

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

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.**5. Lease Serial No.
NMNM114350

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
KLEIN 33 FEDERAL COM 8H9. API Well No.
30-015-42181-00-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 ☐ Other2. Name of Operator
CIMAREX ENERGY COMPANY OF COContact: TERRI STATHEM
E-Mail: tstathem@cimarex.com3a. Address
202 S CHEYENNE AVE SUITE 1000
TULSA, OK 74103.43463b. Phone No. (include area code)
Ph: 432-620-1936

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

Sec 33 T26S R27E Lot 2 210FSL 2490FEL
32.000215 N Lat, 104.113939 W Lon**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 recompletion 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 Klein 33 Federal Com #8H well.

A SHL change was approved on 1/26/16 and a revised directional plan was submitted, however, the proposed directional would have stranded acreage on the S2S2 of Sec. 33.

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

NM OIL CONSERVATION

ARTESIA DISTRICT

SEP 13 2016

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14. I hereby certify that the foregoing is true and correct.

Electronic Submission #349753 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 09/01/2016 (16CN0027SE)

Name (Printed/Typed) TERRI STATHEM

Title MANAGER REGULATORY COMPLIANCE

Signature (Electronic Submission)

Date 09/01/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHARLES NIMMER

Title PETROLEUM ENGINEER

Date 09/01/2016

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 ****

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

NM OIL CONSERVATION DISTRICT
Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

SEP 13 2016

☐ AMENDED REPORT

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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30015-42181	² Pool Code 98018	³ Pool Name Wildcat; Bone Spring
⁴ Property Code 40358	⁵ Property Name KLEIN 33 FEDERAL COM	⁶ Well Number 8H
⁷ OGRID No. 215009	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 3197'

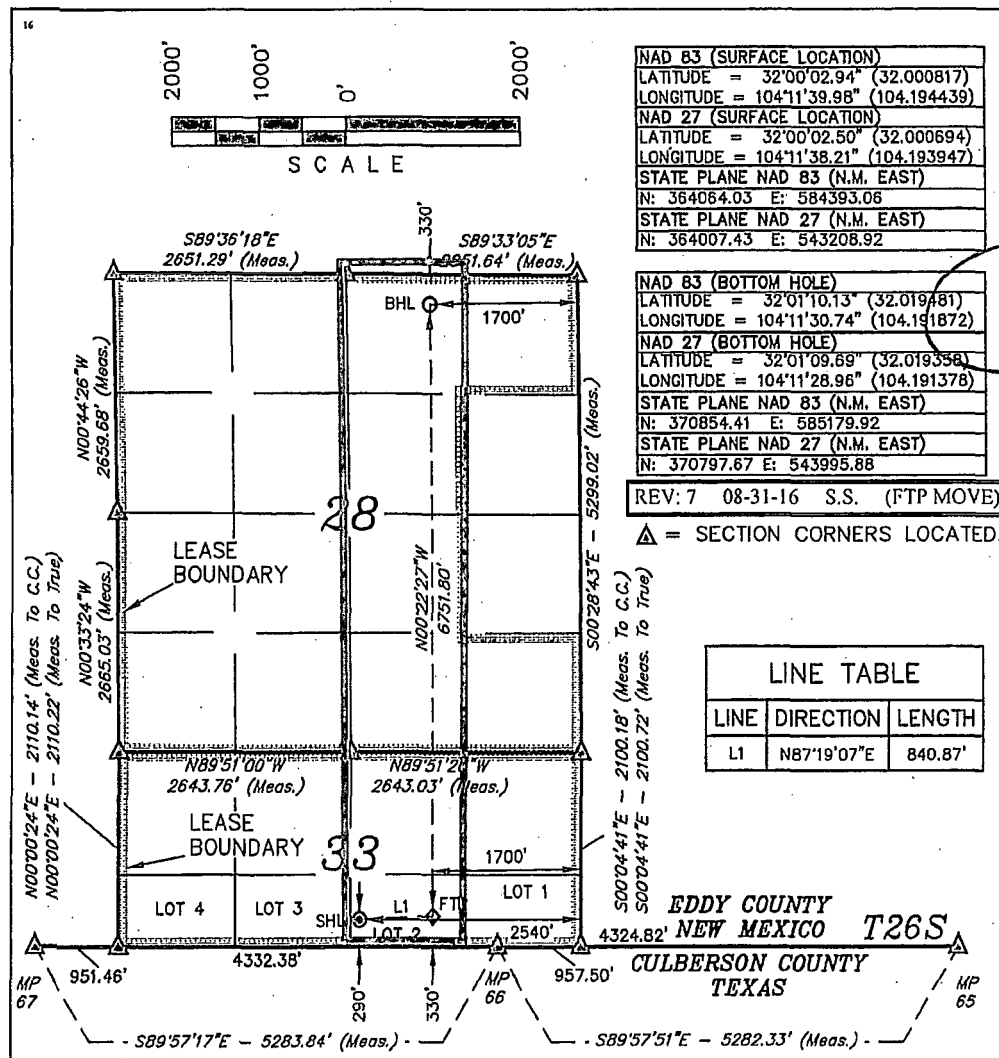
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	33	26S	27E		290	SOUTH	2540	EAST	EDDY

