66	55.64	56.03	83.17	0.09
3900.00	0.98	70.80	3899.36	7.39	57.24	57.72	82.64	0.19
4000.00	0.98	76.95	3999.35	7.86	58.88	59.40	82.39	0.11
4100.00	0.99	77.47	4099.33	8.25	60.56	61.12	82.25	0.01
4200.00	1.35	83.05	4199.31	8.58	62.58	63.16	82.20	0.38
4300.00	1.29	79.54	4299.29	8.92	64.86	65.47	82.17	0.10
4400.00	1.32	79.12	4399.26	9.34	67.10	67.74	82.07	0.03
4500.00	1.17	74.56	4499.24	9.83	69.21	69.91	81.91	0.17
4600.00	1.23	77.49	4599.21	10.34	71.24	71.99	81.74	0.08
4700.00	1.19	81.02	4699.19	10.73	73.32	74.10	81.67	0.08
4800.00	1.24	73.59	4799.17	11.20	75.38	76.21	81.55	0.16
4900.00	1.22	72.45	4899.15	11.83	77.44	78.33	81.32	0.03
5000.00	1.21	74.10	4999.12	12.44	79.47	80.43	81.10	0.04
5100.00	1.15	78.95	5099.10	12.92	81.46	82.48	80.99	0.11
5200.00	1.16	85.46	5199.08	13.19	83.46	84.49	81.02	0.13
5300.00	1.21	77.52	5299.06	13.50	85.50	86.56	81.03	0.17
5400.00	1.22	83.56	5399.04	13.85	87.59	88.67	81.02	0.13
5500.00	1.03	80.31	5499.02	14.12	89.52	90.63	81.04	0.20
5600.00	0.87	75.53	5599.01	14.46	91.14	92.28	80.99	0.18
5700.00	0.74	86.16	5699.00	14.69	92.51	93.67	80.98	0.19

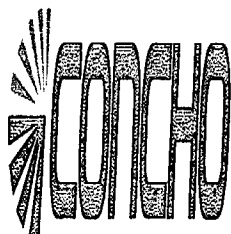
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.76	60.65	5798.99	15.06	93.73	94.94	80.87	0.33
5900.00	0.65	357.27	5898.98	15.95	94.28	95.62	80.40	0.75
6000.00	0.63	13.62	5998.97	17.06	94.39	95.92	79.76	0.18
6100.00	0.63	354.60	6098.97	18.14	94.46	96.19	79.13	0.21
6200.00	0.61	12.45	6198.96	19.21	94.53	96.46	78.51	0.19
6300.00	0.46	6.09	6298.96	20.13	94.68	96.80	78.00	0.16
6400.00	0.65	9.79	6398.95	21.08	94.82	97.14	77.46	0.20
6500.00	0.95	16.16	6498.94	22.44	95.15	97.76	76.73	0.31
6600.00	1.18	12.37	6598.93	24.24	95.60	98.63	75.77	0.25
6700.00	1.35	338.72	6698.90	26.35	95.40	98.97	74.56	0.75
6800.00	1.91	333.93	6798.86	28.94	94.24	98.58	72.93	0.58
6900.00	1.78	356.03	6898.81	31.99	93.40	98.72	71.09	0.72
7000.00	1.89	9.27	6998.76	35.17	93.55	99.94	69.40	0.43
7100.00	2.20	31.34	7098.70	38.43	94.82	102.31	67.94	0.84
7200.00	2.62	40.35	7198.61	41.82	97.30	105.91	66.74	0.56
7300.00	2.71	39.61	7298.50	45.38	100.29	110.08	65.65	0.09
7400.00	2.20	26.11	7398.41	48.93	102.64	113.71	64.51	0.76
7500.00	1.94	27.82	7498.35	52.15	104.28	116.59	63.43	0.27
7600.00	2.10	22.40	7598.28	55.35	105.76	119.37	62.38	0.25
7700.00	2.12	23.68	7698.22	58.73	107.21	122.24	61.28	0.05
7800.00	2.25	29.26	7798.14	62.13	108.91	125.38	60.29	0.25
7900.00	1.75	44.21	7898.08	64.94	110.93	128.53	59.66	0.72
8000.00	2.82	43.24	7998.00	67.82	113.67	132.37	59.18	1.08
8100.00	2.36	38.76	8097.90	71.22	116.65	136.67	58.59	0.50
8200.00	2.64	19.24	8197.81	75.00	118.70	140.41	57.71	0.89
8300.00	3.51	15.49	8297.66	80.13	120.27	144.52	56.33	0.88
8400.00	1.58	11.19	8397.56	84.42	121.36	147.84	55.18	1.94
8500.00	2.36	23.83	8497.50	87.66	122.46	150.60	54.40	0.89
8593.00	2.89	25.15	8590.40	91.53	124.23	154.31	53.62	0.57



