

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.*5. Lease Serial No.
NMNM114350

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.

MEDWICK 32 FEDERAL COM 7H

2. Name of Operator

CIMAREX ENERGY COMPANY OF CO

Contact: TERRI STATHEM

E-Mail: tstatthem@cimarex.com

9. API Well No.

30-015-42172-00-X1

3a. Address

202 S CHEYENNE AVE SUITE 1000
TULSA, OK 74103.4346

3b. Phone No. (include area code)

Ph: 432-620-1936

10. Field and Pool, or Exploratory

WILDCAT

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

Sec 32 T26S R27E Lot 2 0290FSL 2050FEL
32.000218 N Lat, 104.123535 W Lon

11. County or Parish, and State

EDDY COUNTY, NM

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 A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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 Energy respectfully request a approval to change the landing point, directional plan and first take point for the Medwick 32 Federal Com #7H well.

A SHL change was approved on 1/20/16 and a revised directional plan was submitted, however, the proposed directional would have stranded acreage on the S2S2 of Sec. 32.

Please see attached revised directional plan and C102 for your review and approval.

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 30 2016

RECEIVED

Accepted For Record
NMOCD

NSP pending

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #349462 verified by the BLM Well Information System For CIMAREX ENERGY COMPANY OF CO, sent to the Carlsbad Committed to AFMSS for processing by CHARLES NIMMER on 08/30/2016 (16CN0021SE)	
Name (Printed/Typed) TERRI STATHEM	Title MANAGER REGULATORY COMPLIANCE
Signature (Electronic Submission)	Date 08/30/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHARLES NIMMER	Title PETROLEUM ENGINEER	Date 08/30/2016
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 ****

Certificate Number:

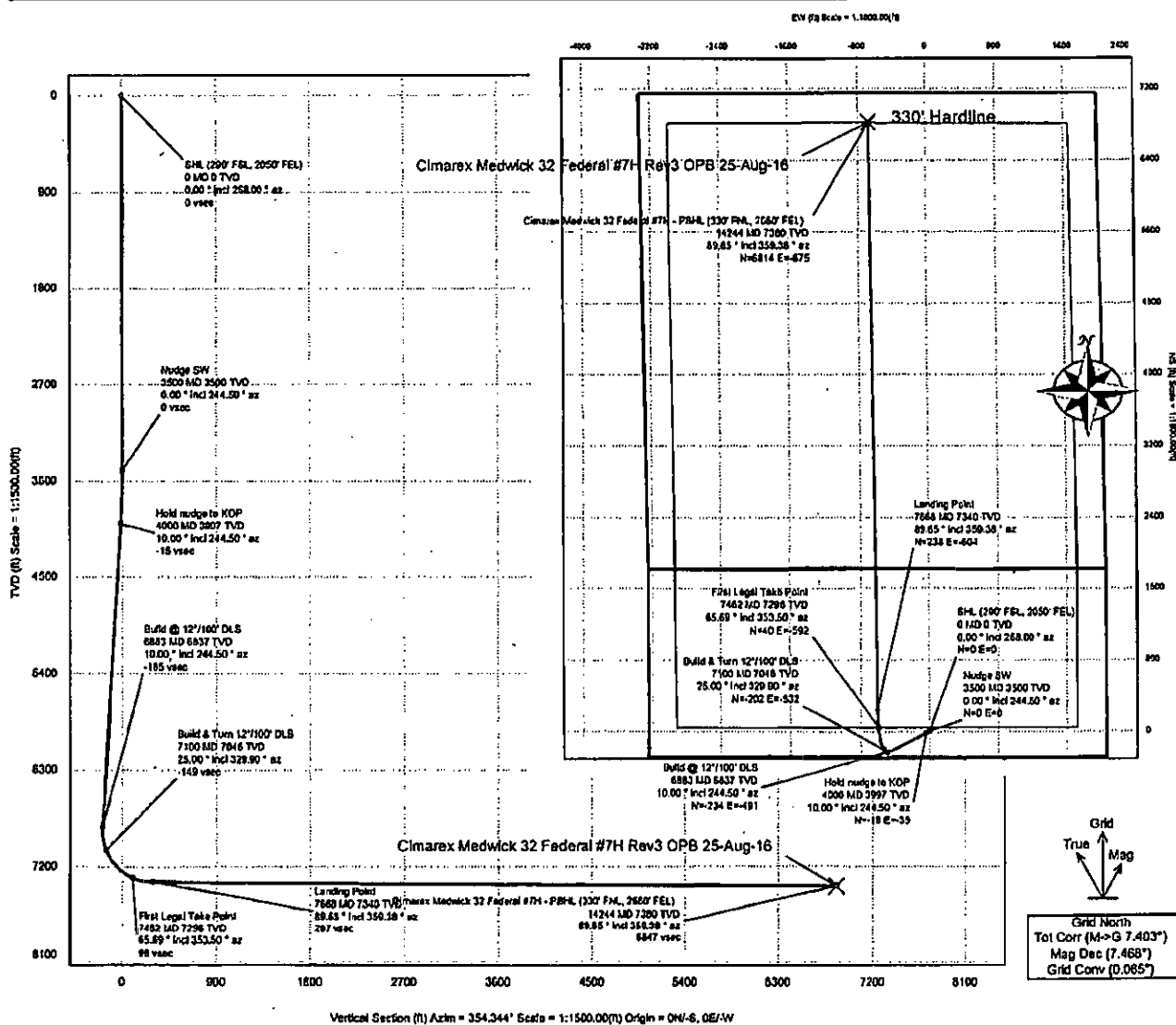
Schlumberger

Cimarex

CIMAREX

Borehole:	Well:	Field:	Structure:
Original Borehole	Medwick 32 Federal #7H	NM Eddy County (NAD 83)	TBD

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: HQM 2016 Dip: 48.701° Date: 25-Aug-2016	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Utdwick 32
MagDec: 7.468° FS: 48047.673m Gravity FB: 994.693mgals (9.80665 Based)	Lat: N 32 0 2.97 Northing: 384061.931115 Grid Conv: 0.0654"	Utdwick 32
	Lon: W 104 12 35.38 Easting: 579594.778055 Scale Fact: 0.99991077	Federal #7H
		Plan: Utdwick 32 Federal #7H Rev3 OPB 25-Aug-16



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL (290' FSL, 2050' FEL)	0.00	0.00	268.00	0.00	0.00	0.00	0.00	
Nudge SW	3500.00	0.00	244.50	3500.00	0.00	0.00	0.00	0.00
Hold nudge to KOP	4000.00	10.00	244.50	3997.47	-14.77	-18.74	-39.28	2.00
Build @ 12°/100' DLS	6883.23	10.00	244.50	6836.89	-184.73	-234.28	-491.18	0.00
Build & Turn 12°/100' DLS	7100.30	25.00	329.90	7045.75	-148.75	-202.16	-531.90	12.00
First Legal Take Point	7462.34	65.69	353.50	7296.46	97.77	39.64	-591.85	12.00
Landing Point	7667.57	89.65	359.38	7340.00	296.57	238.23	-603.74	12.00
Cimarex Medwick 32 Federal #7H - PBHL (330' FNL, 2660' FEL)	14243.97	89.65	359.38	7380.00	6847.45	6814.12	-674.81	0.00

Schlumberger

Cimarex Medwick 32 Federal #7H Rev3 OPB 25-Aug-16 Proposal Report



(Non-Def Plan)