¹¹ 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
B	28	26S	27E		330	NORTH	1700	EAST	EDDY
¹² Dedicated Acres 223.44	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.



"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 hereby entered by the division.

Signature: *Terri Stathem* Date: 9-1-16

Printed Name: Terri Stathem

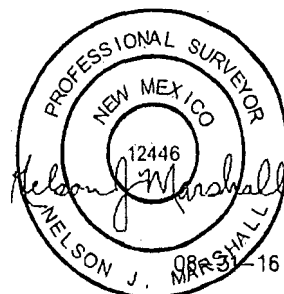
E-mail Address: TStathem@cimarex.com

"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.

August 29, 2013

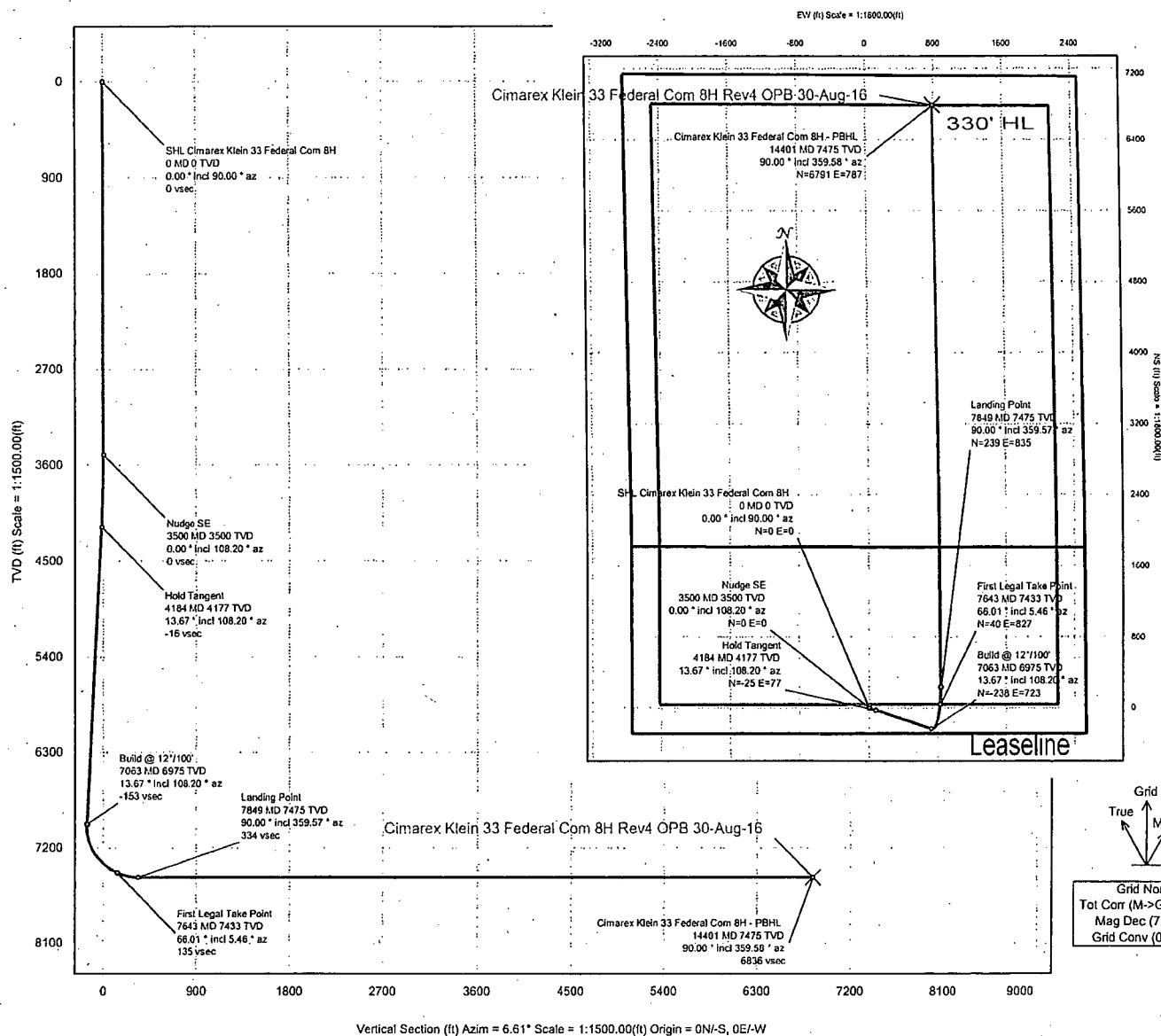
Date of Survey:
Signature and Seal of Professional Surveyor:



