

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. 9. API Well No. 30 015 47663	
2. Name of Operator		10. Field and Pool, or Exploratory	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State			
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		16. No of acres in lease	
17. Spacing Unit dedicated to this well			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file			
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		22. Approximate date work will start*	
23. Estimated duration			
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Office	
Application approval 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. Conditions of approval, if any, are attached.			
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.			

Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.

Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string

• Will require a directional survey with the C-104

SL

(Continued on page 2)

APPROVED WITH CONDITIONS

Approval Date: 11/02/2020

KP 11/10/2020 GEO Review

*(Instructions on page 2)

Entered - KMS NMOCD

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015- 47663	2 Pool Code 98220	3 Pool Name Purple Sage; Wolfcamp (Gas)
4 Property Code 329794	5 Property Name CABO WABO FEDERAL COM	
7 OGRID No. 217955	8 Operator Name COG PRODUCTION LLC	6 Well Number 703H
		9 Elevation 3146'

10 Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	24	25-S	29-E		210'	NORTH	940'	EAST	EDDY

11 Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	25	25-S	29-E		200'	SOUTH	2200'	EAST	EDDY
12 Dedicated Acres 640	13 Joint or Infill	14 Consolidation Code	15 Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16

CA Boundary

24

FTP

SHL

940'

2200'

210'

330'

200'

330'

2200'

25

LAT. = 32.1080586° N
LONG. = 103.93596215° W

FTP to LTP = 9,965.90'

HSU

LTP

BHL

200'

330'

2200'

CORNER DATA
NEW MEXICO EAST - NAD 83

A - FOUND IRON PIPE W/ BRASS CAP
N:408605.21' E:661074.26'

B - FOUND IRON PIPE W/ BRASS CAP
N:408628.83' E:663731.32'

C - FOUND IRON PIPE W/ BRASS. CAP
N:408652.38' E:666389.05'

D - FOUND IRON PIPE W/ BRASS CAP
N:405993.34' E:666406.44'

E - FOUND IRON PIPE W/ BRASS CAP
N:403335.51' E:666423.34'

F - FOUND IRON PIPE W/ BRASS CAP
N:403316.17' E:663755.92'

G - FOUND IRON PIPE W/ BRASS CAP
N:403297.54' E:661087.89'

H - FOUND IRON PIPE W/ BRASS CAP
N:405951.58' E:661081.14'

I - FOUND IRON PIPE W/ BRASS CAP
N:400678.65' E:666440.96'

J - FOUND BENT IRON PIPE W/ BRASS CAP
N:398021.31' E:666458.45'

K - FOUND IRON PIPE W/ BRASS CAP
N:398004.27' E:663799.25'

L - FOUND 5/8" IRON ROD
N:397988.59' E:661140.90'

M - FOUND IRON PIPE W/ BRASS CAP
N:400643.27' E:661114.85'

SURFACE HOLE LOCATION (SHL)
NEW MEXICO EAST - NAD 83
X=665450.49
Y=408434.02
LAT. = 32.12222944° N
LONG. = 103.93242210° W
210' FNL 940' FEL
SECTION 24

LAST TAKE POINT (LTP)
NEW MEXICO EAST - NAD 83
X=664256.33
Y=398337.21
LAT. = 32.09448656° N
LONG. = 103.93639952° W
330' FSL 2200' FEL
SECTION 25

FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83
X=664191.29
Y=408302.90
LAT. = 32.12188181° N
LONG. = 103.93649107° W
330' FNL 2200' FEL
SECTION 24

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83
X=664257.18
Y=398207.21
LAT. = 32.09412920° N
LONG. = 103.93639830° W
200' FSL 2200' FEL
SECTION 25

17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Stan Wagner Date: 5/28/20

Printed Name: Stan Wagner

E-mail Address: _____

18 SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: _____

Signature and Seal of Professional Surveyor: GARRETT J. SMELLER

Certificate Number: 25036

04/29/2020

Intent ☒ As Drilled ☐

API #

30-015-

Operator Name:

COG Production LLC

Property Name:

Cabo Wabo Federal Com

Well Number

703H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	24	25S	29E						Eddy
Latitude					Longitude				NAD
									83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	24	25S	29E		330	North	2200	East	Eddy
Latitude					Longitude				NAD
32.12188181					-103.93649107				NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
P	25	25S	29E		330	South	2200	East	Eddy
Latitude					Longitude				NAD
32.09448656					-103.93639952				NAD 83

Is this well the defining well for the Horizontal Spacing Unit?

☐ No

Is this well an infill well?

☐ Yes

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

30-015-

Operator Name:

COG Operating LLC

Property Name:

Cabo Wabo Federal Com

Well Number

702H

KZ 06/29/2018

Additional Operator Remarks

Location of Well

0. SHL: NENE / 210 FNL / 940 FEL / TWSP: 25S / RANGE: 29E / SECTION: 24 / LAT: 32.1222294 / LONG: -103.9324221 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 330 FNL / 2200 FEL / TWSP: 25S / RANGE: 29E / SECTION: 24 / LAT: 32.1218818 / LONG: -103.936491 (TVD: 10595 feet, MD: 10700 feet)

BHL: SWSE / 200 FSL / 2200 FEL / TWSP: 25S / RANGE: 29E / SECTION: 25 / LAT: 32.0941292 / LONG: -103.9363982 (TVD: 10738 feet, MD: 20577 feet)

BLM Point of Contact

Name: Gavin Mickwee

Title: Land Law Examiner

Phone: (575) 234-5972

Email: gmickwee@blm.gov

CONFIDENTIAL

Pecos District
Application for Permit to Drill
Conditions of Approval

Geology Concerns

Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst	☐ Medium	☐ High	☐ Critical
H2S	☐ None	☐ Below 100 PPM	☐ Above 100 PPM
Other	☐ 4 String Area	☐ Capitan Reef	☐ SWD Well

Note: The geology of the area where the well is being drilled determines the COAs that apply, not the above table.

Additional Engineering Requirements

Surface casing must be set at: 825'

General Requirements

1. Changes to the approved APD casing program need prior approval.
2. The Bureau of Land Management (BLM) will be notified in advance to witness:
 - a. Well spudding (minimum 24 hours notice)
 - b. Setting and cementing of all casing strings (minimum 4 hours notice)
 - c. BOPE tests (minimum 4 hours notice)

Eddy County

620 East Greene Street, Carlsbad, NM 88220
(575) 361-2822

Lea County

414 West Taylor, Hobbs, NM 88240
(575) 393-3612

3. The initial wellhead installed on the well will remain on the well with spools used as needed.
4. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig:

- i. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with a Spudder Rig:
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - iii. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
5. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller, and will always be operational during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the doghouse or stairway area.
6. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

Pressure Control

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. 5M or higher system requires an HCR valve, remote kill line, and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE, and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

- d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
 - e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
 - f. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - g. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, no tests shall commence until the cement has had a minimum of 24 hours setup time.
 - h. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
4. If the operator has proposed using a 5,000 (5M) Annular on a 10M BOP:
- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi.
5. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
6. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply:
- a. The flex line must meet the requirements of API 16C.
 - b. Check condition of flexible line from BOP to choke manifold (replace if exterior is damaged or if line fails test).
 - c. Line is to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements.
 - d. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating.
 - e. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

Casing and Cement

1. Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).
2. On any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. The formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
3. Provide compressive strengths (including hours to reach required 500 pounds compressive strength) prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
4. The surface casing shall be set at a minimum of 25 feet into the Rustler Anhydrite and 80 feet above the salt and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8 hours (or 24 hours in the Potash Area) or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 5. Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.
- 6. Intermediate casing must be cemented to surface. For medium/high cave/karst, potash, and Capitan Reef, wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- 7. The production cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.
- 8. Production liner cement should tie-back at least 100 feet into previous casing string. Operator shall provide verification of cement top.
- 9. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 10. No pea gravel permitted for remedial cement or fall back remedial cement without prior authorization from a BLM petroleum engineer.
- 11. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 12. DV tools:
 - a. First stage to DV tool (The DV tool may be cancelled if cement circulates to surface on the first stage):
 - i. Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - i. For intermediate casing, cement to surface.

- ii. For production casing, cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.
- iii. If cement does not circulate, contact the appropriate BLM office.

13. Wait on cement (WOC) for Potash Areas:

- a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- b. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:
 - i. Cement reaches a minimum compressive strength of 500 psi for all cement blends
 - ii. Until cement has been in place at least 24 hours.
- c. WOC time will be recorded in the driller's log.
- d. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

14. Wait on cement (WOC) for Water Basin:

- a. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:
 - i. Cement reaches a minimum compressive strength of 500 psi at the shoe
 - ii. Until cement has been in place at least 8 hours.
- b. WOC time will be recorded in the driller's log.

15. Wait on cement (WOC) for Medium and High Cave/Karst Areas:

- a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

16. If cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Drilling Mud

- 1. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

Waste Material and Fluids

- 1. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

2. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Special Requirements

1. Communitization Agreement
 - a. The operator will submit a Communitization Agreement to the Carlsbad Field Office (620 E Greene St. Carlsbad, New Mexico 88220), at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division.
 - b. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
 - i. If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
 - c. In addition, the well sign shall include the surface and bottom hole lease numbers.
 - i. When the Communitization Agreement number is known, it shall also be on the sign.
2. Unit Wells
 - a. The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers.
 - i. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.
 - b. Commercial Well Determination
 - i. A commercial well determination shall be submitted after production has been established for at least six months (this is not necessary for secondary recovery unit wells).
3. Hydrogen Sulfide (H₂S)
 - a. If H₂S is encountered, provide measured values and formations to the BLM.
 - b. An H₂S area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items.
 - c. An H₂S Drilling Plan shall be activated 500 feet prior to drilling into the any formation designated as having H₂S.

- d. Hydrogen Sulfide monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items.

4. Capitan Reef

- a. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following (Use this for 3 string wells in the Capitan Reef, if 4 string well ensure fresh water based mud used across the Capitan interval):
 - i. Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - ii. Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports.
 - iii. The daily drilling report should show mud volume per shift/tour.
 - iv. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval.
 - v. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

5. Salt Water Disposal Wells

- a. The operator shall supply the BLM with a copy of a mudlog over the permitted disposal interval and estimated in situ water salinity based on open-hole logs.
- b. If hydrocarbons are encountered while drilling, the operator shall notify the BLM.
- c. The operator shall provide to the BLM a summary of formation depth picks based on mudlog and geophysical logs along with a copy of the mudlog and open-hole logs from total depth to top of Devonian.
- d. An NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:
 - i. Properly evaluate the injection zone utilizing open-hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.
 - ii. Restrict the injection fluid to the approved formation.
 - iii. If a step rate test will be run, an NOI sundry shall be submitted to the BLM for approval.
- e. If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.

COG Operating, LLC - Cabo Wabo Federal Com 703H

1. Geologic Formations

TVD of target	10,738' EOL	Pilot hole depth	NA
MD at TD:	20,578'	Deepest expected fresh water:	65'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1000	Water	
Top of Salt	1184	Salt	
Base of Salt	3257	Salt	
Lamar	3456	Salt Water	
Bell Canyon	3484	Salt Water	
Cherry Canyon	4343	Oil/Gas	
Brushy Canyon	5623	Oil/Gas	
Bone Spring Lime	7183	Oil/Gas	
1st Bone Spring Sand	8137	Oil/Gas	
2nd Bone Spring Sand	8981	Oil/Gas	
3rd Bone Spring Sand	10054	Oil/Gas	
Wolfcamp	10418	Target Oil/Gas	
Wolfcamp B	10895	Not Penetrated	
Wolfcamp C	11180	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	1170	10.75"	45.5	N80	BTC	4.61	1.67	19.54	20.61
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.56	1.24	2.88	2.90
8.750"	8500	10100	7.625"	29.7	HCP110	TL-FJ	1.49	1.28	3.13	2.19
6.75"	0	9900	5.5"	20	P110	BTC	1.59	2.14	2.98	3.11
6.75"	9900	20,578	5.5"	20	P110	SF	1.59	2.14	2.98	3.11
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5" casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

COG Operating, LLC - Cabo Wabo Federal Com 703H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

COG Operating, LLC - Cabo Wabo Federal Com 703H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	558	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter. Stage 1	770	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	459	12.7	2	10.7	72	Lead: 50:50:10 H Blend
	1007	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

If losses are encountered in the intermediate section a DV/ECP tool will be run ~50' above the Lamar Lime top, cement will be adjusted accordingly if this contingency is necessary.

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	8,000'	35% OH in Lateral (KOP to EOL)

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	---

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	5000psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2.
Y	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 12.5	35-45	<20

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6980 psi at 10738' TVD
Abnormal Temperature	NO 165 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

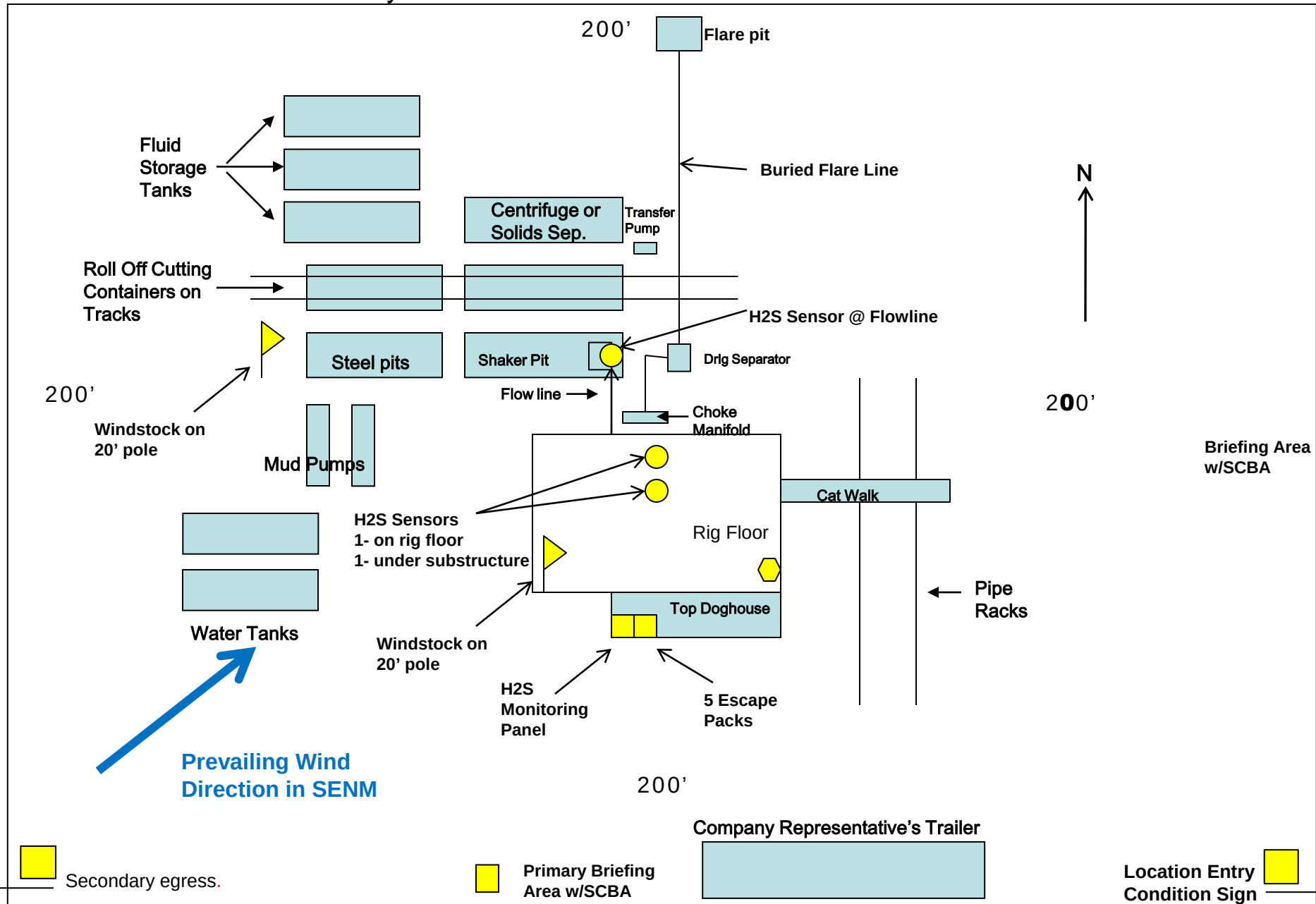
8. Other Facets of Operation

Y	Is it a walking operation?
Y	Is casing pre-set?

x	H2S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

COG Operating LLC
H₂S Equipment Schematic
Terrain: Shinnery sand hills.

Well pad will be 400' x 400'
with cellar in center of pad



COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of hydrogen sulfide (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S. If H₂S greater than 100 ppm is encountered in the gas stream we will shut in and install H₂S equipment.

- a. Well Control Equipment:
 - Flare line.
 - Choke manifold with remotely operated choke.
 - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

- b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED***
- 2. HARD HATS REQUIRED***
- 3. SMOKING IN DESIGNATED AREAS ONLY***
- 4. BE WIND CONSCIOUS AT ALL TIMES***
- 5. CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE***

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

	<u>OFFICE</u>	<u>MOBILE</u>
COG OPERATING LLC OFFICE	575-748-6940	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

EMERGENCY RESPONSE NUMBERS

	<u>OFFICE</u>
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

CABO WABO FEDERAL PROJECT (ATLAS 2529)

CABO WABO FED COM #703H

OWB

PWP1

Anticollision Report

19 May, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference	PWP1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum ellipse separation of 1,000.0 usft
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	5/19/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,239.1	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,239.1	20,577.8	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR 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						
ATLAS						
CABO WABO 25 FEDERAL #3H - LATERAL 01 - AWP-L	8,084.9	17,373.7	330.3	161.5	1.957	Advise and Monitor, CC, I
CABO WABO 25 FEDERAL #3H - OWB-PILOT HOLE -	20,310.0	10,400.0	575.2	479.0	5.981	CC, ES, SF
CABO WABO FEDERAL PROJECT (ATLAS 2529)						
CABO WABO FED COM #501H - OWB - PWP0	4,152.5	4,150.6	111.5	91.7	5.626	CC, ES
CABO WABO FED COM #501H - OWB - PWP0	4,200.0	4,197.3	111.9	91.8	5.584	SF
CABO WABO FED COM #502H - OWB - PWP0	6,486.2	6,469.3	203.6	173.6	6.787	CC
CABO WABO FED COM #502H - OWB - PWP0	9,000.0	9,022.3	205.0	163.1	4.895	ES, SF
CABO WABO FED COM #503H - OWB - PWP0						Out of range
CABO WABO FED COM #701H - OWB - PWP1	2,416.3	2,417.3	59.9	47.5	4.840	CC
CABO WABO FED COM #701H - OWB - PWP1	2,500.0	2,501.0	59.9	47.2	4.721	ES, SF
CABO WABO FED COM #702H - OWB - PWP1	2,500.0	2,500.0	29.9	17.2	2.360	CC, ES, SF
CABO WABO FED COM #704H - OWB - PWP1	12,289.3	12,488.8	917.1	856.9	15.245	CC
CABO WABO FED COM #704H - OWB - PWP1	20,577.8	20,777.2	918.4	736.1	5.039	ES, SF
CABO WABO FED COM #705H - OWB - PWP1						Out of range
CABO WABO FED COM #706H - OWB - PWP1						Out of range
CABO WABO FED COM #801H - OWB - PWP0	4,454.2	4,446.6	66.9	55.4	5.859	CC, ES
CABO WABO FED COM #801H - OWB - PWP0	4,500.0	4,492.1	67.0	55.5	5.817	SF
CABO WABO FED COM #802H - OWB - PWP0	4,227.4	4,214.0	178.2	158.1	8.853	CC
CABO WABO FED COM #802H - OWB - PWP0	4,300.0	4,286.2	178.3	157.9	8.720	ES
CABO WABO FED COM #802H - OWB - PWP0	4,900.0	4,883.5	189.3	166.3	8.239	SF
CABO WABO FED COM #803H - OWB - PWP0	3,879.0	3,857.0	253.4	235.2	13.924	CC
CABO WABO FED COM #803H - OWB - PWP0	4,300.0	4,277.5	254.3	234.2	12.659	ES
CABO WABO FED COM #803H - OWB - PWP0	20,571.7	21,604.6	695.3	530.3	4.215	SF
CABO WABO FED COM #804H - OWB - PWP0						Out of range
CABO WABO FED COM #805H - OWB - PWP0						Out of range

Offset Design												ATLAS - CABO WABO 25 FEDERAL #3H - LATERAL 01 - AWP-LAT 01		Offset Site Error:		0.0 usft	
Survey Program: 25- VES GyroFlex, 7336-MWD														Offset Well Error:		3.0 usft	
Reference		Offset		Semi Major Axis				Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design ATLAS - CABO WABO 25 FEDERAL #3H - LATERAL 01 - AWP-LAT 01												Offset Site Error:	0.0 usft
Survey Program: 25- VES GyroFlex, 7336-MWD												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance							
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
7,200.0	7,175.3	17,377.8	7,943.7	8.4	160.5	18.89	-200.1	-862.5	944.5	834.5	110.00	8.586	
7,300.0	7,274.8	17,377.4	7,943.7	8.5	160.5	18.81	-200.6	-862.5	851.5	738.1	113.45	7.506	
7,400.0	7,374.3	17,376.9	7,943.7	8.6	160.5	18.72	-201.1	-862.5	760.4	642.6	117.75	6.458	
7,500.0	7,473.7	17,376.4	7,943.6	8.7	160.5	18.64	-201.5	-862.5	671.7	548.5	123.18	5.453	
7,600.0	7,573.2	17,376.0	7,943.6	8.8	160.5	18.56	-202.0	-862.5	586.7	456.6	130.10	4.510	
7,700.0	7,672.6	17,375.5	7,943.6	8.9	160.4	18.48	-202.5	-862.5	507.2	368.4	138.81	3.654	
7,800.0	7,772.1	17,375.0	7,943.6	9.0	160.4	18.40	-203.0	-862.4	436.2	286.9	149.28	2.922	
7,900.0	7,871.5	17,374.6	7,943.6	9.1	160.4	18.32	-203.4	-862.4	378.5	218.2	160.31	2.361	
8,000.0	7,971.0	17,374.1	7,943.6	9.3	160.4	18.24	-203.9	-862.4	341.1	172.8	168.28	2.027	
8,084.9	8,055.4	17,373.7	7,943.6	9.3	160.4	18.17	-204.3	-862.4	330.3	161.5	168.80	1.957	Advise and Monitor, CC, ES, SF
8,100.0	8,070.4	17,373.6	7,943.6	9.4	160.4	18.15	-204.4	-862.4	330.7	162.5	168.13	1.967	Advise and Monitor
8,200.0	8,169.9	17,373.1	7,943.6	9.5	160.4	18.07	-204.8	-862.4	349.8	191.1	158.70	2.204	
8,300.0	8,269.3	17,372.7	7,943.5	9.6	160.4	17.99	-205.3	-862.4	394.2	249.5	144.74	2.724	
8,400.0	8,368.8	17,372.2	7,943.5	9.7	160.4	17.91	-205.8	-862.3	456.5	325.1	131.44	3.473	
8,500.0	8,468.2	17,371.7	7,943.5	9.8	160.4	17.83	-206.2	-862.3	530.5	409.6	120.91	4.388	
8,600.0	8,567.7	17,371.3	7,943.5	9.9	160.4	17.75	-206.7	-862.3	611.9	498.7	113.22	5.405	
8,700.0	8,667.1	17,370.8	7,943.5	10.0	160.4	17.67	-207.2	-862.3	698.2	590.4	107.78	6.478	
8,800.0	8,766.6	17,370.3	7,943.5	10.2	160.4	17.58	-207.6	-862.3	787.7	683.8	103.96	7.577	
8,900.0	8,866.0	17,369.9	7,943.5	10.3	160.4	17.50	-208.1	-862.3	879.5	778.2	101.29	8.683	
9,000.0	8,965.5	17,369.4	7,943.4	10.4	160.3	17.42	-208.6	-862.3	972.9	873.5	99.41	9.787	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													ATLAS - CABO WABO 25 FEDERAL #3H - OWB-PILOT HOLE - AWP-PH		Offset Site Error:		0.0 usft
Survey Program: 25- VES GyroFlex															Offset Well Error:		3.0 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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
19,500.0	10,736.9	10,400.0	10,398.3	77.3	8.5	-63.08	-9,955.8	-682.4	993.5	934.8	58.68	16.930					
19,600.0	10,737.0	10,400.0	10,398.3	78.1	8.5	-63.08	-9,955.8	-682.4	913.8	851.0	62.80	14.550					
19,700.0	10,737.1	10,400.0	10,398.3	79.0	8.5	-63.08	-9,955.8	-682.4	838.5	771.0	67.51	12.420					
19,800.0	10,737.2	10,400.0	10,398.3	79.8	8.5	-63.08	-9,955.8	-682.4	768.8	696.0	72.79	10.561					
19,900.0	10,737.3	10,400.0	10,398.3	80.7	8.5	-63.08	-9,955.8	-682.4	706.4	627.9	78.53	8.996					
20,000.0	10,737.4	10,400.0	10,398.3	81.5	8.5	-63.08	-9,955.8	-682.4	653.5	569.1	84.40	7.743					
20,100.0	10,737.5	10,400.0	10,398.3	82.4	8.5	-63.08	-9,955.8	-682.4	612.4	522.5	89.82	6.817	CC, ES, SF				
20,200.0	10,737.6	10,400.0	10,398.3	83.2	8.5	-63.08	-9,955.8	-682.4	585.7	491.7	94.00	6.231					
20,300.0	10,737.7	10,400.0	10,398.3	84.1	8.5	-63.08	-9,955.8	-682.4	575.3	479.2	96.10	5.987					
20,310.0	10,737.7	10,400.0	10,398.3	84.2	8.5	-63.08	-9,955.8	-682.4	575.2	479.0	96.18	5.981					
20,400.0	10,737.8	10,400.0	10,398.3	84.9	8.5	-63.08	-9,955.8	-682.4	582.2	486.5	95.71	6.083					
20,500.0	10,737.9	10,400.0	10,398.3	85.8	8.5	-63.08	-9,955.8	-682.4	605.8	512.8	93.03	6.512					
20,577.8	10,738.0	10,400.0	10,398.3	86.4	8.5	-63.08	-9,955.8	-682.4	634.5	544.7	89.81	7.065					

