

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.
NMNM125658

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
FEZ FEDERAL COM 701H9. API Well No.
30-025-45277-00-X110. Field and Pool or Exploratory Area
WC025G09S243532M-WOLFBONE11. County or Parish, State
LEA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

RECEIVED

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
COG OPERATING LLCContact: MAYTE X REYES
E-Mail: mreyes1@concho.com3a. Address
ONE CONCHO CENTER 600 W ILLINOIS AVENUE
MIDLAND, TX 79701-42873b. Phone No. (include area code)
Ph: 575-748-6945

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

Sec 9 T25S R35E SESW 280FSL 1720FWL
32.138405 N Lat, 103.375465 W Lon

12. CHECK THE 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	☐ Hydraulic Fracturing	☐ 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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

COG Operating LLC, respectfully requests approval for the following changes to the originally approved APD.

BHL

From: 200' FNL & 1650' FWL Section 4. T25S. R35E.

To: 200' FNL & 2145' FWL Section 4. T25S. R35E

TD has decreased to 22,161? MD.

C102 Attached.

AC Report Attached.

Directional Plan Attached.

Carlsbad Field Office
OCD Hobbs

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

Electronic Submission #442374 verified by the BLM Well Information System

For COG OPERATING LLC, sent to the Hobbs

Committed to AFMSS for processing by MUSTAFA HAQUE on 11/02/2018 (19MH0008SE)

Name (Printed/Typed) MAYTE X REYES

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 11/01/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By MUSTAFA HAQUE

Title PETROLEUM ENGINEER

Date 11/08/2018

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 Hobbs

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.

(Instructions on page 2)

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

Kz

DISTRICT I
1625 N. FRANCHIS DR., BOHRS, NM 87240
Phone: (505) 332-6151 Fax: (505) 332-0780

DISTRICT II
511 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 749-1823 Fax: (505) 749-9732

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1625 N. FRANCHIS DR., SANTA FE, NM 87505
Phone: (505) 476-3450 Fax: (505) 476-3452

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45277	Pool Code 98098	Pool Name Wildcat; Wolfbone
Property Code 322742	Property Name FEZ FEDERAL COM	Well Number 701H
OGRI No. 229137	Operator Name COG OPERATING, LLC	Elevation 3243.6'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	9	25-S	35-E		280	SOUTH	1720	WEST	LEA

Bottom Hole Location If Different From Surface

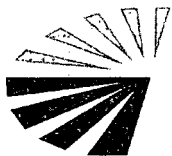
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	4	25-S	35-E		200	NORTH	2145	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
639.8			

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

Y=425694.4 N X=836026.8 E LOT 4 40.89 Ac LOT 2 40.89 Ac LOT 1 40.89 Ac LOT 3 40.89 Ac 330' FSL & 2145' FWL Y=425383.6 N X=838174.0 E LAT.=32.165821° N LONG.=103.374049° W NMNM125657 GRID AZ. - 359°34'08" HORZ. DIST. - 10054.0' LEASE X-ING LAT.=32.152153° N LONG.=103.374071° W SECTION 4 SECTION 9 FEE LEASE X-ING LAT.=32.144893° N LONG.=103.374083° W NMNM125658 330' FSL & 2145' FWL Y=415459.9 N X=838248.6 E LAT.=32.138543° N LONG.=103.374093° W GRID AZ. TO FIP 82°48'23" Y=415111.5 N X=836106.5 E 1720' 1280'	NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=425513.6 N X=838173.0 E LAT.=32.166178° N LONG.=103.374048° W	OPERATOR CERTIFICATION I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature <u>Mayte Reyes</u> Date <u>11-1-18</u> Printed Name <u>Mayte Reyes</u> E-mail Address <u>mreyes1@concho.com</u> 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. DECEMBER 4, 2017 Date of Survey Signature & Seal of Professional Surveyor  10/2/18 Certificate No. <u>CHAD HARGROW</u> 17777 W.O. # <u>17-1257</u> DRAWN BY: <u>JH</u>
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As per LR2000: Lot 3: 39.89 Lot 4: 39.91



CONCHO

Concho Resources

**Lea County, NM
Fez Federal Com
Fez Federal Com 701H**

**Wellbore #1
plan1**

Anticollision Report

23 October, 2018



Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Reference	plan1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	0.00 to 22,161.36usft
Results Limited by:	Maximum center-center distance of 2,000.00 us
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	10/23/18		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	22,161.36	plan1 (Wellbore #1)	MWD+IFR1+SAG+MS	OWSG MWD + IFR1 + Sag + Multi-Station Corre	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Fez Federal Com						
Fez Federal Com 601H - Wellbore #1 - plan1	2,500.00	2,500.30	30.00	12.53	1.717 CC	
Fez Federal Com 601H - Wellbore #1 - plan1	22,161.36	22,164.38	85.00	-90.42	0.485 Level 1, ES, SF	
Fez Federal Com 602H - Wellbore #1 - plan1	3,000.00	3,000.10	30.01	8.95	1.425 Level 3, CC, ES, SF	

