

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Hobbs

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. SQUINTS FEDERAL COM 3H	
2. Name of Operator COG OPERATING LLC		9. API Well No. 30-025-43166-00-X1	
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE MIDLAND, TX 79701-4287		10. Field and Pool or Exploratory Area OJO CHISO	
3b. Phone No. (include area code) Ph: 575-748-6945		11. County or Parish, State LEA COUNTY, NM	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 27 T22S R34E SESW 220FSL 2010FWL			

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 APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompletable 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 recompletion 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 respectfully requests approval for the following changes to the originally approved APD.

BHL Change

From: 330' FNL & 1980' FWL Section 22. T22S. R34E
To: 50' FNL & 1485' FWL Section 22. T22S. R34E.

C102 attached.

Directional plan attached.
AC attached.

All previous Conditions of Approval still apply. ITR

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

Electronic Submission #478033 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 08/15/2019 (19PP2861SE)

Name (Printed/Typed) MAYTE X REYES	Title SENIOR REGULATORY ANALYST
Signature (Electronic Submission)	Date 08/14/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>DYLAN ROSSMANGO</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>08/19/2019</u>
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 ****

REQUIRES NSL

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C O N C H O

Concho Resources, Inc.

Lea County, NM (NAD 27 NME)
(Squints Federal) Sec-27_T-22-S_R-34-E
Squints Federal Com #3H

OWB
Plan #1

Anticollision Report

06 August, 2019

 **INTREPID**



Intrepid
Anticollision Report



Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Reference	Plan #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.0usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 2,434.4 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISWCSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program Date 08/06/19

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	9,578.0	Plan #1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
9,578.0	20,411.8	Plan #1 (OWB)	MWD+IFR1+MS	MWD + IFR1 + Multi-Station Correction

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						
(Squints Federal) Sec-27_T-22-S_R-34-E						
Antelope Federal #1 (INC ONLY) - OWB - AWB	13,530.9	10,121.3	842.0	578.7	3.198	CC, ES, SF
Squints Federal Com #7H - OWB - Plan #1	5,500.0	5,500.0	30.0	3.2	1.120	Level 2, CC, ES, SF

Offset Design:(Squints Federal) Sec-27_T-22-S_R-34-E - Antelope Federal #1 (INC ONLY) - OWB - AWB

Survey Program: 335-INC-ONLY										Offset Site Error: 0.0 usft			
Reference										Offset Well Error: 0.0 usft			
Offset				Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,300.0	10,149.0	10,125.7	10,121.7	13.3	234.7	90.30	3,410.0	326.3	2,384.2	2,139.9	244.30	9.759	
11,400.0	10,148.8	10,125.5	10,121.5	13.9	234.7	90.29	3,410.0	326.3	2,290.9	2,046.4	244.52	9.369	
11,500.0	10,148.6	10,125.3	10,121.3	14.5	234.7	90.27	3,410.0	326.3	2,198.2	1,953.4	244.77	8.981	
11,600.0	10,148.4	10,125.1	10,121.1	15.2	234.7	90.26	3,410.0	326.3	2,106.2	1,861.1	245.05	8.595	
11,700.0	10,148.2	10,124.9	10,120.9	15.8	234.7	90.25	3,410.0	326.3	2,014.9	1,769.5	245.38	8.211	
11,800.0	10,148.0	10,124.7	10,120.7	16.5	234.7	90.23	3,410.0	326.3	1,924.5	1,678.8	245.75	7.831	
11,900.0	10,147.8	10,124.5	10,120.5	17.2	234.7	90.22	3,410.0	326.3	1,835.1	1,588.9	246.18	7.454	
12,000.0	10,147.6	10,124.3	10,120.3	17.8	234.7	90.21	3,410.0	326.3	1,746.9	1,500.2	246.67	7.082	
12,100.0	10,147.4	10,163.0	10,159.0	18.5	235.9	92.84	3,409.4	326.3	1,660.0	1,411.5	248.46	6.681	
12,200.0	10,147.2	10,157.9	10,153.9	19.2	235.7	92.49	3,409.6	326.3	1,574.6	1,325.7	248.94	6.325	
12,300.0	10,147.0	10,153.3	10,149.3	19.9	235.6	92.18	3,409.7	326.3	1,491.1	1,241.6	249.51	5.976	
12,400.0	10,146.8	10,149.2	10,145.3	20.6	235.5	91.90	3,409.8	326.3	1,409.7	1,159.5	250.19	5.635	
12,500.0	10,146.6	10,145.5	10,141.6	21.3	235.3	91.65	3,409.9	326.3	1,330.9	1,079.9	250.99	5.302	
12,600.0	10,146.4	10,142.2	10,138.2	22.0	235.2	91.42	3,409.9	326.3	1,255.1	1,003.1	251.91	4.982	
12,700.0	10,146.2	10,139.1	10,135.1	22.7	235.1	91.22	3,410.0	326.3	1,182.8	929.9	252.96	4.676	
12,800.0	10,146.0	10,136.3	10,132.3	23.4	235.0	91.03	3,410.1	326.3	1,114.9	860.7	254.14	4.387	
12,900.0	10,145.8	10,133.8	10,129.8	24.2	235.0	90.85	3,410.1	326.3	1,052.1	796.6	255.43	4.119	
13,000.0	10,145.6	10,131.4	10,127.4	24.9	234.9	90.69	3,410.1	326.3	995.3	738.5	256.81	3.876	
13,100.0	10,145.4	10,129.2	10,125.2	25.6	234.8	90.54	3,410.2	326.3	945.8	687.5	258.25	3.662	
13,200.0	10,145.2	10,127.1	10,123.2	26.3	234.7	90.40	3,410.2	326.3	904.6	645.0	259.68	3.484	
13,300.0	10,145.0	10,125.3	10,121.3	27.1	234.7	90.27	3,410.2	326.3	873.1	612.0	261.03	3.345	
13,400.0	10,144.8	10,123.5	10,119.5	27.8	234.6	90.15	3,410.3	326.3	852.1	589.9	262.19	3.250	
13,500.0	10,144.6	10,121.8	10,117.9	28.5	234.6	90.04	3,410.3	326.3	842.5	579.5	263.09	3.202	
13,530.9	10,144.6	10,121.3	10,117.4	28.7	234.6	90.01	3,410.3	326.3	842.0	578.7	263.30	3.198	CC, ES, SF

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



Intrepid
Anticollision Report



Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design:(Squints Federal) Sec-27_T-22-S_R-34-E - Antelope Federal#1 (INC ONLY) - OWB - AWB

Offset Site Error: 0.0 usft
Offset Well Error: 0.0 usft

Survey Program: 335-INC-ONLY				Rule Assigned:		Offset Well Error:		0.0 usft				
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Warning		
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside			Between	Between	Minimum	Separation
Depth	Depth	Depth	Depth			Tooface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(")	(usft)	(usft)	(usft)	(usft)	(usft)	
13,600.0	10,144.4	10,120.3	10,116.3	29.3	234.5	89.93	3,410.3	326.3	844.8	581.2	263.66	3.204
13,700.0	10,144.2	10,118.8	10,114.9	30.0	234.5	89.84	3,410.3	326.3	858.8	594.9	263.87	3.255
13,800.0	10,144.0	10,117.5	10,113.5	30.7	234.4	89.74	3,410.3	326.3	883.9	620.2	263.76	3.351
13,900.0	10,143.8	10,116.2	10,112.2	31.5	234.4	89.65	3,410.4	326.3	919.3	655.9	263.38	3.490
14,000.0	10,143.7	10,115.0	10,111.0	32.2	234.4	89.57	3,410.4	326.3	963.8	701.0	262.80	3.667
14,100.0	10,143.5	10,113.8	10,109.8	33.0	234.3	89.49	3,410.4	326.3	1,016.2	754.1	262.10	3.877
14,200.0	10,143.3	10,112.7	10,108.7	33.7	234.3	89.42	3,410.4	326.3	1,075.4	814.1	261.34	4.115
14,300.0	10,143.1	10,111.7	10,107.7	34.4	234.2	89.35	3,410.4	326.3	1,140.3	879.8	260.56	4.376
14,400.0	10,142.9	10,110.7	10,106.7	35.2	234.2	89.28	3,410.4	326.3	1,210.0	950.2	259.80	4.657
14,500.0	10,142.7	10,109.8	10,105.8	35.9	234.2	89.22	3,410.4	326.3	1,283.7	1,024.6	259.08	4.955
14,600.0	10,142.5	10,108.9	10,104.9	36.7	234.2	89.16	3,410.4	326.3	1,360.8	1,102.4	258.41	5.266
14,700.0	10,142.3	10,108.0	10,104.1	37.4	234.1	89.10	3,410.4	326.3	1,440.7	1,182.9	257.78	5.589
14,800.0	10,142.1	10,107.2	10,103.3	38.2	234.1	89.05	3,410.5	326.3	1,522.9	1,265.7	257.22	5.921
14,900.0	10,141.9	10,106.5	10,102.5	38.9	234.1	88.99	3,410.5	326.3	1,607.2	1,350.5	256.71	6.261
15,000.0	10,141.7	10,105.7	10,101.8	39.7	234.1	88.94	3,410.5	326.3	1,693.2	1,436.9	256.24	6.608
15,100.0	10,141.5	10,105.0	10,101.1	40.4	234.0	88.90	3,410.5	326.3	1,780.6	1,524.8	255.83	6.960
15,200.0	10,141.3	10,104.4	10,100.4	41.2	234.0	88.85	3,410.5	326.3	1,869.3	1,613.9	255.46	7.317
15,300.0	10,141.1	10,103.7	10,099.7	41.9	234.0	88.81	3,410.5	326.3	1,959.1	1,704.0	255.14	7.679
15,400.0	10,140.9	10,103.1	10,099.1	42.7	234.0	88.76	3,410.5	326.3	2,049.9	1,795.0	254.85	8.043
15,500.0	10,140.7	10,102.5	10,098.5	43.4	233.9	88.72	3,410.5	326.3	2,141.4	1,886.8	254.59	8.411
15,600.0	10,140.5	10,101.9	10,097.9	44.2	233.9	88.68	3,410.5	326.3	2,233.7	1,979.4	254.37	8.781
15,700.0	10,140.3	10,101.4	10,097.4	44.9	233.9	88.65	3,410.5	326.3	2,326.7	2,072.5	254.17	9.154
15,800.0	10,140.1	10,100.8	10,096.9	45.7	233.9	88.61	3,410.5	326.3	2,420.1	2,166.1	254.00	9.528



