

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

OCT 10 2012

FORM APPROVED
OMB NO 1004-0135
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

NMOCD ARTESIA

5 Lease Serial No
NMNM114978

6 If Indian, Allottee or Tribe Name

7 If Unit or CA/Agreement, Name and/or No.

8 Well Name and No
FORTY NINER RIDGE 23 FEDERAL 1H9 API Well No
30-015-40615-00-X110 Field and Pool, or Exploratory
WILDCAT11 County or Parish, and State
EDDY COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1 Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2 Name of Operator

CIMAREX ENERGY COMPANY OF CO

Contact TERRI STATHEM

E-Mail tstatthem@cimarex.com

3a Address

600 NORTH MARIENFELD STREET SUITE 600
MIDLAND, TX 79701

3b Phone No. (include area code)

Ph: 432-620-1936

4 Location of Well (Footage, Sec, T, R, M, or Survey Description)

Sec 23 T23S R30E SESE 330FSL 600FEL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Cimarex respectfully requests approval to open hole sidetrack the Forty Niner Ridge 23 Federal #1. While drilling the lateral Cimarex encountered high dog leg in the lateral causing high torque to the limit of rig. In order to continue drilling ahead a sidetrack was necessary.

Open hole sidetrack at the end of the curve @ 10,230' and drill lateral to Bone Sping.

NEW BHL. 330' FNL 440' FEL, Sec. 23, 23S, 30E, Eddy Co., NM

C102 & directional plan attached.

Accepted for record
NMOCD
TES 10/10/2012

Original COA Still Applies



14 I hereby certify that the foregoing is true and correct

Electronic Submission #153863 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY OF CO, sent to the Carlsbad
Committed to AFMSS for processing by WESLEY INGRAM on 10/08/2012 (13WWWI0167SE)

Name (Printed/Typed) TERRI STATHEM

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 10/08/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By EDWARD FERNANDEZ

Title PETROLEUM ENGINEER

Date 10/08/2012

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional data for EC transaction #153863 that would not fit on the form

32. Additional remarks, continued

Verbal approval of sidetrack by BLM, Ed Fernandez 20.32 10/7/12.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 593-5161 Fax: (505) 593-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 740-1283 Fax: (505) 740-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 534-0170 Fax: (505) 534-0170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-5160 Fax: (505) 476-5162

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30015-40615	Pool Code 24720	Pool Name Forty Niner Ridge; B.S.
Property Code 39406	Property Name FORTY NINER RIDGE 23 FEDERAL	Well Number 1H
OGRID No. 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3287'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	23	23 S	30 E		330	SOUTH	600	EAST	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
A	23	23 S	30 E		330	NORTH	440	EAST	EDDY
Dedicated Acres 160.0	Joint or Infill	Consolidation Code	Order No.						

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

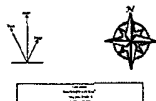
PROPOSED BOTTOM HOLE LOCATION Lat - N 32°17'48.65" Long - W 103°50'39.81" NMSPC - N 472070.09 E 692414.09 (NAD-83)	B.H. 330 440	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased 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, if a platform entered by the division. Signature <u>Terri Stathem</u> Date <u>10/8/12</u> Printed Name <u>tstathem@cimarex.com</u> Email Address _____
SURFACE LOCATION Lat - N 32°17'02.90" Long - W 103°50'41.58" NMSPC - N 467446.6 E 692283.4 (NAD-83)	3283.1' 3292.1' 3299.7' 3296.5' S.L. 330' 600'	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. Date Surveyed <u>10/8/12</u> Signature & Seal of Professional Surveyor <u>GARY L. JONES</u> Certificate No. <u>7977</u> BASIN SURVEYS 26644

PATHFINDER
A Schlumberger Company

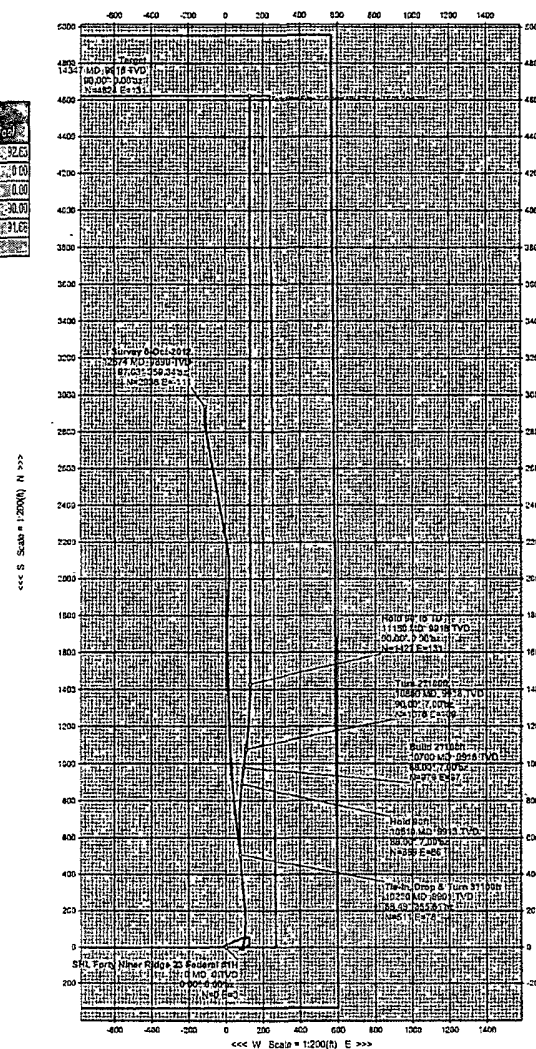
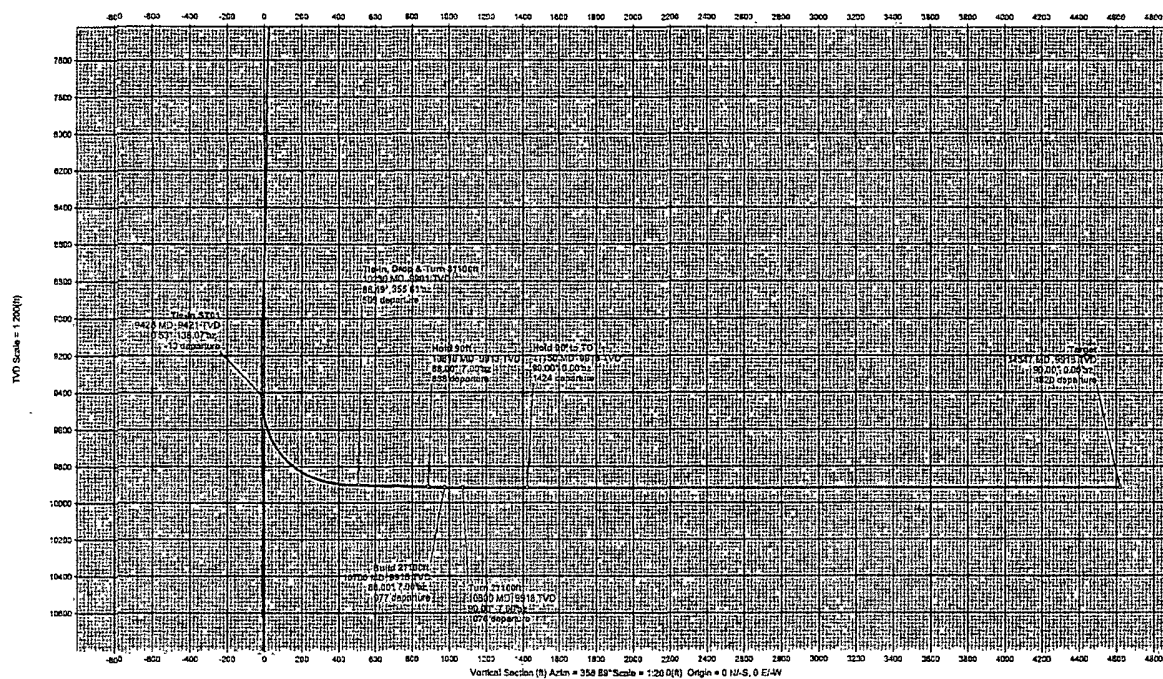
WELL		#2613		STRACTION	
Cimarex Forty Niner Ridge 23 Federal #1H		NM Eddy County (NAD 83)		Cimarex Forty Niner Ridge 23 Federal #1H	
Licenses Permitted: Name# BOGGS 2012 Exp. 06/23/22 Age 7.63" Date 4/26/22		Surface Location: Loc. 10 72 12 2.94 UTM 10 72 12 2.94 UTM 10 72 12 2.94 UTM 10 72 12 2.94		NAD83 New Mexico State Plane, datum Zone 10 East UTM 10 72 12 2.94 UTM 10 72 12 2.94 UTM 10 72 12 2.94	
Name# BOGGS 2012 Exp. 06/23/22 Age 7.63" Date 4/26/22		Surface Location: Loc. 10 72 12 2.94 UTM 10 72 12 2.94 UTM 10 72 12 2.94 UTM 10 72 12 2.94		NAD83 New Mexico State Plane, datum Zone 10 East UTM 10 72 12 2.94 UTM 10 72 12 2.94 UTM 10 72 12 2.94	