Vaughn Energy Services
Gardendale, Texas
432-563-5444
Survey Engineer: Dustin Wedel
Condor State No. 002H / API 30-025-41025



VES Survey Date: 04/24/2013



COG Condor State 2H Gyro+MWD from 0ft to 14042ft Survey Geodetic Report (Non-Def Survey)



Report Date: May 06, 2013 - 01:21 PM
Client: COG Operating, LLC
Field: NM Lea County (NAD 27)
Structure / Slot: COG Condor State 2H / COG Condor State 2H
Well: COG Condor State 2H
Borehole: Original Borehole
UWI / API#: Patriot 6 / Unknown
Survey Name: COG Condor State 2H Gyro+MWD from 0ft to 14042ft
Survey Date: February 22, 2013
Tort / AHD / DDI / ERD Ratio: 159.635 ° / 5186.603 ft / 6.074 / 0.529
Coordinate Reference System: NAD27 / New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 44' 24.74652", W 103° 28' 50.42420"
Location Grid N/E Y/X: N 634053.500 ftUS, E 762178.700 ftUS
CRS Grid Convergence Angle: 0.4612 °
Grid Scale Factor: 0.99998781

Survey / DLS
Compass Section: Minimum Curvature / Lubinski
Azimuth Section: 179.463 ° (Grid North)
True Reference: 0.000 ft, 0.000 ft
Ref Reference: RKB
Elevation: 3963.000 ft above
Station Ground: 3945.000 ft above
Flayline: 7.479 °
Declination: 998.4779mgn (9.80665 Based)
Stran Magnetic Field: 48746.502 nT
Strength:
Magnetic Dip Angle: 60.604 °
Declination Date: February 22, 2013
magnetic: BGGM 2012
Declination Model:
North Reference: Grid North
Grid Convergence: 0.4612 °
Head:
Total Corr Mag: 7.0179 °
North->Grid North:
Local Coord:
Referenced To: Structure Reference Point

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 ° ' ")
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	634053.50	762178.70	N 32 44 24.75	W 103 28 50.42
	100.00	0.07	181.70		100.00	0.06	-0.06	0.00	0.07	634053.44	762178.70	N 32 44 24.75	W 103 28 50.42
	200.00	0.15	213.71		200.00	0.23	-0.23	-0.08	0.10	634053.27	762178.62	N 32 44 24.74	W 103 28 50.43
	300.00	0.24	218.67		300.00	0.50	-0.50	-0.28	0.09	634053.00	762178.42	N 32 44 24.74	W 103 28 50.43
	400.00	0.34	204.85		400.00	0.93	-0.94	-0.54	0.12	634052.56	762178.16	N 32 44 24.74	W 103 28 50.43
	500.00	0.37	158.71		500.00	1.50	-1.51	-0.54	0.28	634051.99	762178.16	N 32 44 24.73	W 103 28 50.43
	600.00	0.27	143.69		599.99	1.99	-2.00	-0.29	0.13	634051.50	762178.41	N 32 44 24.73	W 103 28 50.43
	700.00	0.26	123.00		699.99	2.31	-2.31	0.04	0.10	634051.19	762178.74	N 32 44 24.72	W 103 28 50.42
	800.00	0.36	100.89		799.99	2.50	-2.49	0.54	0.15	634051.01	762179.24	N 32 44 24.72	W 103 28 50.42
	900.00	0.48	88.11		899.99	2.55	-2.54	1.27	0.15	634050.96	762179.97	N 32 44 24.72	W 103 28 50.41