Intrepid
Anticollision Report



Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design:(Squints Federal) Sec-27_T-22-S_R-34-E - Squints Federal Com #7H - OWB - Plan #1

Offset Site Error: 0.0 usft
Offset Well Error: 0.0 usft

Survey Program: 0-MWD, 9826-MWD+IFR1+MS				Rule Assigned:		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)
Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
0.0	0.0	0.0	0.0	0.0	0.0	89.62	0.2	30.0
100.0	100.0	100.0	100.0	0.0	0.1	89.62	0.2	30.0
200.0	200.0	200.0	200.0	0.2	0.6	89.62	0.2	30.0
300.0	300.0	300.0	300.0	0.3	1.0	89.62	0.2	30.0
400.0	400.0	400.0	400.0	0.4	1.4	89.62	0.2	30.0
500.0	500.0	500.0	500.0	0.6	1.8	89.62	0.2	30.0
600.0	600.0	600.0	600.0	0.7	2.3	89.62	0.2	30.0
700.0	700.0	700.0	700.0	0.8	2.7	89.62	0.2	30.0
800.0	800.0	800.0	800.0	1.0	3.1	89.62	0.2	30.0
900.0	900.0	900.0	900.0	1.1	3.5	89.62	0.2	30.0
1,000.0	1,000.0	1,000.0	1,000.0	1.2	4.0	89.62	0.2	30.0
1,100.0	1,100.0	1,100.0	1,100.0	1.4	4.4	89.62	0.2	30.0
1,200.0	1,200.0	1,200.0	1,200.0	1.5	4.8	89.62	0.2	30.0
1,300.0	1,300.0	1,300.0	1,300.0	1.6	5.2	89.62	0.2	30.0
1,400.0	1,400.0	1,400.0	1,400.0	1.8	5.6	89.62	0.2	30.0
1,500.0	1,500.0	1,500.0	1,500.0	1.9	6.1	89.62	0.2	30.0
1,600.0	1,600.0	1,600.0	1,600.0	2.0	6.5	89.62	0.2	30.0
1,700.0	1,700.0	1,700.0	1,700.0	2.2	6.9	89.62	0.2	30.0
1,800.0	1,800.0	1,800.0	1,800.0	2.3	7.3	89.62	0.2	30.0
1,900.0	1,900.0	1,900.0	1,900.0	2.4	7.8	89.62	0.2	30.0
2,000.0	2,000.0	2,000.0	2,000.0	2.6	8.2	89.62	0.2	30.0
2,100.0	2,100.0	2,100.0	2,100.0	2.7	8.6	89.62	0.2	30.0
2,200.0	2,200.0	2,200.0	2,200.0	2.8	9.0	89.62	0.2	30.0
2,300.0	2,300.0	2,300.0	2,300.0	2.9	9.5	89.62	0.2	30.0
2,400.0	2,400.0	2,400.0	2,400.0	3.1	9.9	89.62	0.2	30.0
2,500.0	2,500.0	2,500.0	2,500.0	3.2	10.3	89.62	0.2	30.0
2,600.0	2,600.0	2,600.0	2,600.0	3.3	10.7	89.62	0.2	30.0
2,700.0	2,700.0	2,700.0	2,700.0	3.5	11.1	89.62	0.2	30.0
2,800.0	2,800.0	2,800.0	2,800.0	3.6	11.6	89.62	0.2	30.0
2,900.0	2,900.0	2,900.0	2,900.0	3.7	12.0	89.62	0.2	30.0
3,000.0	3,000.0	3,000.0	3,000.0	3.9	12.4	89.62	0.2	30.0
3,100.0	3,100.0	3,100.0	3,100.0	4.0	12.8	89.62	0.2	30.0
3,200.0	3,200.0	3,200.0	3,200.0	4.1	13.3	89.62	0.2	30.0
3,300.0	3,300.0	3,300.0	3,300.0	4.3	13.7	89.62	0.2	30.0
3,400.0	3,400.0	3,400.0	3,400.0	4.4	14.1	89.62	0.2	30.0
3,500.0	3,500.0	3,500.0	3,500.0	4.5	14.5	89.62	0.2	30.0
3,600.0	3,600.0	3,600.0	3,600.0	4.7	15.0	89.62	0.2	30.0
3,700.0	3,700.0	3,700.0	3,700.0	4.8	15.4	89.62	0.2	30.0
3,800.0	3,800.0	3,800.0	3,800.0	4.9	15.8	89.62	0.2	30.0
3,900.0	3,900.0	3,900.0	3,900.0	5.1	16.2	89.62	0.2	30.0
4,000.0	4,000.0	4,000.0	4,000.0	5.2	16.6	89.62	0.2	30.0
4,100.0	4,100.0	4,100.0	4,100.0	5.3	17.1	89.62	0.2	30.0
4,200.0	4,200.0	4,200.0	4,200.0	5.5	17.5	89.62	0.2	30.0
4,300.0	4,300.0	4,300.0	4,300.0	5.6	17.9	89.62	0.2	30.0
4,400.0	4,400.0	4,400.0	4,400.0	5.7	18.3	89.62	0.2	30.0
4,500.0	4,500.0	4,500.0	4,500.0	5.8	18.8	89.62	0.2	30.0
4,600.0	4,600.0	4,600.0	4,600.0	6.0	19.2	89.62	0.2	30.0
4,700.0	4,700.0	4,700.0	4,700.0	6.1	19.6	89.62	0.2	30.0
4,800.0	4,800.0	4,800.0	4,800.0	6.2	20.0	89.62	0.2	30.0
4,900.0	4,900.0	4,900.0	4,900.0	6.4	20.5	89.62	0.2	30.0
5,000.0	5,000.0	5,000.0	5,000.0	6.5	20.9	89.62	0.2	30.0
5,100.0	5,100.0	5,100.0	5,100.0	6.6	21.3	89.62	0.2	30.0

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



Intrepid
Anticollision Report



Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design:(Squints Federal) Sec-27_T-22-S_R-34-E - Squints Federal Com #7H - OWB - Plan #1