La gonda

1. **Identify the type of mutation and the gene affected.**
 2. **Identify the type of mutation and the gene affected.**
 3. **Identify the type of mutation and the gene affected.**
 4. **Identify the type of mutation and the gene affected.**
 5. **Identify the type of mutation and the gene affected.**
 6. **Identify the type of mutation and the gene affected.**



Critical Points															
Comments	Survey	Insulation (in)	Altitude (ft)	TVV (in)	Sub-Sea	V ₅₀	NS (in)	E (in)	Latitude (deg)	Longitude (deg)	Easting (NAD83)	Northing (NAD83)	Closure (in)	Red	
Tie-2, Deep & Ties 3110104		12220.04	88.49	555.51	5901.00	4594.00	504.92	516.52	77.51	N 32° 11' 7.52" W	10 32 11 42.64	602380.59	42767.40	516.37	0.85
Hold 502		10659.24	83.99	71.00	4912.67	4505.67	637.02	885.48	55.14	N 32° 11' 11.70" W	10 30 49.52	602363.51	42619.94	630.65	1.00
Sub-2 Ties 11009		11338.54	86.30	71.50	4915.01	4630.81	976.63	978.75	57.10	N 32° 11' 12.54" W	10 30 49.34	602380.49	42625.27	1833.54	5.67
Ties 2110108		11795.54	90.00	7.00	4917.56	4551.56	1054.64	1074.53	59.10	N 32° 13' 15.56" W	10 30 48.21	602362.67	426574.51	1633.43	5.79
Hold 50' in 211		11159.64	97.00	2.00	4917.56	4561.56	1247.10	1247.10	60.54	N 32° 14' 07.01" W	10 30 48.50	602414.65	426770.00	1433.06	5.72
Sub-2 Ties 11009		11454.54	90.00	71.00	4917.56	4561.56	1400.26	1400.26	60.54	N 32° 14' 08.51" W	10 30 48.39	602414.65	426770.00	1433.06	5.72



Drawn By: Currend User
Date Created: October 07, 2012 08:23:57 PM
Checked By:
Checked Date:
Approved By:
Approved Date:



Cimarex Forty Niner Ridge 23 Federal #1H ST02 Rev1 GDS 7-Oct-2012
Proposal Geodetic Report
(Def Plan)