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #501H - OWB - PWP0												Offset Site Error: 3.0 usft	
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error: 3.0 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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	3.0	3.0	-131.44	-201.9	-228.7	305.0				
100.0	100.0	101.0	101.0	3.0	3.0	-131.44	-201.9	-228.7	305.0	299.0	6.00	50.813	
200.0	200.0	201.0	201.0	3.0	3.0	-131.44	-201.9	-228.7	305.0	299.0	6.04	50.481	
300.0	300.0	301.0	301.0	3.0	3.1	-131.44	-201.9	-228.7	305.0	298.9	6.13	49.788	
400.0	400.0	401.0	401.0	3.0	3.2	-131.44	-201.9	-228.7	305.0	298.8	6.25	48.788	
500.0	500.0	501.0	501.0	3.1	3.4	-131.44	-201.9	-228.7	305.0	298.6	6.42	47.547	
600.0	600.0	601.0	601.0	3.1	3.6	-131.44	-201.9	-228.7	305.0	298.4	6.61	46.134	
700.0	700.0	701.0	701.0	3.1	3.8	-131.44	-201.9	-228.7	305.0	298.2	6.84	44.614	
800.0	800.0	801.0	801.0	3.2	4.0	-131.44	-201.9	-228.7	305.0	297.9	7.09	43.039	
900.0	900.0	901.0	901.0	3.2	4.2	-131.44	-201.9	-228.7	305.0	297.7	7.36	41.451	
1,000.0	1,000.0	1,001.0	1,001.0	3.2	4.5	-131.44	-201.9	-228.7	305.0	297.4	7.65	39.881	
1,100.0	1,100.0	1,101.0	1,101.0	3.3	4.8	-131.44	-201.9	-228.7	305.0	297.1	7.95	38.349	
1,200.0	1,200.0	1,201.0	1,201.0	3.4	5.1	-131.44	-201.9	-228.7	305.0	296.8	8.27	36.870	
1,300.0	1,300.0	1,301.0	1,301.0	3.4	5.4	-131.44	-201.9	-228.7	305.0	296.4	8.60	35.453	
1,400.0	1,400.0	1,401.0	1,401.0	3.5	5.7	-131.44	-201.9	-228.7	305.0	296.1	8.95	34.101	
1,500.0	1,500.0	1,501.0	1,501.0	3.5	6.0	-131.44	-201.9	-228.7	305.0	295.7	9.30	32.816	
1,600.0	1,600.0	1,601.0	1,601.0	3.6	6.3	-131.44	-201.9	-228.7	305.0	295.4	9.65	31.599	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	6.6	-131.44	-201.9	-228.7	305.0	295.0	10.02	30.447	
1,800.0	1,800.0	1,801.0	1,801.0	3.8	6.9	-131.44	-201.9	-228.7	305.0	294.6	10.39	29.358	
1,900.0	1,900.0	1,901.0	1,901.0	3.9	7.2	-131.44	-201.9	-228.7	305.0	294.3	10.77	28.329	
2,000.0	2,000.0	2,001.0	2,001.0	3.9	7.6	-131.44	-201.9	-228.7	305.0	293.9	11.15	27.357	
2,100.0	2,100.0	2,101.0	2,101.0	4.0	7.9	-131.44	-201.9	-228.7	305.0	293.5	11.54	26.439	
2,200.0	2,200.0	2,201.0	2,201.0	4.1	8.2	-131.44	-201.9	-228.7	305.0	293.1	11.93	25.572	
2,300.0	2,300.0	2,301.0	2,301.0	4.2	8.6	-131.44	-201.9	-228.7	305.0	292.7	12.32	24.751	
2,400.0	2,400.0	2,401.0	2,401.0	4.3	8.9	-131.44	-201.9	-228.7	305.0	292.3	12.72	23.975	
2,500.0	2,500.0	2,501.1	2,501.1	4.4	9.2	-131.44	-201.9	-228.7	305.0	291.9	13.13	23.240	
2,600.0	2,600.0	2,612.0	2,611.9	4.4	9.6	-21.75	-201.1	-226.6	301.6	288.1	13.52	22.309	
2,700.0	2,699.8	2,721.9	2,721.7	4.5	10.0	-22.72	-199.0	-220.6	291.3	277.5	13.87	21.013	
2,800.0	2,799.5	2,821.9	2,821.3	4.5	10.3	-24.22	-196.1	-212.8	275.8	261.6	14.21	19.411	
2,900.0	2,898.9	2,920.1	2,919.2	4.5	10.6	-25.91	-193.4	-205.2	258.9	244.3	14.56	17.777	
3,000.0	2,998.4	3,018.4	3,017.2	4.5	11.0	-27.83	-190.6	-197.6	242.2	227.2	14.92	16.229	
3,100.0	3,097.8	3,116.6	3,115.1	4.5	11.3	-30.04	-187.8	-189.9	225.8	210.5	15.29	14.767	
3,200.0	3,197.3	3,214.9	3,213.0	4.6	11.6	-32.57	-185.0	-182.3	209.8	194.1	15.67	13.389	
3,300.0	3,296.7	3,313.1	3,310.9	4.6	12.0	-35.52	-182.2	-174.6	194.2	178.2	16.05	12.099	
3,400.0	3,396.2	3,411.4	3,408.8	4.6	12.3	-38.96	-179.4	-167.0	179.3	162.8	16.45	10.898	
3,500.0	3,495.6	3,509.6	3,506.7	4.7	12.6	-43.00	-176.7	-159.3	165.1	148.2	16.86	9.792	
3,600.0	3,595.1	3,607.9	3,604.6	4.7	13.0	-47.76	-173.9	-151.7	151.8	134.6	17.28	8.786	
3,700.0	3,694.5	3,706.1	3,702.5	4.8	13.3	-53.37	-171.1	-144.0	139.8	122.1	17.72	7.893	
3,800.0	3,794.0	3,804.4	3,800.4	4.8	13.7	-59.92	-168.3	-136.4	129.4	111.3	18.17	7.123	
3,900.0	3,893.4	3,902.6	3,898.3	4.9	14.0	-67.47	-165.5	-128.8	121.0	102.4	18.64	6.494	
4,000.0	3,992.9	4,000.8	3,996.2	4.9	14.3	-75.93	-162.7	-121.1	115.1	96.0	19.11	6.021	
4,100.0	4,092.3	4,099.1	4,094.1	5.0	14.7	-85.07	-160.0	-113.5	111.9	92.4	19.58	5.717	
4,152.5	4,144.5	4,150.6	4,145.5	5.0	14.9	-90.00	-158.5	-109.5	111.5	91.7	19.82	5.626 CC, ES	
4,200.0	4,191.8	4,197.3	4,192.0	5.0	15.0	-94.47	-157.2	-105.8	111.9	91.8	20.03	5.584 SF	
4,300.0	4,291.2	4,295.6	4,290.0	5.1	15.4	-103.63	-154.4	-98.2	114.9	94.4	20.46	5.614	
4,400.0	4,390.7	4,393.8	4,387.9	5.2	15.7	-112.14	-151.6	-90.5	120.7	99.8	20.87	5.784	
4,500.0	4,490.1	4,492.1	4,485.8	5.2	16.1	-119.73	-148.8	-82.9	129.0	107.7	21.26	6.068	
4,600.0	4,589.6	4,590.3	4,583.7	5.3	16.4	-126.33	-146.0	-75.2	139.3	117.7	21.64	6.437	
4,700.0	4,689.0	4,688.6	4,681.6	5.4	16.8	-131.98	-143.3	-67.6	151.2	129.2	22.03	6.865	
4,800.0	4,788.5	4,786.8	4,779.5	5.5	17.1	-136.78	-140.5	-59.9	164.4	142.0	22.41	7.334	
4,900.0	4,887.9	4,885.0	4,877.4	5.6	17.4	-140.85	-137.7	-52.3	178.5	155.7	22.81	7.828	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #501H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,987.4	4,983.3	4,975.3	5.6	17.8	-144.32		-134.9	-44.7	193.5	170.2	23.21	8.336	
5,100.0	5,086.9	5,081.5	5,073.2	5.7	18.1	-147.29		-132.1	-37.0	209.0	185.4	23.61	8.850	
5,200.0	5,186.3	5,179.8	5,171.1	5.8	18.5	-149.85		-129.4	-29.4	225.0	200.9	24.03	9.364	
5,300.0	5,285.8	5,278.0	5,269.0	5.9	18.8	-152.06		-126.6	-21.7	241.3	216.9	24.44	9.874	
5,400.0	5,385.2	5,376.3	5,366.9	6.0	19.2	-154.00		-123.8	-14.1	258.0	233.2	24.87	10.377	
5,500.0	5,484.7	5,474.5	5,464.8	6.1	19.5	-155.70		-121.0	-6.4	275.0	249.7	25.29	10.872	
5,600.0	5,584.1	5,572.8	5,562.8	6.2	19.9	-157.20		-118.2	1.2	292.1	266.4	25.72	11.357	
5,700.0	5,683.6	5,671.0	5,660.7	6.3	20.2	-158.54		-115.4	8.9	309.4	283.3	26.16	11.831	
5,800.0	5,783.0	5,769.3	5,758.6	6.4	20.6	-159.73		-112.7	16.5	326.9	300.3	26.59	12.293	
5,900.0	5,882.5	5,867.5	5,856.5	6.5	20.9	-160.80		-109.9	24.1	344.5	317.5	27.03	12.744	
6,000.0	5,981.9	5,965.7	5,954.4	6.6	21.3	-161.77		-107.1	31.8	362.2	334.7	27.47	13.183	
6,100.0	6,081.4	6,064.0	6,052.3	6.7	21.6	-162.65		-104.3	39.4	380.0	352.1	27.92	13.611	
6,200.0	6,180.8	6,162.2	6,150.2	6.8	22.0	-163.45		-101.5	47.1	397.9	369.5	28.37	14.026	
6,300.0	6,280.3	6,260.5	6,248.1	6.9	22.3	-164.18		-98.7	54.7	415.8	387.0	28.81	14.431	
6,400.0	6,379.7	6,358.7	6,346.0	7.0	22.7	-164.85		-96.0	62.4	433.8	404.5	29.26	14.823	
6,500.0	6,479.2	6,457.0	6,443.9	7.1	23.0	-165.47		-93.2	70.0	451.8	422.1	29.72	15.205	
6,600.0	6,578.6	6,555.2	6,541.8	7.2	23.4	-166.04		-90.4	77.7	469.9	439.8	30.17	15.576	
6,700.0	6,678.1	6,653.5	6,639.7	7.3	23.7	-166.57		-87.6	85.3	488.1	457.5	30.63	15.937	
6,800.0	6,777.5	6,751.7	6,737.6	7.4	24.1	-167.06		-84.8	92.9	506.3	475.2	31.08	16.287	
6,900.0	6,877.0	6,849.9	6,835.6	7.5	24.4	-167.51		-82.1	100.6	524.5	492.9	31.54	16.628	
7,000.0	6,976.4	6,948.2	6,933.5	7.6	24.8	-167.94		-79.3	108.2	542.7	510.7	32.00	16.959	
7,100.0	7,075.9	7,046.4	7,031.4	7.7	25.2	-168.34		-76.5	115.9	561.0	528.5	32.46	17.281	
7,200.0	7,175.3	7,144.7	7,129.3	7.8	25.5	-168.71		-73.7	123.5	579.3	546.3	32.92	17.594	
7,300.0	7,274.8	7,242.9	7,227.2	8.0	25.9	-169.06		-70.9	131.2	597.6	564.2	33.39	17.898	
7,400.0	7,374.3	7,341.2	7,325.1	8.1	26.2	-169.39		-68.1	138.8	615.9	582.1	33.85	18.194	
7,500.0	7,473.7	7,439.4	7,423.0	8.2	26.6	-169.70		-65.4	146.5	634.3	600.0	34.32	18.482	
7,600.0	7,573.2	7,537.7	7,520.9	8.3	26.9	-169.99		-62.6	154.1	652.6	617.9	34.78	18.763	
7,700.0	7,672.6	7,635.9	7,618.8	8.4	27.3	-170.27		-59.8	161.8	671.0	635.8	35.25	19.036	
7,800.0	7,772.1	7,734.2	7,716.7	8.5	27.6	-170.53		-57.0	169.4	689.4	653.7	35.72	19.301	
7,900.0	7,871.5	7,832.4	7,814.6	8.6	28.0	-170.78		-54.2	177.0	707.8	671.7	36.19	19.560	
8,000.0	7,971.0	7,930.6	7,912.5	8.8	28.3	-171.01		-51.4	184.7	726.3	689.6	36.66	19.812	
8,100.0	8,070.4	8,028.9	8,010.4	8.9	28.7	-171.24		-48.7	192.3	744.7	707.6	37.13	20.057	
8,200.0	8,169.9	8,127.1	8,108.4	9.0	29.0	-171.45		-45.9	200.0	763.2	725.6	37.60	20.296	
8,300.0	8,269.3	8,225.4	8,206.3	9.1	29.4	-171.65		-43.1	207.6	781.6	743.5	38.07	20.529	
8,400.0	8,368.8	8,323.6	8,304.2	9.2	29.7	-171.85		-40.3	215.3	800.1	761.5	38.55	20.756	
8,500.0	8,468.2	8,421.9	8,402.1	9.3	30.1	-172.03		-37.5	222.9	818.6	779.5	39.02	20.978	
8,600.0	8,567.7	8,520.1	8,500.0	9.5	30.4	-172.21		-34.7	230.6	837.0	797.5	39.49	21.194	
8,700.0	8,667.1	8,643.3	8,622.6	9.6	30.9	-172.05		-36.9	240.2	854.7	814.7	40.00	21.368	
8,800.0	8,766.6	8,779.9	8,754.9	9.7	31.3	-170.00		-68.0	250.6	868.2	827.7	40.52	21.427	
8,900.0	8,866.0	8,898.4	8,860.9	9.8	31.7	-166.68		-119.9	259.2	879.2	838.2	41.04	21.422	
9,000.0	8,965.5	8,994.4	8,937.5	10.0	31.9	-163.06		-177.2	265.4	891.1	849.5	41.56	21.441	
9,100.0	9,064.9	9,069.7	8,990.3	10.1	32.1	-159.72		-230.7	269.8	906.6	864.5	42.04	21.565	
9,200.0	9,164.4	9,128.5	9,026.4	10.2	32.2	-156.85		-277.0	272.9	927.7	885.3	42.46	21.852	
9,300.0	9,263.8	9,174.8	9,051.3	10.3	32.3	-154.47		-315.9	275.0	955.7	912.9	42.80	22.330	
9,400.0	9,363.3	9,211.8	9,068.9	10.4	32.3	-152.51		-348.3	276.5	990.7	947.6	43.05	23.012	