Offset Design													
Fez Federal Com - Fez Federal Com 601H - Wellbore #1 - plan1													
Survey Program: 0-MWD+IFR1+SAG+MS													
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.30	0.00	0.00	0.00	90.00	0.00	30.00	30.00				
100.00	100.00	100.30	100.00	0.13	0.13	90.00	0.00	30.00	30.00	29.73	0.27	112.636	
200.00	200.00	200.30	200.00	0.49	0.49	90.00	0.00	30.00	30.00	29.02	0.98	30.510	
300.00	300.00	300.30	300.00	0.85	0.85	90.00	0.00	30.00	30.00	28.30	1.70	17.845	
400.00	400.00	400.30	400.00	1.21	1.21	90.00	0.00	30.00	30.00	27.58	2.42	12.411	
500.00	500.00	500.30	500.00	1.57	1.57	90.00	0.00	30.00	30.00	26.87	3.13	9.572	
600.00	600.00	600.30	600.00	1.92	1.93	90.00	0.00	30.00	30.00	26.15	3.85	7.790	
700.00	700.00	700.30	700.00	2.28	2.28	90.00	0.00	30.00	30.00	25.43	4.57	6.567	
800.00	800.00	800.30	800.00	2.64	2.64	90.00	0.00	30.00	30.00	24.72	5.28	5.677	
900.00	900.00	900.30	900.00	3.00	3.00	90.00	0.00	30.00	30.00	24.00	6.00	4.998	
1,000.00	1,000.00	1,000.30	1,000.00	3.36	3.36	90.00	0.00	30.00	30.00	23.28	6.72	4.465	
1,100.00	1,100.00	1,100.30	1,100.00	3.72	3.72	90.00	0.00	30.00	30.00	22.56	7.44	4.035	
1,200.00	1,200.00	1,200.30	1,200.00	4.08	4.08	90.00	0.00	30.00	30.00	21.85	8.15	3.680	
1,300.00	1,300.00	1,300.30	1,300.00	4.43	4.44	90.00	0.00	30.00	30.00	21.13	8.87	3.382	
1,400.00	1,400.00	1,400.30	1,400.00	4.79	4.79	90.00	0.00	30.00	30.00	20.41	9.59	3.129	
1,500.00	1,500.00	1,500.30	1,500.00	5.15	5.15	90.00	0.00	30.00	30.00	19.70	10.30	2.912	
1,600.00	1,600.00	1,600.30	1,600.00	5.51	5.51	90.00	0.00	30.00	30.00	18.98	11.02	2.722	
1,700.00	1,700.00	1,700.30	1,700.00	5.87	5.87	90.00	0.00	30.00	30.00	18.26	11.74	2.556	
1,800.00	1,800.00	1,800.30	1,800.00	6.23	6.23	90.00	0.00	30.00	30.00	17.55	12.45	2.409	
1,900.00	1,900.00	1,900.30	1,900.00	6.59	6.59	90.00	0.00	30.00	30.00	16.83	13.17	2.278	
2,000.00	2,000.00	2,000.30	2,000.00	6.94	6.94	90.00	0.00	30.00	30.00	16.11	13.89	2.160	
2,100.00	2,100.00	2,100.30	2,100.00	7.30	7.30	90.00	0.00	30.00	30.00	15.39	14.61	2.054	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design Fez Federal Com - Fez Federal Com 601H - Wellbore #1 - plan1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error:	0.00 usft
Reference	Offset		Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/S (usft)	+E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,200.00	2,200.00	2,200.30	2,200.00	7.66	7.66	90.00	0.00	30.00	30.00	14.68	15.32	1.958		
2,300.00	2,300.00	2,300.30	2,300.00	8.02	8.02	90.00	0.00	30.00	30.00	13.96	16.04	1.870		
2,400.00	2,400.00	2,400.30	2,400.00	8.38	8.38	90.00	0.00	30.00	30.00	13.24	16.76	1.790		
2,500.00	2,500.00	2,500.30	2,500.00	8.74	8.74	90.00	0.00	30.00	30.00	12.53	17.47	1.717 CC		
2,600.00	2,600.00	2,599.22	2,598.90	9.09	9.08	90.00	0.00	31.72	31.74	13.57	18.17	1.747		
2,700.00	2,700.00	2,697.91	2,697.45	9.45	9.42	90.00	0.00	36.83	36.92	18.09	18.83	1.960		
2,800.00	2,800.00	2,803.14	2,796.06	9.81	9.78	90.00	0.00	44.99	45.16	25.63	19.53	2.312		
2,900.00	2,900.00	2,896.48	2,895.30	10.17	10.11	90.00	0.00	53.67	53.87	33.67	20.21	2.666		
3,000.00	3,000.00	3,003.90	2,994.55	10.53	10.48	90.00	0.00	62.35	62.59	41.66	20.93	2.990		
3,100.00	3,099.98	3,104.15	3,093.92	10.88	10.83	90.00	0.00	71.04	69.56	47.94	21.63	3.217		
3,200.00	3,199.84	3,204.22	3,193.47	11.22	11.18	0.00	0.00	79.75	73.05	50.74	22.31	3.274		
3,250.00	3,249.68	3,245.78	3,243.28	11.39	11.32	0.00	0.00	84.11	73.49	50.86	22.63	3.248		
3,253.82	3,253.49	3,249.60	3,247.08	11.41	11.33	0.00	0.00	84.44	73.49	50.84	22.65	3.244		
3,300.00	3,299.49	3,304.22	3,293.09	11.56	11.53	0.00	0.00	88.47	73.49	50.49	23.00	3.195		
3,400.00	3,399.11	3,404.22	3,392.71	11.91	11.88	0.00	0.00	97.18	73.49	49.80	23.69	3.102		
3,407.74	3,406.82	3,403.52	3,400.42	11.94	11.87	0.00	0.00	97.86	73.49	49.78	23.71	3.099		
3,500.00	3,498.73	3,504.22	3,492.33	12.26	12.23	0.00	0.00	105.90	73.49	49.11	24.38	3.015		
3,503.74	3,502.46	3,500.48	3,496.05	12.27	12.21	0.00	0.00	106.23	73.49	49.11	24.38	3.015		
3,600.00	3,598.35	3,604.22	3,591.95	12.60	12.58	0.00	0.00	114.62	73.49	48.42	25.07	2.931		
3,621.13	3,619.40	3,616.91	3,613.00	12.68	12.62	0.00	0.00	116.46	73.49	48.30	25.19	2.918		
3,700.00	3,697.97	3,704.22	3,691.57	12.95	12.93	0.00	0.00	123.33	73.49	47.72	25.77	2.852		
3,721.13	3,719.02	3,716.91	3,712.62	13.02	12.98	0.00	0.00	125.17	73.49	47.61	25.88	2.839		
3,800.00	3,797.59	3,804.22	3,791.18	13.30	13.29	0.00	0.00	132.05	73.49	47.03	26.46	2.777		
3,800.93	3,798.52	3,803.29	3,792.11	13.30	13.28	0.00	0.00	132.13	73.49	47.03	26.46	2.777		
3,900.00	3,897.21	3,904.22	3,890.80	13.65	13.64	0.00	0.00	140.76	73.49	46.33	27.16	2.706		
4,000.00	3,996.83	4,004.22	3,990.42	14.00	13.99	0.00	0.00	149.48	73.49	45.64	27.85	2.638		
4,000.75	3,997.58	4,003.46	3,991.18	14.00	13.99	0.00	0.00	149.54	73.49	45.64	27.85	2.638		
4,100.00	4,096.45	4,104.22	4,090.04	14.35	14.35	0.00	0.00	158.19	73.49	44.94	28.55	2.574		
4,195.24	4,191.33	4,208.98	4,184.92	14.68	14.72	0.00	0.00	166.49	73.49	44.24	29.25	2.512		
4,200.00	4,196.07	4,204.22	4,189.66	14.70	14.70	0.00	0.00	166.91	73.49	44.24	29.25	2.512		
4,228.82	4,224.78	4,224.60	4,218.37	14.80	14.77	0.00	0.00	169.42	73.49	44.06	29.43	2.498		
4,300.00	4,295.69	4,304.22	4,289.28	15.05	15.06	0.00	0.00	175.63	73.49	43.54	29.95	2.453		
4,400.00	4,395.31	4,404.22	4,388.90	15.40	15.41	0.00	0.00	184.34	73.49	42.83	30.66	2.397		
4,407.37	4,402.65	4,403.15	4,396.24	15.43	15.41	0.00	0.00	184.98	73.49	42.81	30.68	2.396		
4,459.79	4,454.87	4,455.57	4,448.47	15.62	15.60	0.00	0.00	189.55	73.49	42.44	31.05	2.367		
4,500.00	4,494.93	4,504.22	4,488.52	15.76	15.77	0.00	0.00	193.06	73.49	42.13	31.36	2.344		
4,600.00	4,594.55	4,604.22	4,588.14	16.11	16.13	0.00	0.00	201.77	73.49	41.43	32.06	2.292		
4,628.86	4,623.30	4,624.65	4,616.90	16.21	16.20	0.00	0.00	204.29	73.49	41.26	32.23	2.280		
4,700.00	4,694.17	4,704.22	4,687.76	16.46	16.48	0.00	0.00	210.49	73.49	40.73	32.76	2.243		
4,726.70	4,720.76	4,722.48	4,714.36	16.56	16.55	0.00	0.00	212.81	73.49	40.57	32.92	2.232		
4,800.00	4,793.78	4,804.22	4,787.38	16.82	16.84	0.00	0.00	219.20	73.49	40.02	33.47	2.196		
4,868.87	4,862.39	4,864.65	4,855.99	17.06	17.06	0.00	0.00	225.21	73.49	39.57	33.92	2.166		
4,900.00	4,893.40	4,904.22	4,887.00	17.17	17.20	0.00	0.00	227.92	73.49	39.32	34.17	2.150		
4,968.87	4,962.01	4,964.65	4,955.60	17.42	17.41	0.00	0.00	233.92	73.49	38.86	34.63	2.122		
5,000.00	4,993.02	5,004.22	4,986.62	17.53	17.55	0.00	0.00	236.63	73.49	38.61	34.88	2.107		
5,100.00	5,092.64	5,104.22	5,086.24	17.88	17.91	0.00	0.00	245.35	73.49	37.90	35.59	2.065		
5,110.59	5,103.19	5,106.37	5,096.78	17.92	17.92	0.00	0.00	246.27	73.49	37.86	35.63	2.063		
5,200.00	5,192.26	5,204.22	5,185.86	18.24	18.27	0.00	0.00	254.07	73.49	37.20	36.29	2.025		
5,203.37	5,195.62	5,200.85	5,189.21	18.25	18.26	0.00	0.00	254.36	73.49	37.20	36.29	2.025		
5,300.00	5,291.88	5,295.78	5,285.48	18.59	18.60	0.00	0.00	262.78	73.49	36.52	36.97	1.988		
5,400.00	5,391.50	5,404.22	5,385.10	18.95	18.99	0.00	0.00	271.50	73.49	35.78	37.71	1.949		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design Fez Federal Com - Fez Federal Com 601H - Wellbore #1 - plan1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error:	0.00 usft
Reference	Offset	Semi-Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,402.11	5,393.61	5,402.11	5,387.20	18.96	18.98	0.00	0.00	271.68	73.49	35.78	37.71	1.949		
5,468.87	5,460.11	5,464.65	5,453.70	19.20	19.20	0.00	0.00	277.50	73.49	35.33	38.16	1.926		
5,500.00	5,491.12	5,504.22	5,484.72	19.31	19.34	0.00	0.00	280.21	73.49	35.08	38.41	1.913		
5,578.87	5,569.69	5,574.65	5,563.28	19.59	19.60	0.00	0.00	287.09	73.49	34.55	38.94	1.887		
5,600.00	5,590.74	5,604.22	5,584.34	19.66	19.70	0.00	0.00	288.93	73.49	34.37	39.12	1.878		
5,699.17	5,689.53	5,705.05	5,683.13	20.02	20.06	0.00	0.00	297.57	73.49	33.66	39.83	1.845		
5,700.00	5,690.36	5,704.22	5,683.95	20.02	20.06	0.00	0.00	297.64	73.49	33.66	39.83	1.845		
5,778.87	5,768.93	5,774.65	5,762.52	20.30	20.31	0.00	0.00	304.52	73.49	33.13	40.36	1.821		
5,800.00	5,789.98	5,804.22	5,783.57	20.38	20.42	0.00	0.00	306.36	73.49	32.95	40.54	1.813		
5,896.70	5,886.31	5,907.52	5,879.91	20.72	20.79	0.00	0.00	314.79	73.49	32.24	41.25	1.782		
5,900.00	5,889.60	5,904.22	5,883.19	20.73	20.78	0.00	0.00	315.07	73.49	32.24	41.25	1.782		
6,000.00	5,989.22	6,004.22	5,982.81	21.09	21.14	0.00	0.00	323.79	73.49	31.53	41.96	1.751		
6,100.00	6,088.84	6,095.78	6,082.43	21.45	21.47	0.00	0.00	332.51	73.49	30.85	42.64	1.724		
6,101.71	6,090.54	6,097.49	6,084.13	21.46	21.47	0.00	0.00	332.65	73.49	30.84	42.65	1.723		
6,200.00	6,188.46	6,204.22	6,182.05	21.81	21.86	0.00	0.00	341.22	73.49	30.11	43.38	1.694		
6,300.00	6,288.08	6,304.22	6,281.67	22.17	22.22	0.00	0.00	349.94	73.49	29.40	44.09	1.667		
6,383.11	6,370.87	6,378.89	6,364.47	22.46	22.49	0.00	0.00	357.18	73.49	28.84	44.65	1.646		
6,400.00	6,387.70	6,404.22	6,381.29	22.52	22.58	0.00	0.00	358.65	73.49	28.69	44.80	1.640		
6,500.00	6,487.32	6,504.22	6,480.91	22.88	22.94	0.00	0.00	367.37	73.49	27.98	45.51	1.615		
6,502.11	6,489.42	6,497.89	6,483.02	22.89	22.91	0.00	0.00	367.55	73.49	27.99	45.50	1.615		
6,594.87	6,581.82	6,609.35	6,575.42	23.22	23.32	0.00	0.00	375.64	73.49	27.27	46.22	1.590		
6,600.00	6,586.94	6,604.22	6,580.53	23.24	23.30	0.00	0.00	376.08	73.49	27.27	46.22	1.590		
6,700.00	6,686.55	6,695.78	6,680.15	23.60	23.63	0.00	0.00	384.80	73.49	26.58	46.91	1.567		
6,798.87	6,785.05	6,805.35	6,778.64	23.95	24.02	0.00	0.00	393.42	73.49	25.84	47.65	1.542		
6,800.00	6,786.17	6,804.22	6,779.77	23.96	24.02	0.00	0.00	393.51	73.49	25.84	47.65	1.542		
6,828.87	6,814.93	6,824.65	6,808.53	24.06	24.09	0.00	0.00	396.03	73.49	25.67	47.82	1.537		
6,900.00	6,885.79	6,895.78	6,879.39	24.32	24.35	0.00	0.00	402.23	73.49	25.16	48.33	1.521		
6,984.45	6,969.93	6,980.24	6,963.52	24.62	24.65	0.00	0.00	409.59	73.49	24.56	48.93	1.502		
7,000.00	6,985.41	7,004.22	6,979.01	24.68	24.74	0.00	0.00	410.95	73.49	24.42	49.07	1.498 Level 3		
7,100.00	7,085.03	7,095.78	7,078.63	25.04	25.07	0.00	0.00	419.66	73.49	23.74	49.75	1.477 Level 3		
7,185.81	7,170.52	7,181.59	7,164.11	25.34	25.38	0.00	0.00	427.14	73.49	23.12	50.37	1.459 Level 3		
7,200.00	7,184.65	7,204.22	7,178.25	25.39	25.46	0.00	0.00	428.38	73.49	22.99	50.50	1.455 Level 3		
7,300.00	7,284.27	7,295.78	7,277.87	25.75	25.79	0.00	0.00	437.09	73.49	22.31	51.18	1.436 Level 3		
7,400.00	7,383.89	7,404.22	7,377.49	26.11	26.18	0.00	0.00	445.81	73.49	21.57	51.92	1.415 Level 3		
7,402.11	7,386.00	7,402.11	7,379.59	26.12	26.17	0.00	0.00	445.99	73.49	21.57	51.92	1.415 Level 3		
7,500.00	7,483.51	7,504.22	7,477.11	26.47	26.54	0.00	0.00	454.52	73.49	20.85	52.64	1.398 Level 3		
7,582.11	7,565.31	7,577.89	7,558.91	26.77	26.81	0.00	0.00	461.68	73.49	20.30	53.19	1.382 Level 3		
7,600.00	7,583.13	7,595.78	7,576.72	26.83	26.87	0.00	0.00	463.24	73.49	20.17	53.32	1.378 Level 3		
7,694.87	7,677.64	7,709.35	7,671.23	27.17	27.28	0.00	0.00	471.51	73.49	19.43	54.06	1.359 Level 3		
7,700.00	7,682.75	7,704.22	7,676.34	27.19	27.26	0.00	0.00	471.95	73.49	19.43	54.06	1.359 Level 3		
7,800.00	7,782.37	7,795.78	7,775.96	27.55	27.59	0.00	0.00	480.67	73.49	18.74	54.75	1.342 Level 3		
7,852.46	7,834.63	7,848.24	7,828.22	27.74	27.78	0.00	0.00	485.24	73.49	18.37	55.12	1.333 Level 3		
7,876.17	7,858.25	7,871.95	7,851.84	27.83	27.87	0.00	0.00	487.31	73.49	18.20	55.29	1.329 Level 3		
7,900.00	7,882.00	7,904.22	7,875.58	27.91	27.98	0.00	0.00	489.39	73.59	18.10	55.49	1.326 Level 3		
8,000.00	7,981.80	7,995.74	7,975.16	28.27	28.31	0.00	0.00	498.10	76.17	19.99	56.17	1.356 Level 3		
8,100.00	8,081.76	8,098.13	8,077.28	28.63	28.68	0.00	0.00	505.58	80.83	23.91	56.92	1.420 Level 3		
8,126.17	8,107.93	8,125.04	8,104.15	28.72	28.78	90.00	0.00	506.95	82.04	24.93	57.11	1.437 Level 3		
8,200.00	8,181.76	8,201.04	8,180.11	28.98	29.05	90.00	0.00	509.45	84.47	26.85	57.61	1.466 Level 3		
8,300.00	8,281.76	8,302.70	8,281.76	29.33	29.41	90.00	0.00	510.00	85.00	26.72	58.28	1.458 Level 3		
8,400.00	8,381.76	8,402.70	8,381.76	29.68	29.75	90.00	0.00	510.00	85.00	26.02	58.98	1.441 Level 3		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design - Fez Federal Com - Fez Federal Com 601H - Wellbore #1 - plan1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Hightside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)				Between Centres (usft)	Between Ellipses (usft)	Separation (usft)
8,500.00	8,481.76	8,502.70	8,481.76	30.03	30.10	90.00	0.00	510.00	85.00	25.32	59.68	1.424	Level 3	
8,600.00	8,581.76	8,602.70	8,581.76	30.38	30.45	90.00	0.00	510.00	85.00	24.62	60.38	1.408	Level 3	
8,700.00	8,681.76	8,702.70	8,681.76	30.73	30.80	90.00	0.00	510.00	85.00	23.92	61.08	1.392	Level 3	
8,800.00	8,781.76	8,802.70	8,781.76	31.08	31.15	90.00	0.00	510.00	85.00	23.22	61.78	1.376	Level 3	
8,900.00	8,881.76	8,902.70	8,881.76	31.43	31.50	90.00	0.00	510.00	85.00	22.52	62.48	1.360	Level 3	
9,000.00	8,981.76	9,002.70	8,981.76	31.78	31.85	90.00	0.00	510.00	85.00	21.82	63.18	1.345	Level 3	
9,100.00	9,081.76	9,102.70	9,081.76	32.13	32.20	90.00	0.00	510.00	85.00	21.12	63.88	1.331	Level 3	
9,200.00	9,181.76	9,202.70	9,181.76	32.49	32.55	90.00	0.00	510.00	85.00	20.42	64.58	1.316	Level 3	
9,300.00	9,281.76	9,302.70	9,281.76	32.84	32.90	90.00	0.01	510.00	85.00	19.71	65.29	1.302	Level 3	
9,400.00	9,381.76	9,402.70	9,381.76	33.19	33.25	90.00	0.01	510.00	85.00	19.01	65.99	1.288	Level 3	
9,500.00	9,481.76	9,502.70	9,481.76	33.54	33.60	90.00	0.01	510.00	85.00	18.31	66.69	1.274	Level 3	
9,600.00	9,581.76	9,602.70	9,581.76	33.89	33.95	90.00	0.01	510.00	85.00	17.60	67.40	1.261	Level 3	
9,700.00	9,681.76	9,702.70	9,681.76	34.25	34.30	90.00	0.01	510.00	85.00	16.90	68.10	1.248	Level 2	
9,800.00	9,781.76	9,802.70	9,781.76	34.60	34.65	90.00	0.01	510.00	85.00	16.20	68.80	1.235	Level 2	
9,900.00	9,881.76	9,902.70	9,881.76	34.95	35.00	89.99	0.01	510.00	85.00	15.49	69.51	1.223	Level 2	
10,000.00	9,981.76	10,002.70	9,981.76	35.30	35.35	89.99	0.01	510.00	85.00	14.79	70.21	1.211	Level 2	
10,100.00	10,081.76	10,102.70	10,081.76	35.66	35.71	89.99	0.01	510.00	85.00	14.08	70.92	1.199	Level 2	
10,200.00	10,181.76	10,202.70	10,181.76	36.01	36.06	89.99	0.01	510.00	85.00	13.38	71.62	1.187	Level 2	
10,300.00	10,281.76	10,302.70	10,281.76	36.36	36.41	89.99	0.01	510.00	85.00	12.67	72.33	1.175	Level 2	
10,400.00	10,381.76	10,402.70	10,381.76	36.72	36.76	89.99	0.01	510.00	85.00	11.97	73.03	1.164	Level 2	