Report Date:	October 07, 2012 - 09:17 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	358 887 ° (Gnd North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Forty Niner Ridge 23 Federal #1H / Cimarex Forty Niner Ridge 23 Federal #1H	TVD Reference Datum:	RKB
Well:	Cimarex Forty Niner Ridge 23 Federal #1H	TVD Reference Elevation:	3307.000 ft above
Borehole:	ST02	Seabed / Ground Elevation:	3287.000 ft above
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.658 °
Survey Name:	Cimarex Forty Niner Ridge 23 Federal #1H ST02 Rev1 GDS 7-Oct-2012	Total Gravity Field Strength:	999.1804 mgn (9.8 base)
Survey Date:	October 06, 2012	Total Magnetic Field Strength:	48479.498 nT
Tort / AHD / DDI / ERD Ratio:	157.850 ° / 4901.804 ft / 6.049 / 0.494	Magnetic Dip Angle:	60.123 °
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Declination Date:	October 06, 2012
Location Lat / Long:	N 32° 17' 2.90425", W 103° 50' 41.57717"	Magnetic Declination Model:	BGGM 2012
Location Grid N/E Y/X:	N 467446 600 ftUS, E 692283.400 ftUS	North Reference:	Gnd North
CRS Grid Convergence Angle:	0.2609 °	Grid Convergence Used:	0.2609 °
Grid Scale Factor:	0.99993519	Total Corr Mag North->Grid North:	7.3969 °
		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 (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL Forty Niner Ridge 23 Federal #1H	0.00	0.00	0.00	0.00	-3307.00	0.00	0.00	0.00	N/A	467446.60	692283.40	N 32 17 2.90	W 103 50 41.58
Marker MudLine	20.00	0.04	46.33	20.00	-3287.00	0.01	0.01	0.01	0.22	467446.61	692283.41	N 32 17 2.90	W 103 50 41.58
	99.40	0.22	46.33	99.40	-3207.60	0.13	0.13	0.14	0.22	467446.73	692283.54	N 32 17 2.91	W 103 50 41.58
	162.90	0.32	337.18	162.90	-3144.10	0.38	0.38	0.16	0.50	467446.98	692283.56	N 32 17 2.91	W 103 50 41.58
	226.30	1.19	278.42	226.29	-3080.71	0.65	0.64	-0.56	1.67	467447.24	692282.84	N 32 17 2.91	W 103 50 41.58
	353.30	1.15	273.15	353.27	-2953.73	0.96	0.90	-3.14	0.09	467447.50	692280.26	N 32 17 2.91	W 103 50 41.61
	416.70	1.12	271.92	416.65	-2890.35	1.04	0.96	-4.39	0.06	467447.56	692279.01	N 32 17 2.91	W 103 50 41.63
	480.20	0.99	273.71	480.14	-2826.86	1.12	1.01	-5.56	0.21	467447.61	692277.84	N 32 17 2.91	W 103 50 41.64
	543.60	0.99	274.16	543.53	-2763.47	1.22	1.09	-6.65	0.01	467447.69	692276.75	N 32 17 2.92	W 103 50 41.65
	607.10	0.96	271.66	607.03	-2699.97	1.29	1.14	-7.73	0.08	467447.74	692275.67	N 32 17 2.92	W 103 50 41.67
	670.60	0.93	268.57	670.52	-2636.48	1.32	1.15	-8.78	0.09	467447.75	692274.62	N 32 17 2.92	W 103 50 41.68
	734.00	0.95	269.57	733.91	-2573.09	1.32	1.13	-9.82	0.04	467447.73	692273.58	N 32 17 2.92	W 103 50 41.69
	797.50	0.93	270.35	797.40	-2509.60	1.34	1.13	-10.86	0.04	467447.73	692272.54	N 32 17 2.92	W 103 50 41.70
	861.00	0.88	268.87	860.89	-2446.11	1.34	1.11	-11.86	0.12	467447.71	692271.54	N 32 17 2.92	W 103 50 41.72
	987.90	0.76	260.20	987.78	-2319.22	1.17	0.91	-13.67	0.12	467447.51	692269.73	N 32 17 2.91	W 103 50 41.74
	1051.30	0.60	252.17	1051.17	-2255.83	1.02	0.74	-14.40	0.29	467447.34	692269.00	N 32 17 2.91	W 103 50 41.74
	1114.80	0.40	255.72	1114.67	-2192.33	0.87	0.58	-14.93	0.32	467447.18	692268.47	N 32 17 2.91	W 103 50 41.75
	1178.30	0.28	258.68	1178.17	-2128.83	0.79	0.49	-15.30	0.19	467447.09	692268.11	N 32 17 2.91	W 103 50 41.76
	1241.70	0.13	284.23	1241.57	-2065.43	0.78	0.48	-15.52	0.27	467447.08	692267.88	N 32 17 2.91	W 103 50 41.76
	1305.20	0.06	94.08	1305.07	-2001.93	0.80	0.50	-15.55	0.30	467447.10	692267.85	N 32 17 2.91	W 103 50 41.76
	1368.60	0.11	53.46	1368.47	-1938.53	0.83	0.53	-15.47	0.12	467447.13	692267.93	N 32 17 2.91	W 103 50 41.76
	1432.10	0.17	70.11	1431.97	-1875.03	0.90	0.60	-15.33	0.11	467447.20	692268.07	N 32 17 2.91	W 103 50 41.76
	1495.60	0.20	76.35	1495.47	-1811.53	0.95	0.66	-15.14	0.06	467447.26	692268.26	N 32 17 2.91	W 103 50 41.75
	1559.00	0.23	66.55	1558.87	-1748.13	1.02	0.73	-14.91	0.07	467447.33	692268.49	N 32 17 2.91	W 103 50 41.75
	1622.50	0.29	47.73	1622.37	-1684.63	1.18	0.89	-14.68	0.16	467447.49	692268.72	N 32 17 2.91	W 103 50 41.75
	1685.90	0.33	40.74	1685.77	-1621.23	1.42	1.14	-14.44	0.09	467447.74	692268.96	N 32 17 2.92	W 103 50 41.75
	1749.40	0.37	34.55	1749.27	-1557.73	1.72	1.45	-14.20	0.09	467448.05	692269.20	N 32 17 2.92	W 103 50 41.74
	1812.80	0.37	32.91	1812.67	-1494.33	2.06	1.79	-13.98	0.02	467448.39	692269.42	N 32 17 2.92	W 103 50 41.74
	1876.30	0.42	28.19	1876.16	-1430.84	2.43	2.16	-13.76	0.09	467448.76	692269.65	N 32 17 2.93	W 103 50 41.74
	1939.80	0.46	37.24	1939.66	-1367.34	2.83	2.57	-13.49	0.13	467449.17	692269.91	N 32 17 2.93	W 103 50 41.73