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 ° ' ")	
	1000.00	0.68	80.82	999.98	2.45	-2.43	2.27	0.21	634051.07	762180.97	N	32 44 24.72	W	103 28 50.40
	1100.00	0.73	67.02	1099.98	2.12	-2.09	3.45	0.18	634051.41	762182.15	N	32 44 24.73	W	103 28 50.38
	1200.00	0.62	61.32	1199.97	1.62	-1.58	4.51	0.13	634051.92	762183.21	N	32 44 24.73	W	103 28 50.37
	1300.00	0.57	74.25	1299.96	1.24	-1.18	5.46	0.14	634052.32	762184.16	N	32 44 24.73	W	103 28 50.36
	1400.00	0.49	92.39	1399.96	1.13	-1.07	6.37	0.18	634052.43	762185.07	N	32 44 24.74	W	103 28 50.35
	1500.00	0.59	109.37	1499.96	1.32	-1.26	7.28	0.19	634052.24	762185.98	N	32 44 24.73	W	103 28 50.34
	1600.00	0.93	104.42	1599.95	1.71	-1.63	8.55	0.35	634051.87	762187.25	N	32 44 24.73	W	103 28 50.32
	1700.00	1.21	104.35	1699.93	2.19	-2.09	10.36	0.28	634051.41	762189.06	N	32 44 24.73	W	103 28 50.30
	1800.00	1.33	100.81	1799.90	2.69	-2.57	12.52	0.14	634050.93	762191.22	N	32 44 24.72	W	103 28 50.28
	1900.00	1.45	88.33	1899.88	2.89	-2.75	14.93	0.32	634050.75	762193.63	N	32 44 24.72	W	103 28 50.25
	2000.00	1.49	95.86	1999.84	3.01	-2.85	17.49	0.20	634050.65	762196.19	N	32 44 24.72	W	103 28 50.22
	2100.00	1.44	90.82	2099.81	3.19	-3.00	20.04	0.14	634050.50	762198.74	N	32 44 24.72	W	103 28 50.19
	2200.00	1.37	99.89	2199.78	3.43	-3.22	22.47	0.23	634050.28	762201.17	N	32 44 24.71	W	103 28 50.16
	2300.00	1.29	94.21	2299.75	3.74	-3.51	24.77	0.15	634049.99	762203.47	N	32 44 24.71	W	103 28 50.13
	2400.00	1.26	94.73	2399.73	3.94	-3.68	26.99	0.03	634049.82	762205.69	N	32 44 24.71	W	103 28 50.11
	2500.00	1.24	95.59	2499.70	4.15	-3.88	29.16	0.03	634049.62	762207.86	N	32 44 24.71	W	103 28 50.08
	2600.00	1.18	86.61	2599.68	4.22	-3.92	31.27	0.20	634049.58	762209.97	N	32 44 24.71	W	103 28 50.06
	2700.00	1.28	83.56	2699.66	4.05	-3.74	33.40	0.12	634049.76	762212.10	N	32 44 24.71	W	103 28 50.03
	2800.00	1.34	71.21	2799.63	3.57	-3.24	35.62	0.29	634050.26	762214.32	N	32 44 24.71	W	103 28 50.01
	2900.00	1.49	66.71	2899.60	2.70	-2.35	37.92	0.19	634051.15	762216.62	N	32 44 24.72	W	103 28 49.98
	3000.00	1.59	63.39	2999.57	1.59	-1.21	40.36	0.13	634052.29	762219.06	N	32 44 24.73	W	103 28 49.95
	3100.00	1.58	58.58	3099.53	0.27	0.13	42.77	0.13	634053.63	762221.47	N	32 44 24.74	W	103 28 49.92
	3200.00	1.35	64.49	3199.50	-0.93	1.36	45.01	0.27	634054.86	762223.71	N	32 44 24.76	W	103 28 49.90
	3300.00	1.16	62.26	3299.47	-1.89	2.33	46.97	0.20	634055.83	762225.67	N	32 44 24.77	W	103 28 49.87
	3400.00	1.18	62.54	3399.45	-2.82	3.28	48.78	0.02	634056.78	762227.48	N	32 44 24.78	W	103 28 49.85
	3500.00	1.20	63.29	3499.43	-3.75	4.23	50.63	0.03	634057.73	762229.33	N	32 44 24.78	W	103 28 49.83
	3600.00	1.05	64.71	3599.41	-4.60	5.09	52.39	0.15	634058.59	762231.09	N	32 44 24.79	W	103 28 49.81
	3700.00	1.02	65.66	3699.39	-5.34	5.85	54.03	0.03	634059.35	762232.73	N	32 44 24.80	W	103 28 49.79
	3800.00	1.05	60.74	3799.38	-6.14	6.66	55.64	0.09	634060.16	762234.34	N	32 44 24.81	W	103 28 49.77
	3900.00	0.98	70.80	3899.36	-6.85	7.39	57.25	0.19	634060.89	762235.95	N	32 44 24.82	W	103 28 49.75
	4000.00	0.98	76.95	3999.35	-7.31	7.86	58.89	0.11	634061.36	762237.59	N	32 44 24.82	W	103 28 49.73
	4100.00	0.99	77.47	4099.33	-7.68	8.25	60.57	0.01	634061.75	762239.27	N	32 44 24.82	W	103 28 49.71
	4200.00	1.35	83.05	4199.31	-7.99	8.58	62.58	0.38	634062.08	762241.28	N	32 44 24.83	W	103 28 49.69
	4300.00	1.29	79.54	4299.29	-8.31	8.92	64.86	0.10	634062.42	762243.56	N	32 44 24.83	W	103 28 49.66