10,500.00	10,481.76	10,502.70	10,481.76	37.07	37.11	89.99	0.01	510.00	85.00	11.26	73.74	1.153	Level 2	
10,600.00	10,581.76	10,602.70	10,581.76	37.42	37.46	89.99	0.01	510.00	85.00	10.56	74.44	1.142	Level 2	
10,700.00	10,681.76	10,702.70	10,681.76	37.78	37.82	89.99	0.01	510.00	85.00	9.85	75.15	1.131	Level 2	
10,800.00	10,781.76	10,802.70	10,781.76	38.13	38.17	89.99	0.01	510.00	85.00	9.14	75.86	1.121	Level 2	
10,900.00	10,881.76	10,902.70	10,881.76	38.48	38.52	89.99	0.01	510.00	85.00	8.44	76.56	1.110	Level 2	
11,000.00	10,981.76	11,002.70	10,981.76	38.84	38.87	89.99	0.01	510.00	85.00	7.73	77.27	1.100	Level 2	
11,100.00	11,081.76	11,102.70	11,081.76	39.19	39.23	89.99	0.01	510.00	85.00	7.02	77.98	1.090	Level 2	
11,200.00	11,181.76	11,202.70	11,181.76	39.55	39.58	89.99	0.01	510.00	85.00	6.32	78.68	1.080	Level 2	
11,300.00	11,281.76	11,302.70	11,281.76	39.90	39.93	89.99	0.01	510.00	85.00	5.61	79.39	1.071	Level 2	
11,400.00	11,381.76	11,402.70	11,381.76	40.25	40.29	89.99	0.02	510.00	85.00	4.90	80.10	1.061	Level 2	
11,500.00	11,481.76	11,502.70	11,481.76	40.61	40.64	89.99	0.02	510.00	85.00	4.20	80.80	1.052	Level 2	
11,600.00	11,581.76	11,602.70	11,581.76	40.96	40.99	89.99	0.02	510.00	85.00	3.49	81.51	1.043	Level 2	
11,700.00	11,681.76	11,702.70	11,681.76	41.32	41.34	89.99	0.02	510.00	85.00	2.78	82.22	1.034	Level 2	
11,727.29	11,709.05	11,729.99	11,709.05	41.41	41.44	89.99	0.02	510.00	85.00	2.59	82.41	1.031	Level 2	
11,750.00	11,731.76	11,752.73	11,731.76	41.49	41.52	90.41	0.48	510.00	85.00	2.43	82.57	1.029	Level 2	
11,800.00	11,781.57	11,802.78	11,781.64	41.67	41.70	90.39	4.67	509.97	85.00	2.08	82.92	1.025	Level 2	
11,850.00	11,830.83	11,852.83	11,830.94	41.84	41.87	90.37	13.20	509.90	85.00	1.73	83.27	1.021	Level 2	
11,900.00	11,879.16	11,902.87	11,879.31	42.01	42.04	90.34	25.99	509.81	85.00	1.39	83.61	1.017	Level 2	
11,950.00	11,926.20	11,952.91	11,926.37	42.17	42.20	90.31	42.95	509.68	85.00	1.06	83.93	1.013	Level 2	
12,000.00	11,971.58	12,002.95	11,971.77	42.32	42.35	90.28	63.95	509.52	85.00	0.75	84.25	1.009	Level 2	
12,050.00	12,014.97	12,052.99	12,015.16	42.46	42.49	90.24	88.83	509.33	85.00	0.44	84.56	1.005	Level 2	
12,100.00	12,056.03	12,103.02	12,056.21	42.59	42.62	90.21	117.40	509.12	85.00	0.15	84.85	1.002	Level 2	
12,150.00	12,094.44	12,153.04	12,094.62	42.70	42.73	90.17	149.43	508.88	85.00	-0.12	85.12	0.999	Level 1	
12,200.00	12,129.93	12,203.06	12,130.08	42.80	42.83	90.13	184.69	508.62	85.00	-0.38	85.38	0.996	Level 1	
12,250.00	12,162.21	12,253.08	12,162.32	42.89	42.91	90.09	222.90	508.33	85.00	-0.61	85.61	0.993	Level 1	
12,300.00	12,191.04	12,303.08	12,191.11	42.96	42.98	90.05	263.77	508.02	85.00	-0.83	85.83	0.990	Level 1	
12,340.18	12,211.57	12,343.27	12,211.59	43.02	43.03	90.02	298.33	507.77	85.00	-0.99	85.99	0.988	Level 1	
12,350.00	12,216.21	12,353.09	12,216.23	43.03	43.05	90.01	306.99	507.70	85.00	-1.03	86.03	0.988	Level 1	
12,400.00	12,237.51	12,403.09	12,237.48	43.11	43.11	89.97	352.23	507.36	85.00	-1.21	86.20	0.986	Level 1	
12,450.00	12,254.80	12,453.08	12,254.70	43.18	43.18	89.93	399.14	507.01	85.00	-1.36	86.36	0.984	Level 1	
12,500.00	12,267.93	12,503.07	12,267.77	43.24	43.24	89.89	447.37	506.65	85.00	-1.49	86.49	0.983	Level 1	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
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North Reference: Grid
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Offset Design Fez Federal Com - Fez Federal Com 601H - Wellbore #1 - plan1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,550.00	12,276.80	12,553.05	12,276.59	43.30	43.30	89.85	496.56	506.28	85.00	-1.60	86.60	0.982 Level 1	
12,600.00	12,281.36	12,603.03	12,281.09	43.34	43.34	89.82	546.31	505.91	85.00	-1.69	86.68	0.981 Level 1	
12,629.09	12,282.01	12,632.11	12,281.70	43.36	43.36	89.79	575.38	505.69	85.00	-1.72	86.72	0.980 Level 1	
12,700.00	12,281.78	12,703.02	12,281.48	43.40	43.41	89.79	646.29	505.16	85.00	-1.82	86.82	0.979 Level 1	
12,800.00	12,281.47	12,803.02	12,281.16	43.48	43.49	89.79	746.28	504.41	85.00	-1.97	86.97	0.977 Level 1	
12,900.00	12,281.15	12,903.02	12,280.85	43.57	43.58	89.79	846.28	503.66	85.00	-2.16	87.15	0.975 Level 1	
13,000.00	12,280.84	13,003.02	12,280.53	43.68	43.69	89.79	946.28	502.91	85.00	-2.36	87.36	0.973 Level 1	
13,100.00	12,280.52	13,103.02	12,280.22	43.80	43.81	89.79	1,046.27	502.16	85.00	-2.60	87.60	0.970 Level 1	
13,200.00	12,280.21	13,203.02	12,279.90	43.93	43.94	89.79	1,146.27	501.42	85.00	-2.86	87.86	0.967 Level 1	
13,300.00	12,279.89	13,303.02	12,279.59	44.07	44.09	89.79	1,246.27	500.67	85.00	-3.15	88.15	0.964 Level 1	
13,400.00	12,279.58	13,403.02	12,279.27	44.23	44.25	89.79	1,346.26	499.92	85.00	-3.46	88.46	0.961 Level 1	
13,500.00	12,279.26	13,503.02	12,278.96	44.40	44.42	89.79	1,446.26	499.17	85.00	-3.80	88.80	0.957 Level 1	
13,600.00	12,278.95	13,603.02	12,278.64	44.58	44.60	89.80	1,546.26	498.42	85.00	-4.16	89.16	0.953 Level 1	
13,700.00	12,278.63	13,703.02	12,278.33	44.77	44.80	89.80	1,646.25	497.67	85.00	-4.55	89.54	0.949 Level 1	
13,800.00	12,278.32	13,803.02	12,278.02	44.98	45.00	89.80	1,746.25	496.92	85.00	-4.96	89.96	0.945 Level 1	
13,900.00	12,278.00	13,903.02	12,277.70	45.19	45.22	89.80	1,846.25	496.17	85.00	-5.39	90.39	0.940 Level 1	
14,000.00	12,277.69	14,003.02	12,277.39	45.42	45.45	89.80	1,946.25	495.42	85.00	-5.85	90.85	0.936 Level 1	
14,100.00	12,277.38	14,103.02	12,277.07	45.66	45.69	89.80	2,046.24	494.67	85.00	-6.33	91.33	0.931 Level 1	
14,200.00	12,277.06	14,203.02	12,276.76	45.92	45.95	89.80	2,146.24	493.93	85.00	-6.84	91.84	0.926 Level 1	
14,300.00	12,276.75	14,303.02	12,276.44	46.18	46.21	89.80	2,246.24	493.18	85.00	-7.36	92.36	0.920 Level 1	
14,400.00	12,276.43	14,403.02	12,276.13	46.45	46.49	89.80	2,346.23	492.43	85.00	-7.91	92.91	0.915 Level 1	
14,500.00	12,276.12	14,503.02	12,275.81	46.74	46.78	89.80	2,446.23	491.68	85.00	-8.48	93.48	0.909 Level 1	
14,600.00	12,275.80	14,603.02	12,275.50	47.04	47.07	89.80	2,546.23	490.93	85.00	-9.08	94.08	0.904 Level 1	
14,700.00	12,275.49	14,703.02	12,275.18	47.34	47.38	89.80	2,646.22	490.18	85.00	-9.69	94.69	0.898 Level 1	
14,800.00	12,275.17	14,803.02	12,274.87	47.66	47.70	89.80	2,746.22	489.43	85.00	-10.32	95.32	0.892 Level 1	
14,900.00	12,274.86	14,903.02	12,274.55	47.98	48.03	89.80	2,846.22	488.68	85.00	-10.98	95.98	0.886 Level 1	
15,000.00	12,274.54	15,003.02	12,274.24	48.32	48.36	89.80	2,946.21	487.93	85.00	-11.65	96.65	0.879 Level 1	
15,100.00	12,274.23	15,103.02	12,273.92	48.67	48.71	89.80	3,046.21	487.19	85.00	-12.35	97.35	0.873 Level 1	
15,200.00	12,273.91	15,203.02	12,273.61	49.02	49.07	89.80	3,146.21	486.44	85.00	-13.06	98.06	0.867 Level 1	
15,300.00	12,273.60	15,303.02	12,273.29	49.39	49.43	89.80	3,246.20	485.69	85.00	-13.79	98.79	0.860 Level 1	
15,400.00	12,273.28	15,403.02	12,272.98	49.76	49.81	89.80	3,346.20	484.94	85.00	-14.54	99.54	0.854 Level 1	
15,500.00	12,272.97	15,503.02	12,272.67	50.14	50.19	89.80	3,446.20	484.19	85.00	-15.30	100.30	0.847 Level 1	
15,600.00	12,272.65	15,603.02	12,272.35	50.53	50.58	89.80	3,546.19	483.44	85.00	-16.09	101.09	0.841 Level 1	
15,700.00	12,272.34	15,703.02	12,272.04	50.93	50.99	89.80	3,646.19	482.69	85.00	-16.89	101.89	0.834 Level 1	
15,800.00	12,272.02	15,803.02	12,271.72	51.34	51.39	89.80	3,746.19	481.94	85.00	-17.70	102.70	0.828 Level 1	
15,900.00	12,271.71	15,903.02	12,271.41	51.76	51.81	89.80	3,846.18	481.19	85.00	-18.54	103.54	0.821 Level 1	
16,000.00	12,271.39	16,003.02	12,271.09	52.18	52.24	89.80	3,946.18	480.44	85.00	-19.39	104.39	0.814 Level 1	
16,100.00	12,271.08	16,103.02	12,270.78	52.61	52.67	89.80	4,046.18	479.70	85.00	-20.25	105.25	0.808 Level 1	
16,200.00	12,270.76	16,203.02	12,270.46	53.05	53.11	89.80	4,146.17	478.95	85.00	-21.13	106.13	0.801 Level 1	
16,300.00	12,270.45	16,303.02	12,270.15	53.50	53.56	89.80	4,246.17	478.20	85.00	-22.02	107.02	0.794 Level 1	
16,400.00	12,270.14	16,403.02	12,269.83	53.95	54.01	89.80	4,346.17	477.45	85.00	-22.93	107.93	0.788 Level 1	
16,500.00	12,269.82	16,503.02	12,269.52	54.41	54.47	89.80	4,446.16	476.70	85.00	-23.85	108.85	0.781 Level 1	
16,600.00	12,269.51	16,603.02	12,269.20	54.88	54.94	89.80	4,546.16	475.95	85.00	-24.79	109.79	0.774 Level 1	
16,700.00	12,269.19	16,703.02	12,268.89	55.35	55.41	89.80	4,646.16	475.20	85.00	-25.73	110.74	0.768 Level 1	
16,800.00	12,268.88	16,803.02	12,268.57	55.83	55.89	89.80	4,746.15	474.45	85.00	-26.70	111.70	0.761 Level 1	
16,900.00	12,268.56	16,903.02	12,268.26	56.32	56.38	89.80	4,846.15	473.70	85.00	-27.67	112.67	0.754 Level 1	
17,000.00	12,268.25	17,003.02	12,267.94	56.81	56.88	89.80	4,946.15	472.96	85.00	-28.66	113.66	0.748 Level 1	
17,100.00	12,267.93	17,103.02	12,267.63	57.31	57.37	89.80	5,046.14	472.21	85.00	-29.65	114.65	0.741 Level 1	
17,200.00	12,267.62	17,203.02	12,267.31	57.81	57.88	89.80	5,146.14	471.46	85.00	-30.66	115.66	0.735 Level 1	
17,300.00	12,267.30	17,303.02	12,267.00	58.32	58.39	89.80	5,246.14	470.71	85.00	-31.68	116.68	0.728 Level 1	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design: Fez Federal Com - Fez Federal Com 601H - Wellbore #1 - plan1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,400.00	12,266.99	17,403.02	12,266.69	58.84	58.91	89.80	5,346.13	469.96	85.00	-32.72	117.72	0.722	Level 1
17,500.00	12,266.67	17,503.02	12,266.37	59.36	59.43	89.80	5,446.13	469.21	85.00	-33.76	118.76	0.716	Level 1
17,600.00	12,266.36	17,603.02	12,266.06	59.89	59.95	89.80	5,546.13	468.46	85.00	-34.81	119.81	0.709	Level 1
17,700.00	12,266.04	17,703.02	12,265.74	60.42	60.49	89.80	5,646.12	467.71	85.00	-35.87	120.87	0.703	Level 1
17,800.00	12,265.73	17,803.02	12,265.43	60.95	61.02	89.80	5,746.12	466.96	85.00	-36.95	121.95	0.697	Level 1
17,900.00	12,265.41	17,903.02	12,265.11	61.49	61.56	89.80	5,846.12	466.22	85.00	-38.03	123.03	0.691	Level 1
18,000.00	12,265.10	18,003.02	12,264.80	62.04	62.11	89.80	5,946.11	465.47	85.00	-39.12	124.12	0.685	Level 1
18,100.00	12,264.78	18,103.02	12,264.48	62.59	62.66	89.80	6,046.11	464.72	85.00	-40.22	125.22	0.679	Level 1
18,200.00	12,264.47	18,203.02	12,264.17	63.14	63.22	89.80	6,146.11	463.97	85.00	-41.33	126.33	0.673	Level 1
18,300.00	12,264.15	18,303.02	12,263.85	63.70	63.77	89.80	6,246.10	463.22	85.00	-42.45	127.45	0.667	Level 1
18,400.00	12,263.84	18,403.02	12,263.54	64.27	64.34	89.80	6,346.10	462.47	85.00	-43.58	128.58	0.661	Level 1
18,500.00	12,263.53	18,503.02	12,263.22	64.83	64.91	89.80	6,446.10	461.72	85.00	-44.71	129.71	0.655	Level 1
18,600.00	12,263.21	18,603.02	12,262.91	65.40	65.48	89.80	6,546.09	460.97	85.00	-45.85	130.85	0.650	Level 1
18,700.00	12,262.90	18,703.02	12,262.59	65.98	66.05	89.80	6,646.09	460.22	85.00	-47.00	132.01	0.644	Level 1
18,800.00	12,262.58	18,803.02	12,262.28	66.56	66.63	89.80	6,746.09	459.47	85.00	-48.16	133.16	0.638	Level 1
18,900.00	12,262.27	18,903.02	12,261.96	67.14	67.22	89.80	6,846.08	458.73	85.00	-49.33	134.33	0.633	Level 1
19,000.00	12,261.95	19,003.02	12,261.65	67.73	67.80	89.80	6,946.08	457.98	85.00	-50.50	135.50	0.627	Level 1
19,100.00	12,261.64	19,103.02	12,261.34	68.32	68.39	89.80	7,046.08	457.23	85.00	-51.68	136.68	0.622	Level 1
19,200.00	12,261.32	19,203.02	12,261.02	68.91	68.99	89.80	7,146.07	456.48	85.00	-52.87	137.87	0.617	Level 1
19,300.00	12,261.01	19,303.02	12,260.71	69.51	69.58	89.80	7,246.07	455.73	85.00	-54.06	139.06	0.611	Level 1
19,400.00	12,260.69	19,403.02	12,260.39	70.11	70.18	89.80	7,346.07	454.98	85.00	-55.26	140.26	0.606	Level 1
19,500.00	12,260.38	19,503.02	12,260.08	70.71	70.79	89.80	7,446.06	454.23	85.00	-56.47	141.47	0.601	Level 1
19,600.00	12,260.06	19,603.02	12,259.76	71.31	71.39	89.80	7,546.06	453.48	85.00	-57.68	142.68	0.596	Level 1
19,700.00	12,259.75	19,703.02	12,259.45	71.92	72.00	89.80	7,646.06	452.73	85.00	-58.90	143.90	0.591	Level 1
19,800.00	12,259.43	19,803.02	12,259.13	72.53	72.61	89.80	7,746.05	451.99	85.00	-60.12	145.12	0.586	Level 1
19,900.00	12,259.12	19,903.02	12,258.82	73.15	73.23	89.80	7,846.05	451.24	85.00	-61.35	146.35	0.581	Level 1
20,000.00	12,258.80	20,003.02	12,258.50	73.77	73.85	89.80	7,946.05	450.49	85.00	-62.59	147.59	0.576	Level 1
20,100.00	12,258.49	20,103.02	12,258.19	74.39	74.47	89.80	8,046.04	449.74	85.00	-63.83	148.83	0.571	Level 1
20,200.00	12,258.17	20,203.02	12,257.87	75.01	75.09	89.80	8,146.04	448.99	85.00	-65.07	150.08	0.566	Level 1
20,300.00	12,257.86	20,303.02	12,257.56	75.63	75.72	89.80	8,246.04	448.24	85.00	-66.33	151.33	0.562	Level 1
20,400.00	12,257.54	20,403.02	12,257.24	76.26	76.34	89.80	8,346.03	447.49	85.00	-67.58	152.58	0.557	Level 1
20,500.00	12,257.23	20,503.02	12,256.93	76.89	76.97	89.80	8,446.03	446.74	85.00	-68.84	153.85	0.553	Level 1
20,600.00	12,256.91	20,603.02	12,256.61	77.53	77.61	89.80	8,546.03	445.99	85.00	-70.11	155.11	0.548	Level 1
20,700.00	12,256.60	20,703.02	12,256.30	78.16	78.24	89.80	8,646.02	445.25	85.00	-71.38	156.38	0.544	Level 1
20,800.00	12,256.29	20,803.02	12,255.98	78.80	78.88	89.80	8,746.02	444.50	85.00	-72.65	157.66	0.539	Level 1
20,900.00	12,255.97	20,903.02	12,255.67	79.44	79.52	89.80	8,846.02	443.75	85.00	-73.93	158.94	0.535	Level 1
21,000.00	12,255.66	21,003.02	12,255.36	80.08	80.16	89.80	8,946.01	443.00	85.00	-75.22	160.22	0.531	Level 1
21,100.00	12,255.34	21,103.02	12,255.04	80.72	80.81	89.80	9,046.01	442.25	85.00	-76.51	161.51	0.526	Level 1
21,200.00	12,255.03	21,203.02	12,254.73	81.37	81.45	89.80	9,146.01	441.50	85.00	-77.80	162.80	0.522	Level 1
21,300.00	12,254.71	21,303.02	12,254.41	82.02	82.10	89.80	9,246.00	440.75	85.00	-79.10	164.10	0.518	Level 1
21,400.00	12,254.40	21,403.02	12,254.10	82.67	82.75	89.80	9,346.00	440.00	85.00	-80.40	165.40	0.514	Level 1
21,500.00	12,254.08	21,503.02	12,253.78	83.32	83.40	89.80	9,446.00	439.25	85.00	-81.70	166.70	0.510	Level 1
21,600.00	12,253.77	21,603.02	12,253.47	83.97	84.06	89.80	9,545.99	438.50	85.00	-83.01	168.01	0.506	Level 1
21,700.00	12,253.45	21,703.02	12,253.15	84.63	84.71	89.80	9,645.99	437.76	85.00	-84.32	169.32	0.502	Level 1
21,800.00	12,253.14	21,803.02	12,252.84	85.29	85.37	89.80	9,745.99	437.01	85.00	-85.64	170.64	0.498	Level 1
21,900.00	12,252.82	21,903.02	12,252.52	85.95	86.03	89.80	9,845.98	436.26	85.00	-86.95	171.96	0.494	Level 1
22,000.00	12,252.51	22,003.02	12,252.21	86.61	86.69	89.80	9,945.98	435.51	85.00	-88.28	173.28	0.491	Level 1
22,100.00	12,252.19	22,103.02	12,251.89	87.27	87.35	89.80	10,045.98	434.76	85.00	-89.60	174.61	0.487	Level 1
22,161.36	12,252.00	22,164.38	12,251.70	87.68	87.76	89.80	10,107.34	434.30	85.00	-90.42	175.42	0.485	Level 1, ES, SF