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 ° ' ")
	2003.20	0.56	33.84	2003.06	-1303.94	3.29	3.03	-13.16	0.16	467449.63	692270.24	N 32 17 2.93	W 103 50 41.73
	2066.70	0.72	34.96	2066.56	-1240.44	3.86	3.62	-12.76	0.25	467450.22	692270.64	N 32 17 2.94	W 103 50 41.73
	2130.20	0.76	40.75	2130.05	-1176.95	4.50	4.26	-12.26	0.13	467450.86	692271.14	N 32 17 2.95	W 103 50 41.72
	2193.60	0.85	38.94	2193.44	-1113.56	5.17	4.95	-11.69	0.15	467451.55	692271.71	N 32 17 2.95	W 103 50 41.71
	2257.10	1.33	30.67	2256.93	-1050.07	6.16	5.95	-11.02	0.79	467452.55	692272.38	N 32 17 2.96	W 103 50 41.71
	2320.50	1.59	42.43	2320.31	-986.69	7.42	7.23	-10.05	0.62	467453.83	692273.35	N 32 17 2.98	W 103 50 41.69
	2384.00	2.00	44.93	2383.78	-923.22	8.83	8.66	-8.67	0.66	467455.26	692274.78	N 32 17 2.99	W 103 50 41.68
	2447.40	1.99	57.32	2447.14	-859.86	10.18	10.04	-6.96	0.68	467456.84	692278.44	N 32 17 3.00	W 103 50 41.66
	2510.90	3.50	59.43	2510.57	-796.43	11.71	11.62	-4.37	2.38	467458.22	692279.03	N 32 17 3.02	W 103 50 41.63
	2574.40	3.74	61.44	2573.94	-733.06	13.61	13.60	-0.88	0.43	467460.20	692282.52	N 32 17 3.04	W 103 50 41.59
	2637.80	4.57	64.17	2637.17	-669.83	15.62	15.69	3.21	1.35	467462.29	692286.61	N 32 17 3.05	W 103 50 41.54
	2701.30	5.39	66.69	2700.43	-606.57	17.81	17.97	8.23	1.34	467464.57	692291.63	N 32 17 3.08	W 103 50 41.48
	2764.80	5.62	68.43	2763.64	-543.36	20.02	20.29	13.86	0.45	467466.89	692297.26	N 32 17 3.10	W 103 50 41.41
	2828.20	6.31	65.43	2826.70	-480.30	22.49	22.88	19.91	1.19	467469.48	692303.31	N 32 17 3.13	W 103 50 41.34
	2891.70	6.67	67.23	2889.79	-417.21	25.24	25.76	26.49	0.65	467472.36	692309.89	N 32 17 3.16	W 103 50 41.27
	2955.10	6.78	67.64	2952.75	-354.25	27.96	28.61	33.34	0.19	467475.21	692316.74	N 32 17 3.19	W 103 50 41.19
	3018.60	6.61	68.22	3015.82	-291.18	30.61	31.39	40.20	0.29	467477.99	692323.60	N 32 17 3.21	W 103 50 41.11
	3082.10	6.58	70.25	3078.90	-228.10	33.06	33.98	47.02	0.37	467480.58	692330.42	N 32 17 3.24	W 103 50 41.03
	3145.50	6.52	67.76	3141.89	-165.11	35.52	35.57	53.77	0.46	467483.17	692337.17	N 32 17 3.26	W 103 50 40.95
	3209.00	5.91	69.14	3205.01	-101.99	37.92	39.10	60.16	0.99	467485.69	692343.56	N 32 17 3.29	W 103 50 40.87
	3335.90	5.72	65.62	3331.26	24.26	42.63	44.03	72.03	0.32	467490.63	692355.42	N 32 17 3.34	W 103 50 40.74
	3399.30	4.97	64.80	3394.38	87.38	45.00	46.51	77.39	1.19	467493.10	692360.79	N 32 17 3.36	W 103 50 40.67
	3462.80	4.46	69.88	3457.67	150.67	46.82	48.53	82.20	1.04	467495.12	692365.59	N 32 17 3.38	W 103 50 40.62
	3526.30	4.51	70.74	3520.98	213.98	48.50	50.20	85.87	0.13	467496.80	692370.27	N 32 17 3.40	W 103 50 40.56
	3589.70	3.88	68.59	3584.21	277.21	50.02	51.81	91.22	1.02	467498.40	692374.62	N 32 17 3.41	W 103 50 40.51
	3653.20	3.43	77.23	3647.58	340.58	51.15	53.01	95.08	1.12	467499.51	692378.47	N 32 17 3.42	W 103 50 40.47
	3716.70	3.03	85.00	3710.98	403.98	51.65	53.58	98.60	0.93	467500.17	692381.99	N 32 17 3.43	W 103 50 40.43
	3780.10	2.14	85.32	3774.31	467.31	51.84	53.82	101.45	1.40	467500.42	692384.84	N 32 17 3.43	W 103 50 40.39
	3843.60	1.78	83.05	3837.77	530.77	52.01	54.04	103.61	0.58	467500.53	692387.00	N 32 17 3.43	W 103 50 40.37
	3907.00	1.60	83.37	3901.15	594.15	52.20	54.26	105.47	0.28	467500.85	692388.86	N 32 17 3.44	W 103 50 40.35
	3970.50	1.48	96.93	3964.62	657.62	52.17	54.26	107.16	0.60	467500.86	692390.56	N 32 17 3.44	W 103 50 40.33
	4033.90	1.35	86.34	4028.00	721.00	52.09	54.21	108.72	0.46	467500.81	692392.11	N 32 17 3.44	W 103 50 40.31
	4097.40	1.31	88.51	4091.49	784.49	52.12	54.28	110.19	0.10	467500.97	692393.59	N 32 17 3.44	W 103 50 40.29
	4160.90	1.38	93.58	4154.97	847.97	52.07	54.25	111.68	0.22	467500.84	692395.07	N 32 17 3.44	W 103 50 40.27
	4224.30	1.26	90.90	4218.35	911.35	51.98	54.19	113.14	0.21	467500.78	692396.53	N 32 17 3.44	W 103 50 40.26
	4287.80	1.17	86.24	4281.84	974.84	51.99	54.22	114.49	0.21	467500.82	692397.88	N 32 17 3.44	W 103 50 40.24
	4351.30	1.12	79.19	4345.33	1038.33	52.12	54.38	115.74	0.24	467500.97	692399.13	N 32 17 3.44	W 103 50 40.23
	4414.70	1.04	114.38	4408.71	1101.71	51.98	54.26	116.87	1.04	467500.85	692400.27	N 32 17 3.44	W 103 50 40.21
	4478.20	1.07	81.10	4472.20	1165.20	51.81	54.11	117.99	0.95	467500.71	692401.38	N 32 17 3.43	W 103 50 40.20
	4541.60	1.08	87.58	4535.59	1228.59	51.90	54.23	119.17	0.19	467500.82	692402.56	N 32 17 3.44	W 103 50 40.19
	4605.10	1.03	89.91	4599.08	1292.08	51.91	54.25	120.34	0.10	467500.85	692403.73	N 32 17 3.44	W 103 50 40.17
	4668.60	0.92	90.05	4662.57	1355.57	51.89	54.25	121.42	0.17	467500.85	692404.81	N 32 17 3.44	W 103 50 40.16
	4732.00	0.74	60.08	4725.97	1418.97	52.07	54.46	122.28	0.73	467501.05	692405.67	N 32 17 3.44	W 103 50 40.15
	4795.50	0.66	93.05	4789.46	1482.46	52.24	54.64	123.00	0.64	467501.24	692406.39	N 32 17 3.44	W 103 50 40.14
	4858.90	0.50	99.20	4852.86	1545.86	52.17	54.58	123.64	0.27	467501.18	692407.03	N 32 17 3.44	W 103 50 40.13
	4985.90	0.58	101.58	4979.85	1672.85	51.93	54.36	124.82	0.07	467500.96	692408.21	N 32 17 3.44	W 103 50 40.12
	5049.30	0.50	71.73	5043.25	1736.25	51.94	54.38	125.39	0.46	467500.98	692408.78	N 32 17 3.44	W 103 50 40.11
	5112.80	0.42	67.09	5106.75	1799.75	52.11	54.56	125.87	0.14	467501.16	692409.26	N 32 17 3.44	W 103 50 40.11
	5176.20	0.34	70.01	5170.15	1863.15	52.25	54.72	126.25	0.13	467501.31	692409.65	N 32 17 3.44	W 103 50 40.10
	5239.70	0.28	70.31	5233.65	1926.65	52.36	54.83	126.58	0.09	467501.43	692409.98	N 32 17 3.44	W 103 50 40.10
	5303.10	0.18	62.10	5297.05	1990.05	52.46	54.93	126.82	0.17	467501.53	692410.21	N 32 17 3.44	W 103 50 40.10
	5366.50	0.17	67.80	5360.55	2053.55	52.54	55.01	126.99	0.03	467501.61	692410.38	N 32 17 3.44	W 103 50 40.10
	5430.10	0.14	75.71	5424.05	2117.05	52.59	55.07	127.16	0.06	467501.67	692410.55	N 32 17 3.44	W 103 50 40.09
	5493.50	0.11	89.45	5487.45	2180.45	52.61	55.09	127.29	0.07	467501.69	692410.68	N 32 17 3.44	W 103 50 40.09
	5557.00	0.08	94.52	5550.95	2243.95	52.60	55.09	127.40	0.05	467501.68	692410.79	N 32 17 3.44	W 103 50 40.09
	5620.40	0.07	117.02	5614.35	2307.35	52.58	55.06	127.47	0.05	467501.66	692410.87	N 32 17 3.44	W 103 50 40.09
	5683.90	0.09	160.65	5677.85	2370.85	52.51	55.00	127.53	0.10	467501.60	692410.92	N 32 17 3.44	W 103 50 40.09