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 ° ' ")
	4400.00	1.32	79.12	4399.26	-8.71	9.34	67.09	0.03	634062.84	762245.79	N	32 44 24.83	W 103 28 49.64
	4500.00	1.17	74.56	4499.24	-9.18	9.83	69.21	0.18	634063.33	762247.91	N	32 44 24.84	W 103 28 49.61
	4600.00	1.23	77.49	4599.21	-9.67	10.34	71.24	0.09	634063.84	762249.94	N	32 44 24.84	W 103 28 49.59
	4700.00	1.19	81.02	4699.19	-10.04	10.73	73.32	0.08	634064.23	762252.01	N	32 44 24.85	W 103 28 49.56
	4800.00	1.24	73.59	4799.17	-10.49	11.20	75.38	0.17	634064.70	762254.08	N	32 44 24.85	W 103 28 49.54
	4900.00	1.22	72.45	4899.15	-11.10	11.83	77.43	0.03	634065.33	762256.13	N	32 44 24.86	W 103 28 49.52
	5000.00	1.21	74.10	4999.12	-11.69	12.44	79.46	0.04	634065.94	762258.16	N	32 44 24.86	W 103 28 49.49
	5100.00	1.15	78.95	5099.10	-12.15	12.92	81.46	0.12	634066.42	762260.16	N	32 44 24.87	W 103 28 49.47
	5200.00	1.16	85.46	5199.08	-12.41	13.19	83.46	0.13	634066.69	762262.16	N	32 44 24.87	W 103 28 49.45
	5300.00	1.21	77.52	5299.06	-12.70	13.50	85.50	0.17	634067.00	762264.20	N	32 44 24.87	W 103 28 49.42
	5400.00	1.22	83.56	5399.04	-13.03	13.85	87.59	0.13	634067.35	762266.28	N	32 44 24.88	W 103 28 49.40
	5500.00	1.03	80.31	5499.02	-13.28	14.12	89.53	0.20	634067.62	762268.23	N	32 44 24.88	W 103 28 49.37
	5600.00	0.87	75.53	5599.01	-13.60	14.46	91.15	0.18	634067.96	762269.85	N	32 44 24.88	W 103 28 49.36
	5700.00	0.74	86.16	5699.00	-13.82	14.69	92.53	0.20	634068.19	762271.23	N	32 44 24.88	W 103 28 49.34
	5800.00	0.76	60.65	5798.99	-14.18	15.06	93.75	0.33	634068.56	762272.45	N	32 44 24.89	W 103 28 49.33
	5900.00	0.65	357.27	5898.98	-15.07	15.95	94.30	0.75	634069.45	762273.00	N	32 44 24.90	W 103 28 49.32
	6000.00	0.63	13.62	5998.97	-16.17	17.05	94.41	0.18	634070.55	762273.10	N	32 44 24.91	W 103 28 49.32
	6100.00	0.63	354.60	6098.97	-17.25	18.13	94.48	0.21	634071.63	762273.18	N	32 44 24.92	W 103 28 49.32
	6200.00	0.61	12.45	6198.96	-18.31	19.20	94.55	0.19	634072.70	762273.24	N	32 44 24.93	W 103 28 49.32
	6300.00	0.46	6.09	6298.96	-19.23	20.12	94.70	0.16	634073.62	762273.40	N	32 44 24.94	W 103 28 49.31
	6400.00	0.65	9.79	6398.95	-20.19	21.08	94.84	0.19	634074.58	762273.54	N	32 44 24.95	W 103 28 49.31
	6500.00	0.95	16.16	6498.94	-21.54	22.43	95.17	0.31	634075.93	762273.87	N	32 44 24.96	W 103 28 49.31
	6600.00	1.18	12.37	6598.93	-23.34	24.24	95.62	0.24	634077.73	762274.32	N	32 44 24.98	W 103 28 49.30
	6700.00	1.35	338.72	6698.90	-25.44	26.34	95.41	0.75	634079.84	762274.11	N	32 44 25.00	W 103 28 49.30
	6800.00	1.91	333.93	6798.86	-28.05	28.93	94.25	0.58	634082.43	762272.95	N	32 44 25.03	W 103 28 49.32
	6900.00	1.78	356.03	6898.81	-31.10	31.98	93.41	0.72	634085.48	762272.11	N	32 44 25.06	W 103 28 49.33
	7000.00	1.89	9.27	6998.76	-34.28	35.16	93.57	0.44	634088.66	762272.27	N	32 44 25.09	W 103 28 49.33
	7100.00	2.20	31.34	7098.70	-37.53	38.42	94.84	0.84	634091.92	762273.54	N	32 44 25.12	W 103 28 49.31
	7200.00	2.62	40.35	7198.61	-40.89	41.80	97.31	0.56	634095.30	762276.01	N	32 44 25.15	W 103 28 49.28
	7300.00	2.71	39.61	7298.50	-44.43	45.37	100.30	0.10	634098.87	762279.00	N	32 44 25.19	W 103 28 49.25
	7400.00	2.20	26.11	7398.41	-47.95	48.91	102.65	0.77	634102.41	762281.35	N	32 44 25.22	W 103 28 49.22
	7500.00	1.94	27.82	7498.35	-51.15	52.13	104.29	0.27	634105.63	762282.99	N	32 44 25.25	W 103 28 49.20
	7600.00	2.10	22.40	7598.28	-54.33	55.32	105.78	0.25	634108.82	762284.47	N	32 44 25.29	W 103 28 49.18
	7700.00	2.12	23.68	7698.22	-57.70	58.71	107.22	0.05	634112.21	762285.92	N	32 44 25.32	W 103 28 49.16