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Survey Program: 0-MWD, 9826-MWD+IFR1+MS							Rule Assigned:				Offset Well Error:		0.0 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)			
5,200.0	5,200.0	5,200.0	5,200.0	6.8	21.7	89.62	0.2	30.0	30.0	4.7	25.31	1.185	Level 2
5,300.0	5,300.0	5,300.0	5,300.0	6.9	22.1	89.62	0.2	30.0	30.0	4.2	25.80	1.163	Level 2
5,400.0	5,400.0	5,400.0	5,400.0	7.0	22.6	89.62	0.2	30.0	30.0	3.7	26.30	1.141	Level 2
5,500.0	5,500.0	5,500.0	5,500.0	7.2	23.0	89.62	0.2	30.0	30.0	3.2	26.79	1.120	Level 2, CC, ES, SF
5,600.0	5,600.0	5,599.0	5,599.0	7.2	23.3	-149.26	-0.7	31.4	33.0	5.8	27.11	1.215	Level 2
5,700.0	5,699.8	5,697.6	5,697.4	7.2	23.4	-148.99	-3.5	35.7	41.8	14.5	27.28	1.532	
5,800.0	5,799.5	5,796.5	5,796.0	7.2	23.5	-149.20	-7.4	41.9	55.1	27.6	27.46	2.007	
5,900.0	5,899.1	5,895.5	5,894.8	7.2	23.6	-149.53	-11.4	48.2	68.8	41.2	27.65	2.489	
6,000.0	5,998.7	5,994.6	5,993.6	7.2	23.7	-149.75	-15.4	54.4	82.6	54.7	27.85	2.965	
6,100.0	6,098.4	6,093.6	6,092.4	7.2	23.8	-149.91	-19.4	60.6	96.3	68.2	28.06	3.432	
6,200.0	6,198.0	6,192.7	6,191.1	7.2	24.0	-150.02	-23.4	66.9	110.0	81.8	28.28	3.891	
6,300.0	6,297.6	6,291.7	6,289.9	7.2	24.1	-150.12	-27.4	73.1	123.8	95.3	28.51	4.342	
6,400.0	6,397.2	6,390.8	6,388.7	7.2	24.3	-150.19	-31.3	79.3	137.5	108.8	28.75	4.784	
6,500.0	6,496.8	6,489.8	6,487.5	7.2	24.5	-150.25	-35.3	85.6	151.3	122.3	28.99	5.217	
6,600.0	6,596.4	6,588.9	6,586.2	7.3	24.6	-150.30	-39.3	91.8	165.0	135.7	29.25	5.642	
6,700.0	6,696.1	6,687.9	6,685.0	7.3	24.8	-150.34	-43.3	98.0	178.7	149.2	29.51	6.057	
6,800.0	6,795.7	6,787.0	6,783.8	7.3	25.0	-150.38	-47.3	104.3	192.5	162.7	29.78	6.464	
6,900.0	6,895.3	6,886.0	6,882.6	7.3	25.2	-150.41	-51.3	110.5	206.2	176.2	30.05	6.861	
7,000.0	6,994.9	6,985.1	6,981.3	7.3	25.4	-150.44	-55.3	116.7	219.9	189.6	30.34	7.250	
7,100.0	7,094.5	7,084.1	7,080.1	7.4	25.6	-150.46	-59.2	122.9	233.7	203.1	30.63	7.629	
7,200.0	7,194.2	7,183.2	7,178.9	7.4	25.8	-150.49	-63.2	129.2	247.4	216.5	30.93	8.000	
7,300.0	7,293.8	7,282.2	7,277.7	7.4	26.1	-150.51	-67.2	135.4	261.2	229.9	31.23	8.361	
7,400.0	7,393.4	7,381.3	7,376.4	7.5	26.3	-150.52	-71.2	141.6	274.9	243.3	31.55	8.714	
7,500.0	7,493.0	7,480.4	7,475.2	7.5	26.5	-150.54	-75.2	147.9	288.6	256.8	31.87	9.058	
7,600.0	7,592.6	7,579.4	7,574.0	7.6	26.7	-150.55	-79.2	154.1	302.4	270.2	32.19	9.393	
7,700.0	7,692.3	7,678.5	7,672.8	7.6	27.0	-150.57	-83.2	160.3	316.1	283.6	32.52	9.720	
7,800.0	7,791.9	7,777.5	7,771.5	7.6	27.2	-150.58	-87.1	166.6	329.8	297.0	32.86	10.038	
7,900.0	7,891.5	7,876.6	7,870.3	7.7	27.5	-150.59	-91.1	172.8	343.6	310.4	33.20	10.348	
8,000.0	7,991.1	7,975.6	7,969.1	7.7	27.8	-150.60	-95.1	179.0	357.3	323.8	33.55	10.650	
8,100.0	8,090.7	8,074.7	8,067.9	7.8	28.0	-150.61	-99.1	185.3	371.1	337.2	33.91	10.944	
8,200.0	8,190.4	8,173.7	8,166.6	7.9	28.3	-150.62	-103.1	191.5	384.8	350.5	34.27	11.230	
8,300.0	8,290.0	8,272.8	8,265.4	7.9	28.6	-150.63	-107.1	197.7	398.5	363.9	34.63	11.508	
8,400.0	8,389.6	8,371.8	8,364.2	8.0	28.8	-150.63	-111.1	204.0	412.3	377.3	35.00	11.779	
8,500.0	8,489.2	8,470.9	8,463.0	8.0	29.1	-150.64	-115.0	210.2	426.0	390.6	35.38	12.042	
8,600.0	8,588.8	8,569.9	8,561.7	8.1	29.4	-150.65	-118.0	216.4	439.7	404.0	35.76	12.299	
8,700.0	8,688.5	8,669.0	8,660.5	8.2	29.7	-150.65	-123.0	222.7	453.5	417.3	36.14	12.548	
8,800.0	8,788.1	8,768.0	8,759.3	8.2	30.0	-150.66	-127.0	228.9	467.2	430.7	36.53	12.790	
8,900.0	8,887.7	8,867.1	8,858.1	8.3	30.3	-150.67	-131.0	235.1	481.0	444.0	36.92	13.026	
9,000.0	8,987.3	8,966.1	8,956.8	8.4	30.6	-150.67	-135.0	241.4	494.7	457.4	37.32	13.255	
9,100.0	9,086.9	9,065.2	9,055.6	8.4	30.9	-150.68	-139.0	247.6	508.4	470.7	37.72	13.478	
9,200.0	9,186.6	9,164.2	9,154.4	8.5	31.2	-150.68	-143.0	253.8	522.2	484.0	38.13	13.695	
9,300.0	9,286.2	9,263.3	9,253.2	8.6	31.6	-150.68	-146.9	260.1	535.9	497.4	38.54	13.906	
9,400.0	9,385.8	9,362.3	9,351.9	8.7	31.9	-150.69	-150.9	266.3	549.6	510.7	38.95	14.111	
9,500.0	9,485.4	9,461.4	9,450.7	8.8	32.2	-150.69	-154.9	272.5	563.4	524.0	39.37	14.310	
9,600.0	9,585.0	9,560.4	9,549.5	8.8	32.5	-176.08	-158.9	278.8	577.2	537.3	39.92	14.460	
9,700.0	9,684.1	9,658.3	9,647.1	8.8	32.8	124.46	-162.8	284.9	593.2	553.0	40.28	14.728	
9,800.0	9,780.0	9,752.1	9,740.6	8.9	33.2	113.99	-166.6	290.8	613.1	572.4	40.69	15.067	
9,900.0	9,869.8	9,843.9	9,832.2	9.0	33.4	111.13	-168.7	296.6	638.0	597.0	41.05	15.543	
10,000.0	9,950.8	9,945.8	9,933.0	9.1	33.4	110.18	-156.3	302.9	667.8	626.7	41.13	16.236	
10,100.0	10,020.5	10,058.3	10,039.8	9.2	33.4	109.73	-122.1	309.4	701.0	659.8	41.16	17.030	
10,200.0	10,076.8	10,184.9	10,149.3	9.4	33.4	109.40	-59.5	315.9	735.9	694.8	41.20	17.864	
10,300.0	10,118.0	10,329.5	10,254.2	9.5	33.5	108.96	39.4	321.9	770.6	729.3	41.29	18.663	

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

Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #1

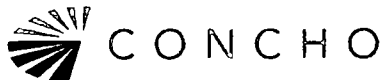
Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design: (Squints Federal) Sec-27_T-22-S_R-34-E - Squints Federal Com #7H - OWB - Plan #1

