

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTOCD Hobbs
HOBBS OCDFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS JUN 16 2014**
*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.
NMNM0392082A

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.

RECEIVED

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

HALLERTAU 4 FEDERAL 2H

2. Name of Operator
CIMAREX ENERGY CO.Contact: DEYSI FAVELA
E-Mail: dfavela@cimarex.com

9. API Well No.

30-025-41119

3a. Address:
600 N. MARIENFELD
MIDLAND, TX 797013b. Phone No. (include area code)
Ph: 432-620-196410. Field and Pool, or Exploratory
WILDCAT BONE SPRING

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

Sec 4 T26S R32E NWNW 330FNL 1650FWL

11. County or Parish, and State

LEA 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 requests changes to the APD:

Directional Plan Change / BHL Move

Approved:

BHL 330' FSL & 1650' FWL

KOP 8799'

EOC 9249'

MD 13657'

TVD 9085'

PH 9900'

Proposed:

this is not what your approved for (this is the 3 directional change)

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

Electronic Submission #244521 verified by the BLM Well Information System
For CIMAREX ENERGY CO., sent to the Hobbs
Committed to AFMSS for processing by LINDA JIMENEZ on 05/22/2014 ()

Name (Printed/Typed) DEYSI FAVELA

Title DRILLING TECH

Signature (Electronic Submission)

Date 05/05/2014

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

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

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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.

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

JUN 17 2014

Additional data for EC transaction #244521 that would not fit on the form

32. Additional remarks, continued

BHL 330' FSL & 1484' FWL

KOP 8923'

EOC 9673'

MD 13882'

TVD 9400'

PH No Pilot Hole

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1361 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010
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 30-025-41119	Pool Code	Pool Name Jennings Upper Shale Bone Spring
Property Code	Property Name HALLERTAU "4" FEDERAL	Well Number 2H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3314'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	4	26 S	32 E		330	NORTH	1650	WEST	LEA

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
N	4	26 S	32 E		330	SOUTH	1484	WEST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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

SURFACE LOCATION Lat - N 37°04'43.43" Long - W 103°41'00.05" NAD83 - N 392985.9503399.5 E 742655.046 (NAD-83) PROPOSED BOTTOM HOLE LOCATION Lat - N 37°05'57.08" Long - W 103°41'01.88" NAD83 - N 368300.9 E 742525.8 (NAD-83)	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 heretofore entered by the division. <i>Deysi Favela</i> 4/29/2014 Signature Date Deysi Favela Printed Name dfavela@cimarex.com Email Address 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: 4/29/2014 Signature: [Signature] Printed Name: [Name] Professional Seal of Surveyor: [Seal] Certificate No. Gary L. Jones 7977 BASIN SURVEYS 24491
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HOBS CCD
JUN 16 2014
RECEIVED