Report Date: August 25, 2016 - 02:34 PM
 Client: Cimarex
 Field: NIM Eddy County (NAD 83)
 Structure / Slot: Cimarex Medwick 32 Federal #7H / Cimarex Medwick 32 Federal #7H
 Well: Cimarex Medwick 32 Federal #7H
 Borehole: Original Borehole
 UWI / AP#: Unknown / Unknown
 Survey Name: Cimarex Medwick 32 Federal #7H Rev3 OPB 25-Aug-16
 Survey Date: September 25, 2013
 Tor / AHD / DDI / ERD Ratio: 104.125 * / 7626.160 ft / 6.185 / 1.033
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 0' 2.97450" W 104° 12' 35.70109"
 Location Gnd N/E V/X: N 364061.930 RUS, E 578594.770 RUS
 CRS Grid Convergence Angle: 0.0854°
 Grid Scale Factor: 0.99991077
 Version / Patch: 2.9.370.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 354.344° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Ground Level
 TVD Reference Elevation: 3182.000 ft above MSL
 Seabed / Ground Elevation: 3192.000 ft above MSL
 Magnetic Declination: 7.468°
 Total Gravity Field Strength: 998.6854mg (8.80865 Based)
 Gravity Model: DOX
 Total Magnetic Field Strength: 48047.673 nT
 Magnetic Dip Angle: 59.701°
 Declination Date: August 25, 2016
 Magnetic Declination Model: HDGM 2016
 North Reference: Grid North
 Grid Convergence Used: 0.0854°
 Total Cor Mag North->Grid North: 7.4031°
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (7100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ° °)	Longitude (E/W ° ° °)
SHL (280 FSL 2050 FEL)	0.00	0.00	268.00	0.00	0.00	0.00	0.00	N/A	364061.93	578594.77	N 32° 0' 2.97"	W 104° 12' 35.70"
Nudge SW	3500.00	0.00	244.50	3500.00	0.00	0.00	0.00	0.00	364061.93	578594.77	N 32° 0' 2.97"	W 104° 12' 35.70"
Hold nudge to KOP	4000.00	10.00	244.50	3997.47	-14.77	-18.74	-39.28	2.00	364043.19	579555.49	N 32° 0' 2.79"	W 104° 12' 36.16"
Build @ 12°/100' DLS	6883.23	10.00	244.50	6838.89	-184.73	-234.28	-491.18	0.00	363827.67	578103.64	N 32° 0' 0.88"	W 104° 12' 41.41"
Build & Turn 12°/100' DLS	7100.30	25.00	329.90	7045.75	-148.75	-202.16	-531.90	12.00	363859.79	578062.92	N 32° 0' 0.88"	W 104° 12' 41.88"
Landing Point	7667.57	89.65	359.38	7340.00	296.57	238.23	-603.74	12.00	364300.13	578991.08	N 32° 0' 5.34"	W 104° 12' 42.71"
Cimarex Medwick 32 Federal #7H - PBHL (330 FNL 2660 FEL)	14243.97	89.65	359.38	7390.00	6847.45	6814.12	-674.81	0.00	370875.43	578920.02	N 32° 1' 10.41"	W 104° 12' 43.45"

Survey Type:

Non-Def Plan

Survey Error Model:
Survey Program:

ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Drilling Office 2.9.370.0

...Cimarex Medwick 32 Federal #7H Original Borehole Cimarex Medwick 32 Federal #7H Rev3 OPB 25-Aug-16

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (1700ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S...°)	Longitude (E/W...°)
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	SLB_MWD-STD	Original Borehole / Cimarex Medwick 32 Federal #7H Rev3	Borehole / Survey	
	1	0.000	14243.970	1/100.000	30.000	30.000						

Schlumberger

Cimarex Medwick 32 Federal #7H Rev3 OPB 25-Aug-16 Proposal Report



(Non-Def Plan)

Report Date: August 25, 2016 - 03:34 PM
Client: Cimarex
Field: NM Eddy County (NAD 83)
Structure / Slot: Cimarex Medwick 32 Federal #7H / Cimarex Medwick 32 Federal #7H
Well: Cimarex Medwick 32 Federal #7H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Medwick 32 Federal #7H Rev3 OPB 25-Aug-16
Survey Date: September 25, 2013
Tort / AHD / DDI / ERD Ratio: 104.125 / 7626.160 ft / 6.185 / 1.033
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 0' 2.97450" W 104° 12' 35.70109"
Location Grid N/E V/X: N 364061.930 RUS, E 579594.770 RUS
CRS Grid Convergence Angle: 0.0654°
Grid Scale Factor: 0.99991077
Version / Patch: 2.9.370.0