Certificate Number:

Borehole:	Well:	Field:	Structure:
Original Borehole	Klein 33 Federal Com #8H	NM Eddy County (NAD 83)	TBD

Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	HDGM	Dip: 59.705°	Date: 30-Aug-2016	Lat: N 32 0 2.94	Northings: 354054.0311U	Grid Conv: 0.0736°		Slot: Federal Com	TVD Ref: Ground level (3197ft above I/SL)		
MagDec: 7.447°	FS: 48053.396n	Gravity FS: 998.685mgm (9.80665 Based)		Lon: W 104 11 39.98	Easting: 584393.0611U	Scale Fact: 0.99991121		Plan: Klein 33 Federal Com 8H Rev4 OPB 30-Aug-16			



Grid
True
Mag

Grid North
Tot Corr (M->G 7.373°)
Mag Dec (7.447°)
Grid Conv (0.074°)

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL Cimarex Klein 33 Federal Com 8H	0.00	0.00	90.00	0.00	0.00	0.00	0.00	
Nudge SE	3500.00	0.00	108.20	3500.00	0.00	0.00	0.00	0.00
Hold Tangent	4183.50	13.67	108.20	4177.03	-16.30	-25.35	77.09	2.00
Build @ 12°/100'	7062.63	13.67	108.20	6974.61	-153.01	-237.87	723.47	0.00
First Legal Take Point	7643.17	66.01	5.46	7432.55	134.69	39.77	826.94	12.00
Landing Point	7848.71	90.00	359.57	7475.00	333.64	239.09	835.24	12.00
Cimarex Klein 33 Federal Com 8H - PBHL	14400.80	90.00	359.58	7475.00	6836.44	6791.00	786.93	0.00

Schlumberger



Cimarex Klein 33 Federal Com 8H Rev4 OPB 30-Aug-16 Proposal Report

(Non-Def Plan)

NM OIL CONSERVATION
ARTESIA DISTRICT

SEP 13 2016

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Report Date: August 30, 2016 - 03:52 PM
 Client: Cimarex
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Cimarex Klein 33 Federal Com #8H / Cimarex Klein 33 Federal Com #8H
 Well: Cimarex Klein 33 Federal Com #8H
 Borehole: Original Borehole
 UWI / AP#: Unknown / Unknown
 Survey Name: Cimarex Klein 33 Federal Com 8H Rev4 OPB 30-Aug-16
 Survey Date: October 09, 2015
 Tort / AHD / DDI / ERD Ratio: 108.012° / 7828.451 ft / 6.212 / 1.047
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 0' 2.93768", W 104° 11' 39.97649"
 Location Grid N/E Y/X: N 364064.030 ftUS, E 584393.060 ftUS
 CRS Grid Convergence Angle: 0.0736°
 Grid Scale Factor: 0.99991121
 Version / Patch: 2.9.370.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 8.610° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Ground level
 TVD Reference Elevation: 3197.000 ft above MSL
 Seabed / Ground Elevation: 3197.000 ft above MSL
 Magnetic Declination: 7.447°
 Total Gravity Field Strength: 998.6852mgm (9.80665 Based)
 Gravity Model: DOX
 Total Magnetic Field Strength: 48053.396 nT
 Magnetic Dip Angle: 59.706°
 Declination Date: August 30, 2016
 Magnetic Declination Model: HDGM 2016
 North Reference: Grid North
 Grid Convergence Used: 0.0736°
 Total Corr Mag North->Grid North: 7.3736°
 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 ° ' ")
SHL Cimarex Klein 33 Federal Com 8H	0.00	0.00	90.00	0.00	0.00	0.00	0.00	N/A	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
Nudge SE	3500.00	0.00	108.20	3500.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
Hold Tangent	4183.50	13.67	108.20	4177.03	-16.30	-25.35	77.09	2.00	364038.69	584470.14	N 32 0 2.69	W 104 11 39.08
Build @ 12°/100'	7062.63	13.67	108.20	6974.61	-153.01	-237.87	723.47	0.00	363826.19	585116.47	N 32 0 0.57	W 104 11 31.58
Landing Point	7848.71	90.00	359.57	7475.00	333.64	239.08	835.24	12.00	364303.09	585228.22	N 32 0 5.29	W 104 11 30.27
Cimarex Klein 33 Federal Com 8H - PBHL	14400.80	90.00	359.58	7475.00	6836.44	6791.00	786.93	0.00	370854.41	585179.92	N 32 1 10.13	W 104 11 30.74