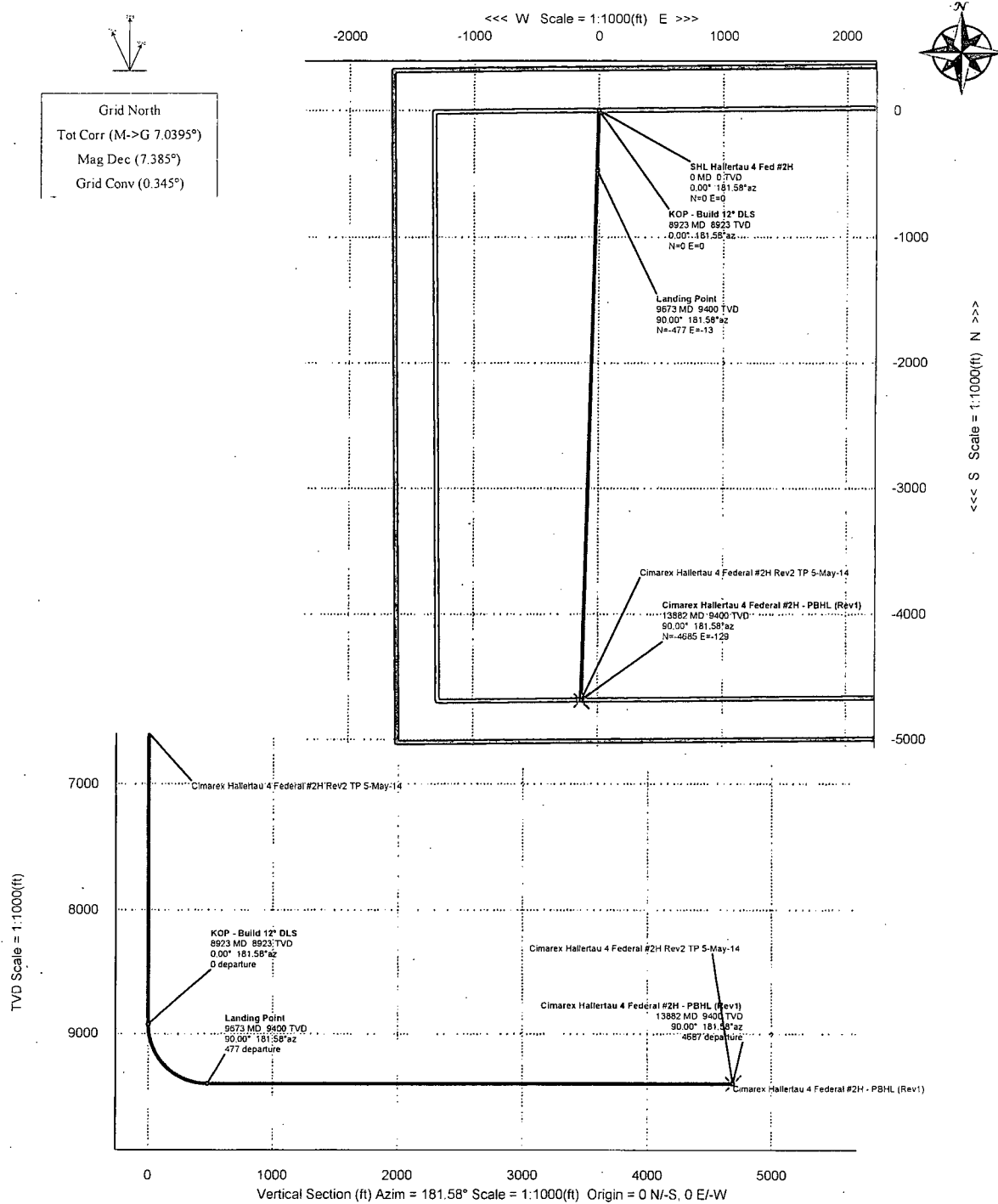


Cimarex

PATHFINDER
 A Schlumberger Company

WELL	FIELD	STRUCTURE
Hallertau 4 Federal #2H	NM Lea County (NAD 83)	Cimarex Hallertau 4 Federal #2

Magnetic Parameters Model: BGG14 2013 Dip: 59.544° Mag Dec: 7.385° Date: May 05, 2014 FG: 48204 ENT	Surface Location Lat: N 32 4 43.431 Lon: W 103 41 0 049 Northing: 392985 95 M/S Easting: 742653 05 M/S NAD83 New Mexico State Plane, Eastern Zone, US Feet Grid Conv: 0.345' Scale Fact: 0.99995551	Miscellaneous Slot: Hallertau 4 Federal #2H Plan: Cimarex Hallertau 4 Federal #2H/TP5 TVD Ref: Ground Level (3314ft above MSL) TVD Offset: 2013
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Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+) / S(-)	E(+) / W(-)	DLS
SHL Hallertau 4 Fed #2H	0.00	0.00	181.58	0.00	0.00	0.00	0.00	
KOP - Build 12° DLS	8922.50	0.00	181.58	8922.50	0.00	0.00	0.00	0.00
Landing Point	9672.56	90.00	181.58	9400.00	477.50	-477.32	-13.17	12.00
Cimarex Hallertau 4 Federal #2H - PBHL (Rev1)	13882.12	90.00	181.58	9400.00	4687.06	-4685.28	-129.25	0.00



Cimarex Hallertau 4 Federal #2H Rev2 TP 5-May-14 Proposal Report
(Non-Def Plan)