Survey / DLS Computation:
Minimum Curvature / Lubinski
354.344° (Grid North)
0.000 ft, 0.000 ft
TVD Reference Datum:
Ground Level
3192.000 ft above MSL
3192.000 ft above MSL
Seabed / Ground Elevation:
7.468°
Magnetic Declination:
998.6654mgn (9.80665 Based)
Total Gravity Field Strength:
DOX
Gravity Model:
48047.673 nT
Total Magnetic Field Strength:
59.701°
Magnetic Dip Angle:
August 25, 2016
Declination Date:
HDGM 2016
Magnetic Declination Model:
Grid North
North Reference:
Grid Convergence Used:
0.0654°
Total Corr Mag North->Grid
North:
7.4031°
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl °	Azim Grid °	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (RUS)	Eastings (RUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL (230 FSL, 2050 FEL)	0.00	0.00	268.00	0.00	0.00	0.00	0.00	N/A	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	100.00	0.00	244.50	100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	200.00	0.00	244.50	200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	300.00	0.00	244.50	300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	400.00	0.00	244.50	400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	500.00	0.00	244.50	500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	600.00	0.00	244.50	600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	700.00	0.00	244.50	700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	800.00	0.00	244.50	800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	900.00	0.00	244.50	900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1000.00	0.00	244.50	1000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1100.00	0.00	244.50	1100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1200.00	0.00	244.50	1200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1300.00	0.00	244.50	1300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1400.00	0.00	244.50	1400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1500.00	0.00	244.50	1500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1600.00	0.00	244.50	1600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1700.00	0.00	244.50	1700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1800.00	0.00	244.50	1800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	1900.00	0.00	244.50	1900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	2000.00	0.00	244.50	2000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	2100.00	0.00	244.50	2100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	2200.00	0.00	244.50	2200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	2300.00	0.00	244.50	2300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	2400.00	0.00	244.50	2400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70
	2500.00	0.00	244.50	2500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32° 0' 2.97	W 104° 12' 35.70