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	5747.40	0.13	165.14	5741.35	2434.35	52.40	54.88	127.56	0.06	467501.48	692410.95	N 32 17 3.44	W 103 50 40.09
	5810.80	0.17	182.89	5804.75	2497.75	52.23	54.72	127.57	0.10	467501.32	692410.97	N 32 17 3.44	W 103 50 40.09
	5874.30	0.29	150.76	5868.24	2561.24	52.00	54.48	127.65	0.27	467501.08	692411.04	N 32 17 3.44	W 103 50 40.09
	5937.80	0.45	162.98	5931.74	2624.74	51.61	54.11	127.80	0.28	467500.70	692411.19	N 32 17 3.43	W 103 50 40.09
	6001.20	0.53	173.25	5995.14	2688.14	51.08	53.58	127.91	0.19	467500.17	692411.30	N 32 17 3.43	W 103 50 40.08
	6064.70	0.61	188.18	6058.64	2751.64	50.46	52.95	127.89	0.26	467499.55	692411.29	N 32 17 3.42	W 103 50 40.08
	6128.10	0.78	183.57	6122.03	2815.03	49.69	52.19	127.82	0.28	467498.78	692411.21	N 32 17 3.41	W 103 50 40.09
	6191.60	0.76	182.14	6185.53	2878.53	48.84	51.33	127.78	0.04	467497.93	692411.17	N 32 17 3.41	W 103 50 40.09
	6255.10	0.73	186.79	6249.02	2942.02	48.02	50.51	127.71	0.11	467497.11	692411.10	N 32 17 3.40	W 103 50 40.09
	6318.50	0.92	185.68	6312.42	3005.42	47.12	49.60	127.61	0.30	467496.20	692411.01	N 32 17 3.39	W 103 50 40.09
	6382.00	0.96	203.70	6375.91	3068.91	46.13	48.61	127.35	0.47	467495.21	692410.74	N 32 17 3.38	W 103 50 40.09
	6445.40	0.95	189.10	6439.30	3132.30	45.13	47.60	127.05	0.38	467494.20	692410.45	N 32 17 3.37	W 103 50 40.09
	6508.90	0.99	178.44	6502.79	3195.79	44.06	46.54	126.99	0.29	467493.13	692410.38	N 32 17 3.36	W 103 50 40.10
	6572.40	0.91	179.61	6566.28	3259.28	43.01	45.48	127.00	0.13	467492.08	692410.40	N 32 17 3.35	W 103 50 40.10
	6635.80	0.91	169.54	6629.67	3322.67	42.01	44.49	127.10	0.25	467491.08	692410.49	N 32 17 3.34	W 103 50 40.09
	6699.30	0.96	188.93	6693.16	3386.16	40.98	43.46	127.13	0.45	467490.06	692410.52	N 32 17 3.33	W 103 50 40.09
	6762.70	1.08	189.32	6756.55	3449.55	39.87	42.34	126.96	0.20	467488.94	692410.36	N 32 17 3.32	W 103 50 40.10
	6826.20	1.05	192.41	6820.04	3513.04	38.72	41.19	126.74	0.10	467487.78	692410.13	N 32 17 3.31	W 103 50 40.10
	6889.60	1.04	191.38	6883.43	3576.43	37.59	40.05	126.50	0.03	467486.65	692409.90	N 32 17 3.29	W 103 50 40.10
	6953.10	1.11	187.25	6946.92	3639.92	36.42	38.88	126.31	0.16	467485.48	692409.70	N 32 17 3.28	W 103 50 40.10
	7016.60	1.21	190.66	7010.41	3703.41	35.15	37.61	126.11	0.19	467484.21	692409.50	N 32 17 3.27	W 103 50 40.11
	7080.00	1.20	180.57	7073.79	3766.79	33.83	36.29	125.98	0.33	467482.89	692409.37	N 32 17 3.26	W 103 50 40.11
	7143.50	1.38	171.92	7137.28	3830.28	32.41	34.87	126.08	0.42	467481.46	692409.47	N 32 17 3.24	W 103 50 40.11
	7206.90	1.42	168.68	7200.66	3893.66	30.88	33.34	126.34	0.14	467479.94	692409.74	N 32 17 3.23	W 103 50 40.10
	7270.40	1.51	165.17	7264.14	3957.14	29.29	31.76	126.70	0.17	467478.35	692410.09	N 32 17 3.21	W 103 50 40.10
	7333.90	1.48	168.30	7327.62	4020.62	27.67	30.14	127.06	0.10	467476.74	692410.46	N 32 17 3.20	W 103 50 40.10
	7397.30	1.55	168.89	7391.00	4084.00	26.02	28.50	127.40	0.11	467475.10	692410.79	N 32 17 3.18	W 103 50 40.09
	7460.80	1.76	172.43	7454.47	4147.47	24.20	26.69	127.69	0.37	467473.29	692411.08	N 32 17 3.16	W 103 50 40.09
	7524.30	1.82	174.08	7517.94	4210.94	22.23	24.72	127.92	0.12	467471.32	692411.31	N 32 17 3.14	W 103 50 40.09
	7587.70	1.98	175.81	7581.30	4274.30	20.13	22.63	128.11	0.27	467469.22	692411.50	N 32 17 3.12	W 103 50 40.08
	7651.20	1.98	177.11	7644.76	4337.76	17.94	20.44	128.24	0.07	467467.03	692411.63	N 32 17 3.10	W 103 50 40.08
	7714.60	1.83	183.73	7708.13	4401.13	15.84	18.33	128.23	0.42	467464.93	692411.62	N 32 17 3.08	W 103 50 40.08
	7778.10	1.72	189.49	7771.60	4464.60	13.89	16.38	128.01	0.33	467462.98	692411.40	N 32 17 3.06	W 103 50 40.09
	7841.60	1.48	1309.18	7835.09	4528.09	13.48	15.96	127.21	4.36	467462.56	692410.61	N 32 17 3.06	W 103 50 40.09
	7905.00	1.38	187.79	7898.48	4591.48	13.26	15.72	126.48	3.93	467462.32	692409.87	N 32 17 3.05	W 103 50 40.10
	7968.50	0.80	214.57	7961.97	4654.97	12.14	14.60	126.12	1.19	467461.20	692409.51	N 32 17 3.04	W 103 50 40.11
	8031.90	1.29	235.25	8025.36	4718.36	11.39	13.83	125.28	0.96	467460.42	692408.68	N 32 17 3.04	W 103 50 40.12
	8095.40	2.46	243.95	8088.82	4781.82	10.42	12.82	123.47	1.89	467459.42	692408.86	N 32 17 3.03	W 103 50 40.14
	8158.90	2.53	241.24	8152.26	4845.26	9.19	11.55	121.02	0.22	467458.15	692404.41	N 32 17 3.01	W 103 50 40.17
	8222.30	2.08	255.56	8215.61	4908.61	8.28	10.59	118.68	1.15	467457.19	692402.07	N 32 17 3.00	W 103 50 40.19
	8285.80	1.95	264.55	8279.07	4972.07	7.93	10.20	116.49	0.54	467456.80	692399.88	N 32 17 3.00	W 103 50 40.22
	8349.20	1.64	251.82	8342.44	5035.44	7.58	9.81	114.55	0.79	467456.41	692397.94	N 32 17 3.00	W 103 50 40.24
	8412.70	1.91	241.71	8405.91	5098.91	6.83	9.03	112.76	0.65	467455.63	692396.15	N 32 17 2.99	W 103 50 40.26
	8476.10	2.14	222.05	8469.27	5162.27	5.49	7.65	111.03	1.15	467454.25	692394.43	N 32 17 2.97	W 103 50 40.28
	8539.60	2.02	220.05	8532.73	5225.73	3.78	5.91	109.52	0.22	467452.51	692392.91	N 32 17 2.96	W 103 50 40.30
	8603.10	2.15	226.39	8596.19	5289.19	2.13	4.23	107.94	0.42	467450.83	692391.33	N 32 17 2.94	W 103 50 40.32
	8666.50	2.60	234.08	8659.53	5352.53	0.51	2.57	105.91	0.87	467449.17	692389.30	N 32 17 2.92	W 103 50 40.34
	8730.00	2.69	235.04	8722.96	5415.96	-1.14	0.87	103.52	0.16	467447.47	692386.92	N 32 17 2.91	W 103 50 40.37
	8793.50	2.31	230.87	8786.40	5479.40	-2.76	-0.79	101.31	0.66	467445.81	692384.70	N 32 17 2.89	W 103 50 40.40
	8856.90	2.56	229.76	8849.75	5542.75	-4.44	-2.51	99.24	0.40	467444.09	692382.63	N 32 17 2.87	W 103 50 40.42
	8920.40	2.57	222.58	8913.18	5606.18	-6.37	-4.48	97.19	0.51	467442.12	692380.58	N 32 17 2.86	W 103 50 40.45
	8983.80	2.53	215.34	8976.52	5669.52	-8.52	-6.67	95.42	0.51	467439.93	692378.81	N 32 17 2.83	W 103 50 40.47
	9047.30	2.33	208.37	9039.96	5732.96	-10.77	-8.95	94.00	0.56	467437.65	692377.39	N 32 17 2.81	W 103 50 40.48
	9110.80	1.58	244.41	9103.43	5796.43	-12.26	-10.46	92.59	2.21	467436.14	692375.99	N 32 17 2.80	W 103 50 40.50
	9174.20	0.98	259.97	9166.81	5859.81	-12.70	-10.93	91.27	1.09	467435.67	692374.66	N 32 17 2.79	W 103 50 40.51
	9237.70	1.24	311.47	9230.30	5923.30	-12.32	-10.57	90.22	1.56	467436.03	692373.61	N 32 17 2.80	W 103 50 40.53
	9301.10	1.06	320.98	9293.69	5986.69	-11.40	-9.66	89.34	0.41	467436.94	692372.73	N 32 17 2.80	W 103 50 40.54