Report Date: May 05, 2014 - 02:52 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Hallertau 4 Federal #2H / Hallertau 4 Federal #2H
Well: Hallertau 4 Federal #2H
Borehole: Original Borehole
UWA / API#: Unknown / Unknown
Survey Name: Cimarex Hallertau 4 Federal #2H Rev2 TP 5-May-14
Survey Date: December 09, 2013
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 4687.060 ft / 5.794 / 0.499
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 4' 43.43119", W 103° 41' 0.04915"
Location Grid N/E Y/X: N 392985.960 NUS, E 742655.046 NUS
CRS Grid Convergence Angle: 0.3452 °
Grid Scale Factor: 0.9995551

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 181.580 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3314.000 ft above MSL
Seabed / Ground Elevation: 3314.000 ft above MSL
Magnetic Declination: 7.385 °
Total Field Strength: 48204.772 nT
Magnetic Dip Angle: 59.944 °
Declination Date: May 05, 2014
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3452 °
Total Corr Mag North->Grid North: 7.0395 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (NUS)	Easting (EUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure (ft)	Closure Azimuth (°)	DLS (ft/100ft)
SHL Hallertau 4 Fed #2H	0.00	0.00	181.58	0.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	N/A
	100.00	0.00	181.58	100.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	200.00	0.00	181.58	200.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	300.00	0.00	181.58	300.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	400.00	0.00	181.58	400.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	500.00	0.00	181.58	500.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	600.00	0.00	181.58	600.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	700.00	0.00	181.58	700.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	800.00	0.00	181.58	800.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	900.00	0.00	181.58	900.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1000.00	0.00	181.58	1000.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1100.00	0.00	181.58	1100.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1200.00	0.00	181.58	1200.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1300.00	0.00	181.58	1300.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1400.00	0.00	181.58	1400.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1500.00	0.00	181.58	1500.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1600.00	0.00	181.58	1600.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1700.00	0.00	181.58	1700.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1800.00	0.00	181.58	1800.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	1900.00	0.00	181.58	1900.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2000.00	0.00	181.58	2000.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2100.00	0.00	181.58	2100.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2200.00	0.00	181.58	2200.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2300.00	0.00	181.58	2300.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2400.00	0.00	181.58	2400.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2500.00	0.00	181.58	2500.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2600.00	0.00	181.58	2600.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2700.00	0.00	181.58	2700.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2800.00	0.00	181.58	2800.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	2900.00	0.00	181.58	2900.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	3000.00	0.00	181.58	3000.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	3100.00	0.00	181.58	3100.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (NUS)	Easting (EUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