Comments	MO (ft)	Incl (ft)	Azim Grid (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S...)	Longitude (E/W...)
	2600.00	0.00	244.50	2600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	2700.00	0.00	244.50	2700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	2800.00	0.00	244.50	2800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	2900.00	0.00	244.50	2900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	3000.00	0.00	244.50	3000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	3100.00	0.00	244.50	3100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	3200.00	0.00	244.50	3200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	3300.00	0.00	244.50	3300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	3400.00	0.00	244.50	3400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	3500.00	0.00	244.50	3500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97	W 104 12 35.70
	3600.00	2.00	244.50	3599.98	-0.59	-0.75	-1.58	2.00	364061.18	579593.19	N 32 0 2.97	W 104 12 35.72
	3700.00	4.00	244.50	3699.84	-2.37	-3.00	-6.30	2.00	364058.93	579588.47	N 32 0 2.94	W 104 12 35.77
	3800.00	6.00	244.50	3799.45	-5.33	-6.76	-14.16	2.00	364055.17	579580.61	N 32 0 2.91	W 104 12 35.87
	3900.00	8.00	244.50	3898.70	-9.46	-12.00	-25.16	2.00	364049.93	579569.61	N 32 0 2.86	W 104 12 35.99
Nudge SW												
	4000.00	10.00	244.50	3997.47	-14.77	-18.74	-39.28	2.00	364043.19	579555.49	N 32 0 2.79	W 104 12 38.16
Hold nudge to KOP												
	4100.00	10.00	244.50	4095.95	-20.67	-26.21	-54.96	0.00	364035.72	579539.82	N 32 0 2.72	W 104 12 36.34
	4200.00	10.00	244.50	4194.43	-26.56	-33.69	-70.63	0.00	364028.24	579524.15	N 32 0 2.64	W 104 12 36.52
	4300.00	10.00	244.50	4292.91	-32.46	-41.16	-86.30	0.00	364020.77	579508.48	N 32 0 2.57	W 104 12 36.70
	4400.00	10.00	244.50	4391.39	-38.35	-48.64	-101.98	0.00	364013.29	579492.80	N 32 0 2.49	W 104 12 36.89
	4500.00	10.00	244.50	4489.87	-44.25	-56.12	-117.65	0.00	364005.82	579477.13	N 32 0 2.42	W 104 12 37.07
	4600.00	10.00	244.50	4588.35	-50.14	-63.59	-133.32	0.00	363998.34	579461.48	N 32 0 2.35	W 104 12 37.25
	4700.00	10.00	244.50	4686.83	-56.04	-71.07	-149.00	0.00	363990.87	579445.79	N 32 0 2.27	W 104 12 37.43
	4800.00	10.00	244.50	4785.31	-61.93	-78.54	-164.67	0.00	363983.39	579430.12	N 32 0 2.20	W 104 12 37.61
	4900.00	10.00	244.50	4883.79	-67.83	-86.02	-180.34	0.00	363975.92	579414.44	N 32 0 2.13	W 104 12 37.80
	5000.00	10.00	244.50	4982.27	-73.72	-93.49	-196.02	0.00	363968.44	579398.77	N 32 0 2.05	W 104 12 37.98
	5100.00	10.00	244.50	5080.75	-79.62	-100.97	-211.69	0.00	363960.97	579383.10	N 32 0 1.98	W 104 12 38.16
	5200.00	10.00	244.50	5179.23	-85.51	-108.45	-227.36	0.00	363953.49	579367.43	N 32 0 1.90	W 104 12 38.35
	5300.00	10.00	244.50	5277.72	-91.41	-115.92	-243.03	0.00	363946.02	579351.76	N 32 0 1.83	W 104 12 38.52
	5400.00	10.00	244.50	5376.20	-97.30	-123.40	-258.71	0.00	363938.54	579336.09	N 32 0 1.76	W 104 12 38.71
	5500.00	10.00	244.50	5474.68	-103.20	-130.87	-274.38	0.00	363931.07	579320.41	N 32 0 1.68	W 104 12 38.89
	5600.00	10.00	244.50	5573.16	-109.09	-138.35	-290.05	0.00	363923.59	579304.74	N 32 0 1.61	W 104 12 39.07
	5700.00	10.00	244.50	5671.64	-114.89	-145.82	-305.73	0.00	363916.12	579289.07	N 32 0 1.53	W 104 12 39.25
	5800.00	10.00	244.50	5770.12	-120.88	-153.30	-321.40	0.00	363908.64	579273.40	N 32 0 1.46	W 104 12 39.44
	5900.00	10.00	244.50	5868.60	-126.78	-160.78	-337.07	0.00	363901.17	579257.73	N 32 0 1.39	W 104 12 39.62
	6000.00	10.00	244.50	5967.08	-132.67	-168.25	-352.75	0.00	363893.69	579242.05	N 32 0 1.31	W 104 12 39.80
	6100.00	10.00	244.50	6065.56	-138.56	-175.73	-368.42	0.00	363886.22	579226.38	N 32 0 1.24	W 104 12 39.98
	6200.00	10.00	244.50	6164.04	-144.46	-183.20	-384.09	0.00	363878.74	579210.71	N 32 0 1.17	W 104 12 40.15
	6300.00	10.00	244.50	6262.52	-150.35	-190.68	-399.77	0.00	363871.27	579195.04	N 32 0 1.09	W 104 12 40.33
	6400.00	10.00	244.50	6361.00	-156.25	-198.15	-415.44	0.00	363863.79	579179.37	N 32 0 1.02	W 104 12 40.53
	6500.00	10.00	244.50	6459.48	-162.14	-205.63	-431.11	0.00	363856.32	579163.70	N 32 0 0.94	W 104 12 40.71
	6600.00	10.00	244.50	6557.97	-168.04	-213.11	-446.78	0.00	363848.84	579148.02	N 32 0 0.87	W 104 12 40.89
	6700.00	10.00	244.50	6656.45	-173.93	-220.58	-462.46	0.00	363841.37	579132.35	N 32 0 0.80	W 104 12 41.07
	6800.00	10.00	244.50	6754.93	-179.83	-228.06	-478.13	0.00	363833.89	579116.68	N 32 0 0.72	W 104 12 41.25
Build @ 127100'												
DLS	6893.23	10.00	244.50	6836.89	-184.73	-234.28	-491.18	0.00	363827.67	579103.64	N 32 0 0.66	W 104 12 41.41
	6900.00	9.63	256.12	6853.42	-185.43	-235.24	-493.85	12.00	363826.71	579100.96	N 32 0 0.65	W 104 12 41.44
	7000.00	14.88	310.97	6951.44	-177.39	-228.92	-511.63	12.00	363833.03	579083.22	N 32 0 0.71	W 104 12 41.64
	7100.00	24.87	329.87	7045.48	-148.07	-202.26	-531.83	12.00	363859.68	579065.99	N 32 0 0.98	W 104 12 41.88
Build & Turn 127100' DLS												
	7100.30	25.00	329.80	7045.75	-148.75	-202.16	-531.90	12.00	363859.79	579062.92	N 32 0 0.98	W 104 12 41.88
	7200.00	35.67	340.77	7131.74	-101.14	-156.31	-552.11	12.00	363905.63	579042.71	N 32 0 1.43	W 104 12 42.11
	7300.00	46.95	347.05	7206.77	-36.32	-82.94	-569.97	12.00	363968.00	579024.85	N 32 0 2.05	W 104 12 42.32
	7400.00	58.46	351.34	7267.28	42.76	-14.92	-584.63	12.00	364047.01	579010.20	N 32 0 2.83	W 104 12 42.49
First Legal Take Point												
	7462.34	65.69	353.50	7296.46	87.77	38.64	-591.85	12.00	364101.56	579002.97	N 32 0 3.37	W 104 12 42.67
	7500.00	70.08	354.68	7310.64	132.65	74.33	-595.44	12.00	364136.26	578999.38	N 32 0 3.72	W 104 12 42.61
	7600.00	81.75	357.55	7334.94	229.42	170.93	-601.94	12.00	364232.84	578992.88	N 32 0 4.67	W 104 12 42.69