Offset Site Error: 0.0 usft
Offset Well Error: 0.0 usft

Survey Program: 0-MWD, 9826-MWD+IFR1+MS										Rule Assigned:					
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance	Between Centres (usft)		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)				
10,400.0	10,142.8	10,495.1	10,339.6	9.7	33.5	108.15	180.4	326.5	802.4	760.9	41.49	19.341			
10,500.0	10,150.6	10,680.1	10,383.3	9.8	33.5	106.72	359.4	328.2	828.8	787.0	41.81	19.822			
10,600.0	10,150.4	10,801.3	10,384.9	10.0	33.5	106.23	480.5	327.5	845.6	803.3	42.24	20.016			
10,700.0	10,150.2	10,900.7	10,384.7	10.3	33.5	105.94	580.0	327.0	855.4	812.7	42.75	20.012			
10,800.0	10,150.0	11,000.6	10,384.5	10.7	33.5	105.85	679.9	326.4	858.6	815.3	43.30	19.827			
10,900.0	10,149.8	11,100.8	10,384.3	11.1	33.5	105.85	779.9	325.8	858.6	814.7	43.91	19.553			
11,000.0	10,149.6	11,200.6	10,384.1	11.6	33.5	105.85	879.9	325.2	858.6	814.0	44.56	19.266			
11,100.0	10,149.4	11,300.6	10,383.9	12.2	33.5	105.85	979.9	324.6	858.6	813.3	45.26	18.969			
11,200.0	10,149.2	11,400.6	10,383.7	12.7	33.7	105.85	1,079.9	324.0	858.6	812.6	46.00	18.665			
11,300.0	10,149.0	11,500.6	10,383.5	13.3	33.9	105.85	1,179.9	323.4	858.5	811.8	46.77	18.357			
11,400.0	10,148.8	11,600.6	10,383.3	13.9	34.1	105.85	1,279.9	322.8	858.5	811.0	47.58	18.045			
11,500.0	10,148.6	11,700.6	10,383.1	14.5	34.3	105.85	1,379.9	322.2	858.5	810.1	48.42	17.732			
11,600.0	10,148.4	11,800.6	10,382.9	15.2	34.5	105.85	1,479.9	321.6	858.5	809.2	49.28	17.420			
11,700.0	10,148.2	11,900.6	10,382.7	15.8	34.8	105.86	1,579.9	321.0	858.5	808.3	50.18	17.109			
11,800.0	10,148.0	12,000.6	10,382.6	16.5	35.1	105.86	1,679.9	320.4	858.5	807.4	51.10	16.800			
11,900.0	10,147.8	12,100.6	10,382.4	17.2	35.3	105.86	1,779.9	319.8	858.5	806.5	52.05	16.495			
12,000.0	10,147.6	12,200.6	10,382.2	17.8	35.6	105.86	1,879.9	319.2	858.5	805.5	53.01	16.193			
12,100.0	10,147.4	12,300.6	10,382.0	18.5	35.9	105.86	1,979.9	318.6	858.5	804.5	54.00	15.896			
12,200.0	10,147.2	12,400.6	10,381.8	19.2	36.2	105.86	2,079.9	318.0	858.5	803.5	55.01	15.604			
12,300.0	10,147.0	12,500.6	10,381.6	19.9	36.6	105.86	2,179.9	317.4	858.5	802.4	56.04	15.318			
12,400.0	10,146.8	12,600.6	10,381.4	20.6	36.9	105.86	2,279.9	316.8	858.5	801.4	57.09	15.036			
12,500.0	10,146.6	12,700.6	10,381.2	21.3	37.3	105.86	2,379.9	316.2	858.5	800.3	58.16	14.761			
12,600.0	10,146.4	12,800.6	10,381.0	22.0	37.7	105.86	2,479.9	315.6	858.4	799.2	59.24	14.491			
12,700.0	10,146.2	12,900.6	10,380.8	22.7	38.0	105.86	2,579.9	315.0	858.4	798.1	60.34	14.227			
12,800.0	10,146.0	13,000.6	10,380.6	23.4	38.4	105.86	2,679.9	314.4	858.4	797.0	61.45	13.969			
12,900.0	10,145.8	13,100.6	10,380.4	24.2	38.8	105.86	2,779.9	313.8	858.4	795.8	62.58	13.717			
13,000.0	10,145.6	13,200.6	10,380.2	24.9	39.3	105.86	2,879.9	313.2	858.4	794.7	63.72	13.471			
13,100.0	10,145.4	13,300.6	10,380.1	25.6	39.7	105.86	2,979.8	312.6	858.4	793.5	64.88	13.231			
13,200.0	10,145.2	13,400.6	10,379.9	26.3	40.1	105.86	3,079.8	312.0	858.4	792.4	66.05	12.997			
13,300.0	10,145.0	13,500.6	10,379.7	27.1	40.6	105.86	3,179.8	311.4	858.4	791.2	67.23	12.768			
13,400.0	10,144.8	13,600.6	10,379.5	27.8	41.0	105.86	3,279.8	310.8	858.4	790.0	68.42	12.546			
13,500.0	10,144.6	13,700.6	10,379.3	28.5	41.5	105.86	3,379.8	310.2	858.4	788.8	69.62	12.329			
13,600.0	10,144.4	13,800.6	10,379.1	29.3	41.9	105.86	3,479.8	309.6	858.4	787.5	70.84	12.118			
13,700.0	10,144.2	13,900.6	10,378.9	30.0	42.4	105.87	3,579.8	309.0	858.4	786.3	72.06	11.912			
13,800.0	10,144.0	14,000.6	10,378.7	30.7	42.9	105.87	3,679.8	308.4	858.4	785.1	73.29	11.711			
13,900.0	10,143.8	14,100.6	10,378.5	31.5	43.4	105.87	3,779.8	307.8	858.3	783.8	74.54	11.516			
14,000.0	10,143.7	14,200.6	10,378.3	32.2	43.9	105.87	3,879.8	307.2	858.3	782.5	75.79	11.325			
14,100.0	10,143.5	14,300.6	10,378.1	33.0	44.4	105.87	3,979.8	306.6	858.3	781.3	77.05	11.140			
14,200.0	10,143.3	14,400.6	10,377.9	33.7	45.0	105.87	4,079.8	306.0	858.3	780.0	78.32	10.959			
14,300.0	10,143.1	14,500.6	10,377.7	34.4	45.5	105.87	4,179.8	305.4	858.3	778.7	79.60	10.783			
14,400.0	10,142.9	14,600.6	10,377.6	35.2	46.0	105.87	4,279.8	304.8	858.3	777.4	80.88	10.612			
14,500.0	10,142.7	14,700.6	10,377.4	35.9	46.6	105.87	4,379.8	304.2	858.3	776.1	82.18	10.445			
14,600.0	10,142.5	14,800.6	10,377.2	36.7	47.1	105.87	4,479.8	303.6	858.3	774.8	83.48	10.282			
14,700.0	10,142.3	14,900.6	10,377.0	37.4	47.7	105.87	4,579.8	303.1	858.3	773.5	84.78	10.123			
14,800.0	10,142.1	15,000.6	10,376.8	38.2	48.2	105.87	4,679.8	302.5	858.3	772.2	86.10	9.969			
14,900.0	10,141.9	15,100.6	10,376.6	38.9	48.8	105.87	4,779.8	301.9	858.3	770.9	87.42	9.818			
15,000.0	10,141.7	15,200.6	10,376.4	39.7	49.3	105.87	4,879.8	301.3	858.3	769.5	88.74	9.671			
15,100.0	10,141.5	15,300.6	10,376.2	40.4	49.9	105.87	4,979.8	300.7	858.3	768.2	90.07	9.528			
15,200.0	10,141.3	15,400.6	10,376.0	41.2	50.5	105.87	5,079.8	300.1	858.2	766.8	91.41	9.389			
15,300.0	10,141.1	15,500.6	10,375.8	41.9	51.1	105.87	5,179.8	299.5	858.2	765.5	92.76	9.253			
15,400.0	10,140.9	15,600.6	10,375.6	42.7	51.7	105.87	5,279.8	298.9	858.2	764.1	94.10	9.120			
15,500.0	10,140.7	15,700.6	10,375.4	43.4	52.3	105.87	5,379.8	298.3	858.2	762.8	95.46	8.991			

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



Intrepid

Anticollision Report



Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
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Reference Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design:(Squints Federal) Sec-27_T-22-S_R-34-E - Squints Federal Com #7H - OWB - Plan #1