	8700.00	0.00	181.58	8700.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	8800.00	0.00	181.58	8800.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	8900.00	0.00	181.58	8900.00	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
KOP - Build 12" DLS	8922.50	0.00	181.58	8922.50	0.00	0.00	0.00	392985.96	742655.05	N 32 4 43.43	W 103 41 0.05	0.00	0.00	0.00
	9000.00	9.30	181.58	8999.66	6.28	-6.27	-0.17	392979.69	742654.87	N 32 4 43.37	W 103 41 0.05	8.28	181.58	12.00
	9100.00	21.30	181.58	9095.94	32.61	-32.60	-0.90	392953.36	742654.15	N 32 4 43.11	W 103 41 0.06	32.61	181.58	12.00
	9200.00	33.30	181.58	9184.64	78.39	-78.36	-2.16	392907.60	742652.88	N 32 4 42.66	W 103 41 0.08	78.39	181.58	12.00
	9300.00	45.30	181.58	9261.89	141.61	-141.56	-3.90	392844.41	742651.14	N 32 4 42.03	W 103 41 0.10	141.61	181.58	12.00
	9400.00	57.30	181.58	9324.30	219.51	-219.42	-6.05	392765.55	742648.99	N 32 4 41.26	W 103 41 0.13	219.51	181.58	12.00
	9500.00	69.29	181.58	9369.16	308.68	-308.56	-8.51	392677.42	742646.54	N 32 4 40.38	W 103 41 0.17	308.68	181.58	12.00
	9600.00	81.28	181.58	9394.50	405.22	-405.07	-11.17	392580.91	742643.87	N 32 4 39.42	W 103 41 0.21	405.22	181.58	12.00
	9672.56	90.00	181.58	9400.00	477.50	-477.32	-13.17	392506.66	742641.88	N 32 4 38.71	W 103 41 0.24	477.50	181.58	12.00
Landing Point	9700.00	90.00	181.58	9400.00	504.94	-504.75	-13.92	392481.23	742641.12	N 32 4 38.44	W 103 41 0.25	504.94	181.58	0.00
	9800.00	90.00	181.58	9400.00	604.94	-604.71	-16.68	392381.27	742638.37	N 32 4 37.45	W 103 41 0.29	604.94	181.58	0.00
	9900.00	90.00	181.58	9400.00	704.94	-704.68	-19.44	392281.32	742635.61	N 32 4 36.46	W 103 41 0.32	704.94	181.58	0.00
	10000.00	90.00	181.58	9400.00	804.94	-804.64	-22.20	392181.36	742632.85	N 32 4 35.47	W 103 41 0.36	804.94	181.58	0.00
	10100.00	90.00	181.58	9400.00	904.94	-904.60	-24.95	392081.40	742630.09	N 32 4 34.48	W 103 41 0.40	904.94	181.58	0.00
	10200.00	90.00	181.58	9400.00	1004.94	-1004.56	-27.71	391981.44	742627.34	N 32 4 33.49	W 103 41 0.44	1004.94	181.58	0.00
	10300.00	90.00	181.58	9400.00	1104.94	-1104.52	-30.47	391881.49	742624.58	N 32 4 32.50	W 103 41 0.48	1104.94	181.58	0.00
	10400.00	90.00	181.58	9400.00	1204.94	-1204.49	-33.23	391781.53	742621.82	N 32 4 31.51	W 103 41 0.52	1204.94	181.58	0.00
	10500.00	90.00	181.58	9400.00	1304.94	-1304.45	-35.98	391681.57	742619.06	N 32 4 30.53	W 103 41 0.56	1304.94	181.58	0.00
	10600.00	90.00	181.58	9400.00	1404.94	-1404.41	-38.74	391581.61	742616.31	N 32 4 29.54	W 103 41 0.60	1404.94	181.58	0.00
	10700.00	90.00	181.58	9400.00	1504.94	-1504.37	-41.50	391481.66	742613.55	N 32 4 28.55	W 103 41 0.64	1504.94	181.58	0.00
	10800.00	90.00	181.58	9400.00	1604.94	-1604.33	-44.26	391381.70	742610.79	N 32 4 27.56	W 103 41 0.68	1604.94	181.58	0.00
	10900.00	90.00	181.58	9400.00	1704.94	-1704.30	-47.01	391281.74	742608.03	N 32 4 26.57	W 103 41 0.71	1704.94	181.58	0.00
	11000.00	90.00	181.58	9400.00	1804.94	-1804.26	-49.77	391181.79	742605.28	N 32 4 25.58	W 103 41 0.75	1804.94	181.58	0.00
	11100.00	90.00	181.58	9400.00	1904.94	-1904.22	-52.53	391081.83	742602.52	N 32 4 24.59	W 103 41 0.79	1904.94	181.58	0.00
	11200.00	90.00	181.58	9400.00	2004.94	-2004.18	-55.29	390981.87	742599.76	N 32 4 23.60	W 103 41 0.83	2004.94	181.58	0.00