Comments	MD (ft)	Incl (°)	Azim Ghd (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Landing Point	7687.57	89.65	359.38	7340.00	286.57	238.23	-803.74	12.00	364300.13	578991.08	N 32 0 5.34	W 104 12 42.71
	7700.00	89.65	359.38	7340.20	328.87	270.65	-804.09	0.00	364332.56	578990.73	N 32 0 5.66	W 104 12 42.71
	7800.00	89.65	359.38	7340.81	428.48	370.85	-805.18	0.00	364432.54	578989.55	N 32 0 6.65	W 104 12 42.72
	7900.00	89.65	359.38	7341.42	528.09	470.64	-806.26	0.00	364532.53	578988.56	N 32 0 7.64	W 104 12 42.74
	8000.00	89.65	359.38	7342.03	627.71	570.83	-807.35	0.00	364632.51	578987.48	N 32 0 8.63	W 104 12 42.75
	8100.00	89.65	359.38	7342.64	727.32	670.62	-808.43	0.00	364732.48	578986.40	N 32 0 9.62	W 104 12 42.76
	8200.00	89.65	359.38	7343.25	826.93	770.62	-809.51	0.00	364832.48	578985.31	N 32 0 10.61	W 104 12 42.77
	8300.00	89.65	359.38	7343.86	926.54	870.61	-810.59	0.00	364932.46	578984.23	N 32 0 11.60	W 104 12 42.78
	8400.00	89.65	359.38	7344.47	1026.16	970.60	-811.68	0.00	365032.44	578983.15	N 32 0 12.59	W 104 12 42.79
	8500.00	89.65	359.38	7345.08	1125.77	1070.59	-812.76	0.00	365132.43	578982.06	N 32 0 13.58	W 104 12 42.80
	8600.00	89.65	359.38	7345.69	1225.38	1170.58	-813.84	0.00	365232.41	578980.98	N 32 0 14.56	W 104 12 42.81
	8700.00	89.65	359.38	7346.30	1324.99	1270.58	-814.93	0.00	365332.39	578979.90	N 32 0 15.55	W 104 12 42.83
	8800.00	89.65	359.38	7346.91	1424.61	1370.57	-816.01	0.00	365432.37	578978.82	N 32 0 16.54	W 104 12 42.84
	8900.00	89.65	359.38	7347.52	1524.22	1470.56	-817.09	0.00	365532.36	578977.73	N 32 0 17.53	W 104 12 42.85
	9000.00	89.65	359.38	7348.13	1623.83	1570.55	-818.17	0.00	365632.34	578976.65	N 32 0 18.52	W 104 12 42.86
	9100.00	89.65	359.38	7348.74	1723.44	1670.55	-819.26	0.00	365732.32	578975.57	N 32 0 19.51	W 104 12 42.87
	9200.00	89.65	359.38	7349.35	1823.05	1770.54	-820.34	0.00	365832.31	578974.49	N 32 0 20.50	W 104 12 42.88
	9300.00	89.65	359.38	7349.96	1922.67	1870.53	-821.42	0.00	365932.29	578973.40	N 32 0 21.49	W 104 12 42.89
	9400.00	89.65	359.38	7350.57	2022.28	1970.52	-822.50	0.00	366032.27	578972.32	N 32 0 22.48	W 104 12 42.90
	9500.00	89.65	359.38	7351.18	2121.89	2070.52	-823.59	0.00	366132.26	578971.24	N 32 0 23.47	W 104 12 42.92
	9600.00	89.65	359.38	7351.79	2221.50	2170.51	-824.67	0.00	366232.24	578970.16	N 32 0 24.46	W 104 12 42.93
	9700.00	89.65	359.38	7352.40	2321.11	2270.50	-825.75	0.00	366332.22	578969.08	N 32 0 25.45	W 104 12 42.94
	9800.00	89.65	359.38	7353.01	2420.73	2370.49	-826.83	0.00	366432.21	578968.00	N 32 0 26.44	W 104 12 42.95
	9900.00	89.65	359.38	7353.62	2520.34	2470.48	-827.91	0.00	366532.19	578966.91	N 32 0 27.43	W 104 12 42.96
	10000.00	89.65	359.38	7354.23	2619.95	2570.48	-828.99	0.00	366632.17	578965.83	N 32 0 28.42	W 104 12 42.97
	10100.00	89.65	359.38	7354.84	2719.56	2670.47	-830.08	0.00	366732.16	578964.75	N 32 0 29.41	W 104 12 42.98
	10200.00	89.65	359.38	7355.45	2819.18	2770.46	-831.16	0.00	366832.14	578963.67	N 32 0 30.40	W 104 12 42.99
	10300.00	89.65	359.38	7356.05	2918.79	2870.45	-832.24	0.00	366932.12	578962.59	N 32 0 31.39	W 104 12 43.01
	10400.00	89.65	359.38	7356.66	3018.40	2970.45	-833.32	0.00	367032.11	578961.51	N 32 0 32.38	W 104 12 43.02