Survey Type: Non-Def Plan

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

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	14400.798	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Klein 33 Federal Com 8H Rev4 OPB 30-

Cimarex Klein 33 Federal Com 8H Rev4 OPB 30-Aug-16 Proposal Report

(Non-Def Plan)

Report Date: August 30, 2016 - 03:53 PM
Client: Cimarex
Field: NM Eddy County (NAD 83)
Structure / Slot: Cimarex Klein 33 Federal Com #8H / Cimarex Klein 33 Federal Com #8H
Well: Cimarex Klein 33 Federal Com #8H
Borehole: Original Borehole
UWI / AP#: Unknown / Unknown
Survey Name: Cimarex Klein 33 Federal Com 8H Rev4 OPB 30-Aug-16
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Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 0' 2.93768", W 104° 11' 39.97649"
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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Cimarex Klein 33 Federal Com 8H	0.00	0.00	90.00	0.00	0.00	0.00	0.00	N/A	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	100.00	0.00	108.20	100.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	200.00	0.00	108.20	200.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	300.00	0.00	108.20	300.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	400.00	0.00	108.20	400.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	500.00	0.00	108.20	500.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	600.00	0.00	108.20	600.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	700.00	0.00	108.20	700.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	800.00	0.00	108.20	800.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	900.00	0.00	108.20	900.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1000.00	0.00	108.20	1000.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1100.00	0.00	108.20	1100.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1200.00	0.00	108.20	1200.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1300.00	0.00	108.20	1300.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1400.00	0.00	108.20	1400.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1500.00	0.00	108.20	1500.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1600.00	0.00	108.20	1600.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1700.00	0.00	108.20	1700.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1800.00	0.00	108.20	1800.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	1900.00	0.00	108.20	1900.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2000.00	0.00	108.20	2000.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2100.00	0.00	108.20	2100.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2200.00	0.00	108.20	2200.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (NUS...)	Longitude (E/W...)
Nudge SE	2300.00	0.00	108.20	2300.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2400.00	0.00	108.20	2400.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2500.00	0.00	108.20	2500.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2600.00	0.00	108.20	2600.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2700.00	0.00	108.20	2700.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2800.00	0.00	108.20	2800.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	2900.00	0.00	108.20	2900.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	3000.00	0.00	108.20	3000.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	3100.00	0.00	108.20	3100.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	3200.00	0.00	108.20	3200.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
Hold Tangent	3300.00	0.00	108.20	3300.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	3400.00	0.00	108.20	3400.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	3500.00	0.00	108.20	3500.00	0.00	0.00	0.00	0.00	364064.03	584393.06	N 32 0 2.94	W 104 11 39.98
	3600.00	2.00	108.20	3599.98	-0.35	-0.55	1.66	2.00	364063.48	584394.72	N 32 0 2.93	W 104 11 39.96
	3700.00	4.00	108.20	3699.84	-3.15	-4.90	14.91	2.00	364059.13	584407.97	N 32 0 2.89	W 104 11 39.80
	3800.00	6.00	108.20	3799.45	-5.60	-8.71	26.49	2.00	364055.32	584419.54	N 32 0 2.85	W 104 11 39.67