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM

Reference Site: Fez Federal Com

Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H

Well Error: 0.00 usft

Reference Wellbore: Wellbore #1

Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft
(Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft
(Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design Fez Federal Com - Fez Federal Com 602H - Wellbore #1 - plan1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.10	0.00	0.00	0.00	-91.34	-0.70	-30.00	30.01				
100.00	100.00	100.10	100.00	0.13	0.13	-91.34	-0.70	-30.00	30.01	29.74	0.27	112.971	
200.00	200.00	200.10	200.00	0.49	0.49	-91.34	-0.70	-30.00	30.01	29.03	0.98	30.540	
300.00	300.00	300.10	300.00	0.85	0.85	-91.34	-0.70	-30.00	30.01	28.31	1.70	17.657	
400.00	400.00	400.10	400.00	1.21	1.21	-91.34	-0.70	-30.00	30.01	27.59	2.42	12.418	
500.00	500.00	500.10	500.00	1.57	1.57	-91.34	-0.70	-30.00	30.01	26.87	3.13	9.577	
600.00	600.00	600.10	600.00	1.92	1.93	-91.34	-0.70	-30.00	30.01	26.16	3.85	7.794	
700.00	700.00	700.10	700.00	2.28	2.28	-91.34	-0.70	-30.00	30.01	25.44	4.57	6.570	
800.00	800.00	800.10	800.00	2.64	2.64	-91.34	-0.70	-30.00	30.01	24.72	5.28	5.679	
900.00	900.00	900.10	900.00	3.00	3.00	-91.34	-0.70	-30.00	30.01	24.01	6.00	5.000	
1,000.00	1,000.00	1,000.10	1,000.00	3.36	3.36	-91.34	-0.70	-30.00	30.01	23.29	6.72	4.467	
1,100.00	1,100.00	1,100.10	1,100.00	3.72	3.72	-91.34	-0.70	-30.00	30.01	22.57	7.44	4.036	
1,200.00	1,200.00	1,200.10	1,200.00	4.08	4.08	-91.34	-0.70	-30.00	30.01	21.86	8.15	3.681	
1,300.00	1,300.00	1,300.10	1,300.00	4.43	4.43	-91.34	-0.70	-30.00	30.01	21.14	8.87	3.384	
1,400.00	1,400.00	1,400.10	1,400.00	4.79	4.79	-91.34	-0.70	-30.00	30.01	20.42	9.59	3.130	
1,500.00	1,500.00	1,500.10	1,500.00	5.15	5.15	-91.34	-0.70	-30.00	30.01	19.71	10.30	2.913	
1,600.00	1,600.00	1,600.10	1,600.00	5.51	5.51	-91.34	-0.70	-30.00	30.01	18.99	11.02	2.723	
1,700.00	1,700.00	1,700.10	1,700.00	5.87	5.87	-91.34	-0.70	-30.00	30.01	18.27	11.74	2.557	
1,800.00	1,800.00	1,800.10	1,800.00	6.23	6.23	-91.34	-0.70	-30.00	30.01	17.55	12.45	2.410	
1,900.00	1,900.00	1,900.10	1,900.00	6.59	6.59	-91.34	-0.70	-30.00	30.01	16.84	13.17	2.278	
2,000.00	2,000.00	2,000.10	2,000.00	6.94	6.94	-91.34	-0.70	-30.00	30.01	16.12	13.89	2.161	
2,100.00	2,100.00	2,100.10	2,100.00	7.30	7.30	-91.34	-0.70	-30.00	30.01	15.40	14.60	2.055	
2,200.00	2,200.00	2,200.10	2,200.00	7.66	7.66	-91.34	-0.70	-30.00	30.01	14.69	15.32	1.959	
2,300.00	2,300.00	2,300.10	2,300.00	8.02	8.02	-91.34	-0.70	-30.00	30.01	13.97	16.04	1.871	
2,400.00	2,400.00	2,400.10	2,400.00	8.38	8.38	-91.34	-0.70	-30.00	30.01	13.25	16.76	1.791	
2,500.00	2,500.00	2,500.10	2,500.00	8.74	8.74	-91.34	-0.70	-30.00	30.01	12.54	17.47	1.717	
2,600.00	2,600.00	2,600.10	2,600.00	9.09	9.09	-91.34	-0.70	-30.00	30.01	11.82	18.19	1.650	
2,700.00	2,700.00	2,700.10	2,700.00	9.45	9.45	-91.34	-0.70	-30.00	30.01	11.10	18.91	1.587	
2,800.00	2,800.00	2,800.10	2,800.00	9.81	9.81	-91.34	-0.70	-30.00	30.01	10.39	19.62	1.529	
2,900.00	2,900.00	2,900.10	2,900.00	10.17	10.17	-91.34	-0.70	-30.00	30.01	9.67	20.34	1.475 Level 3	
3,000.00	3,000.00	3,000.10	3,000.00	10.53	10.53	-91.34	-0.70	-30.00	30.01	8.95	21.06	1.425 Level 3, CC, ES, SF	
3,100.00	3,099.98	3,100.12	3,099.98	10.88	10.89	178.74	-0.70	-30.00	31.75	9.99	21.76	1.459 Level 3	
3,200.00	3,199.84	3,200.26	3,199.84	11.22	11.25	178.91	-0.70	-30.00	36.99	14.52	22.46	1.646	
3,250.00	3,249.68	3,249.58	3,249.68	11.39	11.42	179.02	-0.70	-30.00	40.91	18.09	22.81	1.793	
3,300.00	3,299.49	3,300.61	3,299.49	11.56	11.61	179.11	-0.70	-30.00	45.26	22.10	23.17	1.954	
3,400.00	3,399.11	3,400.99	3,399.11	11.91	11.97	179.25	-0.70	-30.00	53.98	30.11	23.87	2.262	
3,500.00	3,498.73	3,501.37	3,498.73	12.26	12.33	179.36	-0.70	-30.00	62.69	38.13	24.57	2.552	
3,600.00	3,598.35	3,601.75	3,598.35	12.60	12.69	179.44	-0.70	-30.00	71.41	46.14	25.27	2.826	
3,700.00	3,697.97	3,702.13	3,697.97	12.95	13.05	179.50	-0.70	-30.00	80.12	54.15	25.97	3.085	
3,800.00	3,797.59	3,802.51	3,797.59	13.30	13.41	179.55	-0.70	-30.00	88.84	62.16	26.68	3.330	
3,900.00	3,897.21	3,902.89	3,897.21	13.65	13.76	179.59	-0.70	-30.00	97.56	70.17	27.38	3.563	
4,000.00	3,996.83	3,996.73	3,996.83	14.00	14.10	179.62	-0.70	-30.00	106.27	78.21	28.06	3.787	
4,100.00	4,096.45	4,100.34	4,100.42	14.35	14.46	179.65	-0.70	-28.24	113.30	84.53	28.77	3.939	
4,200.00	4,196.07	4,204.46	4,204.39	14.70	14.82	179.66	-0.70	-22.71	116.71	87.28	29.43	3.966	
4,300.00	4,295.69	4,306.32	4,305.89	15.05	15.17	179.66	-0.70	-14.19	117.05	86.96	30.10	3.889	
4,400.00	4,395.31	4,406.32	4,405.51	15.40	15.51	179.66	-0.70	-5.47	117.05	86.27	30.79	3.802	
4,500.00	4,494.93	4,506.32	4,505.13	15.76	15.86	179.66	-0.70	3.24	117.05	85.57	31.48	3.718	
4,600.00	4,594.55	4,606.32	4,604.75	16.11	16.20	179.66	-0.70	11.96	117.05	84.88	32.17	3.638	
4,700.00	4,694.17	4,706.32	4,704.37	16.46	16.55	179.66	-0.70	20.67	117.05	84.19	32.87	3.562	
4,800.00	4,793.78	4,806.32	4,803.99	16.82	16.90	179.66	-0.70	29.39	117.05	83.49	33.56	3.488	
4,900.00	4,893.40	4,906.32	4,903.61	17.17	17.25	179.66	-0.70	38.10	117.05	82.80	34.26	3.417	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design Fez Federal Com - Fez Federal Com 602H - Wellbore #1 - plan1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,993.02	5,006.32	5,003.23	17.53	17.59	179.66	-0.70	46.82	117.05	82.10	34.95	3.349		
5,100.00	5,092.64	5,106.32	5,102.84	17.88	17.94	179.66	-0.70	55.53	117.05	81.40	35.65	3.283		
5,200.00	5,192.26	5,206.32	5,202.46	18.24	18.29	179.66	-0.70	64.25	117.05	80.70	36.35	3.220		
5,300.00	5,291.88	5,306.32	5,302.08	18.59	18.64	179.66	-0.70	72.97	117.05	80.00	37.05	3.159		
5,400.00	5,391.50	5,406.32	5,401.70	18.95	18.99	179.66	-0.70	81.68	117.05	79.30	37.75	3.101		
5,500.00	5,491.12	5,506.32	5,501.32	19.31	19.35	179.66	-0.70	90.40	117.05	78.60	38.45	3.044		
5,600.00	5,590.74	5,606.32	5,600.94	19.66	19.70	179.66	-0.70	99.11	117.05	77.90	39.15	2.990		
5,700.00	5,690.36	5,706.32	5,700.56	20.02	20.05	179.66	-0.70	107.83	117.05	77.20	39.85	2.937		
5,700.11	5,690.47	5,706.43	5,700.68	20.02	20.05	179.66	-0.70	107.84	117.05	77.20	39.85	2.937		
5,800.00	5,789.98	5,805.22	5,799.09	20.38	20.40	179.66	-0.70	116.32	117.18	76.62	40.57	2.889		
5,900.00	5,889.60	5,901.22	5,894.91	20.73	20.73	179.66	-0.70	122.18	119.80	78.51	41.29	2.901		
6,000.00	5,989.22	5,996.94	5,990.59	21.09	21.07	179.68	-0.70	124.83	125.76	83.78	41.98	2.996		
6,100.00	6,088.84	6,104.81	6,088.84	21.45	21.45	179.70	-0.70	125.00	134.30	91.60	42.70	3.145		
6,200.00	6,188.46	6,205.19	6,188.46	21.81	21.81	179.72	-0.70	125.00	143.01	99.60	43.41	3.294		
6,300.00	6,288.08	6,305.57	6,288.08	22.17	22.17	179.73	-0.70	125.00	151.73	107.60	44.12	3.439		
6,400.00	6,387.70	6,405.95	6,387.70	22.52	22.53	179.75	-0.70	125.00	160.44	115.61	44.84	3.578		
6,500.00	6,487.32	6,506.33	6,487.32	22.88	22.88	179.76	-0.70	125.00	169.16	123.61	45.55	3.714		
6,600.00	6,586.94	6,606.72	6,586.94	23.24	23.24	179.77	-0.70	125.00	177.87	131.62	46.26	3.845		
6,700.00	6,686.55	6,707.10	6,686.55	23.60	23.60	179.78	-0.70	125.00	186.59	139.62	46.97	3.972		
6,800.00	6,786.17	6,807.48	6,786.17	23.96	23.96	179.79	-0.70	125.00	195.31	147.62	47.68	4.096		
6,900.00	6,885.79	6,907.86	6,885.79	24.32	24.32	179.80	-0.70	125.00	204.02	155.62	48.40	4.216		
7,000.00	6,985.41	7,008.24	6,985.41	24.68	24.67	179.81	-0.70	125.00	212.74	163.63	49.11	4.332		
7,100.00	7,085.03	7,108.62	7,085.03	25.04	25.03	179.82	-0.70	125.00	221.45	171.63	49.82	4.445		
7,200.00	7,184.65	7,209.00	7,184.65	25.39	25.39	179.83	-0.70	125.00	230.17	179.63	50.54	4.555		
7,300.00	7,284.27	7,309.38	7,284.27	25.75	25.75	179.83	-0.70	125.00	238.88	187.63	51.25	4.661		
7,400.00	7,383.89	7,409.76	7,383.89	26.11	26.11	179.84	-0.70	125.00	247.60	195.64	51.96	4.765		
7,500.00	7,483.51	7,489.86	7,483.51	26.47	26.39	179.84	-0.70	125.00	256.31	203.71	52.60	4.873		
7,600.00	7,583.13	7,589.48	7,583.13	26.83	26.75	179.85	-0.70	125.00	265.03	211.72	53.31	4.971		
7,700.00	7,682.75	7,689.10	7,682.75	27.19	27.10	179.85	-0.70	125.00	273.75	219.72	54.02	5.067		
7,800.00	7,782.37	7,788.72	7,782.37	27.55	27.46	179.86	-0.70	125.00	282.46	227.73	54.74	5.160		
7,876.17	7,858.25	7,864.60	7,858.25	27.83	27.73	179.86	-0.70	125.00	289.10	233.82	55.28	5.230		
7,900.00	7,882.00	7,888.35	7,882.00	27.91	27.82	179.86	-0.70	125.00	291.08	235.63	55.45	5.250		
8,000.00	7,981.80	7,988.15	7,981.80	28.27	28.17	179.86	-0.70	125.00	297.22	241.06	56.16	5.293		
8,100.00	8,081.76	8,088.11	8,081.76	28.63	28.53	179.87	-0.70	125.00	299.88	243.01	56.87	5.273		
8,126.17	8,107.93	8,114.28	8,107.93	28.72	28.62	-90.13	-0.70	125.00	300.00	242.94	57.06	5.258		
8,200.00	8,181.76	8,188.11	8,181.76	28.98	28.89	-90.13	-0.70	125.00	300.00	242.42	57.58	5.210		
8,300.00	8,281.76	8,288.11	8,281.76	29.33	29.24	-90.13	-0.70	125.00	300.00	241.71	58.29	5.147		
8,400.00	8,381.76	8,388.11	8,381.76	29.68	29.60	-90.13	-0.70	125.00	300.00	241.01	59.00	5.085		
8,500.00	8,481.76	8,488.11	8,481.76	30.03	29.96	-90.13	-0.70	125.00	300.00	240.30	59.70	5.025		
8,600.00	8,581.76	8,588.11	8,581.76	30.38	30.32	-90.13	-0.70	125.00	300.00	239.59	60.41	4.966		
8,700.00	8,681.76	8,688.11	8,681.76	30.73	30.67	-90.13	-0.70	125.00	300.00	238.88	61.12	4.908		
8,800.00	8,781.76	8,788.11	8,781.76	31.08	31.03	-90.13	-0.70	125.00	300.00	238.17	61.83	4.852		
8,900.00	8,881.76	8,888.11	8,881.76	31.43	31.39	-90.13	-0.70	125.00	300.00	237.46	62.54	4.797		
9,000.00	8,981.76	8,988.11	8,981.76	31.78	31.75	-90.13	-0.70	125.00	300.00	236.75	63.25	4.743		
9,100.00	9,081.76	9,088.11	9,081.76	32.13	32.10	-90.13	-0.70	125.00	300.00	236.05	63.96	4.691		
9,200.00	9,181.76	9,188.11	9,181.76	32.49	32.46	-90.13	-0.70	125.00	300.00	235.34	64.67	4.639		
9,300.00	9,281.76	9,288.11	9,281.76	32.84	32.82	-90.13	-0.70	125.00	300.00	234.63	65.37	4.589		
9,400.00	9,381.76	9,388.11	9,381.76	33.19	33.18	-90.13	-0.70	125.00	300.00	233.92	66.08	4.540		
9,500.00	9,481.76	9,488.11	9,481.76	33.54	33.53	-90.13	-0.70	125.00	300.00	233.21	66.79	4.491		
9,600.00	9,581.76	9,588.11	9,581.76	33.89	33.89	-90.13	-0.70	125.00	300.00	232.50	67.50	4.444		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design - Fez Federal Com - Fez Federal Com 602H - Wellbore #1 - plan1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HFR1+SAG+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/S (usft)	+E/W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,700.00	9,681.76	9,688.11	9,681.76	34.25	34.25	-90.13	-0.70	125.00	300.00	231.79	68.21	4.398	