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	9364.60	0 50	353.89	9357.18	6050.18	-10.66	-8.93	88.94	1.10	467437.67	692372.33	N 32 17 2.81	W 103 50 40.54
Tie-In ST01	9428.00	0.53	138.07	9420.58	6113.58	-10.60	-8.87	89.10	1.55	467437.73	692372.50	N 32 17 2.81	W 103 50 40.54
	9456.00	3.82	350.97	9448.56	6141.56	-9.78	-8.05	89.04	15.27	467438.55	692372.44	N 32 17 2.82	W 103 50 40.54
	9469.00	4.80	350.52	9461.53	6154.53	-8.81	-7.08	88.89	7.54	467439.52	692372.28	N 32 17 2.83	W 103 50 40.54
	9501.00	5.96	7 44	9493.36	6186.36	-5.57	-3.84	88.92	8.59	467442.76	692372.31	N 32 17 2.86	W 103 50 40.54
	9532.00	10 75	7 17	9523.98	6216.98	-0.85	0.89	89.52	12.23	467447.49	692372.92	N 32 17 2.91	W 103 50 40.53
	9564.00	13.78	12.72	9555.25	6248.25	5.81	7.57	90.73	10.15	467454.17	692374.13	N 32 17 2.98	W 103 50 40.52
	9596.00	18.00	13.81	9586.02	6279.02	14.29	16.10	92.75	13.22	467462.70	692376.15	N 32 17 3.06	W 103 50 40.50
	9628.00	21.88	13.81	9616.10	6309.10	24.83	26.69	95.36	12.13	467473.29	692378.75	N 32 17 3.16	W 103 50 40.46
	9660.00	26.42	10 50	9645.29	6336.29	37.58	39.49	98.08	-14.80	467486.09	692381.47	N 32 17 3.29	W 103 50 40.43
	9692.00	29.93	7 28	9673.50	6366.50	52.45	54.41	100.39	-11.95	467501.01	692383.78	N 32 17 3.44	W 103 50 40.40
	9724.00	34.29	3.48	9700.60	6393.60	69.35	71.34	101.95	15.01	467517.93	692385.34	N 32 17 3.61	W 103 50 40.39
	9755.00	37.48	3.03	9725.71	6418.71	87.46	89.48	102.98	10.33	467536.07	692386.37	N 32 17 3.78	W 103 50 40.37
	9787.00	41.63	1.46	9750.38	6443.38	107.80	109.84	103.77	13.34	467556.43	692387.16	N 32 17 3.99	W 103 50 40.36
	9819.00	45.66	1.07	9773.53	6466.53	129.86	131.91	104.25	12.62	467578.50	692387.64	N 32 17 4.20	W 103 50 40.36
	9851.00	50.32	359.86	9794.94	6487.94	153.62	155.68	104.43	14.83	467602.27	692387.83	N 32 17 4.44	W 103 50 40.35
	9883.00	54.07	358.02	9814.55	6507.55	178.90	180.95	103.96	12.57	467627.54	692387.35	N 32 17 4.69	W 103 50 40.36
	9914.00	59.13	355.95	9831.61	6524.61	204.75	206.79	102.58	17.25	467653.37	692388.97	N 32 17 4.95	W 103 50 40.37
	9946.00	64.67	354.26	9846.68	6539.68	232.91	234.90	100.16	17.93	467681.48	692388.56	N 32 17 5.22	W 103 50 40.40
	9978.00	69.33	354.72	9859.18	6552.18	262.27	264.21	97.34	14.62	467710.79	692380.73	N 32 17 5.51	W 103 50 40.43
	10009.00	72.51	355.28	9869.31	6562.31	291.50	293.39	94.79	10.40	467739.97	692378.18	N 32 17 5.80	W 103 50 40.46
	10041.00	75.52	355.44	9878.12	6571.12	322.20	324.05	92.30	9.42	467770.63	692375.69	N 32 17 6.11	W 103 50 40.48
	10073.00	77.88	355.61	9885.48	6578.48	353.28	355.09	89.87	7.39	467801.67	692373.26	N 32 17 6.41	W 103 50 40.51
	10105.00	80.43	355.30	9891.50	6584.50	384.65	386.42	87.38	8.03	467833.00	692370.77	N 32 17 6.72	W 103 50 40.54
	10136.00	82.90	355.23	9896.00	6589.00	415.26	416.99	84.85	7.97	467863.56	692368.24	N 32 17 7.03	W 103 50 40.57
	10166.00	86.56	355.42	9898.75	6591.75	445.07	446.76	82.41	12.22	467893.33	692365.81	N 32 17 7.32	W 103 50 40.59
Tie-In, Drop & Turn 3°/100ft	10198.00	88.45	355.69	9900.15	6593.15	476.99	478.63	79.93	5.97	467925.20	692363.33	N 32 17 7.64	W 103 50 40.62
	10230.00	88.49	355.61	9901.00	6594.00	508.92	510.52	77.51	N/A	467957.09	692360.90	N 32 17 7.95	W 103 50 40.65