	3900.00	8.00	108.20	3898.70	-8.74	-13.59	41.35	2.00	364050.44	584434.40	N 32 0 2.80	W 104 11 39.50
	4000.00	10.00	108.20	3997.47	-12.58	-19.55	59.47	2.00	364044.48	584452.53	N 32 0 2.74	W 104 11 39.29
	4100.00	12.00	108.20	4095.62	-16.30	-25.35	77.09	2.00	364038.69	584470.14	N 32 0 2.69	W 104 11 39.08
	4183.50	13.67	108.20	4177.03	-21.84	-31.33	103.25	0.00	364037.47	584473.85	N 32 0 2.67	W 104 11 39.04
Build @ 12°/100'	4200.00	13.67	108.20	4193.07	-26.58	-41.33	125.70	0.00	364030.09	584496.30	N 32 0 2.60	W 104 11 38.78
	4300.00	13.67	108.20	4290.23	-31.33	-48.71	148.15	0.00	364022.71	584518.75	N 32 0 2.53	W 104 11 38.52
	4400.00	13.67	108.20	4387.40	-36.08	-56.09	170.60	0.00	364015.33	584541.19	N 32 0 2.45	W 104 11 38.26
	4500.00	13.67	108.20	4484.57	-40.83	-63.47	193.05	0.00	364000.56	584563.64	N 32 0 2.31	W 104 11 37.74
	4600.00	13.67	108.20	4581.74	-45.58	-70.85	215.50	0.00	363985.80	584586.09	N 32 0 2.23	W 104 11 37.48
	4700.00	13.67	108.20	4678.90	-50.32	-78.23	237.95	0.00	363978.42	584608.54	N 32 0 2.16	W 104 11 37.21
	4800.00	13.67	108.20	4776.07	-55.07	-85.62	260.40	0.00	363971.04	584630.99	N 32 0 2.09	W 104 11 36.95
	4900.00	13.67	108.20	4873.24	-59.82	-93.00	282.85	0.00	363963.66	584653.44	N 32 0 2.01	W 104 11 36.69
	5000.00	13.67	108.20	4970.40	-64.57	-100.38	305.30	0.00	363956.28	584675.89	N 32 0 1.94	W 104 11 36.43
	5100.00	13.67	108.20	5067.57	-69.32	-107.76	327.75	0.00	363948.90	584720.78	N 32 0 1.87	W 104 11 36.17
	5200.00	13.67	108.20	5164.74	-74.06	-115.14	350.20	0.00	363941.52	584743.23	N 32 0 1.79	W 104 11 35.91
	5300.00	13.67	108.20	5261.91	-78.81	-122.52	372.85	0.00	363934.14	584765.68	N 32 0 1.72	W 104 11 35.65
	5400.00	13.67	108.20	5359.07	-83.56	-129.90	395.10	0.00	363926.76	584788.13	N 32 0 1.65	W 104 11 35.39
	5500.00	13.67	108.20	5456.24	-88.31	-137.29	417.55	0.00	363919.38	584810.58	N 32 0 1.57	W 104 11 35.13
	5600.00	13.67	108.20	5553.41	-93.06	-144.67	440.01	0.00	363912.00	584833.03	N 32 0 1.50	W 104 11 34.87
	5700.00	13.67	108.20	5650.58	-97.80	-152.05	462.46	0.00	363904.62	584855.47	N 32 0 1.43	W 104 11 34.61
	5800.00	13.67	108.20	5747.74	-102.55	-159.43	484.91	0.00	363897.23	584877.92	N 32 0 1.35	W 104 11 34.35
	5900.00	13.67	108.20	5844.91	-107.30	-166.81	507.36	0.00	363889.85	584900.37	N 32 0 1.28	W 104 11 34.09
	6000.00	13.67	108.20	5942.08	-112.05	-174.19	529.81	0.00	363882.47	584922.82	N 32 0 1.21	W 104 11 33.83
	6100.00	13.67	108.20	6039.25	-116.80	-181.57	552.26	0.00	363875.09	584945.27	N 32 0 1.13	W 104 11 33.57
	6200.00	13.67	108.20	6136.41	-121.54	-188.95	574.71	0.00	363867.71	584967.72	N 32 0 1.06	W 104 11 33.31
	6300.00	13.67	108.20	6233.58	-126.29	-196.34	597.16	0.00	363860.33	584990.17	N 32 0 0.99	W 104 11 33.05
	6400.00	13.67	108.20	6330.75	-131.04	-203.72	619.61	0.00	363852.95	585012.61	N 32 0 0.91	W 104 11 32.78
	6500.00	13.67	108.20	6427.91	-135.79	-211.10	642.06	0.00	363845.57	585035.06	N 32 0 0.84	W 104 11 32.52
	6600.00	13.67	108.20	6525.08	-140.54	-218.48	664.51	0.00	363838.19	585057.51	N 32 0 0.77	W 104 11 32.26
	6700.00	13.67	108.20	6622.25	-145.29	-225.86	686.96	0.00	363830.81	585079.96	N 32 0 0.69	W 104 11 32.00
	6800.00	13.67	108.20	6719.42	-150.03	-233.24	709.41	0.00	363823.43	585102.41	N 32 0 0.62	W 104 11 31.74
	6900.00	13.67	108.20	6816.58	-153.01	-237.87	723.87	0.00	363816.05	585116.47	N 32 0 0.57	W 104 11 31.58
	7000.00	13.67	108.20	6913.75	-153.33	-239.16	731.87	12.00	363808.67	585124.86	N 32 0 0.56	W 104 11 31.48
	7062.63	12.98	88.88	6974.61	-139.98	-228.30	754.08	12.00	363835.76	585147.07	N 32 0 0.67	W 104 11 31.22
	7100.00	17.71	45.77	7010.99	-106.50	-197.04	775.15	12.00	363867.01	585168.14	N 32 0 0.98	W 104 11 30.98
	7200.00	27.24	26.17	7107.70	-54.36	-146.75	794.15	12.00	363917.29	585187.14	N 32 0 1.48	W 104 11 30.76
	7300.00	38.11	16.66	7200.12	14.16	-79.64	810.27	12.00	363984.40	585203.26	N 32 0 2.14	W 104 11 30.57
	7400.00	38.11	10.94	7284.22	96.07	1.37	822.79	12.00	364065.40	585224.16	N 32 0 2.94	W 104 11 30.42
	7500.00	49.45	10.94	7356.33	187.79	92.73	831.17	12.00	364156.76	585241.16	N 32 0 3.84	W 104 11 30.32
	7600.00	60.99	6.91	7413.29								
	7700.00	72.63	3.71	7452.61								