Concho Resources LLC

Anticollision Report

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Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #502H - OWB - PWP0												Offset Site Error: 3.0 usft	
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error: 3.0 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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	7.0	7.0	3.0	3.0	-128.03	-202.3	-258.7	328.4				
100.0	100.0	107.0	107.0	3.0	3.0	-128.03	-202.3	-258.7	328.4	322.4	6.00	54.700	
200.0	200.0	207.0	207.0	3.0	3.0	-128.03	-202.3	-258.7	328.4	322.3	6.04	54.332	
300.0	300.0	307.0	307.0	3.0	3.1	-128.03	-202.3	-258.7	328.4	322.3	6.13	53.580	
400.0	400.0	407.0	407.0	3.0	3.2	-128.03	-202.3	-258.7	328.4	322.1	6.25	52.501	
500.0	500.0	507.0	507.0	3.1	3.4	-128.03	-202.3	-258.7	328.4	322.0	6.42	51.166	
600.0	600.0	607.0	607.0	3.1	3.6	-128.03	-202.3	-258.7	328.4	321.8	6.61	49.649	
700.0	700.0	707.0	707.0	3.1	3.8	-128.03	-202.3	-258.7	328.4	321.5	6.84	48.018	
800.0	800.0	807.0	807.0	3.2	4.0	-128.03	-202.3	-258.7	328.4	321.3	7.09	46.330	
900.0	900.0	907.0	907.0	3.2	4.2	-128.03	-202.3	-258.7	328.4	321.0	7.36	44.629	
1,000.0	1,000.0	1,007.0	1,007.0	3.2	4.5	-128.03	-202.3	-258.7	328.4	320.7	7.65	42.947	
1,100.0	1,100.0	1,107.0	1,107.0	3.3	4.8	-128.03	-202.3	-258.7	328.4	320.4	7.95	41.306	
1,200.0	1,200.0	1,207.0	1,207.0	3.4	5.1	-128.03	-202.3	-258.7	328.4	320.1	8.27	39.722	
1,300.0	1,300.0	1,307.0	1,307.0	3.4	5.4	-128.03	-202.3	-258.7	328.4	319.8	8.60	38.204	
1,400.0	1,400.0	1,407.0	1,407.0	3.5	5.7	-128.03	-202.3	-258.7	328.4	319.5	8.93	36.756	
1,500.0	1,500.0	1,507.0	1,507.0	3.5	6.0	-128.03	-202.3	-258.7	328.4	319.1	9.28	35.380	
1,600.0	1,600.0	1,607.0	1,607.0	3.6	6.3	-128.03	-202.3	-258.7	328.4	318.8	9.64	34.075	
1,700.0	1,700.0	1,707.0	1,707.0	3.7	6.6	-128.03	-202.3	-258.7	328.4	318.4	10.00	32.841	
1,800.0	1,800.0	1,807.0	1,807.0	3.8	6.9	-128.03	-202.3	-258.7	328.4	318.0	10.37	31.673	
1,900.0	1,900.0	1,907.0	1,907.0	3.9	7.2	-128.03	-202.3	-258.7	328.4	317.6	10.74	30.570	
2,000.0	2,000.0	2,007.0	2,007.0	3.9	7.6	-128.03	-202.3	-258.7	328.4	317.3	11.12	29.528	
2,100.0	2,100.0	2,107.0	2,107.0	4.0	7.9	-128.03	-202.3	-258.7	328.4	316.9	11.51	28.543	
2,200.0	2,200.0	2,207.0	2,207.0	4.1	8.2	-128.03	-202.3	-258.7	328.4	316.5	11.89	27.611	
2,300.0	2,300.0	2,307.0	2,307.0	4.2	8.6	-128.03	-202.3	-258.7	328.4	316.1	12.29	26.731	
2,400.0	2,400.0	2,407.0	2,407.0	4.3	8.9	-128.03	-202.3	-258.7	328.4	315.7	12.68	25.897	
2,414.2	2,414.2	2,421.2	2,421.2	4.3	9.0	-128.03	-202.3	-258.7	328.4	315.7	12.74	25.783	
2,500.0	2,500.0	2,506.6	2,506.6	4.4	9.2	-128.03	-202.3	-258.7	328.4	315.3	13.08	25.111	
2,600.0	2,600.0	2,600.0	2,600.0	4.4	9.6	-17.86	-201.7	-260.3	327.7	314.3	13.41	24.442	
2,700.0	2,699.8	2,695.0	2,694.9	4.5	9.9	-17.42	-200.0	-264.9	325.5	311.8	13.70	23.758	
2,800.0	2,799.5	2,791.5	2,791.0	4.5	10.2	-16.71	-197.4	-272.3	321.6	307.6	14.00	22.972	
2,900.0	2,898.9	2,891.3	2,890.4	4.5	10.5	-15.93	-194.4	-280.5	316.4	302.1	14.32	22.093	
3,000.0	2,998.4	2,991.0	2,989.8	4.5	10.9	-15.13	-191.4	-288.6	311.3	296.6	14.65	21.246	
3,100.0	3,097.8	3,090.8	3,089.2	4.5	11.2	-14.30	-188.4	-296.8	306.2	291.2	14.99	20.431	
3,200.0	3,197.3	3,190.6	3,188.6	4.6	11.5	-13.45	-185.5	-305.0	301.2	285.8	15.33	19.646	
3,300.0	3,296.7	3,290.4	3,288.0	4.6	11.9	-12.57	-182.5	-313.2	296.2	280.6	15.68	18.892	
3,400.0	3,396.2	3,390.1	3,387.4	4.6	12.2	-11.65	-179.5	-321.3	291.4	275.3	16.04	18.167	
3,500.0	3,495.6	3,489.9	3,486.8	4.7	12.6	-10.71	-176.5	-329.5	286.6	270.2	16.40	17.470	
3,600.0	3,595.1	3,589.7	3,586.2	4.7	12.9	-9.73	-173.6	-337.7	281.9	265.1	16.78	16.801	
3,700.0	3,694.5	3,689.4	3,685.6	4.8	13.3	-8.73	-170.6	-345.8	277.2	260.1	17.16	16.159	
3,800.0	3,794.0	3,789.2	3,784.9	4.8	13.6	-7.68	-167.6	-354.0	272.7	255.1	17.54	15.543	
3,900.0	3,893.4	3,889.0	3,884.3	4.9	13.9	-6.61	-164.6	-362.2	268.2	250.3	17.94	14.953	
4,000.0	3,992.9	3,988.8	3,983.7	4.9	14.3	-5.49	-161.7	-370.4	263.9	245.6	18.34	14.387	
4,100.0	4,092.3	4,088.5	4,083.1	5.0	14.6	-4.35	-158.7	-378.5	259.6	240.9	18.75	13.846	
4,200.0	4,191.8	4,188.3	4,182.5	5.0	15.0	-3.16	-155.7	-386.7	255.5	236.3	19.17	13.329	
4,300.0	4,291.2	4,288.1	4,281.9	5.1	15.3	-1.93	-152.7	-394.9	251.5	231.9	19.59	12.836	
4,400.0	4,390.7	4,387.8	4,381.3	5.2	15.7	-0.67	-149.8	-403.0	247.6	227.6	20.02	12.364	
4,500.0	4,490.1	4,487.6	4,480.7	5.2	16.0	0.64	-146.8	-411.2	243.8	223.3	20.46	11.915	
4,600.0	4,589.6	4,587.4	4,580.1	5.3	16.4	1.98	-143.8	-419.4	240.1	219.2	20.91	11.488	
4,700.0	4,689.0	4,687.2	4,679.5	5.4	16.8	3.36	-140.8	-427.6	236.6	215.3	21.36	11.081	
4,800.0	4,788.5	4,786.9	4,778.9	5.5	17.1	4.79	-137.9	-435.7	233.3	211.5	21.81	10.695	
4,900.0	4,887.9	4,886.7	4,878.3	5.6	17.5	6.26	-134.9	-443.9	230.0	207.8	22.27	10.329	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #502H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,987.4	4,986.5	4,977.6	5.6	17.8	7.76		-131.9	-452.1	227.0	204.2	22.74	9.982	
5,100.0	5,086.9	5,086.2	5,077.0	5.7	18.2	9.31		-129.0	-460.2	224.1	200.9	23.21	9.654	
5,200.0	5,186.3	5,186.0	5,176.4	5.8	18.5	10.90		-126.0	-468.4	221.3	197.6	23.69	9.344	
5,300.0	5,285.8	5,285.8	5,275.8	5.9	18.9	12.52		-123.0	-476.6	218.8	194.6	24.17	9.053	
5,400.0	5,385.2	5,385.6	5,375.2	6.0	19.2	14.18		-120.0	-484.8	216.4	191.7	24.65	8.779	
5,500.0	5,484.7	5,485.3	5,474.6	6.1	19.6	15.88		-117.1	-492.9	214.2	189.1	25.14	8.522	
5,600.0	5,584.1	5,585.1	5,574.0	6.2	19.9	17.61		-114.1	-501.1	212.2	186.6	25.62	8.281	
5,700.0	5,683.6	5,684.9	5,673.4	6.3	20.3	19.37		-111.1	-509.3	210.4	184.3	26.12	8.056	
5,800.0	5,783.0	5,784.6	5,772.8	6.4	20.7	21.16		-108.1	-517.4	208.8	182.2	26.61	7.846	
5,900.0	5,882.5	5,884.4	5,872.2	6.5	21.0	22.98		-105.2	-525.6	207.4	180.3	27.10	7.652	
6,000.0	5,981.9	5,984.2	5,971.6	6.6	21.4	24.82		-102.2	-533.8	206.2	178.6	27.60	7.472	
6,100.0	6,081.4	6,084.0	6,071.0	6.7	21.7	26.68		-99.2	-542.0	205.2	177.1	28.09	7.306	
6,200.0	6,180.8	6,183.7	6,170.3	6.8	22.1	28.55		-96.2	-550.1	204.5	175.9	28.59	7.154	
6,300.0	6,280.3	6,283.5	6,269.7	6.9	22.4	30.43		-93.3	-558.3	204.0	174.9	29.08	7.014	
6,400.0	6,379.7	6,383.3	6,369.1	7.0	22.8	32.33		-90.3	-566.5	203.7	174.1	29.57	6.887	
6,486.2	6,465.4	6,469.3	6,454.8	7.1	23.1	33.96		-87.7	-573.5	203.6	173.6	29.99	6.787 CC	
6,500.0	6,479.2	6,483.0	6,468.5	7.1	23.1	34.22		-87.3	-574.6	203.6	173.5	30.06	6.772	
6,600.0	6,578.6	6,582.8	6,567.9	7.2	23.5	36.12		-84.3	-582.8	203.7	173.2	30.55	6.668	
6,700.0	6,678.1	6,682.6	6,667.3	7.3	23.9	38.01		-81.4	-591.0	204.1	173.0	31.04	6.575	
6,800.0	6,777.5	6,782.4	6,766.7	7.4	24.2	39.89		-78.4	-599.2	204.7	173.2	31.52	6.493	
6,900.0	6,877.0	6,882.1	6,866.1	7.5	24.6	41.76		-75.4	-607.3	205.5	173.5	32.00	6.421	
7,000.0	6,976.4	6,981.9	6,965.5	7.6	24.9	43.61		-72.4	-615.5	206.5	174.0	32.48	6.358	
7,100.0	7,075.9	7,081.7	7,064.9	7.7	25.3	45.45		-69.5	-623.7	207.7	174.8	32.96	6.303	
7,200.0	7,175.3	7,181.4	7,164.3	7.8	25.7	47.26		-66.5	-631.8	209.2	175.8	33.43	6.257	
7,300.0	7,274.8	7,281.2	7,263.7	8.0	26.0	49.04		-63.5	-640.0	210.9	177.0	33.90	6.219	
7,400.0	7,374.3	7,381.0	7,363.1	8.1	26.4	50.79		-60.5	-648.2	212.7	178.4	34.37	6.189	
7,500.0	7,473.7	7,480.8	7,462.4	8.2	26.7	52.51		-57.6	-656.4	214.8	179.9	34.84	6.165	
7,600.0	7,573.2	7,580.5	7,561.8	8.3	27.1	54.20		-54.6	-664.5	217.0	181.7	35.30	6.148	
7,700.0	7,672.6	7,680.3	7,661.2	8.4	27.5	55.85		-51.6	-672.7	219.5	183.7	35.76	6.136	
7,800.0	7,772.1	7,780.1	7,760.6	8.5	27.8	57.47		-48.6	-680.9	222.1	185.8	36.22	6.131	
7,900.0	7,871.5	7,879.9	7,860.0	8.6	28.2	59.04		-45.7	-689.0	224.9	188.2	36.68	6.130	
8,000.0	7,971.0	7,979.6	7,959.4	8.8	28.5	60.58		-42.7	-697.2	227.8	190.7	37.14	6.134	
8,100.0	8,070.4	8,079.4	8,058.8	8.9	28.9	62.07		-39.7	-705.4	230.9	193.3	37.59	6.142	
8,200.0	8,169.9	8,179.2	8,158.2	9.0	29.3	63.53		-36.8	-713.6	234.2	196.1	38.05	6.155	
8,300.0	8,269.3	8,278.9	8,257.6	9.1	29.6	64.94		-33.8	-721.7	237.6	199.1	38.50	6.171	
8,400.0	8,368.8	8,378.7	8,357.0	9.2	30.0	66.32		-30.8	-729.9	241.1	202.2	38.95	6.190	
8,500.0	8,468.2	8,478.5	8,456.4	9.3	30.3	67.65		-27.8	-738.1	244.8	205.4	39.41	6.213	
8,600.0	8,567.7	8,580.3	8,557.8	9.5	30.7	68.96		-24.9	-746.4	248.6	208.8	39.87	6.236	
8,700.0	8,667.1	8,712.0	8,687.8	9.6	31.2	67.37		-37.4	-761.4	245.2	204.8	40.38	6.072	
8,800.0	8,766.6	8,833.9	8,801.9	9.7	31.5	60.16		-74.4	-781.3	231.0	190.1	40.90	5.648	
8,900.0	8,866.0	8,937.8	8,890.6	9.8	31.8	48.34		-124.1	-802.2	213.6	172.1	41.50	5.148	
8,999.7	8,965.2	9,022.1	8,954.6	10.0	32.1	34.49		-175.4	-821.3	205.0	163.1	41.88	4.895	
9,000.0	8,965.5	9,022.3	8,954.7	10.0	32.1	34.45		-175.5	-821.4	205.0	163.1	41.88	4.895 ES, SF	
9,100.0	9,064.9	9,089.5	8,999.5	10.1	32.2	21.51		-222.8	-837.7	216.8	175.2	41.58	5.213	
9,200.0	9,164.4	9,142.9	9,030.8	10.2	32.3	11.15		-263.9	-851.3	252.7	212.0	40.64	6.217	
9,300.0	9,263.8	9,185.7	9,052.9	10.3	32.4	3.39		-298.8	-862.3	308.1	268.6	39.49	7.803	
9,400.0	9,363.3	9,220.3	9,068.8	10.4	32.5	-2.32		-328.2	-871.4	376.7	338.2	38.49	9.787	
9,500.0	9,462.7	9,250.0	9,080.9	10.6	32.6	-6.75		-354.1	-879.3	453.6	415.8	37.76	12.011	
9,600.0	9,562.2	9,272.5	9,089.1	10.7	32.6	-9.82		-374.2	-885.2	536.0	498.8	37.25	14.390	
9,700.0	9,661.7	9,300.0	9,098.1	10.8	32.7	-13.25		-399.2	-892.5	622.3	585.3	37.04	16.802	
9,800.0	9,761.1	9,300.0	9,098.1	10.9	32.7	-13.25		-399.2	-892.5	711.2	674.5	36.68	19.387	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #502H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 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	
9,900.0	9,860.6	9,324.1	9,104.9	11.1	32.7	-15.96	-421.3	-898.9	801.8	765.1	36.73	21.832	
10,000.0	9,960.0	9,350.0	9,111.1	11.2	32.8	-18.61	-445.6	-905.8	894.3	857.5	36.86	24.260	
10,100.0	10,059.5	9,350.0	9,111.1	11.3	32.8	-18.61	-445.6	-905.8	987.5	950.6	36.86	26.794	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #701H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	3.0	3.0	89.55		0.5	59.9	59.9				
100.0	100.0	101.0	101.0	3.0	3.0	89.55		0.5	59.9	59.9	53.9	6.00	9.977	
200.0	200.0	201.0	201.0	3.0	3.0	89.55		0.5	59.9	59.9	53.9	6.04	9.913	
300.0	300.0	301.0	301.0	3.0	3.1	89.55		0.5	59.9	59.9	53.8	6.12	9.781	
400.0	400.0	401.0	401.0	3.0	3.2	89.55		0.5	59.9	59.9	53.6	6.24	9.592	
500.0	500.0	501.0	501.0	3.1	3.4	89.55		0.5	59.9	59.9	53.5	6.40	9.357	
600.0	600.0	601.0	601.0	3.1	3.6	89.55		0.5	59.9	59.9	53.3	6.59	9.090	
700.0	700.0	701.0	701.0	3.1	3.8	89.55		0.5	59.9	59.9	53.1	6.80	8.802	
800.0	800.0	801.0	801.0	3.2	4.0	89.55		0.5	59.9	59.9	52.8	7.04	8.504	
900.0	900.0	901.0	901.0	3.2	4.2	89.55		0.5	59.9	59.9	52.6	7.30	8.204	
1,000.0	1,000.0	1,001.0	1,001.0	3.2	4.5	89.55		0.5	59.9	59.9	52.3	7.58	7.906	
1,100.0	1,100.0	1,101.0	1,101.0	3.3	4.8	89.55		0.5	59.9	59.9	52.0	7.86	7.616	
1,200.0	1,200.0	1,201.0	1,201.0	3.4	5.1	89.55		0.5	59.9	59.9	51.7	8.17	7.335	
1,300.0	1,300.0	1,301.0	1,301.0	3.4	5.4	89.55		0.5	59.9	59.9	51.4	8.48	7.065	
1,400.0	1,400.0	1,401.0	1,401.0	3.5	5.7	89.55		0.5	59.9	59.9	51.1	8.80	6.808	
1,500.0	1,500.0	1,501.0	1,501.0	3.5	6.0	89.55		0.5	59.9	59.9	50.8	9.13	6.563	
1,600.0	1,600.0	1,601.0	1,601.0	3.6	6.3	89.55		0.5	59.9	59.9	50.4	9.46	6.330	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	6.6	89.55		0.5	59.9	59.9	50.1	9.80	6.110	
1,800.0	1,800.0	1,801.0	1,801.0	3.8	6.9	89.55		0.5	59.9	59.9	49.7	10.15	5.901	
1,900.0	1,900.0	1,901.0	1,901.0	3.9	7.2	89.55		0.5	59.9	59.9	49.4	10.50	5.704	
2,000.0	2,000.0	2,001.0	2,001.0	3.9	7.6	89.55		0.5	59.9	59.9	49.0	10.86	5.517	
2,100.0	2,100.0	2,101.0	2,101.0	4.0	7.9	89.55		0.5	59.9	59.9	48.7	11.22	5.340	
2,200.0	2,200.0	2,201.0	2,201.0	4.1	8.2	89.55		0.5	59.9	59.9	48.3	11.58	5.172	
2,300.0	2,300.0	2,301.0	2,301.0	4.2	8.6	89.55		0.5	59.9	59.9	47.9	11.95	5.014	
2,400.0	2,400.0	2,401.0	2,401.0	4.3	8.9	89.55		0.5	59.9	59.9	47.6	12.31	4.863	
2,416.3	2,416.3	2,417.3	2,417.3	4.3	9.0	89.55		0.5	59.9	59.9	47.5	12.38	4.840 CC	
2,500.0	2,500.0	2,501.0	2,501.0	4.4	9.2	89.55		0.5	59.9	59.9	47.2	12.69	4.721 ES, SF	
2,600.0	2,600.0	2,598.9	2,598.9	4.4	9.6	-161.47		1.1	61.5	63.2	50.1	13.04	4.844	
2,700.0	2,699.8	2,697.0	2,696.8	4.5	9.9	-163.92		2.7	66.1	72.9	59.5	13.40	5.443	
2,800.0	2,799.5	2,795.9	2,795.6	4.5	10.2	-166.49		4.6	71.4	86.8	73.1	13.76	6.310	
2,900.0	2,898.9	2,894.6	2,894.2	4.5	10.6	-168.59		6.6	76.7	102.6	88.4	14.13	7.260	
3,000.0	2,998.4	2,993.3	2,992.7	4.5	10.9	-170.13		8.5	82.0	118.4	103.9	14.50	8.167	
3,100.0	3,097.8	3,092.0	3,091.2	4.5	11.2	-171.31		10.4	87.2	134.3	119.4	14.87	9.031	
3,200.0	3,197.3	3,190.7	3,189.8	4.6	11.6	-172.24		12.4	92.5	150.3	135.0	15.25	9.853	
3,300.0	3,296.7	3,289.4	3,288.3	4.6	11.9	-172.99		14.3	97.8	166.2	150.6	15.63	10.636	
3,400.0	3,396.2	3,388.1	3,386.8	4.6	12.2	-173.60		16.2	103.1	182.2	166.2	16.02	11.379	
3,500.0	3,495.6	3,486.8	3,485.4	4.7	12.6	-174.12		18.1	108.4	198.3	181.9	16.40	12.086	
3,600.0	3,595.1	3,585.5	3,583.9	4.7	12.9	-174.56		20.1	113.7	214.3	197.5	16.80	12.759	
3,700.0	3,694.5	3,684.2	3,682.4	4.8	13.2	-174.94		22.0	119.0	230.3	213.1	17.19	13.398	
3,800.0	3,794.0	3,782.9	3,781.0	4.8	13.6	-175.27		23.9	124.3	246.4	228.8	17.59	14.006	
3,900.0	3,893.4	3,881.6	3,879.5	4.9	13.9	-175.56		25.8	129.6	262.5	244.5	18.00	14.584	
4,000.0	3,992.9	3,980.3	3,978.0	4.9	14.3	-175.82		27.8	134.9	278.5	260.1	18.40	15.134	
4,100.0	4,092.3	4,079.0	4,076.6	5.0	14.6	-176.05		29.7	140.1	294.6	275.8	18.81	15.658	
4,200.0	4,191.8	4,177.7	4,175.1	5.0	15.0	-176.25		31.6	145.4	310.7	291.4	19.23	16.157	
4,300.0	4,291.2	4,276.3	4,273.6	5.1	15.3	-176.44		33.5	150.7	326.7	307.1	19.64	16.633	
4,400.0	4,390.7	4,375.0	4,372.2	5.2	15.6	-176.60		35.5	156.0	342.8	322.8	20.06	17.086	
4,500.0	4,490.1	4,473.7	4,470.7	5.2	16.0	-176.76		37.4	161.3	358.9	338.4	20.49	17.519	
4,600.0	4,589.6	4,572.4	4,569.2	5.3	16.3	-176.90		39.3	166.6	375.0	354.1	20.91	17.932	
4,700.0	4,689.0	4,671.1	4,667.8	5.4	16.7	-177.02		41.2	171.9	391.1	369.7	21.34	18.326	
4,800.0	4,788.5	4,769.8	4,766.3	5.5	17.0	-177.14		43.2	177.2	407.2	385.4	21.77	18.702	
4,900.0	4,887.9	4,868.5	4,864.8	5.6	17.4	-177.25		45.1	182.5	423.2	401.0	22.20	19.062	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #701H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 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		
5,000.0	4,987.4	4,967.2	4,963.4	5.6	17.7	-177.35	47.0	187.8	439.3	416.7	22.64	19.407		
5,100.0	5,086.9	5,065.9	5,061.9	5.7	18.1	-177.44	48.9	193.0	455.4	432.4	23.08	19.736		
5,200.0	5,186.3	5,164.6	5,160.4	5.8	18.4	-177.53	50.9	198.3	471.5	448.0	23.52	20.052		
5,300.0	5,285.8	5,263.3	5,259.0	5.9	18.8	-177.61	52.8	203.6	487.6	463.7	23.96	20.354		
5,400.0	5,385.2	5,362.0	5,357.5	6.0	19.1	-177.69	54.7	208.9	503.7	479.3	24.40	20.644		
5,500.0	5,484.7	5,460.7	5,456.0	6.1	19.5	-177.76	56.6	214.2	519.8	495.0	24.84	20.922		
5,600.0	5,584.1	5,559.4	5,554.6	6.2	19.8	-177.83	58.6	219.5	535.9	510.6	25.29	21.189		
5,700.0	5,683.6	5,658.1	5,653.1	6.3	20.2	-177.89	60.5	224.8	552.0	526.3	25.74	21.446		
5,800.0	5,783.0	5,756.8	5,751.6	6.4	20.5	-177.95	62.4	230.1	568.1	541.9	26.19	21.692		
5,900.0	5,882.5	5,855.5	5,850.2	6.5	20.9	-178.01	64.3	235.4	584.2	557.6	26.64	21.929		
6,000.0	5,981.9	5,954.1	5,948.7	6.6	21.2	-178.06	66.3	240.7	600.3	573.2	27.09	22.157		
6,100.0	6,081.4	6,052.8	6,047.2	6.7	21.6	-178.11	68.2	245.9	616.4	588.9	27.55	22.376		
6,200.0	6,180.8	6,151.5	6,145.8	6.8	21.9	-178.16	70.1	251.2	632.5	604.5	28.00	22.587		
6,300.0	6,280.3	6,250.2	6,244.3	6.9	22.3	-178.21	72.0	256.5	648.6	620.1	28.46	22.790		
6,400.0	6,379.7	6,348.9	6,342.8	7.0	22.6	-178.25	74.0	261.8	664.7	635.8	28.92	22.986		
6,500.0	6,479.2	6,447.6	6,441.4	7.1	23.0	-178.29	75.9	267.1	680.8	651.4	29.38	23.175		
6,600.0	6,578.6	6,546.3	6,539.9	7.2	23.3	-178.33	77.8	272.4	696.9	667.1	29.84	23.358		
6,700.0	6,678.1	6,645.0	6,638.4	7.3	23.7	-178.37	79.7	277.7	713.0	682.7	30.30	23.534		
6,800.0	6,777.5	6,743.7	6,737.0	7.4	24.0	-178.40	81.7	283.0	729.1	698.4	30.76	23.704		
6,900.0	6,877.0	6,842.4	6,835.5	7.5	24.4	-178.44	83.6	288.3	745.2	714.0	31.22	23.868		
7,000.0	6,976.4	6,941.1	6,934.0	7.6	24.7	-178.47	85.5	293.6	761.3	729.6	31.69	24.027		
7,100.0	7,075.9	7,039.8	7,032.6	7.7	25.1	-178.50	87.4	298.8	777.4	745.3	32.15	24.181		
7,200.0	7,175.3	7,138.5	7,131.1	7.8	25.4	-178.53	89.4	304.1	793.5	760.9	32.62	24.329		
7,300.0	7,274.8	7,237.2	7,229.6	8.0	25.8	-178.56	91.3	309.4	809.6	776.5	33.08	24.473		
7,400.0	7,374.3	7,335.9	7,328.2	8.1	26.1	-178.59	93.2	314.7	825.7	792.2	33.55	24.612		
7,500.0	7,473.7	7,434.6	7,426.7	8.2	26.5	-178.62	95.1	320.0	841.8	807.8	34.02	24.747		
7,600.0	7,573.2	7,533.2	7,525.2	8.3	26.8	-178.64	97.1	325.3	857.9	823.5	34.49	24.877		
7,700.0	7,672.6	7,631.9	7,623.8	8.4	27.2	-178.67	99.0	330.6	874.0	839.1	34.96	25.004		
7,800.0	7,772.1	7,730.6	7,722.3	8.5	27.5	-178.69	100.9	335.9	890.1	854.7	35.43	25.127		
7,900.0	7,871.5	7,829.3	7,820.8	8.6	27.9	-178.72	102.8	341.2	906.3	870.4	35.90	25.246		
8,000.0	7,971.0	7,928.0	7,919.4	8.8	28.2	-178.74	104.8	346.5	922.4	886.0	36.37	25.362		
8,100.0	8,070.4	8,026.7	8,017.9	8.9	28.6	-178.76	106.7	351.7	938.5	901.6	36.84	25.474		
8,200.0	8,169.9	8,125.4	8,116.4	9.0	28.9	-178.78	108.6	357.0	954.6	917.3	37.31	25.583		
8,300.0	8,269.3	8,224.1	8,215.0	9.1	29.3	-178.80	110.5	362.3	970.7	932.9	37.79	25.689		
8,400.0	8,368.8	8,322.8	8,313.5	9.2	29.7	-178.82	112.5	367.6	986.8	948.5	38.26	25.791		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1												Offset Site Error: 3.0 usft		
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error: 3.0 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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	3.0	3.0	89.54	0.2	29.9	29.9					
100.0	100.0	100.0	100.0	3.0	3.0	89.54	0.2	29.9	29.9	23.9	6.00	4.986		
200.0	200.0	200.0	200.0	3.0	3.0	89.54	0.2	29.9	29.9	23.9	6.04	4.955		
300.0	300.0	300.0	300.0	3.0	3.1	89.54	0.2	29.9	29.9	23.8	6.12	4.889		
400.0	400.0	400.0	400.0	3.0	3.2	89.54	0.2	29.9	29.9	23.7	6.24	4.795		
500.0	500.0	500.0	500.0	3.1	3.4	89.54	0.2	29.9	29.9	23.5	6.40	4.677		
600.0	600.0	600.0	600.0	3.1	3.6	89.54	0.2	29.9	29.9	23.3	6.59	4.544		
700.0	700.0	700.0	700.0	3.1	3.8	89.54	0.2	29.9	29.9	23.1	6.80	4.400		
800.0	800.0	800.0	800.0	3.2	4.0	89.54	0.2	29.9	29.9	22.9	7.04	4.252		
900.0	900.0	900.0	900.0	3.2	4.2	89.54	0.2	29.9	29.9	22.6	7.30	4.101		
1,000.0	1,000.0	1,000.0	1,000.0	3.2	4.5	89.54	0.2	29.9	29.9	22.4	7.57	3.953		
1,100.0	1,100.0	1,100.0	1,100.0	3.3	4.8	89.54	0.2	29.9	29.9	22.1	7.86	3.807		
1,200.0	1,200.0	1,200.0	1,200.0	3.4	5.1	89.54	0.2	29.9	29.9	21.8	8.16	3.667		
1,300.0	1,300.0	1,300.0	1,300.0	3.4	5.4	89.54	0.2	29.9	29.9	21.5	8.47	3.532		
1,400.0	1,400.0	1,400.0	1,400.0	3.5	5.7	89.54	0.2	29.9	29.9	21.1	8.79	3.403		
1,500.0	1,500.0	1,500.0	1,500.0	3.5	6.0	89.54	0.2	29.9	29.9	20.8	9.12	3.281		
1,600.0	1,600.0	1,600.0	1,600.0	3.6	6.3	89.54	0.2	29.9	29.9	20.5	9.46	3.165		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	6.6	89.54	0.2	29.9	29.9	20.1	9.80	3.054		
1,800.0	1,800.0	1,800.0	1,800.0	3.8	6.9	89.54	0.2	29.9	29.9	19.8	10.15	2.950		
1,900.0	1,900.0	1,900.0	1,900.0	3.9	7.2	89.54	0.2	29.9	29.9	19.4	10.50	2.851		
2,000.0	2,000.0	2,000.0	2,000.0	3.9	7.6	89.54	0.2	29.9	29.9	19.1	10.85	2.758		
2,100.0	2,100.0	2,100.0	2,100.0	4.0	7.9	89.54	0.2	29.9	29.9	18.7	11.21	2.669		
2,200.0	2,200.0	2,200.0	2,200.0	4.1	8.2	89.54	0.2	29.9	29.9	18.4	11.58	2.586		
2,300.0	2,300.0	2,300.0	2,300.0	4.2	8.6	89.54	0.2	29.9	29.9	18.0	11.94	2.506		
2,400.0	2,400.0	2,400.0	2,400.0	4.3	8.9	89.54	0.2	29.9	29.9	17.6	12.31	2.431		
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	89.54	0.2	29.9	29.9	17.2	12.68	2.360 CC, ES, SF		
2,600.0	2,600.0	2,600.0	2,600.0	4.4	9.6	-161.51	0.2	29.9	31.6	18.5	13.06	2.418		
2,700.0	2,699.8	2,699.8	2,699.8	4.5	9.9	-164.08	0.2	29.9	36.6	23.1	13.44	2.723		
2,800.0	2,799.5	2,799.5	2,799.5	4.5	10.3	-167.09	0.2	29.9	45.0	31.2	13.81	3.260		
2,900.0	2,898.9	2,898.9	2,898.9	4.5	10.6	-169.51	0.2	29.9	55.3	41.1	14.19	3.894		
3,000.0	2,998.4	2,998.4	2,998.4	4.5	10.9	-171.17	0.2	29.9	65.6	51.0	14.57	4.499		
3,100.0	3,097.8	3,097.8	3,097.8	4.5	11.3	-172.38	0.2	29.9	75.9	61.0	14.96	5.076		
3,200.0	3,197.3	3,197.3	3,197.3	4.6	11.6	-173.30	0.2	29.9	86.3	71.0	15.34	5.624		
3,300.0	3,296.7	3,296.7	3,296.7	4.6	12.0	-174.02	0.2	29.9	96.7	81.0	15.73	6.146		
3,400.0	3,396.2	3,396.2	3,396.2	4.6	12.3	-174.61	0.2	29.9	107.1	91.0	16.12	6.642		
3,500.0	3,495.6	3,495.6	3,495.6	4.7	12.7	-175.09	0.2	29.9	117.5	101.0	16.52	7.113		
3,600.0	3,595.1	3,595.1	3,595.1	4.7	13.0	-175.49	0.2	29.9	127.9	111.0	16.92	7.561		
3,700.0	3,694.5	3,694.5	3,694.5	4.8	13.4	-175.83	0.2	29.9	138.3	121.0	17.32	7.987		
3,800.0	3,794.0	3,794.0	3,794.0	4.8	13.7	-176.12	0.2	29.9	148.8	131.0	17.73	8.393		
3,900.0	3,893.4	3,893.4	3,893.4	4.9	14.1	-176.37	0.2	29.9	159.2	141.1	18.13	8.779		
4,000.0	3,992.9	3,992.9	3,992.9	4.9	14.4	-176.60	0.2	29.9	169.6	151.1	18.55	9.146		
4,100.0	4,092.3	4,092.3	4,092.3	5.0	14.8	-176.80	0.2	29.9	180.1	161.1	18.96	9.496		
4,200.0	4,191.8	4,191.8	4,191.8	5.0	15.1	-176.97	0.2	29.9	190.5	171.1	19.38	9.830		
4,300.0	4,291.2	4,291.2	4,291.2	5.1	15.4	-177.13	0.2	29.9	200.9	181.1	19.80	10.148		
4,400.0	4,390.7	4,390.7	4,390.7	5.2	15.8	-177.27	0.2	29.9	211.4	191.2	20.23	10.451		
4,500.0	4,490.1	4,490.1	4,490.1	5.2	16.1	-177.40	0.2	29.9	221.8	201.2	20.65	10.741		
4,600.0	4,589.6	4,589.6	4,589.6	5.3	16.5	-177.52	0.2	29.9	232.3	211.2	21.08	11.018		
4,700.0	4,689.0	4,689.0	4,689.0	5.4	16.9	-177.62	0.2	29.9	242.7	221.2	21.51	11.282		
4,800.0	4,788.5	4,788.5	4,788.5	5.5	17.2	-177.72	0.2	29.9	253.2	231.2	21.95	11.535		
4,900.0	4,887.9	4,887.9	4,887.9	5.6	17.6	-177.81	0.2	29.9	263.6	241.2	22.38	11.777		
5,000.0	4,987.4	4,987.4	4,987.4	5.6	17.9	-177.89	0.2	29.9	274.0	251.2	22.82	12.009		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,086.9	5,086.9	5,086.9	5.7	18.3	-177.97		0.2	29.9	284.5	261.2	23.26	12.231	
5,200.0	5,186.3	5,186.3	5,186.3	5.8	18.6	-178.04		0.2	29.9	294.9	271.2	23.70	12.443	
5,300.0	5,285.8	5,285.8	5,285.8	5.9	19.0	-178.11		0.2	29.9	305.4	281.2	24.15	12.647	
5,400.0	5,385.2	5,385.2	5,385.2	6.0	19.3	-178.17		0.2	29.9	315.8	291.2	24.59	12.843	
5,500.0	5,484.7	5,484.7	5,484.7	6.1	19.7	-178.23		0.2	29.9	326.3	301.2	25.04	13.031	