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 ° ' ")
	7800.00	2.25	29.26	7798.14	-61.09	62.12	108.92	0.25	634115.62	762287.62	N	32 44 25.35	W 103 28 49.14
	7900.00	1.75	44.21	7898.08	-63.88	64.93	110.94	0.72	634118.42	762289.64	N	32 44 25.38	W 103 28 49.12
	8000.00	2.82	43.24	7998.00	-66.74	67.81	113.69	1.07	634121.31	762292.39	N	32 44 25.41	W 103 28 49.09
	8100.00	2.36	38.76	8097.90	-70.11	71.21	116.67	0.50	634124.71	762295.37	N	32 44 25.44	W 103 28 49.05
	8200.00	2.64	19.24	8197.81	-73.87	74.99	118.72	0.89	634128.49	762297.41	N	32 44 25.48	W 103 28 49.03
	8300.00	3.51	15.49	8297.66	-78.98	80.11	120.29	0.89	634133.61	762298.99	N	32 44 25.53	W 103 28 49.01
	8400.00	1.58	11.19	8397.56	-83.28	84.42	121.38	1.94	634137.92	762300.08	N	32 44 25.57	W 103 28 49.00
	8500.00	2.36	23.83	8497.50	-86.50	87.65	122.48	0.89	634141.15	762301.18	N	32 44 25.60	W 103 28 48.98
	8593.00	2.89	25.15	8590.40	-90.36	91.53	124.25	0.57	634145.02	762302.95	N	32 44 25.64	W 103 28 48.96
	8681.00	3.25	16.12	8678.27	-94.75	95.93	125.88	0.68	634149.43	762304.58	N	32 44 25.69	W 103 28 48.94
	8712.00	1.41	31.24	8709.25	-95.91	97.10	126.32	6.21	634150.60	762305.02	N	32 44 25.70	W 103 28 48.94
	8744.00	3.08	176.26	8741.24	-95.39	96.58	126.58	13.47	634150.08	762305.28	N	32 44 25.69	W 103 28 48.93
	8776.00	7.47	181.09	8773.09	-92.45	93.64	126.60	13.78	634147.14	762305.30	N	32 44 25.66	W 103 28 48.93
	8807.00	11.52	183.37	8803.66	-87.35	88.53	126.38	13.12	634142.03	762305.08	N	32 44 25.61	W 103 28 48.94
	8839.00	15.21	185.22	8834.79	-79.98	81.16	125.81	11.61	634134.66	762304.51	N	32 44 25.54	W 103 28 48.94
	8871.00	18.82	188.03	8865.38	-70.69	71.87	124.71	11.57	634125.37	762303.41	N	32 44 25.45	W 103 28 48.96
	8902.00	22.16	191.29	8894.42	-60.02	61.18	122.86	11.38	634114.68	762301.56	N	32 44 25.34	W 103 28 48.98
	8934.00	25.76	192.69	8923.66	-47.34	48.47	120.15	11.39	634101.97	762298.85	N	32 44 25.22	W 103 28 49.01
	8966.00	29.37	192.25	8952.02	-32.92	34.02	116.96	11.30	634087.51	762295.66	N	32 44 25.07	W 103 28 49.05
	8997.00	32.80	190.58	8978.57	-17.26	18.33	113.80	11.41	634071.83	762292.50	N	32 44 24.92	W 103 28 49.09
	9029.00	35.96	190.32	9004.97	0.48	0.56	110.53	9.89	634054.06	762289.23	N	32 44 24.74	W 103 28 49.13
	9060.00	38.69	190.23	9029.62	18.94	-17.93	107.18	8.81	634035.57	762285.88	N	32 44 24.56	W 103 28 49.17
	9092.00	41.86	190.49	9054.03	39.25	-38.28	103.46	9.92	634015.22	762282.15	N	32 44 24.36	W 103 28 49.22
	9124.00	45.11	189.00	9077.25	60.91	-59.98	99.74	10.65	633993.52	762278.44	N	32 44 24.15	W 103 28 49.26
	9155.00	47.48	187.15	9098.67	83.07	-82.17	96.60	8.78	633971.33	762275.30	N	32 44 23.93	W 103 28 49.30
	9187.00	50.03	187.07	9119.76	106.91	-106.04	93.62	7.97	633947.46	762272.32	N	32 44 23.69	W 103 28 49.34
	9219.00	54.26	187.24	9139.39	131.95	-131.10	90.47	13.23	633922.40	762269.17	N	32 44 23.44	W 103 28 49.38
	9250.00	58.48	186.80	9156.56	157.53	-156.72	87.32	13.66	633896.79	762266.02	N	32 44 23.19	W 103 28 49.42
	9282.00	60.85	187.51	9172.72	184.90	-184.12	83.88	7.65	633869.39	762262.58	N	32 44 22.92	W 103 28 49.46
	9314.00	63.49	188.65	9187.66	212.87	-212.13	79.90	8.83	633841.37	762258.60	N	32 44 22.64	W 103 28 49.51
	9345.00	66.48	188.82	9200.77	240.59	-239.89	75.63	9.66	633813.61	762254.33	N	32 44 22.37	W 103 28 49.56
	9377.00	69.56	188.21	9212.74	269.89	-269.24	71.24	9.79	633784.27	762249.94	N	32 44 22.08	W 103 28 49.62
	9409.00	71.75	187.77	9223.34	299.75	-299.14	67.05	6.97	633754.37	762245.74	N	32 44 21.78	W 103 28 49.67
	9440.00	73.42	186.89	9232.62	329.05	-328.47	63.27	6.03	633725.03	762241.97	N	32 44 21.49	W 103 28 49.71