Offset Site Error: 0.0 usft
Offset Well Error: 0.0 usft

Survey Program: 0-MWD, 9826-MWD+IFR1+MS							Rule Assigned:				Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	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)			
15,600.0	10,140.5	15,800.6	10,375.3	44.2	52.9	105.87	5,479.8	297.7	858.2	761.4	96.82	8.864	
15,700.0	10,140.3	15,900.6	10,375.1	44.9	53.5	105.88	5,579.8	297.1	858.2	760.0	98.18	8.741	
15,800.0	10,140.1	16,000.6	10,374.9	45.7	54.1	105.88	5,679.8	296.5	858.2	758.7	99.55	8.621	
15,900.0	10,139.9	16,100.6	10,374.7	46.4	54.7	105.88	5,779.8	295.9	858.2	757.3	100.92	8.504	
16,000.0	10,139.7	16,200.6	10,374.5	47.2	55.3	105.88	5,879.8	295.3	858.2	755.9	102.29	8.389	
16,100.0	10,139.5	16,300.6	10,374.3	48.0	55.9	105.88	5,979.8	294.7	858.2	754.5	103.67	8.278	
16,200.0	10,139.3	16,400.6	10,374.1	48.7	56.5	105.88	6,079.8	294.1	858.2	753.1	105.06	8.169	
16,300.0	10,139.1	16,500.6	10,373.9	49.5	57.2	105.88	6,179.8	293.5	858.2	751.7	106.45	8.062	
16,400.0	10,138.9	16,600.6	10,373.7	50.2	57.8	105.88	6,279.8	292.9	858.2	750.3	107.84	7.958	
16,500.0	10,138.7	16,700.6	10,373.5	51.0	58.4	105.88	6,379.8	292.3	858.1	748.9	109.23	7.856	
16,600.0	10,138.5	16,800.6	10,373.3	51.7	59.1	105.88	6,479.8	291.7	858.1	747.5	110.63	7.757	
16,700.0	10,138.3	16,900.6	10,373.1	52.5	59.7	105.88	6,579.8	291.1	858.1	746.1	112.03	7.660	
16,800.0	10,138.1	17,000.6	10,372.9	53.2	60.3	105.88	6,679.8	290.5	858.1	744.7	113.44	7.565	
16,900.0	10,137.9	17,100.6	10,372.8	54.0	61.0	105.88	6,779.8	289.9	858.1	743.3	114.84	7.472	
17,000.0	10,137.7	17,200.6	10,372.6	54.8	61.6	105.88	6,879.8	289.3	858.1	741.9	116.26	7.381	
17,100.0	10,137.5	17,300.6	10,372.4	55.5	62.3	105.88	6,979.8	288.7	858.1	740.4	117.67	7.292	
17,200.0	10,137.3	17,400.6	10,372.2	56.3	62.9	105.88	7,079.8	288.1	858.1	739.0	119.09	7.206	
17,300.0	10,137.1	17,500.6	10,372.0	57.0	63.6	105.88	7,179.8	287.5	858.1	737.6	120.51	7.121	
17,400.0	10,136.9	17,600.6	10,371.8	57.8	64.3	105.88	7,279.8	286.9	858.1	736.2	121.93	7.038	
17,500.0	10,136.7	17,700.6	10,371.6	58.6	64.9	105.88	7,379.8	286.3	858.1	734.7	123.35	6.956	
17,600.0	10,136.5	17,800.6	10,371.4	59.3	65.6	105.89	7,479.8	285.7	858.1	733.3	124.78	6.877	
17,700.0	10,136.3	17,900.6	10,371.2	60.1	66.2	105.89	7,579.8	285.1	858.1	731.8	126.21	6.799	
17,800.0	10,136.2	18,000.6	10,371.0	60.8	66.9	105.89	7,679.8	284.5	858.0	730.4	127.64	6.722	
17,900.0	10,136.0	18,100.6	10,370.8	61.6	67.6	105.89	7,779.8	283.9	858.0	729.0	129.08	6.648	
18,000.0	10,135.8	18,200.6	10,370.6	62.4	68.2	105.89	7,879.8	283.3	858.0	727.5	130.51	6.574	
18,100.0	10,135.6	18,300.6	10,370.4	63.1	68.9	105.89	7,979.8	282.7	858.0	726.1	131.95	6.503	
18,200.0	10,135.4	18,400.6	10,370.3	63.9	69.6	105.89	8,079.7	282.1	858.0	724.6	133.39	6.432	
18,300.0	10,135.2	18,500.6	10,370.1	64.6	70.3	105.89	8,179.7	281.5	858.0	723.2	134.83	6.364	
18,400.0	10,135.0	18,600.6	10,369.9	65.4	70.9	105.89	8,279.7	280.9	858.0	721.7	136.28	6.296	
18,500.0	10,134.8	18,700.6	10,369.7	66.2	71.6	105.89	8,379.7	280.3	858.0	720.3	137.72	6.230	
18,600.0	10,134.6	18,800.6	10,369.5	66.9	72.3	105.89	8,479.7	279.7	858.0	718.8	139.17	6.165	
18,700.0	10,134.4	18,900.6	10,369.3	67.7	73.0	105.89	8,579.7	279.1	858.0	717.4	140.62	6.101	
18,800.0	10,134.2	19,000.6	10,369.1	68.4	73.7	105.89	8,679.7	278.5	858.0	715.9	142.07	6.039	
18,900.0	10,134.0	19,100.6	10,368.9	69.2	74.4	105.89	8,779.7	278.0	858.0	714.4	143.53	5.978	
19,000.0	10,133.8	19,200.6	10,368.7	70.0	75.1	105.89	8,879.7	277.4	858.0	713.0	144.98	5.918	
19,100.0	10,133.6	19,300.6	10,368.5	70.7	75.7	105.89	8,979.7	276.8	857.9	711.5	146.44	5.859	
19,200.0	10,133.4	19,400.6	10,368.3	71.5	76.4	105.89	9,079.7	276.2	857.9	710.0	147.89	5.801	
19,300.0	10,133.2	19,500.6	10,368.1	72.2	77.1	105.89	9,179.7	275.6	857.9	708.6	149.35	5.744	
19,400.0	10,133.0	19,600.6	10,367.9	73.0	77.8	105.89	9,279.7	275.0	857.9	707.1	150.82	5.689	
19,500.0	10,132.8	19,700.6	10,367.8	73.8	78.5	105.89	9,379.7	274.4	857.9	705.6	152.28	5.634	
19,600.0	10,132.6	19,800.6	10,367.6	74.5	79.2	105.90	9,479.7	273.8	857.9	704.2	153.74	5.580	
19,700.0	10,132.4	19,900.6	10,367.4	75.3	79.9	105.90	9,579.7	273.2	857.9	702.7	155.21	5.528	
19,800.0	10,132.2	20,000.6	10,367.2	76.1	80.6	105.90	9,679.7	272.6	857.9	701.2	156.67	5.476	
19,900.0	10,132.0	20,100.6	10,367.0	76.8	81.3	105.90	9,779.7	272.0	857.9	699.7	158.14	5.425	
20,000.0	10,131.8	20,200.6	10,366.8	77.6	82.0	105.90	9,879.7	271.4	857.9	698.3	159.61	5.375	
20,100.0	10,131.6	20,300.6	10,366.6	78.3	82.7	105.90	9,979.7	270.8	857.9	696.8	161.08	5.326	
20,200.0	10,131.4	20,400.6	10,366.4	79.1	83.4	105.90	10,079.7	270.2	857.9	695.3	162.55	5.278	
20,300.0	10,131.2	20,500.6	10,366.2	79.9	84.1	105.90	10,179.7	269.6	857.9	693.8	164.02	5.230	
20,400.0	10,131.0	20,600.6	10,366.0	80.6	84.8	105.90	10,279.7	269.0	857.8	692.4	165.49	5.184	
20,412.4	10,131.0	20,613.0	10,366.0	80.7	84.9	105.90	10,292.1	268.9	857.8	692.2	165.68	5.178	

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



Intrepid
Anticollision Report

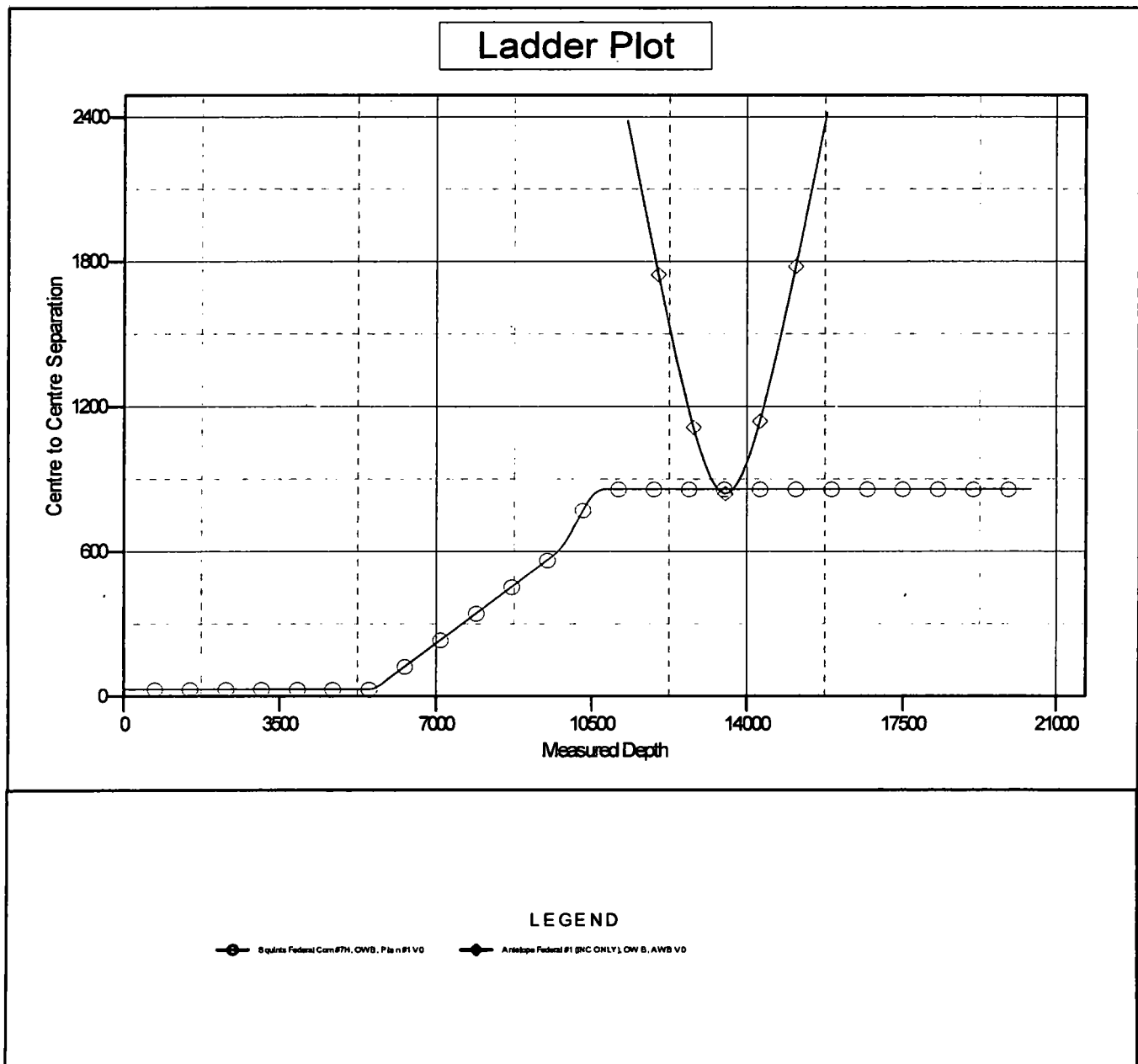


Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 3435.1usft (Precision 106)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Squints Federal Com #3H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.47°