5,600.0	5,584.1	5,595.3	5,595.2	6.2	20.0	-178.31		-0.2	28.4	335.3	309.8	25.50	13.152	
5,700.0	5,683.6	5,708.5	5,708.3	6.3	20.4	-178.43		-1.7	22.6	340.5	314.6	25.93	13.133	
5,800.0	5,783.0	5,811.7	5,811.2	6.4	20.8	-178.56		-3.9	14.5	342.9	316.5	26.35	13.010	
5,900.0	5,882.5	5,911.7	5,910.8	6.5	21.1	-178.69		-6.0	6.6	345.1	318.3	26.79	12.884	
6,000.0	5,981.9	6,011.6	6,010.4	6.6	21.4	-178.81		-8.1	-1.4	347.4	320.1	27.22	12.762	
6,100.0	6,081.4	6,111.6	6,110.1	6.7	21.8	-178.94		-10.3	-9.3	349.6	322.0	27.65	12.643	
6,200.0	6,180.8	6,211.6	6,209.7	6.8	22.1	-179.06		-12.4	-17.3	351.9	323.8	28.09	12.527	
6,300.0	6,280.3	6,311.6	6,309.3	6.9	22.5	-179.18		-14.5	-25.2	354.1	325.6	28.53	12.414	
6,400.0	6,379.7	6,411.5	6,409.0	7.0	22.8	-179.31		-16.7	-33.1	356.4	327.4	28.97	12.303	
6,500.0	6,479.2	6,511.5	6,508.6	7.1	23.1	-179.42		-18.8	-41.1	358.6	329.2	29.41	12.195	
6,600.0	6,578.6	6,611.5	6,608.2	7.2	23.5	-179.54		-20.9	-49.0	360.9	331.0	29.85	12.090	
6,700.0	6,678.1	6,711.4	6,707.9	7.3	23.8	-179.66		-23.0	-57.0	363.2	332.9	30.30	11.987	
6,800.0	6,777.5	6,811.4	6,807.5	7.4	24.2	-179.77		-25.2	-64.9	365.4	334.7	30.74	11.887	
6,900.0	6,877.0	6,911.4	6,907.1	7.5	24.5	-179.89		-27.3	-72.9	367.7	336.5	31.19	11.789	
7,000.0	6,976.4	7,011.4	7,006.8	7.6	24.8	-180.00		-29.4	-80.8	369.9	338.3	31.64	11.694	
7,100.0	7,075.9	7,111.3	7,106.4	7.7	25.2	-179.89		-31.6	-88.8	372.2	340.1	32.09	11.600	
7,200.0	7,175.3	7,211.3	7,206.0	7.8	25.5	-179.78		-33.7	-96.7	374.5	341.9	32.54	11.509	
7,300.0	7,274.8	7,311.3	7,305.7	8.0	25.9	-179.68		-35.8	-104.7	376.7	343.8	32.99	11.421	
7,400.0	7,374.3	7,411.2	7,405.3	8.1	26.2	-179.57		-38.0	-112.6	379.0	345.6	33.44	11.334	
7,500.0	7,473.7	7,511.2	7,504.9	8.2	26.6	-179.46		-40.1	-120.6	381.3	347.4	33.89	11.249	
7,600.0	7,573.2	7,611.2	7,604.6	8.3	26.9	-179.36		-42.2	-128.5	383.6	349.2	34.35	11.166	
7,700.0	7,672.6	7,711.2	7,704.2	8.4	27.3	-179.26		-44.3	-136.4	385.8	351.0	34.81	11.085	
7,800.0	7,772.1	7,811.1	7,803.8	8.5	27.6	-179.16		-46.5	-144.4	388.1	352.8	35.26	11.006	
7,900.0	7,871.5	7,911.1	7,903.5	8.6	28.0	-179.06		-48.6	-152.3	390.4	354.7	35.72	10.929	
8,000.0	7,971.0	8,011.1	8,003.1	8.8	28.3	-178.96		-50.7	-160.3	392.7	356.5	36.18	10.853	
8,100.0	8,070.4	8,111.1	8,102.7	8.9	28.7	-178.86		-52.9	-168.2	394.9	358.3	36.64	10.780	
8,200.0	8,169.9	8,211.0	8,202.4	9.0	29.0	-178.76		-55.0	-176.2	397.2	360.1	37.10	10.707	
8,300.0	8,269.3	8,311.0	8,302.0	9.1	29.4	-178.67		-57.1	-184.1	399.5	361.9	37.56	10.637	
8,400.0	8,368.8	8,411.0	8,401.6	9.2	29.7	-178.57		-59.2	-192.1	401.8	363.8	38.02	10.568	
8,500.0	8,468.2	8,510.9	8,501.3	9.3	30.1	-178.48		-61.4	-200.0	404.1	365.6	38.48	10.500	
8,600.0	8,567.7	8,610.9	8,600.9	9.5	30.4	-178.38		-63.5	-208.0	406.3	367.4	38.94	10.434	
8,700.0	8,667.1	8,710.9	8,700.5	9.6	30.8	-178.29		-65.6	-215.9	408.6	369.2	39.41	10.369	
8,800.0	8,766.6	8,810.9	8,800.2	9.7	31.1	-178.20		-67.8	-223.9	410.9	371.0	39.87	10.306	
8,900.0	8,866.0	8,910.8	8,899.8	9.8	31.5	-178.11		-69.9	-231.8	413.2	372.9	40.34	10.244	
9,000.0	8,965.5	9,010.8	8,999.4	10.0	31.8	-178.02		-72.0	-239.7	415.5	374.7	40.80	10.183	
9,100.0	9,064.9	9,110.8	9,099.1	10.1	32.2	-177.94		-74.1	-247.7	417.8	376.5	41.27	10.123	
9,200.0	9,164.4	9,210.7	9,198.7	10.2	32.5	-177.85		-76.3	-255.6	420.1	378.3	41.73	10.065	
9,300.0	9,263.8	9,310.7	9,298.3	10.3	32.9	-177.76		-78.4	-263.6	422.4	380.2	42.20	10.008	
9,400.0	9,363.3	9,410.7	9,398.0	10.4	33.2	-177.68		-80.5	-271.5	424.7	382.0	42.67	9.952	
9,500.0	9,462.7	9,510.7	9,497.6	10.6	33.6	-177.60		-82.7	-279.5	426.9	383.8	43.14	9.897	
9,600.0	9,562.2	9,610.6	9,597.2	10.7	33.9	-177.51		-84.8	-287.4	429.2	385.6	43.61	9.844	
9,700.0	9,661.7	9,710.6	9,696.9	10.8	34.3	-177.43		-86.9	-295.4	431.5	387.5	44.07	9.791	
9,800.0	9,761.1	9,810.6	9,796.5	10.9	34.6	-177.35		-89.1	-303.3	433.8	389.3	44.54	9.739	
9,900.0	9,860.6	9,910.5	9,896.1	11.1	35.0	-177.27		-91.2	-311.3	436.1	391.1	45.01	9.689	
10,000.0	9,960.0	10,010.5	9,995.8	11.2	35.3	-177.19		-93.3	-319.2	438.4	392.9	45.48	9.639	
10,100.0	10,059.5	10,110.5	10,095.4	11.3	35.7	-177.11		-95.4	-327.1	440.7	394.8	45.96	9.590	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
								+N/-S (usft)	+E/-W (usft)					
10,200.0	10,158.9	10,215.2	10,199.8	11.5	36.1	177.06		-97.9	-335.5	443.0	396.5	46.43	9.541	
10,239.1	10,197.8	10,270.5	10,254.6	11.5	36.3	177.52		-103.3	-339.8	442.7	396.1	46.59	9.502	
10,250.0	10,208.6	10,285.8	10,269.6	11.5	36.3	-175.60		-105.7	-341.0	442.5	395.8	46.63	9.489	
10,299.4	10,257.4	10,354.0	10,335.8	11.5	36.5	-157.73		-121.4	-346.2	442.0	395.1	46.83	9.438	
10,300.0	10,258.0	10,354.8	10,336.6	11.5	36.5	-157.59		-121.6	-346.2	442.0	395.1	46.83	9.438	
10,350.0	10,306.6	10,422.0	10,399.4	11.5	36.8	-148.80		-144.8	-351.1	442.6	395.5	47.05	9.406	
10,400.0	10,354.1	10,487.0	10,457.2	11.5	37.0	-142.92		-174.0	-355.5	444.5	397.2	47.29	9.399	
10,450.0	10,400.1	10,549.6	10,509.5	11.6	37.1	-138.16		-208.2	-359.5	447.9	400.3	47.54	9.421	
10,500.0	10,444.2	10,609.8	10,555.9	11.6	37.3	-133.90		-246.3	-363.0	453.0	405.2	47.80	9.476	
10,550.0	10,486.1	10,667.5	10,596.5	11.6	37.4	-129.88		-287.2	-365.9	459.8	411.8	48.07	9.566	
10,600.0	10,525.6	10,722.8	10,631.3	11.7	37.6	-125.97		-330.1	-368.4	468.6	420.3	48.34	9.694	
10,650.0	10,562.2	10,776.0	10,660.8	11.7	37.7	-122.14		-374.3	-370.5	479.3	430.6	48.61	9.860	
10,700.0	10,595.7	10,827.2	10,685.2	11.8	37.8	-118.35		-419.2	-372.2	491.7	442.9	48.88	10.061	
10,750.0	10,625.9	10,876.5	10,704.8	11.9	37.9	-114.60		-464.4	-373.4	505.9	456.8	49.14	10.295	
10,800.0	10,652.5	10,924.2	10,720.0	12.0	38.0	-110.90		-509.6	-374.4	521.7	472.3	49.40	10.560	
10,850.0	10,675.4	10,970.5	10,731.2	12.1	38.1	-107.25		-554.5	-374.9	538.8	489.2	49.66	10.851	
10,900.0	10,694.3	11,015.5	10,738.5	12.2	38.1	-103.68		-598.9	-375.2	557.1	507.2	49.91	11.163	
10,950.0	10,709.1	11,059.4	10,742.3	12.3	38.2	-100.20		-642.7	-375.3	576.3	526.2	50.15	11.493	
11,000.0	10,719.7	11,103.2	10,743.0	12.5	38.3	-96.84		-686.5	-375.0	596.3	545.9	50.38	11.835	
11,050.0	10,726.0	11,148.4	10,743.0	12.6	38.3	-93.87		-731.6	-374.7	616.5	565.9	50.61	12.181	
11,097.3	10,728.0	11,191.5	10,743.1	12.8	38.4	-91.51		-774.7	-374.5	635.7	584.9	50.82	12.508	
11,100.0	10,728.0	11,194.0	10,743.1	12.8	38.4	-91.51		-777.2	-374.4	636.8	586.0	50.83	12.527	
11,200.0	10,728.1	11,286.2	10,743.2	13.2	38.5	-91.40		-869.4	-373.9	675.5	624.2	51.32	13.164	
11,300.0	10,728.2	11,379.7	10,743.3	13.6	38.7	-91.31		-962.9	-373.3	711.0	659.2	51.86	13.710	
11,400.0	10,728.3	11,474.3	10,743.4	14.1	38.9	-91.24		-1,057.6	-372.6	743.2	690.8	52.46	14.168	
11,500.0	10,728.4	11,570.1	10,743.5	14.6	39.1	-91.18		-1,153.3	-372.0	772.1	719.0	53.11	14.537	
11,600.0	10,728.5	11,666.7	10,743.6	15.1	39.3	-91.13		-1,250.0	-371.4	797.6	743.8	53.82	14.820	
11,700.0	10,728.7	11,764.2	10,743.7	15.7	39.5	-91.09		-1,347.5	-370.8	819.8	765.2	54.58	15.021	
11,800.0	10,728.8	11,862.5	10,743.8	16.3	39.8	-91.05		-1,445.7	-370.1	838.5	783.1	55.37	15.142	
11,900.0	10,728.9	11,961.3	10,743.9	16.8	40.0	-91.03		-1,544.5	-369.5	853.8	797.6	56.22	15.188	
12,000.0	10,729.0	12,060.6	10,744.0	17.4	40.3	-91.01		-1,643.8	-368.9	865.6	808.5	57.09	15.161	
12,100.0	10,729.1	12,160.2	10,744.1	18.0	40.6	-90.99		-1,743.5	-368.2	874.0	816.0	58.01	15.066	
12,200.0	10,729.2	12,260.1	10,744.2	18.7	40.9	-90.98		-1,843.3	-367.6	878.8	819.9	58.95	14.907	
12,289.8	10,729.3	12,349.8	10,744.3	19.2	41.2	-90.98		-1,933.1	-367.0	880.2	820.4	59.83	14.713	
12,300.0	10,729.3	12,360.1	10,744.3	19.3	41.3	-90.98		-1,943.3	-366.9	880.2	820.3	59.93	14.689	
12,400.0	10,729.4	12,460.1	10,744.4	19.9	41.6	-90.98		-2,043.3	-366.3	880.2	819.3	60.93	14.446	
12,500.0	10,729.5	12,560.1	10,744.5	20.6	42.0	-90.98		-2,143.3	-365.6	880.2	818.3	61.97	14.205	
12,600.0	10,729.6	12,660.1	10,744.6	21.2	42.3	-90.98		-2,243.3	-365.0	880.2	817.2	63.03	13.965	
12,700.0	10,729.7	12,760.1	10,744.7	21.9	42.7	-90.98		-2,343.3	-364.4	880.2	816.1	64.12	13.727	
12,800.0	10,729.8	12,860.1	10,744.8	22.6	43.1	-90.98		-2,443.3	-363.7	880.2	815.0	65.24	13.492	
12,900.0	10,729.9	12,960.1	10,744.9	23.3	43.6	-90.98		-2,543.3	-363.1	880.2	813.9	66.38	13.261	
13,000.0	10,730.0	13,060.1	10,745.0	24.0	44.0	-90.98		-2,643.3	-362.4	880.2	812.7	67.54	13.032	
13,100.0	10,730.1	13,160.1	10,745.1	24.7	44.4	-90.98		-2,743.3	-361.8	880.2	811.5	68.72	12.808	
13,200.0	10,730.2	13,260.1	10,745.3	25.5	44.9	-90.98		-2,843.3	-361.1	880.2	810.3	69.93	12.588	
13,300.0	10,730.3	13,360.1	10,745.4	26.2	45.4	-90.98		-2,943.3	-360.5	880.2	809.1	71.15	12.371	
13,400.0	10,730.4	13,460.1	10,745.5	27.0	45.8	-90.98		-3,043.3	-359.9	880.2	807.8	72.39	12.159	
13,500.0	10,730.6	13,560.1	10,745.6	27.7	46.3	-90.98		-3,143.3	-359.2	880.2	806.6	73.65	11.952	
13,600.0	10,730.7	13,660.1	10,745.7	28.5	46.8	-90.98		-3,243.3	-358.6	880.2	805.3	74.92	11.749	
13,700.0	10,730.8	13,760.1	10,745.8	29.2	47.3	-90.98		-3,343.3	-357.9	880.2	804.0	76.21	11.550	
13,800.0	10,730.9	13,860.1	10,745.9	30.0	47.9	-90.98		-3,443.3	-357.3	880.2	802.7	77.51	11.356	
13,900.0	10,731.0	13,960.1	10,746.0	30.8	48.4	-90.98		-3,543.3	-356.6	880.2	801.4	78.83	11.166	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
				(usft)	(usft)			+N/-S (usft)	+E/-W (usft)					
14,000.0	10,731.1	14,060.1	10,746.1	31.6	48.9	-90.98	-3,643.3	-356.0	880.2	800.1	80.16	10.981		
14,100.0	10,731.2	14,160.1	10,746.2	32.4	49.5	-90.98	-3,743.3	-355.3	880.2	798.7	81.51	10.799		
14,200.0	10,731.3	14,260.1	10,746.3	33.1	50.0	-90.98	-3,843.3	-354.7	880.2	797.4	82.86	10.623		
14,300.0	10,731.4	14,360.1	10,746.4	33.9	50.6	-90.98	-3,943.3	-354.1	880.2	796.0	84.23	10.450		
14,400.0	10,731.5	14,460.1	10,746.5	34.7	51.2	-90.98	-4,043.3	-353.4	880.2	794.6	85.61	10.282		
14,500.0	10,731.6	14,560.1	10,746.6	35.5	51.8	-90.98	-4,143.3	-352.8	880.2	793.2	87.00	10.118		
14,600.0	10,731.7	14,660.1	10,746.7	36.3	52.4	-90.98	-4,243.3	-352.1	880.2	791.8	88.40	9.957		
14,700.0	10,731.8	14,760.1	10,746.8	37.1	53.0	-90.98	-4,343.3	-351.5	880.2	790.4	89.81	9.801		
14,800.0	10,731.9	14,860.1	10,746.9	37.9	53.6	-90.98	-4,443.3	-350.8	880.2	789.0	91.23	9.649		
14,900.0	10,732.0	14,960.1	10,747.0	38.8	54.2	-90.98	-4,543.3	-350.2	880.2	787.5	92.65	9.500		
15,000.0	10,732.1	15,060.1	10,747.1	39.6	54.8	-90.98	-4,643.3	-349.5	880.2	786.1	94.09	9.355		
15,100.0	10,732.2	15,160.1	10,747.2	40.4	55.4	-90.98	-4,743.2	-348.9	880.2	784.7	95.54	9.213		
15,200.0	10,732.3	15,260.1	10,747.4	41.2	56.0	-90.98	-4,843.2	-348.3	880.2	783.2	96.99	9.075		
15,300.0	10,732.4	15,360.1	10,747.5	42.0	56.7	-90.98	-4,943.2	-347.6	880.2	781.7	98.45	8.941		
15,400.0	10,732.6	15,460.1	10,747.6	42.8	57.3	-90.98	-5,043.2	-347.0	880.2	780.3	99.92	8.809		
15,500.0	10,732.7	15,560.1	10,747.7	43.7	58.0	-90.98	-5,143.2	-346.3	880.2	778.8	101.39	8.681		
15,600.0	10,732.8	15,660.1	10,747.8	44.5	58.6	-90.98	-5,243.2	-345.7	880.2	777.3	102.88	8.556		
15,700.0	10,732.9	15,760.1	10,747.9	45.3	59.3	-90.98	-5,343.2	-345.0	880.2	775.8	104.36	8.434		
15,800.0	10,733.0	15,860.1	10,748.0	46.1	59.9	-90.98	-5,443.2	-344.4	880.2	774.3	105.86	8.315		
15,900.0	10,733.1	15,960.1	10,748.1	47.0	60.6	-90.98	-5,543.2	-343.7	880.2	772.8	107.36	8.198		
16,000.0	10,733.2	16,060.1	10,748.2	47.8	61.3	-90.98	-5,643.2	-343.1	880.2	771.3	108.87	8.085		
16,100.0	10,733.3	16,160.1	10,748.3	48.6	62.0	-90.98	-5,743.2	-342.5	880.2	769.8	110.38	7.974		
16,200.0	10,733.4	16,260.1	10,748.4	49.4	62.7	-90.98	-5,843.2	-341.8	880.2	768.3	111.90	7.866		
16,300.0	10,733.5	16,360.1	10,748.5	50.3	63.3	-90.98	-5,943.2	-341.2	880.2	766.8	113.42	7.760		
16,400.0	10,733.6	16,460.1	10,748.6	51.1	64.0	-90.98	-6,043.2	-340.5	880.2	765.2	114.95	7.657		
16,500.0	10,733.7	16,560.1	10,748.7	51.9	64.7	-90.98	-6,143.2	-339.9	880.2	763.7	116.48	7.556		
16,600.0	10,733.8	16,660.1	10,748.8	52.8	65.4	-90.98	-6,243.2	-339.2	880.2	762.2	118.02	7.458		
16,700.0	10,733.9	16,760.1	10,748.9	53.6	66.1	-90.98	-6,343.2	-338.6	880.2	760.6	119.56	7.362		
16,800.0	10,734.0	16,860.1	10,749.0	54.4	66.8	-90.98	-6,443.2	-338.0	880.2	759.1	121.11	7.267		
16,900.0	10,734.1	16,960.1	10,749.1	55.3	67.6	-90.98	-6,543.2	-337.3	880.2	757.5	122.66	7.176		
17,000.0	10,734.2	17,060.1	10,749.2	56.1	68.3	-90.98	-6,643.2	-336.7	880.2	756.0	124.22	7.086		
17,100.0	10,734.3	17,160.1	10,749.3	57.0	69.0	-90.98	-6,743.2	-336.0	880.2	754.4	125.78	6.998		
17,200.0	10,734.4	17,260.1	10,749.5	57.8	69.7	-90.98	-6,843.2	-335.4	880.2	752.8	127.34	6.912		
17,300.0	10,734.6	17,360.1	10,749.6	58.6	70.4	-90.98	-6,943.2	-334.7	880.2	751.3	128.91	6.828		
17,400.0	10,734.7	17,460.1	10,749.7	59.5	71.2	-90.98	-7,043.2	-334.1	880.2	749.7	130.48	6.746		
17,500.0	10,734.8	17,560.1	10,749.8	60.3	71.9	-90.98	-7,143.2	-333.4	880.2	748.1	132.05	6.665		
17,600.0	10,734.9	17,660.1	10,749.9	61.2	72.6	-90.98	-7,243.2	-332.8	880.2	746.5	133.63	6.587		
17,700.0	10,735.0	17,760.1	10,750.0	62.0	73.4	-90.98	-7,343.2	-332.2	880.2	744.9	135.21	6.510		
17,800.0	10,735.1	17,860.1	10,750.1	62.8	74.1	-90.98	-7,443.2	-331.5	880.2	743.4	136.80	6.434		
17,900.0	10,735.2	17,960.1	10,750.2	63.7	74.8	-90.98	-7,543.2	-330.9	880.2	741.8	138.38	6.360		
18,000.0	10,735.3	18,060.1	10,750.3	64.5	75.6	-90.98	-7,643.2	-330.2	880.2	740.2	139.97	6.288		
18,100.0	10,735.4	18,160.1	10,750.4	65.4	76.3	-90.98	-7,743.2	-329.6	880.2	738.6	141.57	6.217		
18,200.0	10,735.5	18,260.1	10,750.5	66.2	77.1	-90.98	-7,843.2	-328.9	880.2	737.0	143.16	6.148		
18,300.0	10,735.6	18,360.1	10,750.6	67.1	77.8	-90.98	-7,943.2	-328.3	880.2	735.4	144.76	6.080		
18,400.0	10,735.7	18,460.1	10,750.7	67.9	78.6	-90.98	-8,043.2	-327.6	880.1	733.8	146.36	6.014		
18,500.0	10,735.8	18,560.1	10,750.8	68.7	79.3	-90.98	-8,143.2	-327.0	880.1	732.2	147.96	5.948		
18,600.0	10,735.9	18,660.1	10,750.9	69.6	80.1	-90.98	-8,243.2	-326.4	880.1	730.6	149.57	5.884		
18,700.0	10,736.0	18,760.1	10,751.0	70.4	80.9	-90.98	-8,343.2	-325.7	880.1	729.0	151.18	5.822		
18,800.0	10,736.1	18,860.1	10,751.1	71.3	81.6	-90.98	-8,443.2	-325.1	880.1	727.4	152.79	5.760		
18,900.0	10,736.2	18,960.1	10,751.2	72.1	82.4	-90.98	-8,543.2	-324.4	880.1	725.7	154.40	5.700		
19,000.0	10,736.3	19,060.1	10,751.3	73.0	83.2	-90.98	-8,643.2	-323.8	880.1	724.1	156.02	5.641		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1											Offset Site Error:		3.0 usft	
Survey Program: 0-MWD+IFR1+FDIR											Offset Well Error:		3.0 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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,100.0	10,736.4	19,160.1	10,751.4	73.8	83.9	-90.98	-8,743.2	-323.1	880.1	722.5	157.64	5.583		
19,200.0	10,736.6	19,260.1	10,751.6	74.7	84.7	-90.98	-8,843.2	-322.5	880.1	720.9	159.26	5.527		
19,300.0	10,736.7	19,360.1	10,751.7	75.5	85.5	-90.98	-8,943.2	-321.9	880.1	719.3	160.88	5.471		
19,400.0	10,736.8	19,460.1	10,751.8	76.4	86.2	-90.98	-9,043.2	-321.2	880.1	717.6	162.50	5.416		
19,500.0	10,736.9	19,560.1	10,751.9	77.2	87.0	-90.98	-9,143.2	-320.6	880.1	716.0	164.13	5.363		
19,600.0	10,737.0	19,660.1	10,752.0	78.1	87.8	-90.98	-9,243.2	-319.9	880.1	714.4	165.75	5.310		
19,700.0	10,737.1	19,760.1	10,752.1	78.9	88.6	-90.98	-9,343.2	-319.3	880.1	712.7	167.38	5.258		
19,800.0	10,737.2	19,860.1	10,752.2	79.8	89.3	-90.98	-9,443.1	-318.6	880.1	711.1	169.01	5.207		
19,900.0	10,737.3	19,960.1	10,752.3	80.6	90.1	-90.98	-9,543.1	-318.0	880.1	709.5	170.65	5.158		
20,000.0	10,737.4	20,060.1	10,752.4	81.5	90.9	-90.98	-9,643.1	-317.3	880.1	707.8	172.28	5.109		
20,100.0	10,737.5	20,160.1	10,752.5	82.3	91.7	-90.98	-9,743.1	-316.7	880.1	706.2	173.92	5.061		
20,200.0	10,737.6	20,260.1	10,752.6	83.2	92.5	-90.98	-9,843.1	-316.1	880.1	704.6	175.55	5.013		
20,300.0	10,737.7	20,360.1	10,752.7	84.0	93.3	-90.98	-9,943.1	-315.4	880.1	702.9	177.19	4.967		
20,400.0	10,737.8	20,460.1	10,752.8	84.9	94.0	-90.98	-10,043.1	-314.8	880.1	701.3	178.83	4.921		
20,500.0	10,737.9	20,560.1	10,752.9	85.7	94.8	-90.98	-10,143.1	-314.1	880.1	699.6	180.47	4.877		
20,577.8	10,738.0	20,637.9	10,753.0	86.4	95.4	-90.98	-10,220.9	-313.6	880.1	698.4	181.75	4.842		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #704H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,600.0	10,728.5	11,806.1	10,724.2	15.1	39.7	88.84	88.84	-1,261.4	-2,168.3	999.6	945.5	54.12	18.469	
11,700.0	10,728.7	11,903.6	10,724.3	15.7	39.9	88.83	88.83	-1,358.9	-2,167.6	977.5	922.6	54.88	17.811	
11,800.0	10,728.8	12,001.8	10,724.5	16.3	40.2	88.82	88.82	-1,457.2	-2,167.0	958.8	903.1	55.68	17.218	
11,900.0	10,728.9	12,100.7	10,724.6	16.8	40.5	88.81	88.81	-1,556.0	-2,166.4	943.5	887.0	56.53	16.690	
12,000.0	10,729.0	12,200.0	10,724.8	17.4	40.8	88.81	88.81	-1,655.3	-2,165.8	931.7	874.3	57.41	16.228	
12,100.0	10,729.1	12,299.6	10,724.9	18.0	41.1	88.80	88.80	-1,754.9	-2,165.2	923.3	865.0	58.33	15.829	
12,200.0	10,729.2	12,399.5	10,725.1	18.7	41.4	88.80	88.80	-1,854.8	-2,164.5	918.5	859.2	59.28	15.493	
12,289.3	10,729.3	12,488.8	10,725.2	19.2	41.7	88.81	88.81	-1,944.1	-2,164.0	917.1	856.9	60.16	15.245 CC	
12,289.8	10,729.3	12,489.2	10,725.2	19.2	41.7	88.81	88.81	-1,944.5	-2,164.0	917.1	856.9	60.16	15.244	
12,300.0	10,729.3	12,499.5	10,725.2	19.3	41.7	88.81	88.81	-1,954.8	-2,163.9	917.1	856.8	60.26	15.218	
12,400.0	10,729.4	12,599.5	10,725.4	19.9	42.1	88.81	88.81	-2,054.8	-2,163.3	917.1	855.8	61.27	14.967	
12,500.0	10,729.5	12,699.5	10,725.5	20.6	42.4	88.81	88.81	-2,154.8	-2,162.6	917.1	854.8	62.31	14.718	
12,600.0	10,729.6	12,799.5	10,725.7	21.2	42.8	88.82	88.82	-2,254.8	-2,162.0	917.1	853.7	63.38	14.469	
12,700.0	10,729.7	12,899.5	10,725.8	21.9	43.2	88.82	88.82	-2,354.8	-2,161.4	917.1	852.7	64.48	14.224	
12,800.0	10,729.8	12,999.5	10,726.0	22.6	43.6	88.82	88.82	-2,454.8	-2,160.8	917.2	851.6	65.60	13.981	
12,900.0	10,729.9	13,099.5	10,726.1	23.3	44.1	88.83	88.83	-2,554.8	-2,160.1	917.2	850.4	66.75	13.741	
13,000.0	10,730.0	13,199.5	10,726.3	24.0	44.5	88.83	88.83	-2,654.8	-2,159.5	917.2	849.3	67.91	13.505	
13,100.0	10,730.1	13,299.5	10,726.5	24.7	44.9	88.83	88.83	-2,754.8	-2,158.9	917.2	848.1	69.10	13.273	
13,200.0	10,730.2	13,399.5	10,726.6	25.5	45.4	88.84	88.84	-2,854.8	-2,158.2	917.2	846.9	70.31	13.046	
13,300.0	10,730.3	13,499.5	10,726.8	26.2	45.9	88.84	88.84	-2,954.8	-2,157.6	917.2	845.7	71.53	12.822	
13,400.0	10,730.4	13,599.5	10,726.9	27.0	46.4	88.84	88.84	-3,054.8	-2,157.0	917.3	844.5	72.78	12.603	
13,500.0	10,730.6	13,699.5	10,727.1	27.7	46.9	88.85	88.85	-3,154.8	-2,156.4	917.3	843.2	74.04	12.389	
13,600.0	10,730.7	13,799.5	10,727.2	28.5	47.4	88.85	88.85	-3,254.8	-2,155.7	917.3	842.0	75.32	12.179	
13,700.0	10,730.8	13,899.5	10,727.4	29.2	47.9	88.85	88.85	-3,354.8	-2,155.1	917.3	840.7	76.61	11.974	
13,800.0	10,730.9	13,999.5	10,727.5	30.0	48.4	88.85	88.85	-3,454.8	-2,154.5	917.3	839.4	77.92	11.773	
13,900.0	10,731.0	14,099.5	10,727.7	30.8	48.9	88.86	88.86	-3,554.8	-2,153.8	917.3	838.1	79.24	11.577	
14,000.0	10,731.1	14,199.5	10,727.8	31.6	49.5	88.86	88.86	-3,654.8	-2,153.2	917.4	836.8	80.57	11.385	
14,100.0	10,731.2	14,299.5	10,728.0	32.4	50.0	88.86	88.86	-3,754.8	-2,152.6	917.4	835.4	81.92	11.198	
14,200.0	10,731.3	14,399.5	10,728.2	33.1	50.6	88.87	88.87	-3,854.7	-2,152.0	917.4	834.1	83.28	11.016	
14,300.0	10,731.4	14,499.5	10,728.3	33.9	51.2	88.87	88.87	-3,954.7	-2,151.3	917.4	832.7	84.65	10.838	
14,400.0	10,731.5	14,599.5	10,728.5	34.7	51.7	88.87	88.87	-4,054.7	-2,150.7	917.4	831.4	86.03	10.664	
14,500.0	10,731.6	14,699.5	10,728.6	35.5	52.3	88.88	88.88	-4,154.7	-2,150.1	917.4	830.0	87.42	10.494	
14,600.0	10,731.7	14,799.5	10,728.8	36.3	52.9	88.88	88.88	-4,254.7	-2,149.4	917.4	828.6	88.83	10.329	
14,700.0	10,731.8	14,899.5	10,728.9	37.1	53.5	88.88	88.88	-4,354.7	-2,148.8	917.5	827.2	90.24	10.167	
14,800.0	10,731.9	14,999.5	10,729.1	37.9	54.1	88.89	88.89	-4,454.7	-2,148.2	917.5	825.8	91.66	10.010	
14,900.0	10,732.0	15,099.5	10,729.2	38.8	54.7	88.89	88.89	-4,554.7	-2,147.5	917.5	824.4	93.09	9.856	
15,000.0	10,732.1	15,199.5	10,729.4	39.6	55.4	88.89	88.89	-4,654.7	-2,146.9	917.5	823.0	94.53	9.706	
15,100.0	10,732.2	15,299.5	10,729.5	40.4	56.0	88.90	88.90	-4,754.7	-2,146.3	917.5	821.5	95.98	9.560	
15,200.0	10,732.3	15,399.5	10,729.7	41.2	56.6	88.90	88.90	-4,854.7	-2,145.7	917.5	820.1	97.43	9.417	
15,300.0	10,732.4	15,499.5	10,729.9	42.0	57.3	88.90	88.90	-4,954.7	-2,145.0	917.6	818.7	98.90	9.278	
15,400.0	10,732.6	15,599.5	10,730.0	42.8	57.9	88.90	88.90	-5,054.7	-2,144.4	917.6	817.2	100.37	9.142	
15,500.0	10,732.7	15,699.5	10,730.2	43.7	58.6	88.91	88.91	-5,154.7	-2,143.8	917.6	815.7	101.84	9.010	
15,600.0	10,732.8	15,799.5	10,730.3	44.5	59.2	88.91	88.91	-5,254.7	-2,143.1	917.6	814.3	103.33	8.881	
15,700.0	10,732.9	15,899.5	10,730.5	45.3	59.9	88.91	88.91	-5,354.7	-2,142.5	917.6	812.8	104.82	8.754	
15,800.0	10,733.0	15,999.5	10,730.6	46.1	60.5	88.92	88.92	-5,454.7	-2,141.9	917.6	811.3	106.31	8.631	
15,900.0	10,733.1	16,099.5	10,730.8	47.0	61.2	88.92	88.92	-5,554.7	-2,141.3	917.6	809.8	107.82	8.511	
16,000.0	10,733.2	16,199.5	10,730.9	47.8	61.9	88.92	88.92	-5,654.7	-2,140.6	917.7	808.3	109.33	8.394	
16,100.0	10,733.3	16,299.5	10,731.1	48.6	62.6	88.93	88.93	-5,754.7	-2,140.0	917.7	806.8	110.84	8.279	
16,200.0	10,733.4	16,399.5	10,731.2	49.4	63.3	88.93	88.93	-5,854.7	-2,139.4	917.7	805.3	112.36	8.167	
16,300.0	10,733.5	16,499.5	10,731.4	50.3	63.9	88.93	88.93	-5,954.7	-2,138.7	917.7	803.8	113.89	8.058	
16,400.0	10,733.6	16,599.5	10,731.6	51.1	64.6	88.94	88.94	-6,054.7	-2,138.1	917.7	802.3	115.42	7.951	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #704H - OWB - PWP1												Offset Site Error: 3.0 usft		
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error: 3.0 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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
16,500.0	10,733.7	16,699.5	10,731.7	51.9	65.3	88.94	-6,154.7	-2,137.5	917.7	800.8	116.95	7.847		
16,600.0	10,733.8	16,799.5	10,731.9	52.8	66.0	88.94	-6,254.7	-2,136.9	917.8	799.3	118.49	7.745		
16,700.0	10,733.9	16,899.5	10,732.0	53.6	66.7	88.94	-6,354.7	-2,136.2	917.8	797.7	120.04	7.646		
16,800.0	10,734.0	16,999.5	10,732.2	54.4	67.4	88.95	-6,454.7	-2,135.6	917.8	796.2	121.58	7.549		
16,900.0	10,734.1	17,099.5	10,732.3	55.3	68.2	88.95	-6,554.7	-2,135.0	917.8	794.7	123.14	7.454		