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 ° ' ")
	9469.00	75.53	186.89	9240.38	356.76	-356.21	59.92	7.28	633697.29	762238.62	N	32 44 21.22	W 103 28 49.76
	9500.00	77.47	185.40	9247.62	386.69	-386.18	56.70	7.81	633667.33	762235.40	N	32 44 20.92	W 103 28 49.80
	9532.00	79.76	184.96	9253.93	417.91	-417.42	53.86	7.28	633636.09	762232.56	N	32 44 20.61	W 103 28 49.83
	9564.00	81.51	184.16	9259.14	449.35	-448.89	51.35	6.00	633604.61	762230.05	N	32 44 20.30	W 103 28 49.87
	9595.00	83.01	183.90	9263.32	479.97	-479.53	49.20	4.91	633573.97	762227.90	N	32 44 20.00	W 103 28 49.89
	9658.00	84.42	182.93	9270.21	542.44	-542.04	45.47	2.71	633511.47	762224.17	N	32 44 19.38	W 103 28 49.94
	9753.00	84.59	182.41	9279.31	636.86	-636.50	41.06	0.57	633417.01	762219.76	N	32 44 18.45	W 103 28 50.00
	9848.00	84.15	182.32	9288.63	731.28	-730.96	37.16	0.47	633322.55	762215.86	N	32 44 17.51	W 103 28 50.06
	9943.00	83.89	182.50	9298.53	825.64	-825.36	33.19	0.33	633228.15	762211.89	N	32 44 16.58	W 103 28 50.11
	10038.00	85.21	182.23	9307.55	920.08	-919.85	29.29	1.42	633133.66	762207.99	N	32 44 15.64	W 103 28 50.17
	10133.00	85.12	181.70	9315.56	1014.65	-1014.45	26.04	0.56	633039.06	762204.74	N	32 44 14.71	W 103 28 50.21
	10228.00	82.04	180.65	9326.18	1109.00	-1108.83	24.10	3.42	632944.69	762202.80	N	32 44 13.77	W 103 28 50.25
	10322.00	81.78	179.68	9339.41	1202.06	-1201.89	23.83	1.06	632851.63	762202.53	N	32 44 12.85	W 103 28 50.26
	10417.00	82.13	180.39	9352.70	1296.12	-1295.95	23.78	0.83	632757.56	762202.48	N	32 44 11.92	W 103 28 50.27
	10512.00	80.55	179.16	9367.01	1390.03	-1389.86	24.14	2.10	632663.65	762202.84	N	32 44 10.99	W 103 28 50.27
	10607.00	78.96	178.89	9383.90	1483.51	-1483.33	25.73	1.70	632570.19	762204.43	N	32 44 10.07	W 103 28 50.26
	10702.00	78.96	178.63	9402.09	1576.74	-1576.55	27.75	0.27	632476.97	762206.45	N	32 44 9.15	W 103 28 50.25