9,800.00	9,781.76	9,788.11	9,781.76	34.60	34.61	-90.13	-0.70	125.00	300.00	231.08	68.92	4.353	
9,900.00	9,881.76	9,888.11	9,881.76	34.95	34.96	-90.13	-0.70	125.00	300.00	230.37	69.64	4.308	
10,000.00	9,981.76	9,988.11	9,981.76	35.30	35.32	-90.13	-0.70	125.00	300.00	229.66	70.35	4.265	
10,100.00	10,081.76	10,088.11	10,081.76	35.66	35.68	-90.13	-0.70	125.00	300.00	228.94	71.06	4.222	
10,200.00	10,181.76	10,188.11	10,181.76	36.01	36.04	-90.13	-0.70	125.00	300.00	228.23	71.77	4.180	
10,300.00	10,281.76	10,288.11	10,281.76	36.36	36.39	-90.13	-0.70	125.00	300.00	227.52	72.48	4.139	
10,400.00	10,381.76	10,388.11	10,381.76	36.72	36.75	-90.13	-0.70	125.00	300.00	226.81	73.19	4.099	
10,500.00	10,481.76	10,488.11	10,481.76	37.07	37.11	-90.13	-0.70	125.00	300.00	226.10	73.90	4.060	
10,600.00	10,581.76	10,588.11	10,581.76	37.42	37.47	-90.13	-0.70	125.00	300.00	225.39	74.61	4.021	
10,700.00	10,681.76	10,688.11	10,681.76	37.78	37.83	-90.13	-0.70	125.00	300.00	224.68	75.32	3.983	
10,800.00	10,781.76	10,788.11	10,781.76	38.13	38.18	-90.13	-0.70	125.00	300.00	223.97	76.03	3.946	
10,900.00	10,881.76	10,888.11	10,881.76	38.48	38.54	-90.13	-0.70	125.00	300.00	223.25	76.75	3.909	
11,000.00	10,981.76	10,988.11	10,981.76	38.84	38.90	-90.13	-0.70	125.00	300.00	222.54	77.46	3.873	
11,100.00	11,081.76	11,088.11	11,081.76	39.19	39.26	-90.13	-0.70	125.00	300.00	221.83	78.17	3.838	
11,200.00	11,181.76	11,188.11	11,181.76	39.55	39.61	-90.13	-0.70	125.00	300.00	221.12	78.88	3.803	
11,300.00	11,281.76	11,288.11	11,281.76	39.90	39.97	-90.13	-0.70	125.00	300.00	220.41	79.59	3.769	
11,400.00	11,381.76	11,388.11	11,381.76	40.25	40.33	-90.13	-0.70	125.00	300.00	219.70	80.31	3.736	
11,500.00	11,481.76	11,488.11	11,481.76	40.61	40.69	-90.13	-0.70	125.00	300.00	218.98	81.02	3.703	
11,600.00	11,581.76	11,588.11	11,581.76	40.96	41.05	-90.13	-0.70	125.00	300.00	218.27	81.73	3.671	
11,700.00	11,681.76	11,688.11	11,681.76	41.32	41.40	-90.13	-0.70	125.00	300.00	217.56	82.44	3.639	
11,727.29	11,709.05	11,715.40	11,709.05	41.41	41.50	-90.13	-0.70	125.00	300.00	217.36	82.64	3.630	
11,750.00	11,731.76	11,738.11	11,731.76	41.49	41.58	-89.79	-0.70	125.00	300.00	217.20	82.80	3.623	
11,769.39	11,751.11	11,757.46	11,751.11	41.56	41.65	-90.00	-0.70	125.00	300.00	217.06	82.94	3.617	
11,800.00	11,781.57	11,787.92	11,781.57	41.67	41.76	-90.58	-0.70	125.00	300.01	216.86	83.15	3.608	
11,850.00	11,830.83	11,837.18	11,830.83	41.84	41.94	-92.15	-0.70	125.00	300.22	216.71	83.51	3.595	
11,900.00	11,879.16	11,885.51	11,879.16	42.01	42.11	-94.42	-0.70	125.00	300.98	217.13	83.85	3.589	
11,950.00	11,926.20	11,935.85	11,929.45	42.17	42.29	-97.13	1.26	124.99	302.57	218.36	84.21	3.593	
12,000.00	11,971.58	11,987.80	11,980.96	42.32	42.47	-99.81	7.88	124.94	304.88	220.32	84.57	3.605	
12,050.00	12,014.97	12,041.35	12,033.19	42.46	42.66	-102.43	19.57	124.85	307.86	222.98	84.88	3.627	
12,100.00	12,056.03	12,096.60	12,085.70	42.59	42.84	-104.95	36.68	124.72	311.41	226.30	85.11	3.659	
12,150.00	12,094.44	12,153.65	12,137.94	42.70	43.02	-107.36	59.56	124.55	315.42	230.19	85.23	3.701	
12,200.00	12,129.93	12,212.58	12,189.23	42.80	43.18	-109.62	88.53	124.33	319.75	234.57	85.18	3.754	
12,250.00	12,162.21	12,273.45	12,238.78	42.89	43.34	-111.72	123.82	124.07	324.24	239.28	84.96	3.816	
12,300.00	12,191.04	12,336.26	12,285.70	42.96	43.48	-113.62	165.53	123.75	328.72	244.17	84.55	3.888	
12,350.00	12,216.21	12,400.97	12,328.97	43.03	43.62	-115.32	213.60	123.39	333.03	249.04	83.99	3.965	
12,400.00	12,237.51	12,467.50	12,367.51	43.11	43.76	-116.78	267.78	122.99	336.97	253.66	83.31	4.045	
12,450.00	12,254.80	12,535.66	12,400.22	43.18	43.89	-117.99	327.54	122.54	340.39	257.79	82.60	4.121	
12,500.00	12,267.93	12,605.22	12,426.04	43.24	43.99	-118.92	392.08	122.06	343.14	261.19	81.95	4.187	
12,550.00	12,276.80	12,675.86	12,444.07	43.30	44.08	-119.57	460.33	121.55	345.09	263.64	81.45	4.237	
12,600.00	12,281.36	12,747.20	12,453.62	43.34	44.14	-119.92	530.98	121.02	346.16	264.96	81.20	4.263	
12,629.09	12,282.01	12,788.87	12,455.11	43.36	44.16	-119.99	572.61	120.71	346.36	265.18	81.18	4.267	
12,700.00	12,281.78	12,860.21	12,454.89	43.40	44.20	-119.99	643.95	120.17	346.36	265.09	81.27	4.262	
12,800.00	12,281.47	12,960.21	12,454.57	43.48	44.27	-119.99	743.95	119.42	346.36	264.94	81.41	4.254	
12,900.00	12,281.15	13,060.21	12,454.26	43.57	44.35	-119.99	843.94	118.67	346.36	264.77	81.58	4.245	
13,000.00	12,280.84	13,160.21	12,453.94	43.68	44.45	-119.99	943.94	117.92	346.36	264.58	81.78	4.235	
13,100.00	12,280.52	13,260.21	12,453.63	43.80	44.55	-119.99	1,043.94	117.17	346.36	264.37	81.99	4.224	
13,200.00	12,280.21	13,360.21	12,453.31	43.93	44.67	-119.99	1,143.93	116.42	346.36	264.13	82.23	4.212	
13,300.00	12,279.89	13,460.21	12,453.00	44.07	44.80	-119.99	1,243.93	115.68	346.36	263.87	82.49	4.199	
13,400.00	12,279.58	13,560.21	12,452.68	44.23	44.95	-119.99	1,343.93	114.93	346.36	263.58	82.78	4.184	
13,500.00	12,279.26	13,660.21	12,452.37	44.40	45.10	-119.99	1,443.92	114.18	346.36	263.27	83.09	4.169	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Offset Design: Fez Federal Com - Fez Federal Com 602H - Wellbore #1 - plan1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre N/S (usft)	Offset Wellbore Centre E/W (usft)						
13,600.00	12,278.95	13,760.21	12,452.05	44.58	45.27	-119.99	1,543.92	113.43	346.36	262.94	4.152			
13,700.00	12,278.63	13,860.21	12,451.74	44.77	45.46	-119.99	1,643.92	112.68	346.36	262.59	4.135			
13,800.00	12,278.32	13,960.21	12,451.42	44.98	45.65	-119.99	1,743.91	111.93	346.36	262.22	4.116			
13,900.00	12,278.00	14,060.21	12,451.11	45.19	45.85	-119.99	1,843.91	111.18	346.36	261.82	4.097			
14,000.00	12,277.69	14,160.21	12,450.79	45.42	46.07	-119.99	1,943.91	110.43	346.36	261.40	4.077			
14,100.00	12,277.38	14,260.21	12,450.48	45.66	46.30	-119.99	2,043.90	109.68	346.36	260.97	4.056			
14,200.00	12,277.06	14,360.21	12,450.16	45.92	46.54	-119.99	2,143.90	108.93	346.36	260.51	4.034			
14,300.00	12,276.75	14,460.21	12,449.85	46.18	46.79	-119.99	2,243.90	108.18	346.36	260.03	4.012			
14,400.00	12,276.43	14,560.21	12,449.53	46.45	47.05	-119.99	2,343.89	107.44	346.36	259.53	3.989			
14,500.00	12,276.12	14,660.21	12,449.22	46.74	47.33	-119.99	2,443.89	106.69	346.36	259.01	3.965			
14,600.00	12,275.80	14,760.21	12,448.90	47.04	47.61	-119.99	2,543.89	105.94	346.36	258.47	3.941			
14,700.00	12,275.49	14,860.21	12,448.59	47.34	47.91	-119.99	2,643.88	105.19	346.36	257.92	3.916			
14,800.00	12,275.17	14,960.21	12,448.27	47.66	48.21	-119.99	2,743.88	104.44	346.36	257.34	3.891			
14,900.00	12,274.86	15,060.21	12,447.96	47.98	48.53	-119.99	2,843.88	103.69	346.36	256.75	3.865			
15,000.00	12,274.54	15,160.21	12,447.64	48.32	48.85	-119.99	2,943.87	102.94	346.36	256.14	3.839			
15,100.00	12,274.23	15,260.21	12,447.33	48.67	49.19	-119.99	3,043.87	102.19	346.36	255.51	3.812			
15,200.00	12,273.91	15,360.21	12,447.01	49.02	49.53	-119.99	3,143.87	101.44	346.36	254.86	3.786			
15,300.00	12,273.60	15,460.21	12,446.70	49.39	49.88	-119.99	3,243.86	100.69	346.36	254.20	3.758			
15,400.00	12,273.28	15,560.21	12,446.38	49.76	50.25	-119.99	3,343.86	99.94	346.36	253.52	3.731			
15,500.00	12,272.97	15,660.21	12,446.07	50.14	50.62	-119.99	3,443.86	99.19	346.36	252.83	3.703			
15,600.00	12,272.65	15,760.21	12,445.75	50.53	51.00	-119.99	3,543.85	98.45	346.36	252.12	3.675			
15,700.00	12,272.34	15,860.21	12,445.44	50.93	51.39	-119.99	3,643.85	97.70	346.36	251.39	3.647			
15,800.00	12,272.02	15,960.21	12,445.13	51.34	51.78	-119.99	3,743.85	96.95	346.36	250.65	3.619			
15,900.00	12,271.71	16,060.21	12,444.81	51.76	52.19	-119.99	3,843.84	96.20	346.36	249.90	3.591			
16,000.00	12,271.39	16,160.21	12,444.50	52.18	52.60	-119.99	3,943.84	95.45	346.36	249.13	3.562			
16,100.00	12,271.08	16,260.21	12,444.18	52.61	53.02	-119.99	4,043.84	94.70	346.36	248.34	3.534			
16,200.00	12,270.76	16,360.21	12,443.87	53.05	53.45	-119.99	4,143.83	93.95	346.36	247.55	3.505			
16,300.00	12,270.45	16,460.21	12,443.55	53.50	53.89	-119.99	4,243.83	93.20	346.36	246.73	3.477			
16,400.00	12,270.14	16,560.21	12,443.24	53.95	54.33	-119.99	4,343.83	92.45	346.36	245.91	3.448			
16,500.00	12,269.82	16,660.21	12,442.92	54.41	54.78	-119.99	4,443.82	91.70	346.36	245.07	3.420			
16,600.00	12,269.51	16,760.21	12,442.61	54.88	55.24	-119.99	4,543.82	90.95	346.36	244.23	3.391			
16,700.00	12,269.19	16,860.21	12,442.29	55.35	55.70	-119.99	4,643.82	90.21	346.36	243.37	3.363			
16,800.00	12,268.88	16,960.21	12,441.98	55.83	56.17	-119.99	4,743.81	89.46	346.36	242.49	3.335			
16,900.00	12,268.56	17,060.21	12,441.66	56.32	56.65	-119.99	4,843.81	88.71	346.36	241.61	3.306			
17,000.00	12,268.25	17,160.21	12,441.35	56.81	57.13	-119.99	4,943.81	87.96	346.36	240.71	3.278			
17,100.00	12,267.93	17,260.21	12,441.03	57.31	57.62	-119.99	5,043.80	87.21	346.36	239.81	3.251			
17,200.00	12,267.62	17,360.21	12,440.72	57.81	58.12	-119.99	5,143.80	86.46	346.36	238.89	3.223			
17,300.00	12,267.30	17,460.21	12,440.40	58.32	58.62	-119.99	5,243.80	85.71	346.36	237.96	3.195			
17,400.00	12,266.99	17,560.21	12,440.09	58.84	59.12	-119.99	5,343.79	84.96	346.36	237.03	3.168			
17,500.00	12,266.67	17,660.21	12,439.77	59.36	59.63	-119.99	5,443.79	84.21	346.36	236.08	3.141			
17,600.00	12,266.36	17,760.21	12,439.46	59.89	60.15	-119.99	5,543.79	83.46	346.36	235.12	3.114			
17,700.00	12,266.04	17,860.21	12,439.14	60.42	60.67	-119.99	5,643.78	82.71	346.36	234.16	3.087			
17,800.00	12,265.73	17,960.21	12,438.83	60.95	61.20	-119.99	5,743.78	81.96	346.36	233.18	3.060			
17,900.00	12,265.41	18,060.21	12,438.51	61.49	61.73	-119.99	5,843.78	81.22	346.36	232.20	3.034			
18,000.00	12,265.10	18,160.21	12,438.20	62.04	62.27	-119.99	5,943.77	80.47	346.36	231.21	3.008			
18,100.00	12,264.78	18,260.21	12,437.88	62.59	62.81	-119.99	6,043.77	79.72	346.36	230.21	2.982			
18,200.00	12,264.47	18,360.21	12,437.57	63.14	63.36	-119.99	6,143.77	78.97	346.36	229.20	2.956			
18,300.00	12,264.15	18,460.21	12,437.25	63.70	63.91	-119.99	6,243.77	78.22	346.36	228.18	2.931			
18,400.00	12,263.84	18,560.21	12,436.94	64.27	64.47	-119.99	6,343.76	77.47	346.36	227.16	2.906			
18,500.00	12,263.53	18,660.21	12,436.62	64.83	65.03	-119.99	6,443.76	76.72	346.36	226.12	2.881			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