17,000.0	10,734.2	17,199.5	10,732.5	56.1	68.9	88.95	-6,654.7	-2,134.3	917.8	793.1	124.69	7.361		
17,100.0	10,734.3	17,299.5	10,732.6	57.0	69.6	88.96	-6,754.7	-2,133.7	917.8	791.6	126.26	7.270		
17,200.0	10,734.4	17,399.5	10,732.8	57.8	70.3	88.96	-6,854.7	-2,133.1	917.9	790.0	127.82	7.181		
17,300.0	10,734.6	17,499.5	10,732.9	58.6	71.0	88.96	-6,954.7	-2,132.5	917.9	788.5	129.39	7.094		
17,400.0	10,734.7	17,599.5	10,733.1	59.5	71.8	88.97	-7,054.7	-2,131.8	917.9	786.9	130.96	7.009		
17,500.0	10,734.8	17,699.5	10,733.2	60.3	72.5	88.97	-7,154.7	-2,131.2	917.9	785.4	132.54	6.926		
17,600.0	10,734.9	17,799.5	10,733.4	61.2	73.2	88.97	-7,254.7	-2,130.6	917.9	783.8	134.12	6.844		
17,700.0	10,735.0	17,899.5	10,733.6	62.0	74.0	88.98	-7,354.7	-2,129.9	917.9	782.2	135.70	6.765		
17,800.0	10,735.1	17,999.5	10,733.7	62.8	74.7	88.98	-7,454.7	-2,129.3	917.9	780.7	137.28	6.687		
17,900.0	10,735.2	18,099.5	10,733.9	63.7	75.5	88.98	-7,554.7	-2,128.7	918.0	779.1	138.87	6.610		
18,000.0	10,735.3	18,199.5	10,734.0	64.5	76.2	88.98	-7,654.7	-2,128.1	918.0	777.5	140.46	6.535		
18,100.0	10,735.4	18,299.5	10,734.2	65.4	77.0	88.99	-7,754.7	-2,127.4	918.0	775.9	142.06	6.462		
18,200.0	10,735.5	18,399.5	10,734.3	66.2	77.7	88.99	-7,854.7	-2,126.8	918.0	774.4	143.65	6.390		
18,300.0	10,735.6	18,499.5	10,734.5	67.1	78.5	88.99	-7,954.7	-2,126.2	918.0	772.8	145.25	6.320		
18,400.0	10,735.7	18,599.5	10,734.6	67.9	79.2	89.00	-8,054.7	-2,125.5	918.0	771.2	146.86	6.251		
18,500.0	10,735.8	18,699.5	10,734.8	68.7	80.0	89.00	-8,154.7	-2,124.9	918.1	769.6	148.46	6.184		
18,600.0	10,735.9	18,799.5	10,734.9	69.6	80.7	89.00	-8,254.7	-2,124.3	918.1	768.0	150.07	6.118		
18,700.0	10,736.0	18,899.5	10,735.1	70.4	81.5	89.01	-8,354.7	-2,123.6	918.1	766.4	151.68	6.053		
18,800.0	10,736.1	18,999.5	10,735.3	71.3	82.2	89.01	-8,454.7	-2,123.0	918.1	764.8	153.29	5.989		
18,900.0	10,736.2	19,099.5	10,735.4	72.1	83.0	89.01	-8,554.6	-2,122.4	918.1	763.2	154.90	5.927		
19,000.0	10,736.3	19,199.5	10,735.6	73.0	83.8	89.02	-8,654.6	-2,121.8	918.1	761.6	156.52	5.866		
19,100.0	10,736.4	19,299.5	10,735.7	73.8	84.5	89.02	-8,754.6	-2,121.1	918.2	760.0	158.14	5.806		
19,200.0	10,736.6	19,399.5	10,735.9	74.7	85.3	89.02	-8,854.6	-2,120.5	918.2	758.4	159.76	5.747		
19,300.0	10,736.7	19,499.5	10,736.0	75.5	86.1	89.02	-8,954.6	-2,119.9	918.2	756.8	161.38	5.689		
19,400.0	10,736.8	19,599.5	10,736.2	76.4	86.9	89.03	-9,054.6	-2,119.2	918.2	755.2	163.01	5.633		
19,500.0	10,736.9	19,699.5	10,736.3	77.2	87.6	89.03	-9,154.6	-2,118.6	918.2	753.6	164.64	5.577		
19,600.0	10,737.0	19,799.5	10,736.5	78.1	88.4	89.03	-9,254.6	-2,118.0	918.2	752.0	166.26	5.523		
19,700.0	10,737.1	19,899.5	10,736.6	78.9	89.2	89.04	-9,354.6	-2,117.4	918.3	750.4	167.89	5.469		
19,800.0	10,737.2	19,999.5	10,736.8	79.8	90.0	89.04	-9,454.6	-2,116.7	918.3	748.7	169.53	5.417		
19,900.0	10,737.3	20,099.5	10,737.0	80.6	90.8	89.04	-9,554.6	-2,116.1	918.3	747.1	171.16	5.365		
20,000.0	10,737.4	20,199.5	10,737.1	81.5	91.5	89.05	-9,654.6	-2,115.5	918.3	745.5	172.80	5.314		
20,100.0	10,737.5	20,299.5	10,737.3	82.3	92.3	89.05	-9,754.6	-2,114.8	918.3	743.9	174.43	5.265		
20,200.0	10,737.6	20,399.5	10,737.4	83.2	93.1	89.05	-9,854.6	-2,114.2	918.3	742.3	176.07	5.216		
20,300.0	10,737.7	20,499.5	10,737.6	84.0	93.9	89.06	-9,954.6	-2,113.6	918.3	740.6	177.71	5.168		
20,400.0	10,737.8	20,599.5	10,737.7	84.9	94.7	89.06	-10,054.6	-2,113.0	918.4	739.0	179.35	5.120		
20,500.0	10,737.9	20,699.5	10,737.9	85.7	95.5	89.06	-10,154.6	-2,112.3	918.4	737.4	181.00	5.074		
20,577.8	10,738.0	20,777.2	10,738.0	86.4	96.1	89.06	-10,232.4	-2,111.8	918.4	736.1	182.27	5.039 ES, SF		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #801H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10877-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.0	2.0	3.0	3.0	-90.48	-1.7	-200.1	200.1				
100.0	100.0	102.0	102.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.00	33.350	
200.0	200.0	202.0	202.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.00	33.334	
300.0	300.0	302.0	302.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.01	33.301	
400.0	400.0	402.0	402.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.02	33.249	
500.0	500.0	502.0	502.0	3.1	3.1	-90.48	-1.7	-200.1	200.1	194.1	6.03	33.180	
600.0	600.0	602.0	602.0	3.1	3.1	-90.48	-1.7	-200.1	200.1	194.1	6.05	33.094	
700.0	700.0	702.0	702.0	3.1	3.1	-90.48	-1.7	-200.1	200.1	194.0	6.07	32.991	
800.0	800.0	802.0	802.0	3.2	3.2	-90.48	-1.7	-200.1	200.1	194.0	6.09	32.871	
900.0	900.0	902.0	902.0	3.2	3.2	-90.48	-1.7	-200.1	200.1	194.0	6.11	32.736	
1,000.0	1,000.0	1,002.0	1,002.0	3.2	3.2	-90.48	-1.7	-200.1	200.1	194.0	6.14	32.586	
1,100.0	1,100.0	1,102.0	1,102.0	3.3	3.3	-90.48	-1.7	-200.1	200.1	193.9	6.17	32.421	
1,200.0	1,200.0	1,202.0	1,202.0	3.4	3.4	-90.48	-1.7	-200.1	200.1	193.9	6.21	32.242	
1,300.0	1,300.0	1,302.0	1,302.0	3.4	3.4	-90.48	-1.7	-200.1	200.1	193.9	6.24	32.050	
1,400.0	1,400.0	1,402.0	1,402.0	3.5	3.5	-90.48	-1.7	-200.1	200.1	193.8	6.28	31.846	
1,500.0	1,500.0	1,502.0	1,502.0	3.5	3.5	-90.48	-1.7	-200.1	200.1	193.8	6.33	31.630	
1,600.0	1,600.0	1,602.0	1,602.0	3.6	3.6	-90.48	-1.7	-200.1	200.1	193.7	6.37	31.403	
1,700.0	1,700.0	1,702.0	1,702.0	3.7	3.7	-90.48	-1.7	-200.1	200.1	193.7	6.42	31.167	
1,800.0	1,800.0	1,802.0	1,802.0	3.8	3.8	-90.48	-1.7	-200.1	200.1	193.6	6.47	30.921	
1,900.0	1,900.0	1,902.0	1,902.0	3.9	3.9	-90.48	-1.7	-200.1	200.1	193.6	6.53	30.667	
2,000.0	2,000.0	2,002.0	2,002.0	3.9	3.9	-90.48	-1.7	-200.1	200.1	193.5	6.58	30.405	
2,100.0	2,100.0	2,102.0	2,102.0	4.0	4.0	-90.48	-1.7	-200.1	200.1	193.5	6.64	30.137	
2,200.0	2,200.0	2,202.0	2,202.0	4.1	4.1	-90.48	-1.7	-200.1	200.1	193.4	6.70	29.863	
2,300.0	2,300.0	2,302.0	2,302.0	4.2	4.2	-90.48	-1.7	-200.1	200.1	193.3	6.76	29.583	
2,400.0	2,400.0	2,402.0	2,402.0	4.3	4.3	-90.48	-1.7	-200.1	200.1	193.3	6.83	29.299	
2,500.0	2,500.0	2,502.0	2,502.0	4.4	4.4	-90.48	-1.7	-200.1	200.1	193.2	6.90	29.011	
2,600.0	2,600.0	2,602.0	2,602.0	4.4	4.5	19.70	-1.7	-200.1	198.5	191.5	6.97	28.483	
2,700.0	2,699.8	2,701.8	2,701.8	4.5	4.6	20.25	-1.7	-200.1	193.5	186.5	7.04	27.480	
2,800.0	2,799.5	2,801.5	2,801.5	4.5	4.7	21.25	-1.7	-200.1	185.4	178.3	7.13	26.013	
2,900.0	2,898.9	2,900.9	2,900.9	4.5	4.8	22.48	-1.7	-200.1	175.7	168.5	7.22	24.330	
3,000.0	2,998.4	3,000.4	3,000.4	4.5	4.9	23.86	-1.7	-200.1	166.1	158.7	7.33	22.668	
3,100.0	3,097.8	3,099.8	3,099.8	4.5	5.0	25.40	-1.7	-200.1	156.6	149.1	7.44	21.033	
3,200.0	3,197.3	3,199.3	3,199.3	4.6	5.1	27.15	-1.7	-200.1	147.2	139.6	7.57	19.430	
3,300.0	3,296.7	3,298.7	3,298.7	4.6	5.2	29.13	-1.7	-200.1	137.9	130.2	7.72	17.863	
3,400.0	3,396.2	3,398.2	3,398.2	4.6	5.3	31.39	-1.7	-200.1	128.9	121.0	7.89	16.339	
3,500.0	3,495.6	3,497.6	3,497.6	4.7	5.4	33.98	-1.7	-200.1	120.1	112.0	8.08	14.864	
3,600.0	3,595.1	3,597.1	3,597.1	4.7	5.5	36.98	-1.7	-200.1	111.5	103.3	8.30	13.445	
3,700.0	3,694.5	3,696.5	3,696.5	4.8	5.7	40.46	-1.7	-200.1	103.4	94.8	8.55	12.092	
3,800.0	3,794.0	3,796.0	3,796.0	4.8	5.8	44.51	-1.7	-200.1	95.6	86.8	8.84	10.818	
3,900.0	3,893.4	3,895.4	3,895.4	4.9	5.9	49.25	-1.7	-200.1	88.5	79.3	9.18	9.639	
4,000.0	3,992.9	3,994.9	3,994.9	4.9	6.0	54.77	-1.7	-200.1	82.0	72.4	9.56	8.575	
4,100.0	4,092.3	4,094.3	4,094.3	5.0	6.1	61.16	-1.7	-200.1	76.4	66.4	9.99	7.651	
4,200.0	4,191.8	4,193.8	4,193.8	5.0	6.2	68.43	-1.7	-200.1	71.9	61.5	10.44	6.894	
4,300.0	4,291.2	4,293.2	4,293.2	5.1	6.3	76.52	-1.7	-200.1	68.8	57.9	10.87	6.327	
4,400.0	4,390.7	4,392.7	4,392.7	5.2	6.4	85.18	-1.7	-200.1	67.1	55.9	11.25	5.967	
4,454.2	4,444.6	4,446.6	4,446.6	5.2	6.5	90.00	-1.7	-200.1	66.9	55.4	11.41	5.859 CC, ES	
4,500.0	4,490.1	4,492.1	4,492.1	5.2	6.6	94.07	-1.7	-200.1	67.0	55.5	11.52	5.817 SF	
4,600.0	4,589.6	4,591.6	4,591.6	5.3	6.7	102.77	-1.7	-200.1	68.6	56.9	11.69	5.866	
4,700.0	4,689.0	4,691.0	4,691.0	5.4	6.8	110.91	-1.7	-200.1	71.6	59.9	11.76	6.093	
4,800.0	4,788.5	4,790.5	4,790.5	5.5	6.9	118.26	-1.7	-200.1	76.0	64.2	11.76	6.465	
4,900.0	4,887.9	4,889.9	4,889.9	5.6	7.0	124.73	-1.7	-200.1	81.5	69.8	11.72	6.951	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #801H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10877-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							
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	
5,000.0	4,987.4	4,989.4	4,989.4	5.6	7.2	130.32	-1.7	-200.1	87.9	76.2	11.69	7.520		
5,100.0	5,086.9	5,088.9	5,088.9	5.7	7.3	135.12	-1.7	-200.1	95.0	83.3	11.66	8.147		
5,200.0	5,186.3	5,188.3	5,188.3	5.8	7.4	139.23	-1.7	-200.1	102.7	91.0	11.66	8.811		
5,300.0	5,285.8	5,287.8	5,287.8	5.9	7.5	142.75	-1.7	-200.1	110.8	99.2	11.67	9.498		
5,400.0	5,385.2	5,387.2	5,387.2	6.0	7.6	145.78	-1.7	-200.1	119.3	107.6	11.71	10.196		
5,500.0	5,484.7	5,486.7	5,486.7	6.1	7.8	148.41	-1.7	-200.1	128.1	116.4	11.76	10.896		
5,600.0	5,584.1	5,582.6	5,582.6	6.2	7.8	150.85	-1.3	-199.0	138.3	126.4	11.83	11.685		
5,700.0	5,683.6	5,677.2	5,677.1	6.3	7.9	153.46	0.3	-195.0	151.6	139.6	11.92	12.710		
5,800.0	5,783.0	5,772.6	5,772.2	6.4	8.0	156.08	2.9	-188.2	167.9	155.9	12.03	13.963		
5,900.0	5,882.5	5,870.8	5,870.1	6.5	8.0	158.37	5.8	-180.6	185.2	173.1	12.13	15.269		
6,000.0	5,981.9	5,969.1	5,968.0	6.6	8.1	160.27	8.7	-173.0	202.7	190.5	12.26	16.541		
6,100.0	6,081.4	6,067.3	6,065.9	6.7	8.2	161.87	11.6	-165.5	220.4	208.0	12.40	17.779		
6,200.0	6,180.8	6,165.6	6,163.9	6.8	8.3	163.23	14.5	-157.9	238.3	225.7	12.55	18.980		
6,300.0	6,280.3	6,263.8	6,261.8	6.9	8.3	164.40	17.4	-150.3	256.2	243.5	12.72	20.145		
6,400.0	6,379.7	6,362.1	6,359.7	7.0	8.4	165.41	20.3	-142.7	274.3	261.4	12.89	21.272		
6,500.0	6,479.2	6,460.3	6,457.6	7.1	8.5	166.31	23.3	-135.2	292.4	279.3	13.08	22.362		
6,600.0	6,578.6	6,558.6	6,555.5	7.2	8.6	167.09	26.2	-127.6	310.6	297.3	13.26	23.417		
6,700.0	6,678.1	6,656.8	6,653.4	7.3	8.6	167.79	29.1	-120.0	328.8	315.4	13.46	24.438		
6,800.0	6,777.5	6,755.1	6,751.3	7.4	8.7	168.42	32.0	-112.4	347.1	333.5	13.65	25.424		
6,900.0	6,877.0	6,853.3	6,849.2	7.5	8.8	168.98	34.9	-104.8	365.4	351.6	13.85	26.377		
7,000.0	6,976.4	6,951.6	6,947.2	7.6	8.9	169.49	37.8	-97.3	383.8	369.7	14.06	27.299		
7,100.0	7,075.9	7,049.8	7,045.1	7.7	9.0	169.96	40.7	-89.7	402.1	387.9	14.26	28.191		
7,200.0	7,175.3	7,148.1	7,143.0	7.8	9.0	170.38	43.6	-82.1	420.5	406.1	14.47	29.052		
7,300.0	7,274.8	7,246.3	7,240.9	8.0	9.1	170.77	46.5	-74.5	438.9	424.3	14.69	29.886		
7,400.0	7,374.3	7,344.6	7,338.8	8.1	9.2	171.13	49.4	-66.9	457.4	442.5	14.90	30.692		
7,500.0	7,473.7	7,442.8	7,436.7	8.2	9.3	171.45	52.3	-59.4	475.8	460.7	15.12	31.472		
7,600.0	7,573.2	7,541.1	7,534.6	8.3	9.4	171.76	55.3	-51.8	494.3	478.9	15.34	32.226		
7,700.0	7,672.6	7,639.3	7,632.5	8.4	9.5	172.04	58.2	-44.2	512.8	497.2	15.56	32.957		
7,800.0	7,772.1	7,737.6	7,730.5	8.5	9.6	172.30	61.1	-36.6	531.2	515.5	15.78	33.664		
7,900.0	7,871.5	7,835.8	7,828.4	8.6	9.7	172.55	64.0	-29.0	549.7	533.7	16.01	34.348		
8,000.0	7,971.0	7,934.1	7,926.3	8.8	9.8	172.78	66.9	-21.5	568.2	552.0	16.23	35.011		
8,100.0	8,070.4	8,032.3	8,024.2	8.9	9.8	172.99	69.8	-13.9	586.8	570.3	16.46	35.653		
8,200.0	8,169.9	8,130.6	8,122.1	9.0	9.9	173.19	72.7	-6.3	605.3	588.6	16.69	36.275		
8,300.0	8,269.3	8,228.8	8,220.0	9.1	10.0	173.38	75.6	1.3	623.8	606.9	16.92	36.877		
8,400.0	8,368.8	8,327.1	8,317.9	9.2	10.1	173.56	78.5	8.9	642.3	625.2	17.15	37.462		
8,500.0	8,468.2	8,425.3	8,415.8	9.3	10.2	173.73	81.4	16.4	660.9	643.5	17.38	38.028		
8,600.0	8,567.7	8,523.5	8,513.7	9.5	10.3	173.89	84.4	24.0	679.4	661.8	17.61	38.578		
8,700.0	8,667.1	8,621.8	8,611.7	9.6	10.4	174.04	87.3	31.6	698.0	680.1	17.85	39.111		
8,800.0	8,766.6	8,720.0	8,709.6	9.7	10.5	174.19	90.2	39.2	716.5	698.4	18.08	39.628		
8,900.0	8,866.0	8,818.3	8,807.5	9.8	10.6	174.32	93.1	46.8	735.1	716.8	18.32	40.130		
9,000.0	8,965.5	8,916.5	8,905.4	10.0	10.7	174.45	96.0	54.3	753.6	735.1	18.55	40.617		
9,100.0	9,064.9	9,014.8	9,003.3	10.1	10.8	174.57	98.9	61.9	772.2	753.4	18.79	41.090		
9,200.0	9,164.4	9,113.0	9,101.2	10.2	10.9	174.69	101.8	69.5	790.8	771.7	19.03	41.550		
9,300.0	9,263.8	9,211.3	9,199.1	10.3	11.0	174.80	104.7	77.1	809.3	790.1	19.27	41.996		
9,400.0	9,363.3	9,309.5	9,297.0	10.4	11.1	174.91	107.6	84.7	827.9	808.4	19.51	42.430		
9,500.0	9,462.7	9,407.8	9,395.0	10.6	11.2	175.01	110.5	92.2	846.5	826.7	19.75	42.852		
9,600.0	9,562.2	9,506.0	9,492.9	10.7	11.3	175.11	113.4	99.8	865.1	845.1	20.00	43.262		
9,700.0	9,661.7	9,604.3	9,590.8	10.8	11.4	175.20	116.4	107.4	883.7	863.4	20.24	43.660		
9,800.0	9,761.1	9,702.5	9,688.7	10.9	11.6	175.29	119.3	115.0	902.2	881.8	20.48	44.048		
9,900.0	9,860.6	9,800.8	9,786.6	11.1	11.7	175.38	122.2	122.6	920.8	900.1	20.73	44.425		
10,000.0	9,960.0	9,899.0	9,884.5	11.2	11.8	175.46	125.1	130.1	939.4	918.4	20.97	44.792		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #801H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10877-MWD+IFR1+FDIR												Offset Well Error:	3.0 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	
10,100.0	10,059.5	9,997.3	9,982.4	11.3	11.9	175.54	128.0	137.7	958.0	936.8	21.22	45.149	
10,200.0	10,158.9	10,095.5	10,080.3	11.5	12.0	175.62	130.9	145.3	976.6	955.1	21.47	45.497	
10,239.1	10,197.8	10,133.9	10,118.6	11.5	12.0	175.65	132.0	148.3	983.9	962.2	21.64	45.469	
10,250.0	10,208.6	10,144.6	10,129.3	11.5	12.0	-177.53	132.4	149.1	986.0	964.3	21.65	45.532	
10,300.0	10,258.0	10,193.2	10,177.7	11.5	12.1	-160.08	133.8	152.8	997.5	975.8	21.74	45.893	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #802H - OWB - PWP0												Offset Site Error: 3.0 usft		
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error: 3.0 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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	2.0	2.0	3.0	3.0	-90.50	-2.0	-230.0	230.0					
100.0	100.0	102.0	102.0	3.0	3.0	-90.50	-2.0	-230.0	230.0	224.0	6.00	38.320		
200.0	200.0	202.0	202.0	3.0	3.0	-90.50	-2.0	-230.0	230.0	224.0	6.04	38.077		
300.0	300.0	302.0	302.0	3.0	3.1	-90.50	-2.0	-230.0	230.0	223.9	6.12	37.573		
400.0	400.0	402.0	402.0	3.0	3.2	-90.50	-2.0	-230.0	230.0	223.8	6.24	36.846		
500.0	500.0	502.0	502.0	3.1	3.4	-90.50	-2.0	-230.0	230.0	223.6	6.40	35.945		
600.0	600.0	602.0	602.0	3.1	3.6	-90.50	-2.0	-230.0	230.0	223.5	6.59	34.919		
700.0	700.0	702.0	702.0	3.1	3.8	-90.50	-2.0	-230.0	230.0	223.2	6.80	33.815		
800.0	800.0	802.0	802.0	3.2	4.0	-90.50	-2.0	-230.0	230.0	223.0	7.04	32.670		
900.0	900.0	902.0	902.0	3.2	4.2	-90.50	-2.0	-230.0	230.0	222.7	7.30	31.515		
1,000.0	1,000.0	1,002.0	1,002.0	3.2	4.5	-90.50	-2.0	-230.0	230.0	222.5	7.57	30.372		
1,100.0	1,100.0	1,102.0	1,102.0	3.3	4.8	-90.50	-2.0	-230.0	230.0	222.2	7.86	29.256		
1,200.0	1,200.0	1,202.0	1,202.0	3.4	5.1	-90.50	-2.0	-230.0	230.0	221.9	8.16	28.177		
1,300.0	1,300.0	1,302.0	1,302.0	3.4	5.4	-90.50	-2.0	-230.0	230.0	221.6	8.48	27.142		
1,400.0	1,400.0	1,402.0	1,402.0	3.5	5.7	-90.50	-2.0	-230.0	230.0	221.2	8.80	26.153		
1,500.0	1,500.0	1,502.0	1,502.0	3.5	6.0	-90.50	-2.0	-230.0	230.0	220.9	9.12	25.211		
1,600.0	1,600.0	1,602.0	1,602.0	3.6	6.3	-90.50	-2.0	-230.0	230.0	220.6	9.46	24.318		
1,700.0	1,700.0	1,702.0	1,702.0	3.7	6.6	-90.50	-2.0	-230.0	230.0	220.2	9.80	23.471		
1,800.0	1,800.0	1,802.0	1,802.0	3.8	6.9	-90.50	-2.0	-230.0	230.0	219.9	10.15	22.670		
1,900.0	1,900.0	1,902.0	1,902.0	3.9	7.2	-90.50	-2.0	-230.0	230.0	219.5	10.50	21.911		
2,000.0	2,000.0	2,002.0	2,002.0	3.9	7.6	-90.50	-2.0	-230.0	230.0	219.2	10.85	21.193		
2,100.0	2,100.0	2,102.0	2,102.0	4.0	7.9	-90.50	-2.0	-230.0	230.0	218.8	11.21	20.513		
2,200.0	2,200.0	2,202.0	2,202.0	4.1	8.2	-90.50	-2.0	-230.0	230.0	218.5	11.58	19.870		
2,300.0	2,300.0	2,302.0	2,302.0	4.2	8.6	-90.50	-2.0	-230.0	230.0	218.1	11.94	19.260		
2,400.0	2,400.0	2,402.0	2,402.0	4.3	8.9	-90.50	-2.0	-230.0	230.0	217.7	12.31	18.682		
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	-90.50	-2.0	-230.0	230.0	217.4	12.68	18.145		
2,516.4	2,516.4	2,517.4	2,517.4	4.4	9.3	19.52	-2.0	-230.1	230.0	217.3	12.74	18.052		
2,600.0	2,600.0	2,596.5	2,596.5	4.4	9.6	19.93	-0.8	-231.2	229.6	216.6	13.04	17.613		
2,700.0	2,699.8	2,693.3	2,693.2	4.5	9.9	21.19	2.4	-234.4	228.1	214.7	13.40	17.022		
2,800.0	2,799.5	2,793.0	2,792.7	4.5	10.2	22.95	6.1	-238.1	223.8	210.1	13.79	16.237		
2,900.0	2,898.9	2,892.5	2,892.1	4.5	10.6	24.93	9.7	-241.8	218.2	204.0	14.18	15.385		
3,000.0	2,998.4	2,992.1	2,991.5	4.5	10.9	27.01	13.4	-245.5	212.9	198.3	14.60	14.586		
3,100.0	3,097.8	3,091.6	3,091.0	4.5	11.2	29.20	17.1	-249.2	207.9	192.8	15.02	13.842		
3,200.0	3,197.3	3,191.2	3,190.4	4.6	11.6	31.49	20.7	-252.9	203.1	187.7	15.45	13.149		
3,300.0	3,296.7	3,290.7	3,289.8	4.6	11.9	33.88	24.4	-256.6	198.7	182.9	15.89	12.509		
3,400.0	3,396.2	3,390.3	3,389.2	4.6	12.3	36.38	28.1	-260.3	194.7	178.4	16.34	11.921		
3,500.0	3,495.6	3,489.8	3,488.6	4.7	12.6	38.97	31.8	-264.0	191.1	174.3	16.79	11.382		
3,600.0	3,595.1	3,589.4	3,588.0	4.7	13.0	41.66	35.4	-267.7	187.9	170.6	17.25	10.893		
3,700.0	3,694.5	3,688.9	3,687.4	4.8	13.3	44.44	39.1	-271.4	185.1	167.4	17.71	10.451		
3,800.0	3,794.0	3,788.5	3,786.8	4.8	13.6	47.30	42.8	-275.1	182.8	164.6	18.17	10.056		
3,900.0	3,893.4	3,888.0	3,886.3	4.9	14.0	50.22	46.4	-278.8	180.9	162.3	18.64	9.706		
4,000.0	3,992.9	3,987.6	3,985.7	4.9	14.3	53.19	50.1	-282.5	179.5	160.4	19.10	9.400		
4,100.0	4,092.3	4,087.1	4,085.1	5.0	14.7	56.20	53.8	-286.2	178.6	159.1	19.55	9.134		
4,200.0	4,191.8	4,186.7	4,184.5	5.0	15.0	59.23	57.5	-289.9	178.2	158.2	20.01	8.909		
4,227.4	4,219.0	4,214.0	4,211.7	5.1	15.1	60.06	58.5	-290.9	178.2	158.1	20.13	8.853 CC		
4,300.0	4,291.2	4,286.2	4,283.9	5.1	15.4	62.27	61.1	-293.6	178.3	157.9	20.45	8.720 ES		
4,400.0	4,390.7	4,385.8	4,383.3	5.2	15.7	65.29	64.8	-297.3	179.0	158.1	20.89	8.567		
4,500.0	4,490.1	4,485.3	4,482.7	5.2	16.1	68.28	68.5	-301.0	180.1	158.7	21.32	8.446		
4,600.0	4,589.6	4,584.9	4,582.1	5.3	16.4	71.23	72.1	-304.7	181.7	159.9	21.75	8.355		
4,700.0	4,689.0	4,684.4	4,681.6	5.4	16.8	74.13	75.8	-308.4	183.8	161.6	22.16	8.292		
4,800.0	4,788.5	4,784.0	4,781.0	5.5	17.1	76.95	79.5	-312.0	186.3	163.7	22.57	8.254		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #802H - OWB - PWP0												Offset Site Error: 3.0 usft	
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error: 3.0 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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,887.9	4,883.5	4,880.4	5.6	17.5	79.68	83.2	-315.7	189.3	166.3	22.98	8.239 SF	
5,000.0	4,987.4	4,983.1	4,979.8	5.6	17.8	82.33	86.8	-319.4	192.7	169.3	23.37	8.244	
5,100.0	5,086.9	5,082.6	5,079.2	5.7	18.2	84.88	90.5	-323.1	196.5	172.7	23.77	8.267	
5,200.0	5,186.3	5,182.2	5,178.6	5.8	18.5	87.34	94.2	-326.8	200.7	176.5	24.16	8.307	
5,300.0	5,285.8	5,281.7	5,278.0	5.9	18.9	89.68	97.8	-330.5	205.2	180.7	24.55	8.361	
5,400.0	5,385.2	5,381.3	5,377.4	6.0	19.3	91.93	101.5	-334.2	210.1	185.2	24.93	8.426	
5,500.0	5,484.7	5,480.8	5,476.9	6.1	19.6	94.07	105.2	-337.9	215.3	189.9	25.32	8.502	
5,600.0	5,584.1	5,580.4	5,576.3	6.2	20.0	96.10	108.9	-341.6	220.7	195.0	25.70	8.587	
5,700.0	5,683.6	5,679.9	5,675.7	6.3	20.3	98.04	112.5	-345.3	226.5	200.4	26.09	8.679	
5,800.0	5,783.0	5,779.5	5,775.1	6.4	20.7	99.88	116.2	-349.0	232.4	206.0	26.48	8.778	
5,900.0	5,882.5	5,879.0	5,874.5	6.5	21.0	101.62	119.9	-352.7	238.6	211.8	26.87	8.881	
6,000.0	5,981.9	5,978.5	5,973.9	6.6	21.4	103.28	123.5	-356.4	245.1	217.8	27.26	8.989	
6,100.0	6,081.4	6,078.1	6,073.3	6.7	21.7	104.85	127.2	-360.1	251.7	224.0	27.66	9.099	
6,200.0	6,180.8	6,177.6	6,172.7	6.8	22.1	106.34	130.9	-363.8	258.4	230.4	28.06	9.212	
6,300.0	6,280.3	6,277.2	6,272.2	6.9	22.4	107.75	134.6	-367.5	265.4	236.9	28.46	9.327	
6,400.0	6,379.7	6,376.7	6,371.6	7.0	22.8	109.09	138.2	-371.2	272.5	243.6	28.86	9.442	
6,500.0	6,479.2	6,476.3	6,471.0	7.1	23.1	110.37	141.9	-374.9	279.8	250.5	29.27	9.558	
6,600.0	6,578.6	6,576.5	6,571.1	7.2	23.5	111.58	145.6	-378.6	287.1	257.4	29.68	9.674	
6,700.0	6,678.1	6,683.3	6,677.8	7.3	23.9	113.15	147.9	-380.9	293.2	263.1	30.10	9.741	
6,800.0	6,777.5	6,785.0	6,779.5	7.4	24.2	115.01	148.0	-381.0	297.6	267.1	30.50	9.757	
6,900.0	6,877.0	6,884.5	6,879.0	7.5	24.6	116.80	148.0	-381.0	302.2	271.3	30.90	9.778	
7,000.0	6,976.4	6,983.9	6,978.4	7.6	24.9	118.53	148.0	-381.0	307.0	275.7	31.31	9.806	
7,100.0	7,075.9	7,083.4	7,077.9	7.7	25.3	120.21	148.0	-381.0	312.2	280.5	31.72	9.841	
7,200.0	7,175.3	7,182.9	7,177.3	7.8	25.6	121.84	148.0	-381.0	317.6	285.5	32.14	9.881	
7,300.0	7,274.8	7,282.3	7,276.8	8.0	26.0	123.40	148.0	-381.0	323.3	290.7	32.56	9.927	
7,400.0	7,374.3	7,381.8	7,376.3	8.1	26.3	124.92	148.0	-381.0	329.1	296.2	32.99	9.976	
7,500.0	7,473.7	7,481.2	7,475.7	8.2	26.7	126.38	148.0	-381.0	335.3	301.8	33.42	10.030	
7,600.0	7,573.2	7,580.7	7,575.2	8.3	27.1	127.78	148.0	-381.0	341.6	307.7	33.86	10.088	
7,700.0	7,672.6	7,680.1	7,674.6	8.4	27.4	129.14	148.0	-381.0	348.1	313.8	34.30	10.148	
7,800.0	7,772.1	7,779.6	7,774.1	8.5	27.8	130.44	148.0	-381.0	354.8	320.1	34.75	10.211	
7,900.0	7,871.5	7,879.0	7,873.5	8.6	28.1	131.70	148.0	-381.0	361.7	326.5	35.20	10.277	
8,000.0	7,971.0	7,978.5	7,973.0	8.8	28.5	132.91	148.0	-381.0	368.8	333.1	35.65	10.344	
8,100.0	8,070.4	8,077.9	8,072.4	8.9	28.8	134.07	148.0	-381.0	376.0	339.9	36.10	10.414	
8,200.0	8,169.9	8,177.4	8,171.9	9.0	29.2	135.19	148.0	-381.0	383.3	346.8	36.56	10.484	
8,300.0	8,269.3	8,276.8	8,271.3	9.1	29.5	136.27	148.0	-381.0	390.9	353.8	37.03	10.556	
8,400.0	8,368.8	8,376.3	8,370.8	9.2	29.9	137.31	148.0	-381.0	398.5	361.0	37.49	10.629	
8,500.0	8,468.2	8,475.7	8,470.2	9.3	30.2	138.30	148.0	-381.0	406.3	368.3	37.96	10.703	
8,600.0	8,567.7	8,575.2	8,569.7	9.5	30.6	139.26	148.0	-381.0	414.1	375.7	38.43	10.778	
8,700.0	8,667.1	8,674.6	8,669.1	9.6	30.9	140.19	148.0	-381.0	422.1	383.2	38.90	10.853	
8,800.0	8,766.6	8,774.1	8,768.6	9.7	31.3	141.08	148.0	-381.0	430.2	390.9	39.37	10.928	
8,900.0	8,866.0	8,873.5	8,868.0	9.8	31.6	141.93	148.0	-381.0	438.4	398.6	39.84	11.004	
9,000.0	8,965.5	8,973.0	8,967.5	10.0	32.0	142.76	148.0	-381.0	446.7	406.4	40.32	11.080	
9,100.0	9,064.9	9,072.4	9,066.9	10.1	32.3	143.55	148.0	-381.0	455.1	414.3	40.80	11.155	
9,200.0	9,164.4	9,171.9	9,166.4	10.2	32.7	144.32	148.0	-381.0	463.6	422.3	41.28	11.231	
9,300.0	9,263.8	9,271.3	9,265.8	10.3	33.1	145.06	148.0	-381.0	472.1	430.4	41.75	11.307	