	10796.00	80.72	178.89	9418.68	1669.26	-1669.05	29.75	1.89	632384.47	762208.45	N	32 44 8.23	W 103 28 50.23
	10891.00	80.64	179.16	9434.06	1763.00	-1762.79	31.35	0.29	632290.74	762210.05	N	32 44 7.30	W 103 28 50.22
	10986.00	82.13	179.68	9448.29	1856.93	-1856.71	32.30	1.66	632196.82	762211.00	N	32 44 6.37	W 103 28 50.22
	11081.00	81.95	179.68	9461.45	1951.01	-1950.79	32.82	0.19	632102.74	762211.52	N	32 44 5.44	W 103 28 50.22
	11176.00	81.43	179.42	9475.18	2045.01	-2044.79	33.56	0.61	632008.74	762212.26	N	32 44 4.51	W 103 28 50.22
	11271.00	81.25	179.24	9489.48	2138.93	-2138.70	34.66	0.27	631914.83	762213.36	N	32 44 3.58	W 103 28 50.22
	11366.00	82.22	179.16	9503.14	2232.94	-2232.70	35.97	1.02	631820.83	762214.67	N	32 44 2.65	W 103 28 50.21
	11461.00	82.22	178.63	9516.00	2327.06	-2326.81	37.79	0.55	631726.72	762216.49	N	32 44 1.72	W 103 28 50.20
	11555.00	82.39	178.80	9528.58	2420.21	-2419.94	39.88	0.25	631633.59	762218.58	N	32 44 0.80	W 103 28 50.19
	11651.00	82.57	178.80	9541.15	2515.38	-2515.09	41.87	0.19	631538.44	762220.57	N	32 43 59.86	W 103 28 50.17
	11746.00	83.67	178.19	9552.53	2609.68	-2609.38	44.35	1.32	631444.16	762223.05	N	32 43 58.92	W 103 28 50.15
	11841.00	83.80	177.93	9562.89	2704.08	-2703.75	47.54	0.30	631349.78	762226.24	N	32 43 57.99	W 103 28 50.12
	11936.00	82.31	179.24	9574.38	2798.37	-2798.02	49.87	2.08	631255.52	762228.57	N	32 43 57.06	W 103 28 50.10
	12031.00	83.01	179.86	9586.52	2892.59	-2892.24	50.61	0.98	631161.30	762229.31	N	32 43 56.13	W 103 28 50.10
	12126.00	83.71	179.68	9597.50	2986.95	-2986.60	50.99	0.76	631066.94	762229.69	N	32 43 55.19	W 103 28 50.11
	12221.00	82.31	180.04	9609.06	3081.24	-3080.89	51.22	1.52	630972.65	762229.92	N	32 43 54.26	W 103 28 50.11
	12316.00	82.39	179.68	9621.71	3175.39	-3175.05	51.45	0.38	630878.50	762230.15	N	32 43 53.33	W 103 28 50.12