	11300.00	90.00	181.58	9400.00	2104.94	-2104.14	-58.05	390881.91	742597.00	N 32 4 22.61	W 103 41 0.87	2104.94	181.58	0.00
	11400.00	90.00	181.58	9400.00	2204.94	-2204.11	-60.80	390781.96	742594.25	N 32 4 21.62	W 103 41 0.91	2204.94	181.58	0.00
	11500.00	90.00	181.58	9400.00	2304.94	-2304.07	-63.56	390682.00	742591.49	N 32 4 20.64	W 103 41 0.95	2304.94	181.58	0.00
	11600.00	90.00	181.58	9400.00	2404.94	-2404.03	-66.32	390582.04	742588.73	N 32 4 19.65	W 103 41 0.99	2404.94	181.58	0.00
	11700.00	90.00	181.58	9400.00	2504.94	-2503.99	-69.08	390482.08	742585.97	N 32 4 18.66	W 103 41 1.03	2504.94	181.58	0.00
	11800.00	90.00	181.58	9400.00	2604.94	-2603.95	-71.83	390382.13	742583.22	N 32 4 17.67	W 103 41 1.07	2604.94	181.58	0.00
	11900.00	90.00	181.58	9400.00	2704.94	-2703.92	-74.59	390282.17	742580.46	N 32 4 16.68	W 103 41 1.11	2704.94	181.58	0.00
	12000.00	90.00	181.58	9400.00	2804.94	-2803.88	-77.35	390182.21	742577.70	N 32 4 15.69	W 103 41 1.14	2804.94	181.58	0.00
	12100.00	90.00	181.58	9400.00	2904.94	-2903.84	-80.11	390082.25	742574.94	N 32 4 14.70	W 103 41 1.18	2904.94	181.58	0.00
	12200.00	90.00	181.58	9400.00	3004.94	-3003.80	-82.86	389982.30	742572.19	N 32 4 13.71	W 103 41 1.22	3004.94	181.58	0.00
	12300.00	90.00	181.58	9400.00	3104.94	-3103.76	-85.62	389882.34	742569.43	N 32 4 12.72	W 103 41 1.26	3104.94	181.58	0.00
	12400.00	90.00	181.58	9400.00	3204.94	-3203.73	-88.38	389782.38	742566.67	N 32 4 11.73	W 103 41 1.30	3204.94	181.58	0.00
	12500.00	90.00	181.58	9400.00	3304.94	-3303.69	-91.14	389682.43	742563.91	N 32 4 10.75	W 103 41 1.34	3304.94	181.58	0.00
	12600.00	90.00	181.58	9400.00	3404.94	-3403.65	-93.90	389582.47	742561.15	N 32 4 9.76	W 103 41 1.38	3404.94	181.58	0.00
	12700.00	90.00	181.58	9400.00	3504.94	-3503.61	-96.65	389482.51	742558.40	N 32 4 8.77	W 103 41 1.42	3504.94	181.58	0.00
	12800.00	90.00	181.58	9400.00	3604.94	-3603.57	-99.41	389382.55	742555.64	N 32 4 7.78	W 103 41 1.46	3604.94	181.58	0.00
	12900.00	90.00	181.58	9400.00	3704.94	-3703.54	-102.17	389282.60	742552.88	N 32 4 6.79	W 103 41 1.50	3704.94	181.58	0.00
	13000.00	90.00	181.58	9400.00	3804.94	-3803.50	-104.93	389182.64	742550.12	N 32 4 5.80	W 103 41 1.53	3804.94	181.58	0.00
	13100.00	90.00	181.58	9400.00	3904.94	-3903.46	-107.68	389082.68	742547.37	N 32 4 4.81	W 103 41 1.57	3904.94	181.58	0.00
	13200.00	90.00	181.58	9400.00	4004.94	-4003.42	-110.44	388982.72	742544.61	N 32 4 3.82	W 103 41 1.61	4004.94	181.58	0.00
	13300.00	90.00	181.58	9400.00	4104.94	-4103.38	-113.20	388882.77	742541.85	N 32 4 2.83	W 103 41 1.65	4104.94	181.58	0.00
	13400.00	90.00	181.58	9400.00	4204.94	-4203.35	-115.96	388782.81	742539.09	N 32 4 1.85	W 103 41 1.69	4204.94	181.58	0.00
	13500.00	90.00	181.58	9400.00	4304.94	-4303.31	-118.71	388682.85	742536.34	N 32 4 0.86	W 103 41 1.73	4304.94	181.58	0.00
	13600.00	90.00	181.58	9400.00	4404.94	-4403.27	-121.47	388582.90	742533.58	N 32 3 59.87	W 103 41 1.77	4404.94	181.58	0.00
	13700.00	90.00	181.58	9400.00	4504.94	-4503.23	-124.23	388482.94	742530.82	N 32 3 58.88	W 103 41 1.81	4504.94	181.58	0.00
	13800.00	90.00	181.58	9400.00	4604.94	-4603.19	-126.99	388382.98	742528.06	N 32 3 57.89	W 103 41 1.85	4604.94	181.58	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS ('/100ft)
Cimarex Hallertau 4 Federal #2H - PBH-L (Rev1)	13882.12	90.00	181.58	9400.00	4687.06	-4685.28	-129.25	388300.90	742525.60	N 32 3 57.08 W	103 41 1.68	4687.06	181.58	0.00

Survey Type: Non-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	13882.116	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Hallertau 4 Federal #2H Rev2 TP