	10300.00	88.39	357.71	9902.90	6595.90	578.84	580.38	73.43	3.00	468026.94	692356.83	N 32 17 8.64	W 103 50 40.69
	10400.00	88.26	0.71	9905.82	6598.82	678.78	680.31	72.05	3.00	468128.87	692355.44	N 32 17 9.63	W 103 50 40.70
	10500.00	88.13	3.71	9908.97	6601.97	778.56	780.18	75.90	3.00	468226.73	692359.29	N 32 17 10.62	W 103 50 40.65
Hold 90ft Build 2°/100ft	10600.00	88.01	6.70	9912.33	6605.33	877.88	879.70	84.96	3.00	468326.24	692368.36	N 32 17 11.80	W 103 50 40.54
	10609.84	88.00	7.00	9912.67	6605.67	887.62	889.46	86.14	3.00	468336.00	692369.53	N 32 17 11.70	W 103 50 40.53
	10699.84	88.00	7.00	9915.81	6608.81	976.66	978.73	97.10	0.00	468425.27	692380.49	N 32 17 12.58	W 103 50 40.39
Turn 2°/100ft	10700.00	88.00	7.00	9915.82	6608.82	976.82	978.89	97.12	2.00	468425.43	692380.51	N 32 17 12.59	W 103 50 40.39
	10799.84	90.00	7.00	9917.56	6610.56	1075.64	1077.97	109.28	2.00	468524.50	692392.57	N 32 17 13.57	W 103 50 40.25
Hold 90° to TD	10800.00	90.00	7.00	9917.56	6610.56	1075.80	1078.13	109.30	2.00	468524.66	692392.69	N 32 17 13.57	W 103 50 40.25
	10900.00	90.00	5.00	9917.56	6610.56	1175.03	1177.58	119.75	2.00	468624.10	692403.14	N 32 17 14.55	W 103 50 40.12
	11000.00	90.00	3.00	9917.56	6610.56	1274.63	1277.33	126.72	2.00	468723.84	692410.11	N 32 17 15.54	W 103 50 40.03
	11100.00	90.00	1.00	9917.56	6610.56	1374.47	1377.26	130.20	2.00	468823.77	692413.59	N 32 17 16.53	W 103 50 39.99
	11149.84	90.00	0.00	9917.56	6610.56	1424.29	1427.10	130.64	2.00	468873.60	692414.03	N 32 17 17.02	W 103 50 39.98
	11200.00	90.00	0.00	9917.56	6610.56	1474.44	1477.26	130.64	0.00	468923.76	692414.03	N 32 17 17.52	W 103 50 39.98
	11300.00	90.00	0.00	9917.56	6610.56	1574.43	1577.26	130.64	0.00	469023.75	692414.03	N 32 17 18.51	W 103 50 39.97
	11400.00	90.00	0.00	9917.56	6610.56	1674.41	1677.26	130.64	0.00	469123.75	692414.03	N 32 17 19.49	W 103 50 39.97
	11500.00	90.00	0.00	9917.56	6610.56	1774.39	1777.26	130.64	0.00	469223.74	692414.03	N 32 17 20.48	W 103 50 39.96
	11600.00	90.00	0.00	9917.56	6610.56	1874.37	1877.26	130.64	0.00	469323.73	692414.03	N 32 17 21.47	W 103 50 39.96
	11700.00	90.00	0.00	9917.56	6610.56	1974.35	1977.26	130.64	0.00	469423.73	692414.03	N 32 17 22.46	W 103 50 39.95
	11800.00	90.00	0.00	9917.56	6610.56	2074.33	2077.26	130.64	0.00	469523.72	692414.03	N 32 17 23.45	W 103 50 39.95
	11900.00	90.00	0.00	9917.56	6610.56	2174.31	2177.26	130.64	0.00	469623.71	692414.03	N 32 17 24.44	W 103 50 39.94
	12000.00	90.00	0.00	9917.56	6610.56	2274.29	2277.26	130.64	0.00	469723.71	692414.03	N 32 17 25.43	W 103 50 39.93
	12100.00	90.00	0.00	9917.56	6610.56	2374.27	2377.26	130.64	0.00	469823.70	692414.03	N 32 17 26.42	W 103 50 39.93
	12200.00	90.00	0.00	9917.56	6610.56	2474.26	2477.26	130.64	0.00	469923.69	692414.03	N 32 17 27.41	W 103 50 39.92
	12300.00	90.00	0.00	9917.56	6610.56	2574.24	2577.26	130.64	0.00	470023.69	692414.03	N 32 17 28.40	W 103 50 39.92
	12400.00	90.00	0.00	9917.56	6610.56	2674.22	2677.26	130.65	0.00	470123.68	692414.04	N 32 17 29.39	W 103 50 39.91
	12500.00	90.00	0.00	9917.56	6610.56	2774.20	2777.26	130.65	0.00	470223.67	692414.04	N 32 17 30.38	W 103 50 39.91
	12600.00	90.00	0.00	9917.56	6610.56	2874.18	2877.26	130.65	0.00	470323.67	692414.04	N 32 17 31.37	W 103 50 39.90