9,400.0	9,363.3	9,370.8	9,365.3	10.4	33.4	145.77	148.0	-381.0	480.7	438.5	42.24	11.382	
9,500.0	9,462.7	9,470.3	9,464.7	10.6	33.8	146.46	148.0	-381.0	489.4	446.7	42.72	11.457	
9,600.0	9,562.2	9,569.7	9,564.2	10.7	34.1	147.12	148.0	-381.0	498.2	455.0	43.20	11.532	
9,700.0	9,661.7	9,669.2	9,663.7	10.8	34.5	147.76	148.0	-381.0	507.0	463.3	43.68	11.606	
9,800.0	9,761.1	9,768.6	9,763.1	10.9	34.8	148.38	148.0	-381.0	515.9	471.7	44.17	11.680	
9,900.0	9,860.6	9,868.1	9,862.6	11.1	35.2	148.98	148.0	-381.0	524.8	480.2	44.65	11.754	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #802H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 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		
10,000.0	9,960.0	9,967.5	9,962.0	11.2	35.5	149.55	148.0	-381.0	533.8	488.7	45.14	11.827		
10,100.0	10,059.5	10,067.0	10,061.5	11.3	35.9	150.11	148.0	-381.0	542.9	497.3	45.62	11.899		
10,200.0	10,158.9	10,166.4	10,160.9	11.5	36.2	150.65	148.0	-381.0	552.0	505.9	46.11	11.971		
10,239.1	10,197.8	10,205.3	10,199.8	11.5	36.4	150.86	148.0	-381.0	555.6	509.2	46.32	11.993		
10,250.0	10,208.6	10,216.1	10,210.6	11.5	36.4	157.62	148.0	-381.0	556.6	510.3	46.36	12.006		
10,300.0	10,258.0	10,265.5	10,260.0	11.5	36.6	174.75	148.0	-381.0	564.2	517.6	46.55	12.119		
10,350.0	10,306.6	10,314.1	10,308.6	11.5	36.8	-177.79	148.0	-381.0	575.8	529.0	46.75	12.316		
10,400.0	10,354.1	10,361.6	10,356.1	11.5	36.9	-173.63	148.0	-381.0	591.4	544.4	46.95	12.595		
10,450.0	10,400.1	10,407.6	10,402.1	11.6	37.1	-170.90	148.0	-381.0	610.8	563.7	47.15	12.954		
10,500.0	10,444.2	10,451.7	10,446.2	11.6	37.3	-168.87	148.0	-381.0	634.0	586.7	47.36	13.388		
10,550.0	10,486.1	10,493.6	10,488.1	11.6	37.4	-167.20	148.0	-381.0	660.8	613.3	47.56	13.895		
10,600.0	10,525.6	10,533.1	10,527.6	11.7	37.5	-165.67	148.0	-381.0	691.0	643.2	47.76	14.468		
10,650.0	10,562.2	10,569.7	10,564.2	11.7	37.7	-164.12	148.0	-381.0	724.4	676.4	47.96	15.105		
10,700.0	10,595.7	10,603.2	10,597.7	11.8	37.8	-162.42	148.0	-381.0	760.7	712.6	48.15	15.800		
10,750.0	10,625.9	10,633.4	10,627.9	11.9	37.9	-160.40	148.0	-381.0	799.8	751.4	48.33	16.549		
10,800.0	10,652.5	10,660.0	10,654.5	12.0	38.0	-157.86	148.0	-381.0	841.2	792.7	48.49	17.347		
10,850.0	10,675.4	10,682.9	10,677.4	12.1	38.1	-154.46	148.0	-381.0	884.8	836.2	48.65	18.189		
10,900.0	10,694.3	11,941.5	11,435.0	12.2	40.8	-147.15	-598.9	-376.2	923.6	874.8	48.79	18.931		
10,916.4	10,699.6	11,955.5	11,435.0	12.2	40.8	-146.67	-612.9	-376.1	923.4	874.5	48.90	18.882		
10,950.0	10,709.1	11,984.7	11,435.0	12.3	40.8	-145.64	-642.1	-375.9	924.3	875.2	49.13	18.813		
11,000.0	10,719.7	12,029.0	11,435.0	12.5	40.9	-144.00	-686.4	-375.6	929.0	879.5	49.46	18.783		
11,050.0	10,726.0	12,074.2	11,435.0	12.6	40.9	-142.26	-731.6	-375.3	937.5	887.7	49.77	18.836		
11,097.3	10,728.0	12,117.3	11,435.0	12.8	41.0	-140.53	-774.7	-375.0	948.7	898.7	50.05	18.957		
11,100.0	10,728.0	12,119.8	11,435.0	12.8	41.0	-140.47	-777.2	-375.0	949.5	899.4	50.06	18.965		
11,200.0	10,728.1	12,212.0	11,435.0	13.2	41.1	-138.38	-869.4	-374.4	975.8	925.1	50.63	19.271		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0												Offset Site Error: 3.0 usft	
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error: 3.0 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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	2.0	2.0	3.0	3.0	-90.48	-2.2	-260.0	260.0				
100.0	100.0	102.0	102.0	3.0	3.0	-90.48	-2.2	-260.0	260.0	254.0	6.00	43.320	
200.0	200.0	202.0	202.0	3.0	3.0	-90.48	-2.2	-260.0	260.0	254.0	6.04	43.044	
300.0	300.0	302.0	302.0	3.0	3.1	-90.48	-2.2	-260.0	260.0	253.9	6.12	42.474	
400.0	400.0	402.0	402.0	3.0	3.2	-90.48	-2.2	-260.0	260.0	253.8	6.24	41.653	
500.0	500.0	502.0	502.0	3.1	3.4	-90.48	-2.2	-260.0	260.0	253.6	6.40	40.634	
600.0	600.0	602.0	602.0	3.1	3.6	-90.48	-2.2	-260.0	260.0	253.5	6.59	39.474	
700.0	700.0	702.0	702.0	3.1	3.8	-90.48	-2.2	-260.0	260.0	253.2	6.80	38.226	
800.0	800.0	802.0	802.0	3.2	4.0	-90.48	-2.2	-260.0	260.0	253.0	7.04	36.932	
900.0	900.0	902.0	902.0	3.2	4.2	-90.48	-2.2	-260.0	260.0	252.7	7.30	35.627	
1,000.0	1,000.0	1,002.0	1,002.0	3.2	4.5	-90.48	-2.2	-260.0	260.0	252.5	7.57	34.334	
1,100.0	1,100.0	1,102.0	1,102.0	3.3	4.8	-90.48	-2.2	-260.0	260.0	252.2	7.86	33.073	
1,200.0	1,200.0	1,202.0	1,202.0	3.4	5.1	-90.48	-2.2	-260.0	260.0	251.9	8.16	31.853	
1,300.0	1,300.0	1,302.0	1,302.0	3.4	5.4	-90.48	-2.2	-260.0	260.0	251.6	8.48	30.682	
1,400.0	1,400.0	1,402.0	1,402.0	3.5	5.7	-90.48	-2.2	-260.0	260.0	251.3	8.80	29.564	
1,500.0	1,500.0	1,502.0	1,502.0	3.5	6.0	-90.48	-2.2	-260.0	260.0	250.9	9.12	28.501	
1,600.0	1,600.0	1,602.0	1,602.0	3.6	6.3	-90.48	-2.2	-260.0	260.0	250.6	9.46	27.491	
1,700.0	1,700.0	1,702.0	1,702.0	3.7	6.6	-90.48	-2.2	-260.0	260.0	250.2	9.80	26.533	
1,800.0	1,800.0	1,802.0	1,802.0	3.8	6.9	-90.48	-2.2	-260.0	260.0	249.9	10.15	25.627	
1,900.0	1,900.0	1,902.0	1,902.0	3.9	7.2	-90.48	-2.2	-260.0	260.0	249.6	10.50	24.769	
2,000.0	2,000.0	2,002.0	2,002.0	3.9	7.6	-90.48	-2.2	-260.0	260.0	249.2	10.85	23.958	
2,100.0	2,100.0	2,102.0	2,102.0	4.0	7.9	-90.48	-2.2	-260.0	260.0	248.8	11.21	23.189	
2,200.0	2,200.0	2,202.0	2,202.0	4.1	8.2	-90.48	-2.2	-260.0	260.0	248.5	11.58	22.462	
2,300.0	2,300.0	2,302.0	2,302.0	4.2	8.6	-90.48	-2.2	-260.0	260.0	248.1	11.94	21.773	
2,400.0	2,400.0	2,402.0	2,402.0	4.3	8.9	-90.48	-2.2	-260.0	260.0	247.7	12.31	21.119	
2,416.0	2,416.0	2,418.0	2,418.0	4.3	9.0	-90.48	-2.2	-260.0	260.0	247.7	12.37	21.018	
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	-90.48	-2.2	-260.0	260.1	247.4	12.68	20.512	
2,600.0	2,600.0	2,593.6	2,593.6	4.4	9.5	19.70	-1.9	-261.5	260.0	247.0	13.02	19.972	
2,700.0	2,699.8	2,685.4	2,685.3	4.5	9.8	20.23	-1.1	-265.9	259.9	246.6	13.35	19.474	
2,800.0	2,799.5	2,779.5	2,779.1	4.5	10.2	21.14	0.2	-273.3	259.6	245.9	13.69	18.966	
2,900.0	2,898.9	2,879.4	2,878.6	4.5	10.5	22.28	1.7	-281.9	258.5	244.4	14.07	18.372	
3,000.0	2,998.4	2,979.2	2,978.1	4.5	10.8	23.42	3.2	-290.5	257.5	243.0	14.46	17.804	
3,100.0	3,097.8	3,079.1	3,077.5	4.5	11.2	24.57	4.7	-299.0	256.6	241.8	14.86	17.264	
3,200.0	3,197.3	3,179.0	3,177.0	4.6	11.5	25.72	6.2	-307.6	255.8	240.6	15.27	16.752	
3,300.0	3,296.7	3,278.8	3,276.5	4.6	11.8	26.89	7.7	-316.2	255.2	239.5	15.69	16.265	
3,400.0	3,396.2	3,378.7	3,376.0	4.6	12.2	28.05	9.2	-324.7	254.6	238.5	16.11	15.804	
3,500.0	3,495.6	3,478.6	3,475.5	4.7	12.5	29.23	10.7	-333.3	254.1	237.6	16.54	15.368	
3,600.0	3,595.1	3,578.4	3,575.0	4.7	12.9	30.41	12.3	-341.9	253.8	236.8	16.97	14.956	
3,700.0	3,694.5	3,678.3	3,674.4	4.8	13.2	31.59	13.8	-350.5	253.5	236.1	17.41	14.566	
3,800.0	3,794.0	3,778.1	3,773.9	4.8	13.6	32.77	15.3	-359.0	253.4	235.5	17.85	14.199	
3,879.0	3,872.5	3,857.0	3,852.5	4.8	13.8	33.70	16.5	-365.8	253.4	235.2	18.20	13.924 CC	
3,900.0	3,893.4	3,878.0	3,873.4	4.9	13.9	33.95	16.8	-367.6	253.4	235.1	18.29	13.853	
4,000.0	3,992.9	3,977.9	3,972.9	4.9	14.2	35.13	18.3	-376.2	253.4	234.7	18.74	13.527	
4,100.0	4,092.3	4,077.7	4,072.4	5.0	14.6	36.31	19.8	-384.7	253.6	234.4	19.19	13.220	
4,200.0	4,191.8	4,177.6	4,171.8	5.0	14.9	37.49	21.3	-393.3	253.9	234.3	19.64	12.931	
4,300.0	4,291.2	4,277.5	4,271.3	5.1	15.3	38.67	22.8	-401.9	254.3	234.2	20.09	12.659 ES	
4,400.0	4,390.7	4,377.3	4,370.8	5.2	15.6	39.84	24.3	-410.5	254.8	234.3	20.54	12.404	
4,500.0	4,490.1	4,477.2	4,470.3	5.2	16.0	41.01	25.9	-419.0	255.4	234.4	21.00	12.164	
4,600.0	4,589.6	4,577.0	4,569.8	5.3	16.3	42.17	27.4	-427.6	256.2	234.7	21.46	11.939	
4,700.0	4,689.0	4,676.9	4,669.3	5.4	16.7	43.32	28.9	-436.2	257.0	235.1	21.91	11.728	
4,800.0	4,788.5	4,776.8	4,768.7	5.5	17.0	44.47	30.4	-444.7	257.9	235.5	22.37	11.530	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,887.9	4,876.6	4,868.2	5.6	17.4	45.61		31.9	-453.3	258.9	236.1	22.83	11.344	
5,000.0	4,987.4	4,976.5	4,967.7	5.6	17.8	46.73		33.4	-461.9	260.1	236.8	23.28	11.170	
5,100.0	5,086.9	5,076.4	5,067.2	5.7	18.1	47.85		34.9	-470.5	261.3	237.6	23.74	11.007	
5,200.0	5,186.3	5,176.2	5,166.7	5.8	18.5	48.96		36.4	-479.0	262.6	238.4	24.20	10.854	
5,300.0	5,285.8	5,276.1	5,266.2	5.9	18.8	50.05		37.9	-487.6	264.1	239.4	24.65	10.711	
5,400.0	5,385.2	5,376.0	5,365.6	6.0	19.2	51.14		39.5	-496.2	265.6	240.5	25.11	10.577	
5,500.0	5,484.7	5,475.8	5,465.1	6.1	19.5	52.21		41.0	-504.7	267.2	241.6	25.57	10.452	
5,600.0	5,584.1	5,575.7	5,564.6	6.2	19.9	53.26		42.5	-513.3	268.9	242.9	26.02	10.335	
5,700.0	5,683.6	5,675.5	5,664.1	6.3	20.2	54.31		44.0	-521.9	270.7	244.2	26.48	10.225	
5,800.0	5,783.0	5,775.4	5,763.6	6.4	20.6	55.34		45.5	-530.5	272.6	245.7	26.93	10.123	
5,900.0	5,882.5	5,875.3	5,863.1	6.5	20.9	56.35		47.0	-539.0	274.6	247.2	27.38	10.028	
6,000.0	5,981.9	5,975.1	5,962.5	6.6	21.3	57.35		48.5	-547.6	276.6	248.8	27.84	9.938	
6,100.0	6,081.4	6,075.0	6,062.0	6.7	21.7	58.34		50.0	-556.2	278.8	250.5	28.29	9.855	
6,200.0	6,180.8	6,174.9	6,161.5	6.8	22.0	59.31		51.5	-564.7	281.0	252.3	28.74	9.778	
6,300.0	6,280.3	6,274.7	6,261.0	6.9	22.4	60.26		53.1	-573.3	283.3	254.1	29.19	9.705	
6,400.0	6,379.7	6,374.6	6,360.5	7.0	22.7	61.20		54.6	-581.9	285.7	256.1	29.64	9.638	
6,500.0	6,479.2	6,474.4	6,460.0	7.1	23.1	62.12		56.1	-590.5	288.2	258.1	30.10	9.575	
6,600.0	6,578.6	6,574.3	6,559.4	7.2	23.5	63.03		57.6	-599.0	290.7	260.2	30.55	9.517	
6,700.0	6,678.1	6,674.2	6,658.9	7.3	23.8	63.92		59.1	-607.6	293.3	262.3	31.00	9.462	
6,800.0	6,777.5	6,774.0	6,758.4	7.4	24.2	64.80		60.6	-616.2	296.0	264.5	31.45	9.412	
6,900.0	6,877.0	6,873.9	6,857.9	7.5	24.5	65.66		62.1	-624.7	298.7	266.8	31.90	9.365	
7,000.0	6,976.4	6,973.8	6,957.4	7.6	24.9	66.50		63.6	-633.3	301.5	269.2	32.35	9.321	
7,100.0	7,075.9	7,073.6	7,056.8	7.7	25.2	67.33		65.1	-641.9	304.4	271.6	32.80	9.281	
7,200.0	7,175.3	7,173.5	7,156.3	7.8	25.6	68.14		66.7	-650.5	307.3	274.1	33.25	9.243	
7,300.0	7,274.8	7,273.3	7,255.8	8.0	26.0	68.94		68.2	-659.0	310.3	276.6	33.70	9.208	
7,400.0	7,374.3	7,373.2	7,355.3	8.1	26.3	69.72		69.7	-667.6	313.4	279.2	34.15	9.176	
7,500.0	7,473.7	7,473.1	7,454.8	8.2	26.7	70.48		71.2	-676.2	316.5	281.9	34.60	9.146	
7,600.0	7,573.2	7,572.9	7,554.3	8.3	27.0	71.24		72.7	-684.7	319.7	284.6	35.06	9.119	
7,700.0	7,672.6	7,672.8	7,653.7	8.4	27.4	71.97		74.2	-693.3	322.9	287.4	35.51	9.093	
7,800.0	7,772.1	7,772.7	7,753.2	8.5	27.8	72.69		75.7	-701.9	326.2	290.2	35.96	9.069	
7,900.0	7,871.5	7,872.5	7,852.7	8.6	28.1	73.40		77.2	-710.4	329.5	293.1	36.42	9.048	
8,000.0	7,971.0	7,972.4	7,952.2	8.8	28.5	74.09		78.8	-719.0	332.8	296.0	36.87	9.028	
8,100.0	8,070.4	8,072.2	8,051.7	8.9	28.8	74.77		80.3	-727.6	336.3	298.9	37.32	9.009	
8,200.0	8,169.9	8,172.1	8,151.2	9.0	29.2	75.44		81.8	-736.2	339.7	302.0	37.78	8.992	
8,300.0	8,269.3	8,272.0	8,250.6	9.1	29.6	76.09		83.3	-744.7	343.2	305.0	38.24	8.977	
8,400.0	8,368.8	8,371.8	8,350.1	9.2	29.9	76.73		84.8	-753.3	346.8	308.1	38.69	8.963	
8,500.0	8,468.2	8,471.7	8,449.6	9.3	30.3	77.36		86.3	-761.9	350.4	311.2	39.15	8.950	
8,600.0	8,567.7	8,571.6	8,549.1	9.5	30.6	77.97		87.8	-770.4	354.0	314.4	39.61	8.938	
8,700.0	8,667.1	8,671.4	8,648.6	9.6	31.0	78.57		89.3	-779.0	357.7	317.6	40.07	8.927	
8,800.0	8,766.6	8,771.3	8,748.1	9.7	31.4	79.16		90.8	-787.6	361.4	320.9	40.53	8.917	
8,900.0	8,866.0	8,871.1	8,847.5	9.8	31.7	79.73		92.4	-796.2	365.2	324.2	40.99	8.908	
9,000.0	8,965.5	8,971.0	8,947.0	10.0	32.1	80.30		93.9	-804.7	369.0	327.5	41.46	8.900	
9,100.0	9,064.9	9,070.9	9,046.5	10.1	32.4	80.85		95.4	-813.3	372.8	330.9	41.92	8.893	
9,200.0	9,164.4	9,170.7	9,146.0	10.2	32.8	81.39		96.9	-821.9	376.7	334.3	42.39	8.887	
9,300.0	9,263.8	9,270.6	9,245.5	10.3	33.2	81.92		98.4	-830.4	380.6	337.7	42.85	8.881	
9,400.0	9,363.3	9,370.5	9,344.9	10.4	33.5	82.44		99.9	-839.0	384.5	341.2	43.32	8.876	
9,500.0	9,462.7	9,470.3	9,444.4	10.6	33.9	82.95		101.4	-847.6	388.4	344.7	43.79	8.871	
9,600.0	9,562.2	9,570.2	9,543.9	10.7	34.2	83.45		102.9	-856.2	392.4	348.2	44.26	8.867	
9,700.0	9,661.7	9,670.0	9,643.4	10.8	34.6	83.94		104.4	-864.7	396.4	351.7	44.73	8.864	
9,800.0	9,761.1	9,769.9	9,742.9	10.9	35.0	84.42		106.0	-873.3	400.5	355.3	45.20	8.860	
9,900.0	9,860.6	9,869.8	9,842.4	11.1	35.3	84.89		107.5	-881.9	404.6	358.9	45.67	8.858	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,960.0	9,969.6	9,941.8	11.2	35.7	85.35		109.0	-890.4	408.6	362.5	46.14	8.856	
10,100.0	10,059.5	10,069.5	10,041.3	11.3	36.1	85.80		110.5	-899.0	412.8	366.2	46.62	8.854	
10,200.0	10,158.9	10,169.4	10,140.8	11.5	36.4	86.24		112.0	-907.6	416.9	369.8	47.10	8.853	
10,239.1	10,197.8	10,208.4	10,179.7	11.5	36.6	86.41		112.6	-910.9	418.5	371.3	47.26	8.857	
10,250.0	10,208.6	10,219.3	10,190.5	11.5	36.6	93.11		112.8	-911.9	419.1	371.8	47.29	8.861	
10,300.0	10,258.0	10,268.9	10,240.0	11.5	36.8	110.05		113.5	-916.1	423.3	375.8	47.47	8.918	
10,350.0	10,306.6	10,317.9	10,288.8	11.5	37.0	117.51		114.2	-920.3	430.6	383.0	47.63	9.041	
10,400.0	10,354.1	10,365.8	10,336.5	11.5	37.1	121.78		115.0	-924.5	441.0	393.2	47.79	9.229	
10,450.0	10,400.1	10,412.3	10,382.8	11.6	37.3	124.65		115.7	-928.4	454.7	406.7	47.94	9.485	
10,500.0	10,444.2	10,457.0	10,427.4	11.6	37.5	126.72		116.4	-932.3	471.6	423.5	48.08	9.809	
10,550.0	10,486.1	10,499.6	10,469.8	11.6	37.6	128.24		117.0	-935.9	492.0	443.8	48.23	10.201	
10,600.0	10,525.6	10,539.8	10,509.8	11.7	37.8	129.28		117.6	-939.4	515.7	467.4	48.37	10.662	
10,650.0	10,562.2	10,577.2	10,547.1	11.7	37.9	129.83		118.2	-942.6	542.9	494.4	48.51	11.190	
10,700.0	10,595.7	10,611.5	10,581.3	11.8	38.0	129.84		118.7	-945.5	573.3	524.6	48.65	11.782	
10,750.0	10,625.9	10,642.6	10,612.3	11.9	38.1	129.24		119.2	-948.2	606.7	557.9	48.79	12.435	
10,800.0	10,652.5	10,670.2	10,639.7	12.0	38.2	127.89		119.6	-950.6	643.1	594.2	48.93	13.144	
10,850.0	10,675.4	10,694.0	10,663.4	12.1	38.3	125.59		119.9	-952.6	682.0	633.0	49.05	13.904	
10,900.0	10,694.3	10,713.9	10,683.3	12.2	38.4	122.09		120.2	-954.3	723.3	674.1	49.17	14.711	
10,950.0	10,709.1	10,729.7	10,699.0	12.3	38.4	117.00		120.5	-955.7	766.4	717.2	49.26	15.558	
11,000.0	10,719.7	12,030.0	11,435.0	12.5	41.8	161.04		-647.9	-1,212.7	754.4	707.8	46.57	16.198	
11,050.0	10,726.0	12,082.4	11,435.0	12.6	41.8	162.16		-699.6	-1,221.2	744.4	697.7	46.63	15.964	
11,097.3	10,728.0	12,131.8	11,435.0	12.8	41.9	163.22		-748.5	-1,228.5	738.7	692.0	46.67	15.827	
11,100.0	10,728.0	12,134.7	11,435.0	12.8	41.9	163.28		-751.3	-1,228.9	738.5	691.8	46.67	15.821	
11,200.0	10,728.1	12,238.5	11,435.0	13.2	42.1	165.23		-854.4	-1,241.2	730.8	684.0	46.81	15.611	
11,300.0	10,728.2	12,341.2	11,435.0	13.6	42.3	167.23		-956.7	-1,249.7	724.0	677.0	47.04	15.391	
11,400.0	10,728.3	12,442.9	11,435.0	14.1	42.5	169.26		-1,058.3	-1,254.4	718.2	670.8	47.36	15.165	
11,500.0	10,728.4	12,543.4	11,435.0	14.6	42.7	171.32		-1,158.8	-1,255.6	713.3	665.6	47.77	14.933	
11,600.0	10,728.5	12,640.1	11,435.0	15.1	42.9	173.21		-1,255.5	-1,255.2	709.7	661.4	48.26	14.706	
11,700.0	10,728.7	12,737.7	11,435.0	15.7	43.2	174.89		-1,353.1	-1,254.7	707.3	658.4	48.84	14.481	
11,800.0	10,728.8	12,835.9	11,435.0	16.3	43.4	176.34		-1,451.3	-1,254.2	705.7	656.2	49.50	14.258	
11,900.0	10,728.9	12,934.8	11,435.0	16.8	43.7	177.53		-1,550.2	-1,253.8	704.8	654.6	50.21	14.036	
12,000.0	10,729.0	13,034.1	11,435.0	17.4	43.9	178.47		-1,649.5	-1,253.3	704.3	653.3	50.98	13.815	
12,100.0	10,729.1	13,133.7	11,435.0	18.0	44.2	179.13		-1,749.1	-1,252.8	704.0	652.2	51.78	13.597	
12,200.0	10,729.2	13,233.6	11,435.0	18.7	44.5	179.51		-1,849.0	-1,252.3	703.8	651.2	52.60	13.381	
12,289.8	10,729.3	13,323.4	11,435.0	19.2	44.8	179.61		-1,938.8	-1,251.9	703.7	650.4	53.35	13.190	
12,300.0	10,729.3	13,333.6	11,435.0	19.3	44.8	179.61		-1,949.0	-1,251.8	703.7	650.3	53.44	13.168	
12,400.0	10,729.4	13,433.6	11,435.0	19.9	45.2	179.59		-2,049.0	-1,251.4	703.6	649.3	54.31	12.956	
12,500.0	10,729.5	13,533.6	11,435.0	20.6	45.5	179.58		-2,149.0	-1,250.9	703.5	648.3	55.20	12.744	
12,600.0	10,729.6	13,633.6	11,435.0	21.2	45.8	179.57		-2,249.0	-1,250.4	703.4	647.3	56.13	12.531	
12,700.0	10,729.7	13,733.6	11,435.0	21.9	46.2	179.55		-2,349.0	-1,249.9	703.3	646.2	57.09	12.320	
12,800.0	10,729.8	13,833.6	11,435.0	22.6	46.6	179.54		-2,449.0	-1,249.4	703.2	645.1	58.07	12.110	
12,900.0	10,729.9	13,933.6	11,435.0	23.3	47.0	179.53		-2,549.0	-1,249.0	703.1	644.0	59.08	11.901	
13,000.0	10,730.0	14,033.6	11,435.0	24.0	47.4	179.51		-2,649.0	-1,248.5	703.0	642.9	60.11	11.695	
13,100.0	10,730.1	14,133.6	11,435.0	24.7	47.8	179.50		-2,749.0	-1,248.0	702.9	641.7	61.16	11.492	
13,200.0	10,730.2	14,233.6	11,435.0	25.5	48.2	179.49		-2,849.0	-1,247.5	702.8	640.5	62.24	11.291	
13,300.0	10,730.3	14,333.6	11,435.0	26.2	48.7	179.47		-2,949.0	-1,247.0	702.7	639.3	63.34	11.094	
13,400.0	10,730.4	14,433.6	11,435.0	27.0	49.1	179.46		-3,049.0	-1,246.6	702.6	638.1	64.45	10.900	
13,500.0	10,730.6	14,533.6	11,435.0	27.7	49.6	179.44		-3,149.0	-1,246.1	702.5	636.9	65.59	10.710	
13,600.0	10,730.7	14,633.6	11,435.0	28.5	50.1	179.43		-3,249.0	-1,245.6	702.4	635.6	66.74	10.524	
13,700.0	10,730.8	14,733.6	11,435.0	29.2	50.6	179.42		-3,349.0	-1,245.1	702.3	634.3	67.91	10.341	
13,800.0	10,730.9	14,833.6	11,435.0	30.0	51.0	179.40		-3,449.0	-1,244.7	702.2	633.1	69.10	10.162	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
				(usft)	(usft)			+N/-S (usft)	+E/-W (usft)				
13,900.0	10,731.0	14,933.6	11,435.0	30.8	51.6	179.39		-3,549.0	-1,244.2	702.0	631.8	70.30	9.987
14,000.0	10,731.1	15,033.6	11,435.0	31.6	52.1	179.38		-3,649.0	-1,243.7	701.9	630.4	71.51	9.816
14,100.0	10,731.2	15,133.6	11,435.0	32.4	52.6	179.36		-3,749.0	-1,243.2	701.8	629.1	72.74	9.649
14,200.0	10,731.3	15,233.6	11,435.0	33.1	53.1	179.35		-3,849.0	-1,242.7	701.7	627.8	73.98	9.486
14,300.0	10,731.4	15,333.6	11,435.0	33.9	53.7	179.34		-3,949.0	-1,242.3	701.6	626.4	75.23	9.326
14,400.0	10,731.5	15,433.6	11,435.0	34.7	54.2	179.32		-4,049.0	-1,241.8	701.5	625.0	76.50	9.171
14,500.0	10,731.6	15,533.6	11,435.0	35.5	54.8	179.31		-4,149.0	-1,241.3	701.4	623.7	77.77	9.019
14,600.0	10,731.7	15,633.6	11,435.0	36.3	55.3	179.29		-4,249.0	-1,240.8	701.3	622.3	79.06	8.871
14,700.0	10,731.8	15,733.6	11,435.0	37.1	55.9	179.28		-4,349.0	-1,240.3	701.2	620.9	80.36	8.726
14,800.0	10,731.9	15,833.6	11,435.0	37.9	56.5	179.27		-4,449.0	-1,239.9	701.1	619.5	81.66	8.585
14,900.0	10,732.0	15,933.6	11,435.0	38.8	57.1	179.25		-4,549.0	-1,239.4	701.0	618.0	82.98	8.448
15,000.0	10,732.1	16,033.6	11,435.0	39.6	57.6	179.24		-4,649.0	-1,238.9	700.9	616.6	84.30	8.314
15,100.0	10,732.2	16,133.6	11,435.0	40.4	58.2	179.23		-4,749.0	-1,238.4	700.8	615.2	85.63	8.184
15,200.0	10,732.3	16,233.6	11,435.0	41.2	58.9	179.21		-4,849.0	-1,237.9	700.7	613.7	86.97	8.057
15,300.0	10,732.4	16,333.6	11,435.0	42.0	59.5	179.20		-4,949.0	-1,237.5	700.6	612.3	88.32	7.932
15,400.0	10,732.6	16,433.6	11,435.0	42.8	60.1	179.19		-5,049.0	-1,237.0	700.5	610.8	89.68	7.811
15,500.0	10,732.7	16,533.6	11,435.0	43.7	60.7	179.17		-5,149.0	-1,236.5	700.4	609.4	91.04	7.694
15,600.0	10,732.8	16,633.6	11,435.0	44.5	61.3	179.16		-5,249.0	-1,236.0	700.3	607.9	92.41	7.578
15,700.0	10,732.9	16,733.6	11,435.0	45.3	62.0	179.14		-5,349.0	-1,235.5	700.2	606.4	93.78	7.466
15,800.0	10,733.0	16,833.6	11,435.0	46.1	62.6	179.13		-5,449.0	-1,235.1	700.1	604.9	95.16	7.357
15,900.0	10,733.1	16,933.6	11,435.0	47.0	63.3	179.12		-5,549.0	-1,234.6	700.0	603.4	96.55	7.250
16,000.0	10,733.2	17,033.6	11,435.0	47.8	63.9	179.10		-5,649.0	-1,234.1	699.9	602.0	97.94	7.146
16,100.0	10,733.3	17,133.6	11,435.0	48.6	64.6	179.09		-5,749.0	-1,233.6	699.8	600.5	99.34	7.045
16,200.0	10,733.4	17,233.6	11,435.0	49.4	65.2	179.08		-5,849.0	-1,233.1	699.7	598.9	100.74	6.946
16,300.0	10,733.5	17,333.6	11,435.0	50.3	65.9	179.06		-5,949.0	-1,232.7	699.6	597.4	102.14	6.849
16,400.0	10,733.6	17,433.6	11,435.0	51.1	66.6	179.05		-6,049.0	-1,232.2	699.5	595.9	103.56	6.755
16,500.0	10,733.7	17,533.6	11,435.0	51.9	67.2	179.03		-6,149.0	-1,231.7	699.4	594.4	104.97	6.663
16,600.0	10,733.8	17,633.6	11,435.0	52.8	67.9	179.02		-6,249.0	-1,231.2	699.3	592.9	106.39	6.573
16,700.0	10,733.9	17,733.6	11,435.0	53.6	68.6	179.01		-6,349.0	-1,230.7	699.2	591.4	107.82	6.485
16,800.0	10,734.0	17,833.6	11,435.0	54.4	69.3	178.99		-6,449.0	-1,230.3	699.1	589.8	109.24	6.399
16,900.0	10,734.1	17,933.6	11,435.0	55.3	70.0	178.98		-6,549.0	-1,229.8	699.0	588.3	110.68	6.316
17,000.0	10,734.2	18,033.6	11,435.0	56.1	70.7	178.97		-6,649.0	-1,229.3	698.9	586.8	112.11	6.234
17,100.0	10,734.3	18,133.6	11,435.0	57.0	71.4	178.95		-6,748.9	-1,228.8	698.8	585.2	113.55	6.154
17,200.0	10,734.4	18,233.6	11,435.0	57.8	72.1	178.94		-6,848.9	-1,228.3	698.7	583.7	114.99	6.076
17,300.0	10,734.6	18,333.6	11,435.0	58.6	72.8	178.92		-6,948.9	-1,227.9	698.6	582.1	116.44	5.999
17,400.0	10,734.7	18,433.6	11,435.0	59.5	73.5	178.91		-7,048.9	-1,227.4	698.5	580.6	117.89	5.925
17,500.0	10,734.8	18,533.6	11,435.0	60.3	74.2	178.90		-7,148.9	-1,226.9	698.4	579.0	119.34	5.852
17,600.0	10,734.9	18,633.6	11,435.0	61.2	74.9	178.88		-7,248.9	-1,226.4	698.3	577.5	120.79	5.781
17,700.0	10,735.0	18,733.6	11,435.0	62.0	75.6	178.87		-7,348.9	-1,225.9	698.2	575.9	122.25	5.711
17,800.0	10,735.1	18,833.6	11,435.0	62.8	76.3	178.86		-7,448.9	-1,225.5	698.1	574.3	123.71	5.643
17,900.0	10,735.2	18,933.6	11,435.0	63.7	77.1	178.84		-7,548.9	-1,225.0	698.0	572.8	125.17	5.576
18,000.0	10,735.3	19,033.6	11,435.0	64.5	77.8	178.83		-7,648.9	-1,224.5	697.9	571.2	126.64	5.511
18,100.0	10,735.4	19,133.6	11,435.0	65.4	78.5	178.81		-7,748.9	-1,224.0	697.7	569.6	128.11	5.447
18,200.0	10,735.5	19,233.6	11,435.0	66.2	79.3	178.80		-7,848.9	-1,223.5	697.6	568.1	129.58	5.384
18,300.0	10,735.6	19,333.6	11,435.0	67.1	80.0	178.79		-7,948.9	-1,223.1	697.5	566.5	131.05	5.323
18,400.0	10,735.7	19,433.6	11,435.0	67.9	80.7	178.77		-8,048.9	-1,222.6	697.4	564.9	132.52	5.263
18,500.0	10,735.8	19,533.6	11,435.0	68.7	81.5	178.76		-8,148.9	-1,222.1	697.3	563.3	134.00	5.204
18,600.0	10,735.9	19,633.6	11,435.0	69.6	82.2	178.75		-8,248.9	-1,221.6	697.2	561.8	135.48	5.146
18,700.0	10,736.0	19,733.6	11,435.0	70.4	83.0	178.73		-8,348.9	-1,221.1	697.1	560.2	136.96	5.090
18,800.0	10,736.1	19,833.6	11,435.0	71.3	83.7	178.72		-8,448.9	-1,220.7	697.0	558.6	138.44	5.035
18,900.0	10,736.2	19,933.6	11,435.0	72.1	84.5	178.70		-8,548.9	-1,220.2	696.9	557.0	139.93	4.981