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 ° ' ")
	12410.00	82.13	179.33	9634.37	3268.53	-3268.19	52.26	0.46	630785.36	762230.96	N 32 43 52.41	W 103 28 50.12
	12505.00	82.39	179.27	9647.17	3362.67	-3362.31	53.41	0.28	630691.23	762232.11	N 32 43 51.47	W 103 28 50.12
	12600.00	82.75	178.40	9659.45	3456.86	-3456.50	55.32	0.98	630597.05	762234.02	N 32 43 50.54	W 103 28 50.10
	12695.00	81.60	179.51	9672.38	3550.97	-3550.59	57.04	1.67	630502.96	762235.74	N 32 43 49.61	W 103 28 50.09
	12790.00	82.31	178.88	9685.68	3645.03	-3644.65	58.36	0.99	630408.90	762237.06	N 32 43 48.68	W 103 28 50.08
	12885.00	82.04	177.71	9698.61	3739.13	-3738.72	61.16	1.25	630314.83	762239.86	N 32 43 47.75	W 103 28 50.06
	12980.00	82.83	177.35	9711.12	3833.25	-3832.80	65.22	0.91	630220.75	762243.92	N 32 43 46.82	W 103 28 50.02
	13075.00	83.45	178.71	9722.47	3927.53	-3927.07	68.46	1.56	630126.49	762247.16	N 32 43 45.89	W 103 28 49.99
	13170.00	83.19	180.60	9733.52	4021.88	-4021.41	69.03	1.99	630032.14	762247.73	N 32 43 44.95	W 103 28 49.99
	13265.00	85.12	180.97	9743.19	4116.36	-4115.91	67.74	2.07	629937.65	762246.44	N 32 43 44.02	W 103 28 50.02
	13360.00	86.44	180.22	9750.19	4211.08	-4210.64	66.75	1.60	629842.92	762245.45	N 32 43 43.08	W 103 28 50.04
	13455.00	86.97	179.64	9755.65	4305.92	-4305.48	66.87	0.83	629748.08	762245.57	N 32 43 42.14	W 103 28 50.05
	13551.00	85.38	178.89	9762.05	4401.70	-4401.26	68.10	1.83	629652.30	762246.80	N 32 43 41.19	W 103 28 50.04
	13646.00	84.50	177.93	9770.43	4496.31	-4495.85	70.72	1.37	629557.71	762249.42	N 32 43 40.26	W 103 28 50.02
	13741.00	84.86	177.57	9779.24	4590.86	-4590.37	74.44	0.53	629463.20	762253.13	N 32 43 39.32	W 103 28 49.99
	13837.00	84.24	176.87	9788.35	4686.35	-4685.82	79.07	0.97	629367.75	762257.77	N 32 43 38.38	W 103 28 49.94
Final Survey	13932.00	85.03	176.87	9797.24	4780.84	-4780.26	84.24	0.83	629273.31	762262.93	N 32 43 37.44	W 103 28 49.89
Projection to Bit	14042.00	85.03	176.87	9806.77	4890.32	-4889.68	90.22	0.00	629163.88	762268.92	N 32 43 36.36	W 103 28 49.83

Survey Type: Non-Def Survey

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

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	18.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT- Depth Only	Original Borehole / COG Condor State 2H Gyro+MWD from 0ft to 14042ft
	18.000	8593.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / COG Condor State 2H Gyro+MWD
	8593.000	13932.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / COG Condor State 2H Gyro+MWD

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 ° ' ")
	13932.000		14042.000			Act Stns	30.000	30.000	SLB_BLIND+TREND			Original Borehole / COG Condor State 2H Gyro+MWD	