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

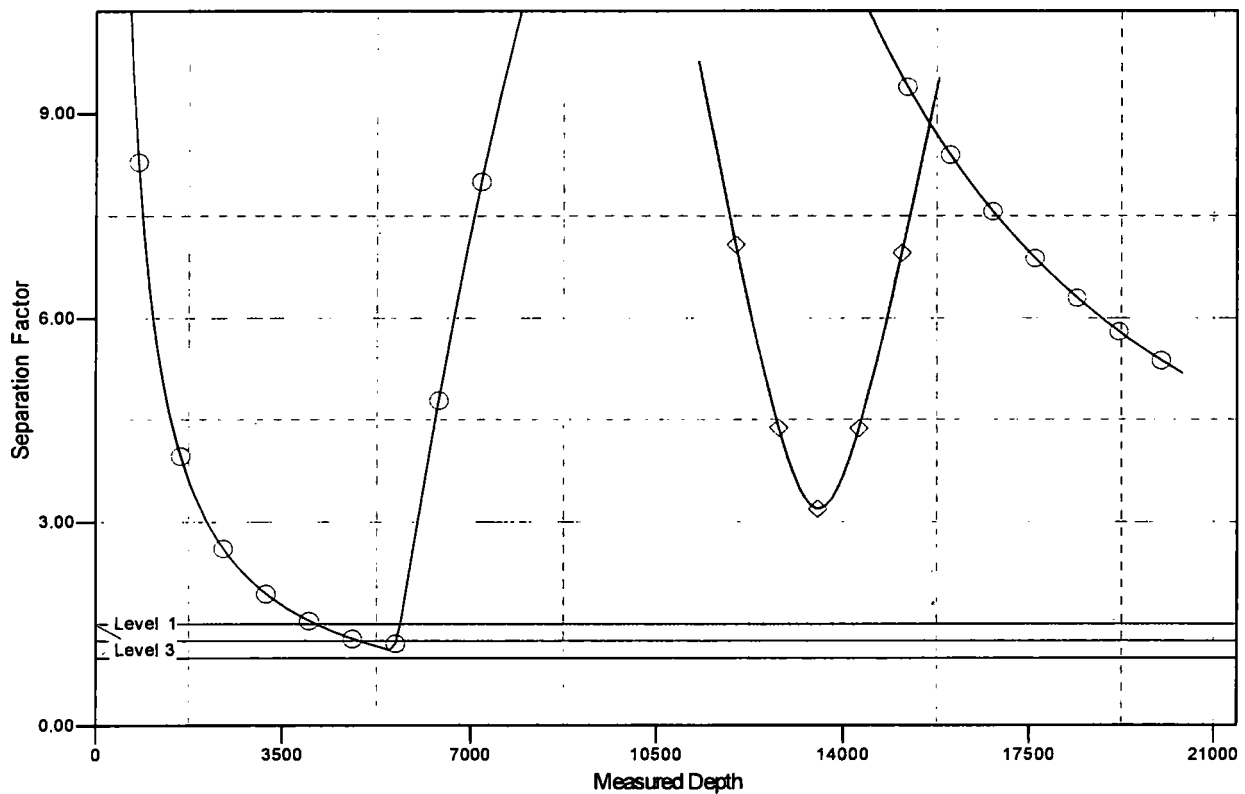
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Reference Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Site Error: 0.0 usft
Reference Well: Squints Federal Com #3H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 3435.1usft (Precision 106)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Squints Federal Com #3H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.47°

Separation Factor Plot



LEGEND

 Squints Federal Com #3H, OWB, Plan #1 VD
  Antelope Federal #1 (RNC ONLY), OWB, AWB VD



Concho Resources, Inc.

**Lea County, NM (NAD 27 NME)
(Squints Federal) Sec-27_T-22-S_R-34-E
Squints Federal Com #3H**

OWB

Plan: Plan #1

Standard Planning Report

06 August, 2019

INTREPID

Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Well: Squints Federal Com #3H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD 27 NME)		
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 (Squints Federal) Sec-27_T-22-S_R-34-E

Site Position:		Northing:	494,293.40 usft	Latitude:	32° 21' 21.245 N
From:	Map	Easting:	769,808.60 usft	Longitude:	103° 27' 34.527 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.47 °

Well Squints Federal Com #3H

Well Position	+N/-S	0.0 usft	Northing:	494,293.40 usft	Latitude:	32° 21' 21.245 N
	+E/-W	0.0 usft	Easting:	769,808.60 usft	Longitude:	103° 27' 34.527 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,404.1 usft

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/06/19	6.68	60.17	47,807.97151701

Design Plan #1

Audit Notes:

Version:		Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	356.91	

Plan Survey Tool Program Date 08/06/19

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	9,578.0	Plan #1 (OWB)	Standard Keeper 104 Standard Wireline Keeper v	
2	9,578.0	20,411.8	Plan #1 (OWB)	MWD+IFR1+MS MWD + IFR1 + Multi-Station	



Intrepid
Planning Report



Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Well: Squints Federal Com #3H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,750.0	5.00	239.00	5,749.6	-5.6	-9.3	2.00	2.00	-48.41	239.00	
9,578.6	5.00	239.00	9,563.7	-177.4	-295.3	0.00	0.00	0.00	0.00	
10,495.6	90.11	347.60	10,150.6	372.5	-466.2	10.00	9.28	11.84	108.53	
10,797.2	90.11	359.66	10,150.0	671.7	-499.5	4.00	0.00	4.00	89.97	
20,412.4	90.11	359.66	10,131.0	10,286.7	-556.1	0.00	0.00	0.00	0.00	PBHL (Squints Fed)

Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Well: Squints Federal Com #3H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,620.0	0.00	0.00	1,620.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,073.0	0.00	0.00	2,073.0	0.0	0.0	0.0	0.00	0.00	0.00
TOS									
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,688.0	0.00	0.00	3,688.0	0.0	0.0	0.0	0.00	0.00	0.00
Yates									
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,870.0	0.00	0.00	3,870.0	0.0	0.0	0.0	0.00	0.00	0.00
Seven Rivers									
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,024.0	0.00	0.00	4,024.0	0.0	0.0	0.0	0.00	0.00	0.00
Capitan Reef									
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Well: Squints Federal Com #3H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
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)
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,399.0	0.00	0.00	5,399.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Reef (BLCN)									
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - DLS 2.00 TFO 239.00									
5,600.0	2.00	239.00	5,600.0	-0.9	-1.5	-0.8	2.00	2.00	0.00
5,700.0	4.00	239.00	5,699.8	-3.6	-6.0	-3.3	2.00	2.00	0.00
5,750.0	5.00	239.00	5,749.6	-5.6	-9.3	-5.1	2.00	2.00	0.00
HOLD - 3828.6 at 5750.0 MD									
5,757.3	5.00	239.00	5,757.0	-5.9	-9.9	-5.4	0.00	0.00	0.00
CYCN									
5,800.0	5.00	239.00	5,799.5	-7.9	-13.1	-7.1	0.00	0.00	0.00
5,900.0	5.00	239.00	5,899.1	-12.3	-20.5	-11.2	0.00	0.00	0.00
6,000.0	5.00	239.00	5,998.7	-16.8	-28.0	-15.3	0.00	0.00	0.00
6,100.0	5.00	239.00	6,098.4	-21.3	-35.5	-19.4	0.00	0.00	0.00
6,200.0	5.00	239.00	6,198.0	-25.8	-43.0	-23.5	0.00	0.00	0.00
6,300.0	5.00	239.00	6,297.6	-30.3	-50.4	-27.5	0.00	0.00	0.00
6,400.0	5.00	239.00	6,397.2	-34.8	-57.9	-31.6	0.00	0.00	0.00
6,500.0	5.00	239.00	6,496.8	-39.3	-65.4	-35.7	0.00	0.00	0.00
6,600.0	5.00	239.00	6,596.4	-43.8	-72.8	-39.8	0.00	0.00	0.00
6,700.0	5.00	239.00	6,696.1	-48.3	-80.3	-43.8	0.00	0.00	0.00
6,800.0	5.00	239.00	6,795.7	-52.7	-87.8	-47.9	0.00	0.00	0.00
6,900.0	5.00	239.00	6,895.3	-57.2	-95.2	-52.0	0.00	0.00	0.00
7,000.0	5.00	239.00	6,994.9	-61.7	-102.7	-56.1	0.00	0.00	0.00
7,100.0	5.00	239.00	7,094.5	-66.2	-110.2	-60.2	0.00	0.00	0.00
7,178.8	5.00	239.00	7,173.0	-69.7	-116.1	-63.4	0.00	0.00	0.00
BYCN									
7,200.0	5.00	239.00	7,194.2	-70.7	-117.7	-64.2	0.00	0.00	0.00
7,300.0	5.00	239.00	7,293.8	-75.2	-125.1	-68.3	0.00	0.00	0.00
7,400.0	5.00	239.00	7,393.4	-79.7	-132.6	-72.4	0.00	0.00	0.00
7,500.0	5.00	239.00	7,493.0	-84.2	-140.1	-76.5	0.00	0.00	0.00
7,600.0	5.00	239.00	7,592.6	-88.6	-147.5	-80.6	0.00	0.00	0.00
7,700.0	5.00	239.00	7,692.3	-93.1	-155.0	-84.6	0.00	0.00	0.00
7,800.0	5.00	239.00	7,791.9	-97.6	-162.5	-88.7	0.00	0.00	0.00
7,900.0	5.00	239.00	7,891.5	-102.1	-169.9	-92.8	0.00	0.00	0.00
8,000.0	5.00	239.00	7,991.1	-106.6	-177.4	-96.9	0.00	0.00	0.00
8,100.0	5.00	239.00	8,090.7	-111.1	-184.9	-100.9	0.00	0.00	0.00
8,200.0	5.00	239.00	8,190.4	-115.6	-192.3	-105.0	0.00	0.00	0.00
8,300.0	5.00	239.00	8,290.0	-120.1	-199.8	-109.1	0.00	0.00	0.00
8,400.0	5.00	239.00	8,389.6	-124.6	-207.3	-113.2	0.00	0.00	0.00
8,500.0	5.00	239.00	8,489.2	-129.0	-214.8	-117.3	0.00	0.00	0.00
8,515.8	5.00	239.00	8,505.0	-129.8	-215.9	-117.9	0.00	0.00	0.00
Bone Spring (BSGL)									