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	12700.00	90.00	0.00	9917.56	6610.56	2974.16	2977.26	130.65	0.00	470423.66	692414.04	N 32 17 32.36	W 103 50 39.90
	12800.00	90.00	0.00	9917.56	6610.56	3074.14	3077.26	130.65	0.00	470523.65	692414.04	N 32 17 33.35	W 103 50 39.89
	12900.00	90.00	0.00	9917.56	6610.56	3174.12	3177.26	130.65	0.00	470623.65	692414.05	N 32 17 34.34	W 103 50 39.89
	13000.00	90.00	0.00	9917.56	6610.56	3274.10	3277.26	130.66	0.00	470723.64	692414.05	N 32 17 35.33	W 103 50 39.88
	13100.00	90.00	0.00	9917.56	6610.56	3374.08	3377.26	130.66	0.00	470823.63	692414.05	N 32 17 36.32	W 103 50 39.88
	13200.00	90.00	0.00	9917.56	6610.56	3474.07	3477.26	130.66	0.00	470923.63	692414.05	N 32 17 37.31	W 103 50 39.87
	13300.00	90.00	0.00	9917.56	6610.56	3574.05	3577.26	130.66	0.00	471023.62	692414.06	N 32 17 38.30	W 103 50 39.87
	13400.00	90.00	0.00	9917.56	6610.56	3674.03	3677.26	130.67	0.00	471123.61	692414.06	N 32 17 39.28	W 103 50 39.86
	13500.00	90.00	0.00	9917.56	6610.56	3774.01	3777.26	130.67	0.00	471223.61	692414.06	N 32 17 40.27	W 103 50 39.85
	13600.00	90.00	0.00	9917.56	6610.56	3873.99	3877.26	130.67	0.00	471323.60	692414.06	N 32 17 41.26	W 103 50 39.85
	13700.00	90.00	0.00	9917.56	6610.56	3973.97	3977.26	130.68	0.00	471423.59	692414.07	N 32 17 42.25	W 103 50 39.84
	13800.00	90.00	0.00	9917.56	6610.56	4073.95	4077.26	130.68	0.00	471523.59	692414.07	N 32 17 43.24	W 103 50 39.84
	13900.00	90.00	0.00	9917.56	6610.56	4173.93	4177.26	130.68	0.00	471623.58	692414.07	N 32 17 44.23	W 103 50 39.83
	14000.00	90.00	0.00	9917.56	6610.56	4273.91	4277.26	130.69	0.00	471723.57	692414.08	N 32 17 45.22	W 103 50 39.83
	14100.00	90.00	0.00	9917.56	6610.56	4373.90	4377.26	130.69	0.00	471823.57	692414.08	N 32 17 46.21	W 103 50 39.82
	14200.00	90.00	0.00	9917.56	6610.56	4473.88	4477.26	130.69	0.00	471923.56	692414.09	N 32 17 47.20	W 103 50 39.82
	14300.00	90.00	0.00	9917.56	6610.56	4573.86	4577.26	130.70	0.00	472023.55	692414.09	N 32 17 48.19	W 103 50 39.81
Target	14346.54	90.00	0.00	9917.56	6610.56	4620.39	4623.80	130.70	0.00	472070.09	692414.09	N 32 17 48.65	W 103 50 39.81

Survey Type: Def Plan

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	20.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / Cimarex Forty Niner Ridge 23 Federal #1H Gyro Off to 11268ft MD
	20.000	9428.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Cimarex Forty Niner Ridge 23 Federal #1H Gyro
	9428.000	9469.000	Act Stns	30.000	30.000	SLB_MWD-INC_ONLY	ST01 / Cimarex Forty Niner Ridge 23 Federal #1H ST01
	9469.000	10230.000	Act Stns	30.000	30.000	SLB_MWD-STD	ST01 / Cimarex Forty Niner Ridge 23 Federal #1H ST01
	10230.000	14346.540	1/100'000	30.000	30.000	SLB_MWD-STD	ST02 / Cimarex Forty Niner Ridge 23 Federal #1H ST02