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (NUS °.')	Longitude (EW °.')
Landing Point	7800.00	84.30	0.89	7472.58	285.31	190.46	835.04	12.00	364254.47	585228.03	N 32 0 4.81	W 104 11 30.28
	7848.71	90.00	359.57	7475.00	333.64	239.08	835.24	12.00	364303.09	585228.22	N 32 0 5.29	W 104 11 30.27
	7900.00	90.00	359.57	7475.00	384.54	290.38	834.85	0.00	364354.38	585227.84	N 32 0 5.80	W 104 11 30.28
	8000.00	90.00	359.57	7475.00	483.79	390.37	834.10	0.00	364454.37	585227.09	N 32 0 6.79	W 104 11 30.28
	8100.00	90.00	359.57	7475.00	583.04	490.37	833.36	0.00	364554.36	585226.34	N 32 0 7.78	W 104 11 30.29
	8200.00	90.00	359.57	7475.00	682.28	590.37	832.61	0.00	364654.34	585225.59	N 32 0 8.77	W 104 11 30.30
	8300.00	90.00	359.57	7475.00	781.53	690.36	831.86	0.00	364754.33	585224.85	N 32 0 9.76	W 104 11 30.31
	8400.00	90.00	359.57	7475.00	880.78	790.36	831.12	0.00	364854.32	585224.10	N 32 0 10.75	W 104 11 30.31
	8500.00	90.00	359.57	7475.00	980.02	890.36	830.37	0.00	364954.31	585223.35	N 32 0 11.74	W 104 11 30.32
	8600.00	90.00	359.57	7475.00	1079.27	990.36	829.62	0.00	365054.30	585222.61	N 32 -0 12.73	W 104 11 30.33
	8700.00	90.00	359.57	7475.00	1178.52	1090.35	828.88	0.00	365154.28	585221.86	N 32 0 13.72	W 104 11 30.33
	8800.00	90.00	359.57	7475.00	1277.76	1190.35	828.13	0.00	365254.27	585221.12	N 32 0 14.71	W 104 11 30.34
	8900.00	90.00	359.57	7475.00	1377.01	1290.35	827.39	0.00	365354.26	585220.37	N 32 0 15.70	W 104 11 30.35
	9000.00	90.00	359.57	7475.00	1476.26	1390.34	826.64	0.00	365454.25	585219.63	N 32 0 16.69	W 104 11 30.36
	9100.00	90.00	359.57	7475.00	1575.50	1490.34	825.90	0.00	365554.24	585218.88	N 32 0 17.67	W 104 11 30.36
	9200.00	90.00	359.57	7475.00	1674.75	1590.34	825.16	0.00	365654.22	585218.14	N 32 0 18.66	W 104 11 30.37
	9300.00	90.00	359.57	7475.00	1774.00	1690.34	824.41	0.00	365754.21	585217.40	N 32 0 19.65	W 104 11 30.38
	9400.00	90.00	359.57	7475.00	1873.24	1790.33	823.67	0.00	365854.20	585216.65	N 32 0 20.64	W 104 11 30.38
	9500.00	90.00	359.57	7475.00	1972.49	1890.33	822.93	0.00	365954.19	585215.91	N 32 0 21.63	W 104 11 30.39
	9600.00	90.00	359.57	7475.00	2071.74	1990.33	822.18	0.00	366054.18	585215.17	N 32 0 22.62	W 104 11 30.40
	9700.00	90.00	359.57	7475.00	2170.99	2090.33	821.44	0.00	366154.17	585214.43	N 32 0 23.61	W 104 11 30.41
	9800.00	90.00	359.58	7475.00	2270.23	2190.32	820.70	0.00	366254.15	585213.68	N 32 0 24.60	W 104 11 30.41
	9900.00	90.00	359.58	7475.00	2369.48	2290.32	819.96	0.00	366354.14	585212.94	N 32 0 25.59	W 104 11 30.42
	10000.00	90.00	359.58	7475.01	2468.73	2390.32	819.22	0.00	366454.13	585212.20	N 32 0 26.58	W 104 11 30.43
	10100.00	90.00	359.58	7475.01	2567.97	2490.31	818.48	0.00	366554.12	585211.46	N 32 0 27.57	W 104 11 30.44
	10200.00	90.00	359.58	7475.01	2667.22	2590.31	817.73	0.00	366654.11	585210.72	N 32 0 28.56	W 104 11 30.45
	10300.00	90.00	359.58	7475.01	2766.47	2690.31	816.99	0.00	366754.09	585209.98	N 32 0 29.55	W 104 11 30.46
	10400.00	90.00	359.58	7475.01	2865.72	2790.31	816.25	0.00	366854.08	585209.24	N 32 0 30.54	W 104 11 30.46
	10500.00	90.00	359.58	7475.01	2964.96	2890.30	815.52	0.00	366954.07	585208.50	N 32 0 31.53	W 104 11 30.46