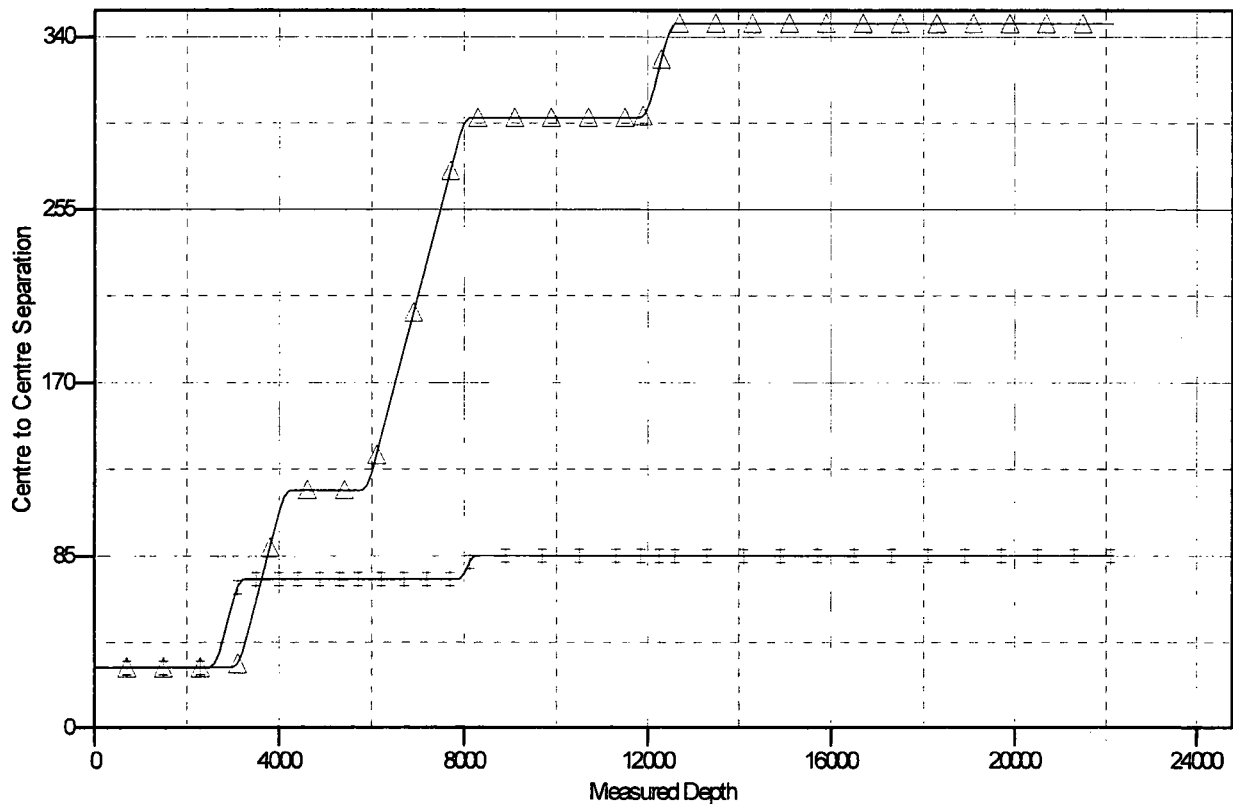
Offset Design Fez Federal Com - Fez Federal Com 602H - Wellbore #1 - plan1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+SAG+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
18,600.00	12,263.21	18,760.21	12,436.31	65.40	65.59	-119.98	6,543.76	75.97	346.36	225.08	121.28	2.856	
18,700.00	12,262.90	18,860.21	12,435.99	65.98	66.16	-119.98	6,643.75	75.22	346.36	224.04	122.33	2.831	
18,800.00	12,262.58	18,960.21	12,435.68	66.56	66.73	-119.98	6,743.75	74.47	346.36	222.98	123.38	2.807	
18,900.00	12,262.27	19,060.21	12,435.37	67.14	67.30	-119.98	6,843.75	73.72	346.36	221.92	124.44	2.783	
19,000.00	12,261.95	19,160.21	12,435.05	67.73	67.88	-119.98	6,943.74	72.98	346.36	220.85	125.51	2.760	
19,100.00	12,261.64	19,260.21	12,434.74	68.32	68.47	-119.98	7,043.74	72.23	346.36	219.78	126.58	2.736	
19,200.00	12,261.32	19,360.21	12,434.42	68.91	69.05	-119.98	7,143.74	71.48	346.36	218.70	127.66	2.713	
19,300.00	12,261.01	19,460.21	12,434.11	69.51	69.64	-119.98	7,243.73	70.73	346.36	217.61	128.75	2.690	
19,400.00	12,260.69	19,560.21	12,433.79	70.11	70.24	-119.98	7,343.73	69.98	346.36	216.52	129.84	2.668	
19,500.00	12,260.38	19,660.21	12,433.48	70.71	70.83	-119.98	7,443.73	69.23	346.36	215.42	130.94	2.645	
19,600.00	12,260.06	19,760.21	12,433.16	71.31	71.43	-119.98	7,543.72	68.48	346.36	214.32	132.04	2.623	
19,700.00	12,259.75	19,860.21	12,432.85	71.92	72.03	-119.98	7,643.72	67.73	346.36	213.21	133.15	2.601	
19,800.00	12,259.43	19,960.21	12,432.53	72.53	72.64	-119.98	7,743.72	66.98	346.36	212.10	134.27	2.580	
19,900.00	12,259.12	20,060.21	12,432.22	73.15	73.25	-119.98	7,843.71	66.23	346.36	210.97	135.39	2.558	
20,000.00	12,258.80	20,160.21	12,431.90	73.77	73.86	-119.98	7,943.71	65.48	346.36	209.85	136.52	2.537	
20,100.00	12,258.49	20,260.21	12,431.59	74.39	74.48	-119.98	8,043.71	64.73	346.36	208.72	137.65	2.516	
20,200.00	12,258.17	20,360.21	12,431.27	75.01	75.09	-119.98	8,143.70	63.99	346.36	207.58	138.78	2.496	
20,300.00	12,257.86	20,460.21	12,430.96	75.63	75.71	-119.98	8,243.70	63.24	346.36	206.44	139.92	2.475	
20,400.00	12,257.54	20,560.21	12,430.64	76.26	76.33	-119.98	8,343.70	62.49	346.37	205.30	141.07	2.455	
20,500.00	12,257.23	20,660.21	12,430.33	76.89	76.96	-119.98	8,443.69	61.74	346.37	204.15	142.22	2.435	
20,600.00	12,256.91	20,760.21	12,430.01	77.53	77.59	-119.98	8,543.69	60.99	346.37	202.99	143.37	2.416	
20,700.00	12,256.60	20,860.21	12,429.70	78.16	78.22	-119.98	8,643.69	60.24	346.37	201.84	144.53	2.397	
20,800.00	12,256.29	20,960.21	12,429.38	78.80	78.85	-119.98	8,743.68	59.49	346.37	200.67	145.69	2.377	
20,900.00	12,255.97	21,060.21	12,429.07	79.44	79.48	-119.98	8,843.68	58.74	346.37	199.51	146.86	2.358	
21,000.00	12,255.66	21,160.21	12,428.75	80.08	80.12	-119.98	8,943.68	57.99	346.37	198.34	148.03	2.340	
21,100.00	12,255.34	21,260.21	12,428.44	80.72	80.76	-119.98	9,043.67	57.24	346.37	197.16	149.20	2.321	
21,200.00	12,255.03	21,360.21	12,428.12	81.37	81.40	-119.98	9,143.67	56.49	346.37	195.98	150.38	2.303	
21,300.00	12,254.71	21,460.21	12,427.81	82.02	82.04	-119.98	9,243.67	55.75	346.37	194.80	151.57	2.285	
21,400.00	12,254.40	21,560.21	12,427.49	82.67	82.69	-119.98	9,343.66	55.00	346.37	193.61	152.75	2.268	
21,500.00	12,254.08	21,660.21	12,427.18	83.32	83.34	-119.98	9,443.66	54.25	346.37	192.42	153.94	2.250	
21,600.00	12,253.77	21,760.21	12,426.86	83.97	83.99	-119.98	9,543.66	53.50	346.37	191.23	155.14	2.233	
21,700.00	12,253.45	21,860.21	12,426.55	84.63	84.64	-119.98	9,643.65	52.75	346.37	190.03	156.33	2.216	
21,800.00	12,253.14	21,960.21	12,426.23	85.29	85.29	-119.98	9,743.65	52.00	346.37	188.83	157.53	2.199	
21,900.00	12,252.82	22,060.21	12,425.92	85.95	85.94	-119.98	9,843.65	51.25	346.37	187.63	158.74	2.182	
22,000.00	12,252.51	22,160.21	12,425.61	86.61	86.60	-119.98	9,943.64	50.50	346.37	186.42	159.94	2.166	
22,100.00	12,252.19	22,260.21	12,425.29	87.27	87.26	-119.98	10,043.64	49.75	346.37	185.21	161.15	2.149	
22,161.36	12,252.00	22,321.57	12,425.10	87.68	87.66	-119.98	10,105.00	49.29	346.37	184.47	161.89	2.139	

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Reference Depths are relative to GL 3243.6' + 26' KB @ 3269.60usft (Coordinates are relative to: Fez Federal Com 701H)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.51°

Ladder Plot



LEGEND

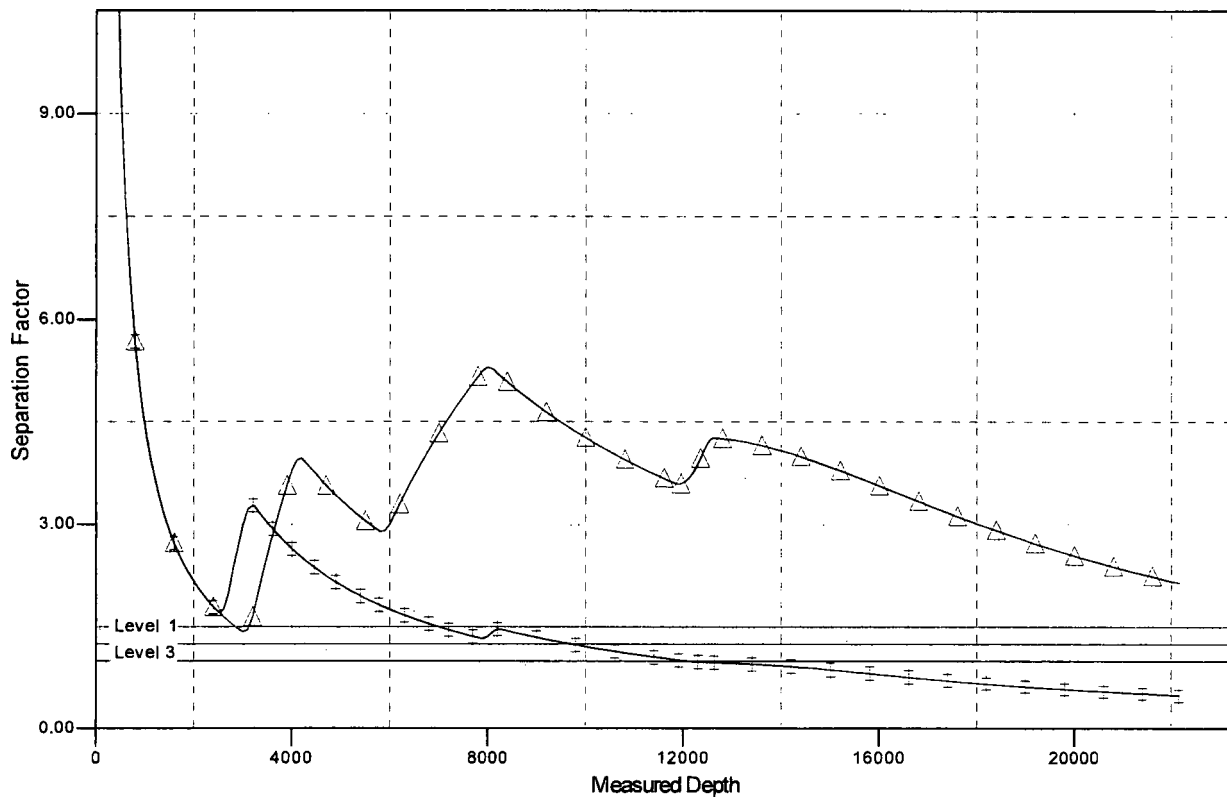
▲ Fez Federal Com 602H, Wellbore #1, p.1an1 V0 ● Fez Federal Com 601H, Wellbore #1, p.1an1 V0

Company: Concho Resources
Project: Lea County, NM
Reference Site: Fez Federal Com
Site Error: 0.00 usft
Reference Well: Fez Federal Com 701H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset.TVD Reference: Reference Datum

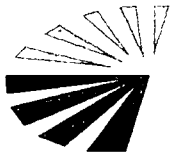
Reference Depths are relative to GL 3243.6' + 26' KB @ 3269.60usft (Coordinates are relative to: Fez Federal Com 701H)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.51°

Separation Factor Plot



LEGEND

▲ Fez Federal Com 602H, Wellbore #1, p lan1 VO ● Fez Federal Com 601H, Wellbore #1, p lan1 VO



C O N C H O

Concho Resources

**Lea County, NM
Fez Federal Com
Fez Federal Com 701H**

Wellbore #1

Plan: plan1

Standard Planning Report

23 October, 2018





Project: Lea County, NM
 Site: Fez Federal Com
 Well: Fez Federal Com 701H
 Depth Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
 SHL Northing: 415348.30
 SHL Easting: 796637.50
 Rig: Independence 205
 Plan: plan1



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
3250.00	5.00	90.00	3249.68	0.00	10.90	2.00	90.00	-0.08	Start 4826.17 hold at 3250.00 MD
7876.17	5.00	90.00	7858.25	0.00	414.10	0.00	0.00	-3.11	Start Drop -2.00
8126.17	0.00	0.00	8107.93	0.00	425.00	2.00	160.00	-3.19	Start 3601.12 hold at 8126.17 MD
11727.29	0.00	0.00	11709.05	0.00	425.00	0.00	0.00	-3.19	Start DLS 10.00 TFO 359.57
12629.09	90.18	359.57	12282.00	574.75	420.70	10.00	359.57	571.57	Start 9532.27 hold at 12629.09 MD
22161.36	90.18	359.57	12252.00	10106.70	349.30	0.00	0.00	10103.79	TD @ 22161.36' MD