	10500.00	89.65	359.38	7357.27	3118.01	3070.43	-834.40	0.00	367132.09	578960.43	N 32 0 33.37	W 104 12 43.03
	10600.00	89.65	359.38	7357.88	3217.62	3170.43	-835.48	0.00	367232.07	578959.35	N 32 0 34.35	W 104 12 43.04
	10700.00	89.65	359.38	7358.49	3317.24	3270.42	-836.56	0.00	367332.05	578958.26	N 32 0 35.34	W 104 12 43.05
	10800.00	89.65	359.38	7359.10	3416.85	3370.42	-837.64	0.00	367432.04	578957.18	N 32 0 36.33	W 104 12 43.06
	10900.00	89.65	359.38	7359.71	3516.46	3470.41	-838.73	0.00	367532.02	578956.10	N 32 0 37.32	W 104 12 43.07
	11000.00	89.65	359.38	7360.32	3616.07	3570.40	-839.81	0.00	367632.00	578955.02	N 32 0 38.31	W 104 12 43.08
	11100.00	89.65	359.38	7360.92	3715.68	3670.39	-840.89	0.00	367731.99	578953.94	N 32 0 39.30	W 104 12 43.10
	11200.00	89.65	359.38	7361.53	3815.30	3770.38	-841.97	0.00	367831.97	578952.86	N 32 0 40.29	W 104 12 43.11
	11300.00	89.65	359.38	7362.14	3914.91	3870.38	-843.05	0.00	367931.95	578951.78	N 32 0 41.28	W 104 12 43.12
	11400.00	89.65	359.38	7362.75	4014.52	3970.37	-844.13	0.00	368031.94	578950.70	N 32 0 42.27	W 104 12 43.13
	11500.00	89.65	359.38	7363.35	4114.13	4070.36	-845.21	0.00	368131.92	578949.62	N 32 0 43.26	W 104 12 43.14
	11600.00	89.65	359.38	7363.96	4213.74	4170.35	-846.29	0.00	368231.90	578948.54	N 32 0 44.25	W 104 12 43.15
	11700.00	89.65	359.38	7364.57	4313.36	4270.35	-847.37	0.00	368331.89	578947.46	N 32 0 45.24	W 104 12 43.16
	11800.00	89.65	359.38	7365.18	4412.97	4370.34	-848.45	0.00	368431.87	578946.38	N 32 0 46.23	W 104 12 43.17
	11900.00	89.65	359.38	7365.79	4512.58	4470.33	-849.53	0.00	368531.85	578945.30	N 32 0 47.22	W 104 12 43.19
	12000.00	89.65	359.38	7366.39	4612.19	4570.32	-850.61	0.00	368631.84	578944.22	N 32 0 48.21	W 104 12 43.20
	12100.00	89.65	359.38	7367.00	4711.80	4670.32	-851.69	0.00	368731.82	578943.14	N 32 0 49.20	W 104 12 43.21
	12200.00	89.65	359.38	7367.61	4811.42	4770.31	-852.77	0.00	368831.80	578942.06	N 32 0 50.19	W 104 12 43.22
	12300.00	89.65	359.38	7368.21	4911.03	4870.30	-853.85	0.00	368931.79	578940.98	N 32 0 51.18	W 104 12 43.23
	12400.00	89.65	359.38	7368.82	5010.64	4970.28	-854.93	0.00	369031.77	578939.90	N 32 0 52.17	W 104 12 43.24
	12500.00	89.65	359.38	7369.43	5110.25	5070.28	-856.00	0.00	369131.75	578938.83	N 32 0 53.15	W 104 12 43.25
	12600.00	89.65	359.38	7370.03	5209.86	5170.28	-857.08	0.00	369231.74	578937.75	N 32 0 54.14	W 104 12 43.26
	12700.00	89.65	359.38	7370.64	5309.48	5270.27	-858.16	0.00	369331.72	578936.67	N 32 0 55.13	W 104 12 43.28
	12800.00	89.65	359.38	7371.25	5409.09	5370.26	-859.24	0.00	369431.70	578935.59	N 32 0 56.12	W 104 12 43.29
	12900.00	89.65	359.38	7371.85	5508.70	5470.25	-860.32	0.00	369531.69	578934.51	N 32 0 57.11	W 104 12 43.30
	13000.00	89.65	359.38	7372.46	5608.31	5570.24	-861.40	0.00	369631.67	578933.43	N 32 0 58.10	W 104 12 43.31
	13100.00	89.65	359.38	7373.07	5707.92	5670.23	-862.48	0.00	369731.65	578932.35	N 32 0 59.09	W 104 12 43.32
	13200.00	89.65	359.38	7373.67	5807.54	5770.23	-863.56	0.00	369831.63	578931.27	N 32 1 0.08	W 104 12 43.33
	13300.00	89.65	359.38	7374.28	5907.15	5870.22	-864.64	0.00	369931.62	578930.20	N 32 1 1.07	W 104 12 43.34