	10600.00	90.00	359.58	7475.01	3064.21	2990.30	814.78	0.00	367054.06	585207.76	N 32 0 32.52	W 104 11 30.47
	10700.00	90.00	359.58	7475.01	3163.46	3090.30	814.04	0.00	367154.05	585207.02	N 32 0 33.51	W 104 11 30.48
	10800.00	90.00	359.58	7475.01	3262.71	3190.30	813.30	0.00	367254.04	585206.29	N 32 0 34.50	W 104 11 30.48
	10900.00	90.00	359.58	7475.01	3361.95	3290.29	812.56	0.00	367354.02	585205.55	N 32 0 35.49	W 104 11 30.49
	11000.00	90.00	359.58	7475.01	3461.20	3390.29	811.82	0.00	367454.01	585204.81	N 32 0 36.48	W 104 11 30.50
	11100.00	90.00	359.58	7475.01	3560.45	3490.29	811.09	0.00	367554.00	585204.07	N 32 0 37.47	W 104 11 30.50
	11200.00	90.00	359.58	7475.01	3659.70	3590.28	810.35	0.00	367653.99	585203.33	N 32 0 38.45	W 104 11 30.51
	11300.00	90.00	359.58	7475.01	3758.95	3690.28	809.61	0.00	367753.98	585202.60	N 32 0 39.44	W 104 11 30.52
	11400.00	90.00	359.58	7475.01	3858.19	3790.28	808.87	0.00	367853.96	585201.86	N 32 0 40.43	W 104 11 30.53
	11500.00	90.00	359.58	7475.01	3957.44	3890.28	808.14	0.00	367953.95	585201.13	N 32 0 41.42	W 104 11 30.54
	11600.00	90.00	359.58	7475.01	4056.69	3990.27	807.40	0.00	368053.94	585199.65	N 32 0 42.41	W 104 11 30.55
	11700.00	90.00	359.58	7475.01	4155.94	4090.27	806.67	0.00	368153.93	585198.92	N 32 0 43.40	W 104 11 30.55
	11800.00	90.00	359.58	7475.01	4255.18	4190.27	805.93	0.00	368253.92	585198.18	N 32 0 44.39	W 104 11 30.56
	11900.00	90.00	359.58	7475.01	4354.43	4290.27	805.20	0.00	368353.91	585197.45	N 32 0 45.38	W 104 11 30.57
	12000.00	90.00	359.58	7475.01	4453.68	4390.26	804.46	0.00	368453.89	585196.72	N 32 0 46.37	W 104 11 30.58
	12100.00	90.00	359.58	7475.01	4552.93	4490.26	803.73	0.00	368553.88	585195.98	N 32 0 47.36	W 104 11 30.58
	12200.00	90.00	359.58	7475.01	4652.18	4590.26	803.00	0.00	368653.87	585195.25	N 32 0 48.35	W 104 11 30.59
	12300.00	90.00	359.58	7475.01	4751.43	4690.25	802.26	0.00	368753.86	585194.52	N 32 0 49.34	W 104 11 30.60
	12400.00	90.00	359.58	7475.01	4850.67	4790.25	801.53	0.00	368853.85	585193.78	N 32 0 50.33	W 104 11 30.60
	12500.00	90.00	359.58	7475.01	4949.92	4890.25	800.80	0.00	368953.84	585193.05	N 32 0 51.32	W 104 11 30.61
	12600.00	90.00	359.58	7475.01	5049.17	4990.25	800.06	0.00	369053.82	585192.32	N 32 0 52.31	W 104 11 30.62
	12700.00	90.00	359.58	7475.01	5148.42	5090.24	799.33	0.00	369153.81	585191.59	N 32 0 53.30	W 104 11 30.62
	12800.00	90.00	359.58	7475.00	5247.67	5190.24	798.60	0.00	369253.80	585190.86	N 32 0 54.29	W 104 11 30.63
	12900.00	90.00	359.58	7475.00	5346.92	5290.24	797.87	0.00	369353.79	585190.12	N 32 0 55.28	W 104 11 30.64
	13000.00	90.00	359.58	7475.00	5446.16	5390.24	797.14	0.00	369453.78	585189.39	N 32 0 56.27	W 104 11 30.64
	13100.00	90.00	359.58	7475.00	5545.41	5490.23	796.41	0.00	369553.76	585188.66	N 32 0 57.26	W 104 11 30.65
	13200.00	90.00	359.58	7475.00	5644.66	5590.23	795.68	0.00	369653.75	585187.93	N 32 0 58.25	W 104 11 30.66
	13300.00	90.00	359.58	7475.00	5743.91	5690.23	794.95	0.00	369753.74	585187.20	N 32 0 59.23	W 104 11 30.67
	13400.00	90.00	359.58	7475.00	5843.16	5790.23	794.22	0.00	369853.73		N 32 1 0.22	W 104 11 30.67