FORMATION TOP DETAILS

No formation data is available

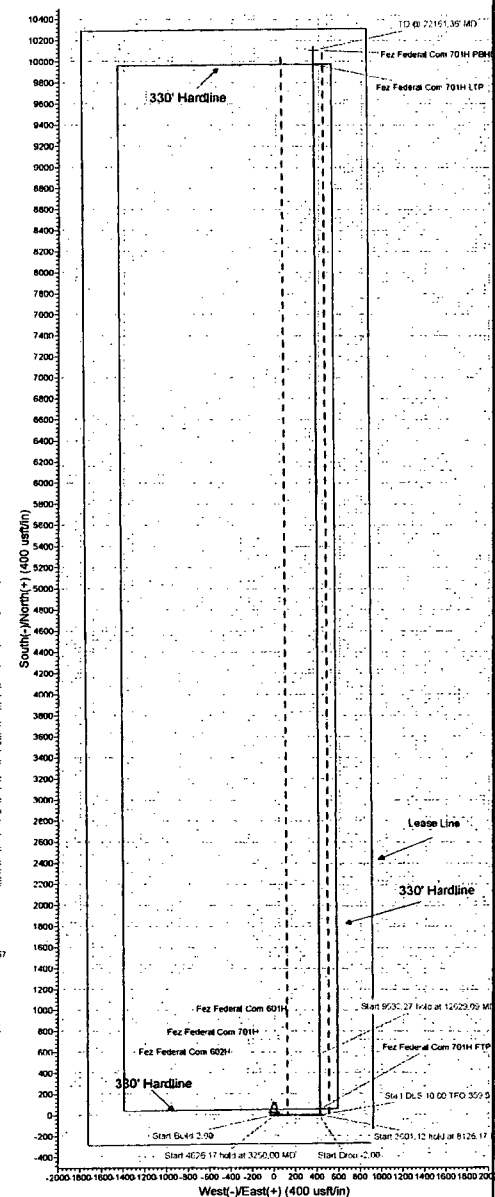
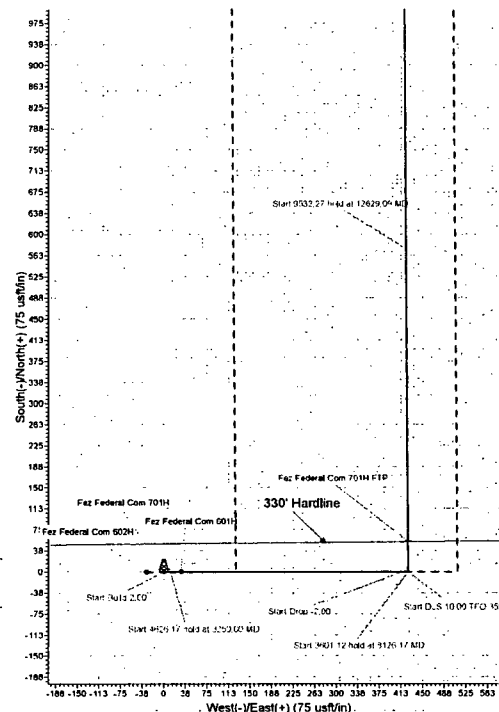
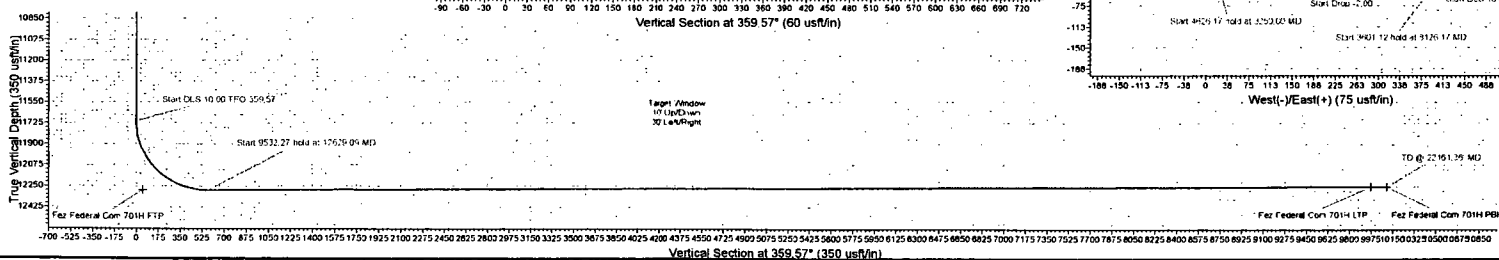
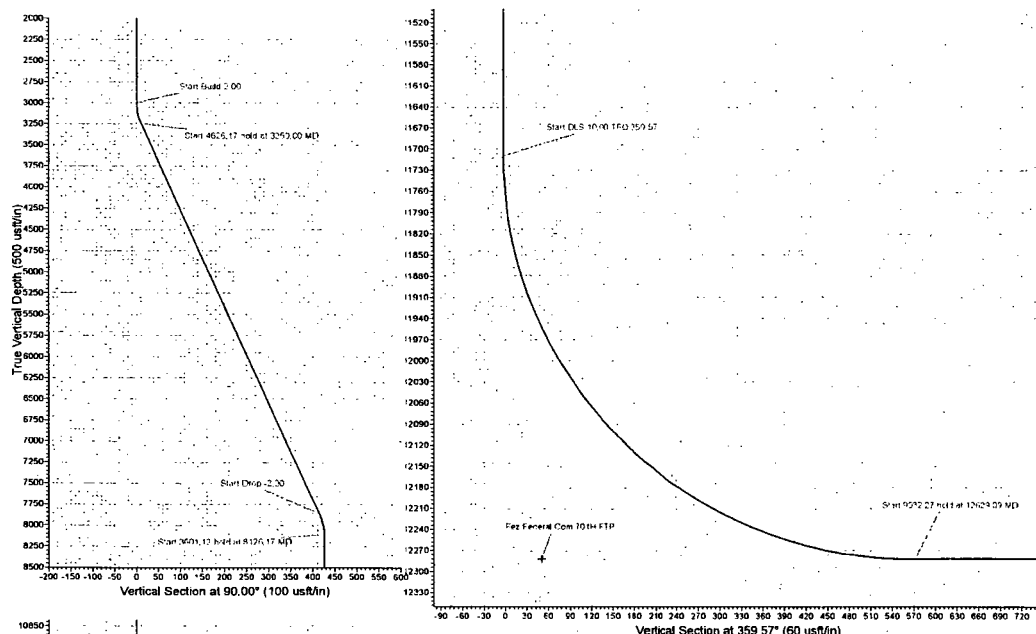
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Fez Federal Com 701H FTP	12282.00	53.30	424.50	415401.60	797082.00
Fez Federal Com 701H LTP	12252.00	9976.70	350.30	425325.00	796987.80
Fez Federal Com 701H PBHL	12252.00	10106.70	349.30	425455.00	796986.80



Azimuths to Grid North
 True North: -0.51°
 Magnetic North: 6.16°

Magnetic Field
 Strength: 47833.1nT
 Dip Angle: 59.80°
 Date: 10/23/2018
 Model: HDGM



Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fez Federal Com 701H
Company:	Concho Resources	TVD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Site:	Fez Federal Com	North Reference:	Grid
Well:	Fez Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1		

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Fez Federal Com				
Site Position:		Northing:	415,348.30 usft	Latitude:	32° 8' 17.809 N
From:	Map	Easting:	796,667.50 usft	Longitude:	103° 22' 29.652 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well	Fez Federal Com 701H					
Well Position	+N/-S	0.00 usft	Northing:	415,348.30 usft	Latitude:	32° 8' 17.812 N
	+E/-W	-30.00 usft	Easting:	796,637.50 usft	Longitude:	103° 22' 30.001 W
Position Uncertainty	0.00 usft	Wellhead Elevation:		Ground Level:	3,243.60 usft	

Wellbore	Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	HDGM	10/23/18	6.67	59.80	47,833.10000000	

Design	plan1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.57	

Plan Survey Tool Program	Date	10/23/18			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	22,161.36 plan1 (Wellbore #1)	MWD+IFR1+SAG+MS		
			OWSG MWD + IFR1 + Sag		

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fez Federal Com 701H
Company:	Concho Resources	TVD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Site:	Fez Federal Com	North Reference:	Grid
Well:	Fez Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,250.00	5.00	90.00	3,249.68	0.00	10.90	2.00	2.00	0.00	90.00	
7,876.17	5.00	90.00	7,858.25	0.00	414.10	0.00	0.00	0.00	0.00	
8,126.17	0.00	0.00	8,107.93	0.00	425.00	2.00	-2.00	0.00	180.00	
11,727.29	0.00	0.00	11,709.05	0.00	425.00	0.00	0.00	0.00	0.00	
12,629.09	90.18	359.57	12,282.01	574.75	420.70	10.00	10.00	-0.05	359.57	
22,161.36	90.18	359.57	12,252.00	10,106.70	349.30	0.00	0.00	0.00	0.00	

Database: EDM 5000.14 Single User Db
Company: Concho Resources

Project: Lea County, NM

Site: Fez Federal Com
Well: Fez Federal Com 701H
Wellbore: Wellbore #1
Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
MD Reference: GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
3,100.00	2.00	90.00	3,099.98	0.00	1.75	-0.01	2.00	2.00	0.00
3,200.00	4.00	90.00	3,199.84	0.00	6.98	-0.05	2.00	2.00	0.00
3,250.00	5.00	90.00	3,249.68	0.00	10.90	-0.08	2.00	2.00	0.00
Start 4626.17 hold at 3250.00 MD									
3,300.00	5.00	90.00	3,299.49	0.00	15.26	-0.11	0.00	0.00	0.00
3,400.00	5.00	90.00	3,399.11	0.00	23.97	-0.18	0.00	0.00	0.00
3,500.00	5.00	90.00	3,498.73	0.00	32.69	-0.25	0.00	0.00	0.00
3,600.00	5.00	90.00	3,598.35	0.00	41.41	-0.31	0.00	0.00	0.00
3,700.00	5.00	90.00	3,697.97	0.00	50.12	-0.38	0.00	0.00	0.00
3,800.00	5.00	90.00	3,797.59	0.00	58.84	-0.44	0.00	0.00	0.00
3,900.00	5.00	90.00	3,897.21	0.00	67.55	-0.51	0.00	0.00	0.00
4,000.00	5.00	90.00	3,996.83	0.00	76.27	-0.57	0.00	0.00	0.00
4,100.00	5.00	90.00	4,096.45	0.00	84.98	-0.64	0.00	0.00	0.00
4,200.00	5.00	90.00	4,196.07	0.00	93.70	-0.70	0.00	0.00	0.00
4,300.00	5.00	90.00	4,295.69	0.00	102.41	-0.77	0.00	0.00	0.00
4,400.00	5.00	90.00	4,395.31	0.00	111.13	-0.83	0.00	0.00	0.00
4,500.00	5.00	90.00	4,494.93	0.00	119.85	-0.90	0.00	0.00	0.00
4,600.00	5.00	90.00	4,594.55	0.00	128.56	-0.96	0.00	0.00	0.00
4,700.00	5.00	90.00	4,694.17	0.00	137.28	-1.03	0.00	0.00	0.00
4,800.00	5.00	90.00	4,793.78	0.00	145.99	-1.10	0.00	0.00	0.00

Database: EDM 5000.14 Single User Db
 Company: Concho Resources

Local Co-ordinate Reference:
 TVD Reference:

Well Fez Federal Com 701H
 GL 3243.6' + 26' KB @ 3269.60usft
 (Independence 205)
 GL 3243.6' + 26' KB @ 3269.60usft
 (Independence 205)

Project: Lea County, NM

MD Reference:

Grid
 Minimum Curvature

Site: Fez Federal Com
 Well: Fez Federal Com 701H
 Wellbore: Wellbore #1
 Design: plan1

North Reference:
 Survey Calculation Method:

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Built Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	5.00	90.00	4,893.40	0.00	154.71	-1.16	0.00	0.00	0.00
5,000.00	5.00	90.00	4,993.02	0.00	163.42	-1.23	0.00	0.00	0.00
5,100.00	5.00	90.00	5,092.64	0.00	172.14	-1.29	0.00	0.00	0.00
5,200.00	5.00	90.00	5,192.26	0.00	180.86	-1.36	0.00	0.00	0.00
5,300.00	5.00	90.00	5,291.88	0.00	189.57	-1.42	0.00	0.00	0.00
5,400.00	5.00	90.00	5,391.50	0.00	198.29	-1.49	0.00	0.00	0.00
5,500.00	5.00	90.00	5,491.12	0.00	207.00	-1.55	0.00	0.00	0.00
5,600.00	5.00	90.00	5,590.74	0.00	215.72	-1.62	0.00	0.00	0.00
5,700.00	5.00	90.00	5,690.36	0.00	224.43	-1.68	0.00	0.00	0.00
5,800.00	5.00	90.00	5,789.98	0.00	233.15	-1.75	0.00	0.00	0.00
5,900.00	5.00	90.00	5,889.60	0.00	241.86	-1.82	0.00	0.00	0.00
6,000.00	5.00	90.00	5,989.22	0.00	250.58	-1.88	0.00	0.00	0.00
6,100.00	5.00	90.00	6,088.84	0.00	259.30	-1.95	0.00	0.00	0.00
6,200.00	5.00	90.00	6,188.46	0.00	268.01	-2.01	0.00	0.00	0.00
6,300.00	5.00	90.00	6,288.08	0.00	276.73	-2.08	0.00	0.00	0.00
6,400.00	5.00	90.00	6,387.70	0.00	285.44	-2.14	0.00	0.00	0.00
6,500.00	5.00	90.00	6,487.32	0.00	294.16	-2.21	0.00	0.00	0.00
6,600.00	5.00	90.00	6,586.94	0.00	302.87	-2.27	0.00	0.00	0.00
6,700.00	5.00	90.00	6,686.55	0.00	311.59	-2.34	0.00	0.00	0.00
6,800.00	5.00	90.00	6,786.17	0.00	320.30	-2.40	0.00	0.00	0.00
6,900.00	5.00	90.00	6,885.79	0.00	329.02	-2.47	0.00	0.00	0.00
7,000.00	5.00	90.00	6,985.41	0.00	337.74	-2.53	0.00	0.00	0.00
7,100.00	5.00	90.00	7,085.03	0.00	346.45	-2.60	0.00	0.00	0.00
7,200.00	5.00	90.00	7,184.65	0.00	355.17	-2.67	0.00	0.00	0.00
7,300.00	5.00	90.00	7,284.27	0.00	363.88	-2.73	0.00	0.00	0.00
7,400.00	5.00	90.00	7,383.89	0.00	372.60	-2.80	0.00	0.00	0.00
7,500.00	5.00	90.00	7,483.51	0.00	381.31	-2.86	0.00	0.00	0.00
7,600.00	5.00	90.00	7,583.13	0.00	390.03	-2.93	0.00	0.00	0.00
7,700.00	5.00	90.00	7,682.75	0.00	398.74	-2.99	0.00	0.00	0.00
7,800.00	5.00	90.00	7,782.37	0.00	407.46	-3.06	0.00	0.00	0.00
7,876.17	5.00	90.00	7,858.25	0.00	414.10	-3.11	0.00	0.00	0.00
Start Drop -2.00									
7,900.00	4.52	90.00	7,882.00	0.00	416.08	-3.12	2.00	-2.00	0.00
8,000.00	2.52	90.00	7,981.80	0.00	422.22	-3.17	2.00	-2.00	0.00
8,100.00	0.52	90.00	8,081.76	0.00	424.88	-3.19	2.00	-2.00	0.00
8,126.17	0.00	0.00	8,107.93	0.00	425.00	-3.19	2.00	-2.00	-343.93
Start 3601.12 hold at 8126.17 MD									
8,200.00	0.00	0.00	8,181.76	0.00	425.00	-3.19	0.00	0.00	0.00
8,300.00	0.00	0.00	8,281.76	0.00	425.00	-3.19	0.00	0.00	0.00
8,400.00	0.00	0.00	8,381.76	0.00	425.00	-3.19	0.00	0.00	0.00
8,500.00	0.00	0.00	8,481.76	0.00	425.00	-3.19	0.00	0.00	0.00
8,600.00	0.00	0.00	8,581.76	0.00	425.00	-3.19	0.00	0.00	0.00
8,700.00	0.00	0.00	8,681.76	0.00	425.00	-3.19	0.00	0.00	0.00
8,800.00	0.00	0.00	8,781.76	0.00	425.00	-3.19	0.00	0.00	0.00
8,900.00	0.00	0.00	8,881.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,000.00	0.00	0.00	8,981.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,100.00	0.00	0.00	9,081.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,200.00	0.00	0.00	9,181.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,300.00	0.00	0.00	9,281.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,400.00	0.00	0.00	9,381.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,500.00	0.00	0.00	9,481.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,600.00	0.00	0.00	9,581.76	0.00	425.00	-3.19	0.00	0.00	0.00

Database: EDM 5000.14 Single User Db
 Company: Concho Resources
 Project: Lea County, NM
 Site: Fez Federal Com
 Well: Fez Federal Com 701H
 Wellbore: Wellbore #1
 Design: plan1