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 ° ' '')
	13400.00	89.65	359.38	7374.89	6006.76	5970.22	-665.71	0.00	370031.60	578928.12	N 32 1 2.06	W 104 12 43.35
	13500.00	89.65	359.38	7375.49	6106.37	6070.21	-668.79	0.00	370131.58	578928.04	N 32 1 3.05	W 104 12 43.37
	13600.00	89.65	359.38	7376.10	6205.98	6170.20	-667.87	0.00	370231.57	578928.96	N 32 1 4.04	W 104 12 43.38
	13700.00	89.65	359.38	7376.70	6305.80	6270.19	-668.95	0.00	370331.55	578928.88	N 32 1 5.03	W 104 12 43.39
	13800.00	89.65	359.38	7377.31	6405.21	6370.19	-670.03	0.00	370431.53	578928.80	N 32 1 6.02	W 104 12 43.40
	13900.00	89.65	359.38	7377.92	6504.82	6470.18	-671.10	0.00	370531.52	578928.73	N 32 1 7.01	W 104 12 43.41
	14000.00	89.65	359.38	7378.52	6604.43	6570.17	-672.18	0.00	370631.50	578928.65	N 32 1 8.00	W 104 12 43.42
	14100.00	89.65	359.38	7379.13	6704.04	6670.16	-673.26	0.00	370731.48	578928.57	N 32 1 8.99	W 104 12 43.43
	14200.00	89.65	359.38	7379.73	6803.65	6770.15	-674.34	0.00	370831.47	578928.49	N 32 1 9.98	W 104 12 43.44
Cimarex Medwick 32 Federal #7H - PBHL (330' FNL, 2860' FEL)	14243.97	89.65	359.38	7380.00	6847.45	6814.12	-674.81	0.00	370875.43	578920.02	N 32 1 10.41	W 104 12 43.45

Survey Type:

Non-Def Plan

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	14243.970	1/100.000	30.000		SLB_MMWD-STD	Original Borehole / Cimarex Medwick 32 Federal #7H Rev3