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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)
8,600.0	5.00	239.00	8,588.8	-133.5	-222.2	-121.3	0.00	0.00	0.00
8,700.0	5.00	239.00	8,688.5	-138.0	-229.7	-125.4	0.00	0.00	0.00
8,800.0	5.00	239.00	8,788.1	-142.5	-237.2	-129.5	0.00	0.00	0.00
8,900.0	5.00	239.00	8,887.7	-147.0	-244.6	-133.6	0.00	0.00	0.00
9,000.0	5.00	239.00	8,987.3	-151.5	-252.1	-137.7	0.00	0.00	0.00
9,100.0	5.00	239.00	9,086.9	-156.0	-259.6	-141.7	0.00	0.00	0.00
9,200.0	5.00	239.00	9,186.6	-160.5	-267.0	-145.8	0.00	0.00	0.00
9,300.0	5.00	239.00	9,286.2	-164.9	-274.5	-149.9	0.00	0.00	0.00
9,400.0	5.00	239.00	9,385.8	-169.4	-282.0	-154.0	0.00	0.00	0.00
9,500.0	5.00	239.00	9,485.4	-173.9	-289.5	-158.0	0.00	0.00	0.00
9,578.6	5.00	239.00	9,563.7	-177.4	-295.3	-161.2	0.00	0.00	0.00
KOP - DLS 10.00 TFO 108.53									
9,600.0	4.77	264.16	9,585.0	-178.0	-297.0	-161.7	10.00	-1.07	117.73
FBSG_sand									
9,650.0	7.29	307.21	9,634.8	-176.3	-301.6	-159.8	10.00	5.04	86.03
9,700.0	11.55	323.67	9,684.1	-170.4	-307.1	-153.5	10.00	8.52	32.90
9,750.0	16.24	331.05	9,732.6	-160.2	-313.5	-143.0	10.00	9.37	14.77
9,800.0	21.07	335.16	9,780.0	-145.9	-320.6	-128.4	10.00	9.65	8.22
9,850.0	25.96	337.78	9,825.8	-127.6	-328.5	-109.7	10.00	9.78	5.25
9,900.0	30.88	339.62	9,869.8	-105.4	-337.1	-87.1	10.00	9.85	3.67
9,950.0	35.82	341.00	9,911.5	-79.6	-346.4	-60.8	10.00	9.89	2.75
10,000.0	40.78	342.07	9,950.8	-50.2	-356.2	-30.9	10.00	9.91	2.16
10,050.0	45.74	342.96	9,987.2	-17.5	-366.5	2.3	10.00	9.93	1.76
10,100.0	50.71	343.70	10,020.5	18.2	-377.1	38.5	10.00	9.94	1.49
10,140.5	54.74	344.23	10,045.0	49.2	-386.0	69.9	10.00	9.95	1.31
SBSG_sand									
10,150.0	55.68	344.35	10,050.4	56.7	-388.2	77.6	10.00	9.95	1.23
10,200.0	60.66	344.92	10,076.8	97.6	-399.4	119.1	10.00	9.95	1.15
10,250.0	65.64	345.44	10,099.4	140.8	-410.8	162.7	10.00	9.96	1.04
10,300.0	70.62	345.92	10,118.0	185.7	-422.3	208.2	10.00	9.96	0.96
10,350.0	75.60	346.37	10,132.5	232.1	-433.7	255.2	10.00	9.96	0.90
10,400.0	80.58	346.80	10,142.8	279.7	-445.1	303.3	10.00	9.96	0.86
10,450.0	85.57	347.22	10,148.8	328.1	-456.2	352.2	10.00	9.97	0.84
10,495.6	90.11	347.60	10,150.6	372.5	-466.2	397.1	10.00	9.97	0.83
EOC/TRN - DLS 4.00 TFO 89.97									
10,500.0	90.11	347.78	10,150.6	376.8	-467.1	401.5	4.00	0.00	4.00
10,600.0	90.11	351.78	10,150.4	475.2	-484.8	500.7	4.00	0.00	4.00
10,700.0	90.11	355.78	10,150.2	574.6	-495.7	600.5	4.00	0.00	4.00
10,797.2	90.11	359.66	10,150.0	671.7	-499.5	697.7	4.00	0.00	4.00
Start 9615.2 hold at 10797.2 MD									
10,800.0	90.11	359.66	10,150.0	674.5	-499.6	700.5	0.00	0.00	0.00
10,900.0	90.11	359.66	10,149.8	774.5	-500.1	800.4	0.00	0.00	0.00
11,000.0	90.11	359.66	10,149.6	874.5	-500.7	900.3	0.00	0.00	0.00
11,100.0	90.11	359.66	10,149.4	974.5	-501.3	1,000.1	0.00	0.00	0.00
11,200.0	90.11	359.66	10,149.2	1,074.5	-501.9	1,100.0	0.00	0.00	0.00
11,300.0	90.11	359.66	10,149.0	1,174.5	-502.5	1,199.9	0.00	0.00	0.00
11,400.0	90.11	359.66	10,148.8	1,274.5	-503.1	1,299.8	0.00	0.00	0.00
11,500.0	90.11	359.66	10,148.6	1,374.5	-503.7	1,399.7	0.00	0.00	0.00
11,600.0	90.11	359.66	10,148.4	1,474.5	-504.3	1,499.6	0.00	0.00	0.00
11,700.0	90.11	359.66	10,148.2	1,574.5	-504.9	1,599.4	0.00	0.00	0.00
11,800.0	90.11	359.66	10,148.0	1,674.5	-505.4	1,699.3	0.00	0.00	0.00
11,900.0	90.11	359.66	10,147.8	1,774.5	-506.0	1,799.2	0.00	0.00	0.00
12,000.0	90.11	359.66	10,147.6	1,874.5	-506.6	1,899.1	0.00	0.00	0.00
12,100.0	90.11	359.66	10,147.4	1,974.5	-507.2	1,999.0	0.00	0.00	0.00

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12,200.0	90.11	359.66	10,147.2	2,074.5	-507.8	2,098.9	0.00	0.00	0.00
12,300.0	90.11	359.66	10,147.0	2,174.5	-508.4	2,198.8	0.00	0.00	0.00
12,400.0	90.11	359.66	10,146.8	2,274.5	-509.0	2,298.6	0.00	0.00	0.00
12,500.0	90.11	359.66	10,146.6	2,374.5	-509.6	2,398.5	0.00	0.00	0.00
12,600.0	90.11	359.66	10,146.4	2,474.5	-510.1	2,498.4	0.00	0.00	0.00
12,700.0	90.11	359.66	10,146.2	2,574.5	-510.7	2,598.3	0.00	0.00	0.00
12,800.0	90.11	359.66	10,146.0	2,674.5	-511.3	2,698.2	0.00	0.00	0.00
12,900.0	90.11	359.66	10,145.8	2,774.5	-511.9	2,798.1	0.00	0.00	0.00
13,000.0	90.11	359.66	10,145.6	2,874.5	-512.5	2,897.9	0.00	0.00	0.00
13,100.0	90.11	359.66	10,145.4	2,974.5	-513.1	2,997.8	0.00	0.00	0.00
13,200.0	90.11	359.66	10,145.2	3,074.5	-513.7	3,097.7	0.00	0.00	0.00
13,300.0	90.11	359.66	10,145.0	3,174.5	-514.3	3,197.6	0.00	0.00	0.00
13,400.0	90.11	359.66	10,144.8	3,274.5	-514.9	3,297.5	0.00	0.00	0.00
13,500.0	90.11	359.66	10,144.6	3,374.5	-515.4	3,397.4	0.00	0.00	0.00
13,600.0	90.11	359.66	10,144.4	3,474.5	-516.0	3,497.2	0.00	0.00	0.00
13,700.0	90.11	359.66	10,144.2	3,574.5	-516.6	3,597.1	0.00	0.00	0.00
13,800.0	90.11	359.66	10,144.0	3,674.5	-517.2	3,697.0	0.00	0.00	0.00
13,900.0	90.11	359.66	10,143.8	3,774.4	-517.8	3,796.9	0.00	0.00	0.00
14,000.0	90.11	359.66	10,143.7	3,874.4	-518.4	3,896.8	0.00	0.00	0.00
14,100.0	90.11	359.66	10,143.5	3,974.4	-519.0	3,996.7	0.00	0.00	0.00
14,200.0	90.11	359.66	10,143.3	4,074.4	-519.6	4,096.5	0.00	0.00	0.00
14,300.0	90.11	359.66	10,143.1	4,174.4	-520.1	4,196.4	0.00	0.00	0.00
14,400.0	90.11	359.66	10,142.9	4,274.4	-520.7	4,296.3	0.00	0.00	0.00
14,500.0	90.11	359.66	10,142.7	4,374.4	-521.3	4,396.2	0.00	0.00	0.00
14,600.0	90.11	359.66	10,142.5	4,474.4	-521.9	4,496.1	0.00	0.00	0.00
14,700.0	90.11	359.66	10,142.3	4,574.4	-522.5	4,596.0	0.00	0.00	0.00
14,800.0	90.11	359.66	10,142.1	4,674.4	-523.1	4,695.9	0.00	0.00	0.00
14,900.0	90.11	359.66	10,141.9	4,774.4	-523.7	4,795.7	0.00	0.00	0.00
15,000.0	90.11	359.66	10,141.7	4,874.4	-524.3	4,895.6	0.00	0.00	0.00
15,100.0	90.11	359.66	10,141.5	4,974.4	-524.9	4,995.5	0.00	0.00	0.00
15,200.0	90.11	359.66	10,141.3	5,074.4	-525.4	5,095.4	0.00	0.00	0.00
15,300.0	90.11	359.66	10,141.1	5,174.4	-526.0	5,195.3	0.00	0.00	0.00
15,400.0	90.11	359.66	10,140.9	5,274.4	-526.6	5,295.2	0.00	0.00	0.00
15,500.0	90.11	359.66	10,140.7	5,374.4	-527.2	5,395.0	0.00	0.00	0.00
15,600.0	90.11	359.66	10,140.5	5,474.4	-527.8	5,494.9	0.00	0.00	0.00
15,700.0	90.11	359.66	10,140.3	5,574.4	-528.4	5,594.8	0.00	0.00	0.00
15,800.0	90.11	359.66	10,140.1	5,674.4	-529.0	5,694.7	0.00	0.00	0.00
15,900.0	90.11	359.66	10,139.9	5,774.4	-529.6	5,794.6	0.00	0.00	0.00
16,000.0	90.11	359.66	10,139.7	5,874.4	-530.1	5,894.5	0.00	0.00	0.00
16,100.0	90.11	359.66	10,139.5	5,974.4	-530.7	5,994.3	0.00	0.00	0.00
16,200.0	90.11	359.66	10,139.3	6,074.4	-531.3	6,094.2	0.00	0.00	0.00
16,300.0	90.11	359.66	10,139.1	6,174.4	-531.9	6,194.1	0.00	0.00	0.00
16,400.0	90.11	359.66	10,138.9	6,274.4	-532.5	6,294.0	0.00	0.00	0.00
16,500.0	90.11	359.66	10,138.7	6,374.4	-533.1	6,393.9	0.00	0.00	0.00
16,600.0	90.11	359.66	10,138.5	6,474.4	-533.7	6,493.8	0.00	0.00	0.00
16,700.0	90.11	359.66	10,138.3	6,574.4	-534.3	6,593.6	0.00	0.00	0.00
16,800.0	90.11	359.66	10,138.1	6,674.4	-534.9	6,693.5	0.00	0.00	0.00
16,900.0	90.11	359.66	10,137.9	6,774.4	-535.4	6,793.4	0.00	0.00	0.00
17,000.0	90.11	359.66	10,137.7	6,874.4	-536.0	6,893.3	0.00	0.00	0.00
17,100.0	90.11	359.66	10,137.5	6,974.4	-536.6	6,993.2	0.00	0.00	0.00
17,200.0	90.11	359.66	10,137.3	7,074.4	-537.2	7,093.1	0.00	0.00	0.00
17,300.0	90.11	359.66	10,137.1	7,174.4	-537.8	7,193.0	0.00	0.00	0.00
17,400.0	90.11	359.66	10,136.9	7,274.4	-538.4	7,292.8	0.00	0.00	0.00
17,500.0	90.11	359.66	10,136.7	7,374.4	-539.0	7,392.7	0.00	0.00	0.00

Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Well: Squints Federal Com #3H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
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)
17,600.0	90.11	359.66	10,136.5	7,474.4	-539.6	7,492.6	0.00	0.00	0.00
17,700.0	90.11	359.66	10,136.4	7,574.4	-540.1	7,592.5	0.00	0.00	0.00
17,800.0	90.11	359.66	10,136.2	7,674.4	-540.7	7,692.4	0.00	0.00	0.00
17,900.0	90.11	359.66	10,136.0	7,774.4	-541.3	7,792.3	0.00	0.00	0.00
18,000.0	90.11	359.66	10,135.8	7,874.4	-541.9	7,892.1	0.00	0.00	0.00
18,100.0	90.11	359.66	10,135.6	7,974.4	-542.5	7,992.0	0.00	0.00	0.00
18,200.0	90.11	359.66	10,135.4	8,074.4	-543.1	8,091.9	0.00	0.00	0.00
18,300.0	90.11	359.66	10,135.2	8,174.4	-543.7	8,191.8	0.00	0.00	0.00
18,400.0	90.11	359.66	10,135.0	8,274.4	-544.3	8,291.7	0.00	0.00	0.00
18,500.0	90.11	359.66	10,134.8	8,374.4	-544.9	8,391.6	0.00	0.00	0.00
18,600.0	90.11	359.66	10,134.6	8,474.4	-545.4	8,491.4	0.00	0.00	0.00
18,700.0	90.11	359.66	10,134.4	8,574.4	-546.0	8,591.3	0.00	0.00	0.00
18,800.0	90.11	359.66	10,134.2	8,674.4	-546.6	8,691.2	0.00	0.00	0.00
18,900.0	90.11	359.66	10,134.0	8,774.4	-547.2	8,791.1	0.00	0.00	0.00
19,000.0	90.11	359.66	10,133.8	8,874.4	-547.8	8,891.0	0.00	0.00	0.00
19,100.0	90.11	359.66	10,133.6	8,974.3	-548.4	8,990.9	0.00	0.00	0.00
19,200.0	90.11	359.66	10,133.4	9,074.3	-549.0	9,090.7	0.00	0.00	0.00
19,300.0	90.11	359.66	10,133.2	9,174.3	-549.6	9,190.6	0.00	0.00	0.00
19,400.0	90.11	359.66	10,133.0	9,274.3	-550.1	9,290.5	0.00	0.00	0.00
19,500.0	90.11	359.66	10,132.8	9,374.3	-550.7	9,390.4	0.00	0.00	0.00
19,600.0	90.11	359.66	10,132.6	9,474.3	-551.3	9,490.3	0.00	0.00	0.00
19,700.0	90.11	359.66	10,132.4	9,574.3	-551.9	9,590.2	0.00	0.00	0.00
19,800.0	90.11	359.66	10,132.2	9,674.3	-552.5	9,690.1	0.00	0.00	0.00
19,900.0	90.11	359.66	10,132.0	9,774.3	-553.1	9,789.9	0.00	0.00	0.00
20,000.0	90.11	359.66	10,131.8	9,874.3	-553.7	9,889.8	0.00	0.00	0.00
20,100.0	90.11	359.66	10,131.6	9,974.3	-554.3	9,989.7	0.00	0.00	0.00
20,200.0	90.11	359.66	10,131.4	10,074.3	-554.9	10,089.6	0.00	0.00	0.00
20,300.0	90.11	359.66	10,131.2	10,174.3	-555.4	10,189.5	0.00	0.00	0.00
20,400.0	90.11	359.66	10,131.0	10,274.3	-556.0	10,289.4	0.00	0.00	0.00
20,412.4	90.11	359.66	10,131.0	10,286.7	-556.1	10,301.7	0.00	0.00	0.00

TD at 20412.4

Design Targets
Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
PBHL (Squints Federal)	-0.11	359.66	10,131.0	10,286.7	-556.1	504,580.10	769,252.50	32° 23' 3.076 N	103° 27' 40.032 W
- plan hits target center									
- Rectangle (sides W60.0 H10,411.0 D20.0)									
LTP (Squints Federal)	0.00	0.00	10,131.0	10,236.7	-555.8	504,530.10	769,252.80	32° 23' 2.582 N	103° 27' 40.034 W
- plan misses target center by 0.1usft at 20362.4usft MD (10131.1 TVD, 10236.7 N, -555.8 E)									
- Point									
FTP (Squints Federal)	0.00	0.00	10,150.0	-124.0	-494.3	494,169.40	769,314.30	32° 21' 20.057 N	103° 27' 40.301 W
- plan misses target center by 225.2usft at 10100.0usft MD (10020.5 TVD, 18.2 N, -377.1 E)									
- Point									

Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Squints Federal) Sec-27_T-22-S_R-34-E
Well: Squints Federal Com #3H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Squints Federal Com #3H
TVD Reference: KB @ 3435.1usft (Precision 106)
MD Reference: KB @ 3435.1usft (Precision 106)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,620.0	1,620.0	Rustler			
2,073.0	2,073.0	TOS			
3,688.0	3,688.0	Yates			
3,870.0	3,870.0	Seven Rivers			
4,024.0	4,024.0	Capitan Reef			
5,399.0	5,399.0	Base of Reef (BLCN)			
5,757.3	5,757.0	CYCN			
7,178.8	7,173.0	BYCN			
8,515.8	8,505.0	Bone Spring (BSGL)			
9,600.0	9,585.0	FBSG_sand			
10,140.5	10,045.0	SBSG_sand			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,500.0	5,500.0	0.0	0.0	NUDGE - DLS 2.00 TFO 239.00
5,750.0	5,749.6	-5.6	-9.3	HOLD - 3828.6 at 5750.0 MD
9,578.6	9,563.7	-177.4	-295.3	KOP - DLS 10.00 TFO 108.53
10,495.6	10,150.6	372.5	-466.2	EOC/TRN - DLS 4.00 TFO 89.97
10,797.2	10,150.0	671.7	-499.5	Start 9615.2 hold at 10797.2 MD
20,412.4	10,131.0	10,286.7	-556.1	TD at 20412.4