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 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		
19,000.0	10,736.3	20,033.6	11,435.0	73.0	85.2	178.69	-8,648.9	-1,219.7	696.8	555.4	141.41	4.928		
19,100.0	10,736.4	20,133.6	11,435.0	73.8	86.0	178.68	-8,748.9	-1,219.2	696.7	553.8	142.90	4.876		
19,200.0	10,736.6	20,233.6	11,435.0	74.7	86.7	178.66	-8,848.9	-1,218.7	696.6	552.2	144.39	4.825		
19,300.0	10,736.7	20,333.6	11,435.0	75.5	87.5	178.65	-8,948.9	-1,218.3	696.5	550.7	145.88	4.775		
19,400.0	10,736.8	20,433.6	11,435.0	76.4	88.2	178.63	-9,048.9	-1,217.8	696.4	549.1	147.38	4.726		
19,500.0	10,736.9	20,533.6	11,435.0	77.2	89.0	178.62	-9,148.9	-1,217.3	696.3	547.5	148.87	4.677		
19,600.0	10,737.0	20,633.6	11,435.0	78.1	89.8	178.61	-9,248.9	-1,216.8	696.2	545.9	150.37	4.630		
19,700.0	10,737.1	20,733.6	11,435.0	78.9	90.5	178.59	-9,348.9	-1,216.4	696.1	544.3	151.87	4.584		
19,800.0	10,737.2	20,833.6	11,435.0	79.8	91.3	178.58	-9,448.9	-1,215.9	696.0	542.7	153.36	4.538		
19,900.0	10,737.3	20,933.6	11,435.0	80.6	92.1	178.57	-9,548.9	-1,215.4	695.9	541.1	154.86	4.494		
20,000.0	10,737.4	21,033.6	11,435.0	81.5	92.8	178.55	-9,648.9	-1,214.9	695.8	539.5	156.37	4.450		
20,100.0	10,737.5	21,133.6	11,435.0	82.3	93.6	178.54	-9,748.9	-1,214.4	695.7	537.9	157.87	4.407		
20,200.0	10,737.6	21,233.6	11,435.0	83.2	94.4	178.52	-9,848.9	-1,214.0	695.6	536.3	159.37	4.365		
20,300.0	10,737.7	21,333.6	11,435.0	84.0	95.1	178.51	-9,948.9	-1,213.5	695.5	534.6	160.88	4.323		
20,400.0	10,737.8	21,433.6	11,435.0	84.9	95.9	178.50	-10,048.9	-1,213.0	695.4	533.0	162.39	4.283		
20,500.0	10,737.9	21,533.6	11,435.0	85.7	96.7	178.48	-10,148.9	-1,212.5	695.3	531.4	163.89	4.243		
20,571.7	10,738.0	21,604.6	11,435.0	86.3	97.3	178.47	-10,219.9	-1,212.2	695.3	530.3	164.96	4.215 SF		
20,577.8	10,738.0	21,604.6	11,435.0	86.4	97.3	178.47	-10,219.9	-1,212.2	695.3	530.3	164.97	4.215		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=27' @ 3173.0usft (Nabors 893)