Local Co-ordinate Reference: Well Fez Federal Com 701H
 TVD Reference: GL 3243.6' + 26' KB @ 3269.60usft
 (Independence 205)
 MD Reference: GL 3243.6' + 26' KB @ 3269.60usft
 (Independence 205)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,700.00	0.00	0.00	9,681.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,800.00	0.00	0.00	9,781.76	0.00	425.00	-3.19	0.00	0.00	0.00
9,900.00	0.00	0.00	9,881.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,000.00	0.00	0.00	9,981.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,100.00	0.00	0.00	10,081.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,200.00	0.00	0.00	10,181.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,300.00	0.00	0.00	10,281.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,400.00	0.00	0.00	10,381.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,500.00	0.00	0.00	10,481.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,600.00	0.00	0.00	10,581.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,700.00	0.00	0.00	10,681.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,800.00	0.00	0.00	10,781.76	0.00	425.00	-3.19	0.00	0.00	0.00
10,900.00	0.00	0.00	10,881.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,000.00	0.00	0.00	10,981.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,100.00	0.00	0.00	11,081.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,200.00	0.00	0.00	11,181.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,300.00	0.00	0.00	11,281.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,400.00	0.00	0.00	11,381.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,500.00	0.00	0.00	11,481.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,600.00	0.00	0.00	11,581.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,700.00	0.00	0.00	11,681.76	0.00	425.00	-3.19	0.00	0.00	0.00
11,727.29	0.00	0.00	11,709.05	0.00	425.00	-3.19	0.00	0.00	0.00
Start DLS 10.00 TFO 359.57									
11,800.00	7.27	359.57	11,781.57	4.61	424.97	1.42	10.00	10.00	-0.59
11,900.00	17.27	359.57	11,879.16	25.83	424.81	22.65	10.00	10.00	0.00
12,000.00	27.27	359.57	11,971.58	63.68	424.52	60.50	10.00	10.00	0.00
12,100.00	37.27	359.57	12,056.03	117.01	424.12	113.82	10.00	10.00	0.00
12,200.00	47.27	359.57	12,129.93	184.19	423.62	181.00	10.00	10.00	0.00
Fez Federal Com 701H FTP									
12,300.00	57.27	359.57	12,191.04	263.17	423.03	259.99	10.00	10.00	0.00
12,400.00	67.27	359.57	12,237.51	351.58	422.37	348.40	10.00	10.00	0.00
12,500.00	77.27	359.57	12,267.93	446.70	421.65	443.53	10.00	10.00	0.00
12,600.00	87.27	359.57	12,281.36	545.67	420.91	542.49	10.00	10.00	0.00
12,629.09	90.18	359.57	12,282.01	574.75	420.70	571.57	10.00	10.00	0.00
Start 9532.27 hold at 12629.09 MD									
12,700.00	90.18	359.57	12,281.78	645.65	420.16	642.48	0.00	0.00	0.00
12,800.00	90.18	359.57	12,281.47	745.65	419.42	742.48	0.00	0.00	0.00
12,900.00	90.18	359.57	12,281.15	845.65	418.67	842.48	0.00	0.00	0.00
13,000.00	90.18	359.57	12,280.84	945.64	417.92	942.48	0.00	0.00	0.00
13,100.00	90.18	359.57	12,280.52	1,045.64	417.17	1,042.48	0.00	0.00	0.00
13,200.00	90.18	359.57	12,280.21	1,145.64	416.42	1,142.48	0.00	0.00	0.00
13,300.00	90.18	359.57	12,279.89	1,245.63	415.67	1,242.48	0.00	0.00	0.00
13,400.00	90.18	359.57	12,279.58	1,345.63	414.92	1,342.48	0.00	0.00	0.00
13,500.00	90.18	359.57	12,279.26	1,445.63	414.17	1,442.48	0.00	0.00	0.00
13,600.00	90.18	359.57	12,278.95	1,545.62	413.42	1,542.48	0.00	0.00	0.00
13,700.00	90.18	359.57	12,278.63	1,645.62	412.67	1,642.48	0.00	0.00	0.00
13,800.00	90.18	359.57	12,278.32	1,745.62	411.93	1,742.48	0.00	0.00	0.00
13,900.00	90.18	359.57	12,278.00	1,845.61	411.18	1,842.47	0.00	0.00	0.00
14,000.00	90.18	359.57	12,277.69	1,945.61	410.43	1,942.47	0.00	0.00	0.00
14,100.00	90.18	359.57	12,277.38	2,045.61	409.68	2,042.47	0.00	0.00	0.00
14,200.00	90.18	359.57	12,277.06	2,145.60	408.93	2,142.47	0.00	0.00	0.00
14,300.00	90.18	359.57	12,276.75	2,245.60	408.18	2,242.47	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fez Federal Com 701H
Company:	Concho Resources	TVD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Site:	Fez Federal Com	North Reference:	Grid
Well:	Fez Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,400.00	90.18	359.57	12,276.43	2,345.60	407.43	2,342.47	0.00	0.00	0.00
14,500.00	90.18	359.57	12,276.12	2,445.59	406.68	2,442.47	0.00	0.00	0.00
14,600.00	90.18	359.57	12,275.80	2,545.59	405.93	2,542.47	0.00	0.00	0.00
14,700.00	90.18	359.57	12,275.49	2,645.59	405.18	2,642.47	0.00	0.00	0.00
14,800.00	90.18	359.57	12,275.17	2,745.58	404.44	2,742.47	0.00	0.00	0.00
14,900.00	90.18	359.57	12,274.86	2,845.58	403.69	2,842.47	0.00	0.00	0.00
15,000.00	90.18	359.57	12,274.54	2,945.58	402.94	2,942.47	0.00	0.00	0.00
15,100.00	90.18	359.57	12,274.23	3,045.57	402.19	3,042.47	0.00	0.00	0.00
15,200.00	90.18	359.57	12,273.91	3,145.57	401.44	3,142.47	0.00	0.00	0.00
15,300.00	90.18	359.57	12,273.60	3,245.57	400.69	3,242.47	0.00	0.00	0.00
15,400.00	90.18	359.57	12,273.28	3,345.56	399.94	3,342.47	0.00	0.00	0.00
15,500.00	90.18	359.57	12,272.97	3,445.56	399.19	3,442.47	0.00	0.00	0.00
15,600.00	90.18	359.57	12,272.65	3,545.56	398.44	3,542.47	0.00	0.00	0.00
15,700.00	90.18	359.57	12,272.34	3,645.55	397.69	3,642.47	0.00	0.00	0.00
15,800.00	90.18	359.57	12,272.02	3,745.55	396.95	3,742.47	0.00	0.00	0.00
15,900.00	90.18	359.57	12,271.71	3,845.55	396.20	3,842.46	0.00	0.00	0.00
16,000.00	90.18	359.57	12,271.39	3,945.54	395.45	3,942.46	0.00	0.00	0.00
16,100.00	90.18	359.57	12,271.08	4,045.54	394.70	4,042.46	0.00	0.00	0.00
16,200.00	90.18	359.57	12,270.76	4,145.54	393.95	4,142.46	0.00	0.00	0.00
16,300.00	90.18	359.57	12,270.45	4,245.53	393.20	4,242.46	0.00	0.00	0.00
16,400.00	90.18	359.57	12,270.14	4,345.53	392.45	4,342.46	0.00	0.00	0.00
16,500.00	90.18	359.57	12,269.82	4,445.53	391.70	4,442.46	0.00	0.00	0.00
16,600.00	90.18	359.57	12,269.51	4,545.52	390.95	4,542.46	0.00	0.00	0.00
16,700.00	90.18	359.57	12,269.19	4,645.52	390.20	4,642.46	0.00	0.00	0.00
16,800.00	90.18	359.57	12,268.88	4,745.52	389.46	4,742.46	0.00	0.00	0.00
16,900.00	90.18	359.57	12,268.56	4,845.51	388.71	4,842.46	0.00	0.00	0.00
17,000.00	90.18	359.57	12,268.25	4,945.51	387.96	4,942.46	0.00	0.00	0.00
17,100.00	90.18	359.57	12,267.93	5,045.51	387.21	5,042.46	0.00	0.00	0.00
17,200.00	90.18	359.57	12,267.62	5,145.50	386.46	5,142.46	0.00	0.00	0.00
17,300.00	90.18	359.57	12,267.30	5,245.50	385.71	5,242.46	0.00	0.00	0.00
17,400.00	90.18	359.57	12,266.99	5,345.50	384.96	5,342.46	0.00	0.00	0.00
17,500.00	90.18	359.57	12,266.67	5,445.49	384.21	5,442.46	0.00	0.00	0.00
17,600.00	90.18	359.57	12,266.36	5,545.49	383.46	5,542.46	0.00	0.00	0.00
17,700.00	90.18	359.57	12,266.04	5,645.49	382.71	5,642.46	0.00	0.00	0.00
17,800.00	90.18	359.57	12,265.73	5,745.48	381.97	5,742.46	0.00	0.00	0.00
17,900.00	90.18	359.57	12,265.41	5,845.48	381.22	5,842.46	0.00	0.00	0.00
18,000.00	90.18	359.57	12,265.10	5,945.48	380.47	5,942.45	0.00	0.00	0.00
18,100.00	90.18	359.57	12,264.78	6,045.47	379.72	6,042.45	0.00	0.00	0.00
18,200.00	90.18	359.57	12,264.47	6,145.47	378.97	6,142.45	0.00	0.00	0.00
18,300.00	90.18	359.57	12,264.15	6,245.47	378.22	6,242.45	0.00	0.00	0.00
18,400.00	90.18	359.57	12,263.84	6,345.46	377.47	6,342.45	0.00	0.00	0.00
18,500.00	90.18	359.57	12,263.53	6,445.46	376.72	6,442.45	0.00	0.00	0.00
18,600.00	90.18	359.57	12,263.21	6,545.46	375.97	6,542.45	0.00	0.00	0.00
18,700.00	90.18	359.57	12,262.90	6,645.45	375.23	6,642.45	0.00	0.00	0.00
18,800.00	90.18	359.57	12,262.58	6,745.45	374.48	6,742.45	0.00	0.00	0.00
18,900.00	90.18	359.57	12,262.27	6,845.45	373.73	6,842.45	0.00	0.00	0.00
19,000.00	90.18	359.57	12,261.95	6,945.44	372.98	6,942.45	0.00	0.00	0.00
19,100.00	90.18	359.57	12,261.64	7,045.44	372.23	7,042.45	0.00	0.00	0.00
19,200.00	90.18	359.57	12,261.32	7,145.44	371.48	7,142.45	0.00	0.00	0.00
19,300.00	90.18	359.57	12,261.01	7,245.43	370.73	7,242.45	0.00	0.00	0.00
19,400.00	90.18	359.57	12,260.69	7,345.43	369.98	7,342.45	0.00	0.00	0.00
19,500.00	90.18	359.57	12,260.38	7,445.43	369.23	7,442.45	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fez Federal Com 701H
Company:	Concho Resources	TVD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Site:	Fez Federal Com	North Reference:	Grid
Well:	Fez Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,600.00	90.18	359.57	12,260.06	7,545.42	368.48	7,542.45	0.00	0.00	0.00
19,700.00	90.18	359.57	12,259.75	7,645.42	367.74	7,642.45	0.00	0.00	0.00
19,800.00	90.18	359.57	12,259.43	7,745.42	366.99	7,742.45	0.00	0.00	0.00
19,900.00	90.18	359.57	12,259.12	7,845.41	366.24	7,842.45	0.00	0.00	0.00
20,000.00	90.18	359.57	12,258.80	7,945.41	365.49	7,942.44	0.00	0.00	0.00
20,100.00	90.18	359.57	12,258.49	8,045.41	364.74	8,042.44	0.00	0.00	0.00
20,200.00	90.18	359.57	12,258.17	8,145.40	363.99	8,142.44	0.00	0.00	0.00
20,300.00	90.18	359.57	12,257.86	8,245.40	363.24	8,242.44	0.00	0.00	0.00
20,400.00	90.18	359.57	12,257.54	8,345.40	362.49	8,342.44	0.00	0.00	0.00
20,500.00	90.18	359.57	12,257.23	8,445.39	361.74	8,442.44	0.00	0.00	0.00
20,600.00	90.18	359.57	12,256.91	8,545.39	360.99	8,542.44	0.00	0.00	0.00
20,700.00	90.18	359.57	12,256.60	8,645.39	360.25	8,642.44	0.00	0.00	0.00
20,800.00	90.18	359.57	12,256.29	8,745.39	359.50	8,742.44	0.00	0.00	0.00
20,900.00	90.18	359.57	12,255.97	8,845.38	358.75	8,842.44	0.00	0.00	0.00
21,000.00	90.18	359.57	12,255.66	8,945.38	358.00	8,942.44	0.00	0.00	0.00
21,100.00	90.18	359.57	12,255.34	9,045.38	357.25	9,042.44	0.00	0.00	0.00
21,200.00	90.18	359.57	12,255.03	9,145.37	356.50	9,142.44	0.00	0.00	0.00
21,300.00	90.18	359.57	12,254.71	9,245.37	355.75	9,242.44	0.00	0.00	0.00
21,400.00	90.18	359.57	12,254.40	9,345.37	355.00	9,342.44	0.00	0.00	0.00
21,500.00	90.18	359.57	12,254.08	9,445.36	354.25	9,442.44	0.00	0.00	0.00
21,600.00	90.18	359.57	12,253.77	9,545.36	353.50	9,542.44	0.00	0.00	0.00
21,700.00	90.18	359.57	12,253.45	9,645.36	352.76	9,642.44	0.00	0.00	0.00
21,800.00	90.18	359.57	12,253.14	9,745.35	352.01	9,742.44	0.00	0.00	0.00
21,900.00	90.18	359.57	12,252.82	9,845.35	351.26	9,842.44	0.00	0.00	0.00
22,000.00	90.18	359.57	12,252.51	9,945.35	350.51	9,942.43	0.00	0.00	0.00
22,031.36	90.18	359.57	12,252.41	9,976.70	350.27	9,973.79	0.00	0.00	0.00
Fez Federal Com 701H LTP									
22,100.00	90.18	359.57	12,252.19	10,045.34	349.76	10,042.43	0.00	0.00	0.00
22,161.36	90.18	359.57	12,252.00	10,106.70	349.30	10,103.79	0.00	0.00	0.00
TD @ 22161.36' MD - Fez Federal Com 701H PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Fez Federal Com 701	0.00	0.00	12,252.00	10,106.70	349.30	425,455.00	796,986.80	32° 9' 57.788 N	103° 22' 24.891 W
- plan hits target center									
- Point									
Fez Federal Com 701	0.00	0.00	12,252.00	9,976.70	350.30	425,325.00	796,987.80	32° 9' 56.502 N	103° 22' 24.893 W
- plan misses target center by 0.41usft at 22031.36usft MD (12252.41 TVD, 9976.70 N, 350.27 E)									
- Point									
Fez Federal Com 701	0.00	0.00	12,282.00	53.30	424.50	415,401.60	797,062.00	32° 8' 18.302 N	103° 22' 25.059 W
- plan misses target center by 200.64usft at 12200.00usft MD (12129.93 TVD, 184.19 N, 423.62 E)									
- Point									

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Project:	Lea County, NM	MD Reference:	GL 3243.6' + 26' KB @ 3269.60usft (Independence 205)
Site:	Fez Federal Com	North Reference:	Grid
Well:	Fez Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,000.00	3,000.00	0.00	0.00	Start Build 2.00
3,250.00	3,249.68	0.00	10.90	Start 4626.17 hold at 3250.00 MD
7,876.17	7,858.25	0.00	414.10	Start Drop -2.00
8,126.17	8,107.93	0.00	425.00	Start 3601.12 hold at 8126.17 MD
11,727.29	11,709.05	0.00	425.00	Start DLS 10.00 TFO 359.57
12,629.09	12,282.01	574.75	420.70	Start 9532.27 hold at 12629.09 MD
22,161.36	12,252.00	10,106.70	349.30	TD @ 22161.36' MD