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 ° ' '')
	13500.00	90.00	359.58	7475.00	5942.41	5890.22	793.49	0.00	369953.72	585186.47	N 32 1 1.21	W 104 11 30.67
	13600.00	90.00	359.58	7475.00	6041.66	5990.22	792.76	0.00	370053.71	585185.75	N 32 1 2.20	W 104 11 30.68
	13700.00	90.00	359.58	7475.00	6140.90	6090.22	792.03	0.00	370153.69	585185.02	N 32 1 3.19	W 104 11 30.69
	13800.00	90.00	359.58	7475.00	6240.15	6190.21	791.30	0.00	370253.68	585184.29	N 32 1 4.18	W 104 11 30.69
	13900.00	90.00	359.58	7475.00	6339.40	6290.21	790.57	0.00	370353.67	585183.56	N 32 1 5.17	W 104 11 30.70
	14000.00	90.00	359.58	7475.00	6438.65	6390.21	789.84	0.00	370453.66	585182.83	N 32 1 6.16	W 104 11 30.71
	14100.00	90.00	359.58	7475.00	6537.90	6490.21	789.12	0.00	370553.65	585182.11	N 32 1 7.15	W 104 11 30.71
	14200.00	90.00	359.58	7475.00	6637.15	6590.20	788.39	0.00	370653.64	585181.38	N 32 1 8.14	W 104 11 30.72
	14300.00	90.00	359.58	7475.00	6736.40	6690.20	787.66	0.00	370753.62	585180.65	N 32 1 9.13	W 104 11 30.73
	14400.00	90.00	359.58	7475.00	6835.65	6790.20	786.94	0.00	370853.61	585179.93	N 32 1 10.12	W 104 11 30.74
Cimarex Klein 33 Federal Com 8H - PBHL	14400.80	90.00	359.58	7475.00	6836.44	6791.00	786.93	0.00	370854.41	585179.92	N 32 1 10.13	W 104 11 30.74

Survey Type: Non-Def Plan

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	14400.798	1/100.000	30.000	30.000		SLB_MWD-STD	Original Borehole / Cimarex Klein 33 Federal Com 8H Rev4 OPB 30-