Offset Depths are relative to Offset Datum

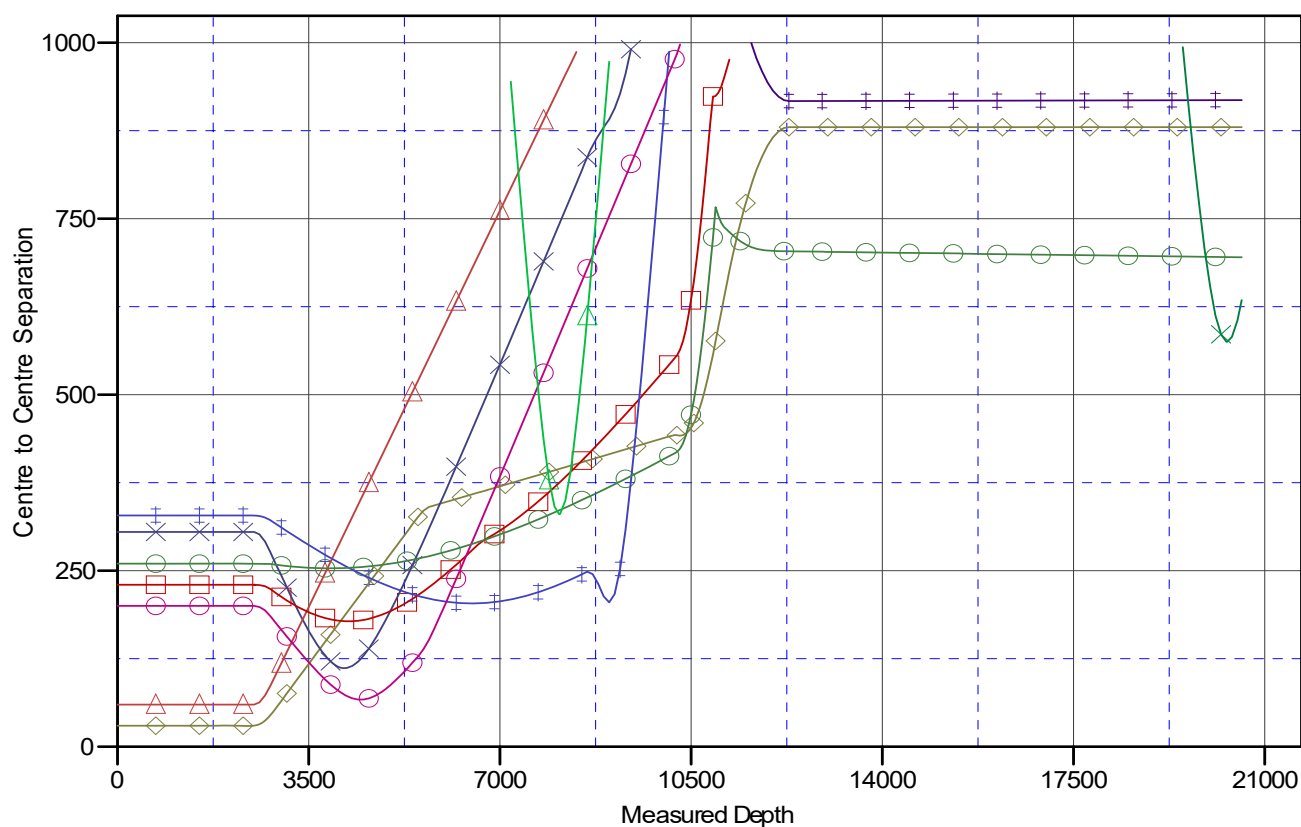
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: CABO WABO FED COM #703H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.21°

Ladder Plot



LEGEND

CABO WABO FED COM #702H, OWB, PWP1 V0	CABO WABO FED COM #802H, OWB, PWP0 V0	CABO WABO 25 FEDERAL #8H, OWB-PILOT HOLE, AWP-PH V0
CABO WABO FED COM #50H, OWB, PWP0 V0	CABO WABO FED COM #502H, OWB, PWP0 V0	CABO WABO 25 FEDERAL #8H, LATERAL 01, AWP-LAT 01 V0
CABO WABO FED COM #70H, OWB, PWP1 V0	CABO WABO FED COM #80H, OWB, PWP0 V0	
CABO WABO FED COM #704H, OWB, PWP1 V0	CABO WABO FED COM #803H, OWB, PWP0 V0	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=27' @ 3173.0usft (Nabors 893)

Offset Depths are relative to Offset Datum

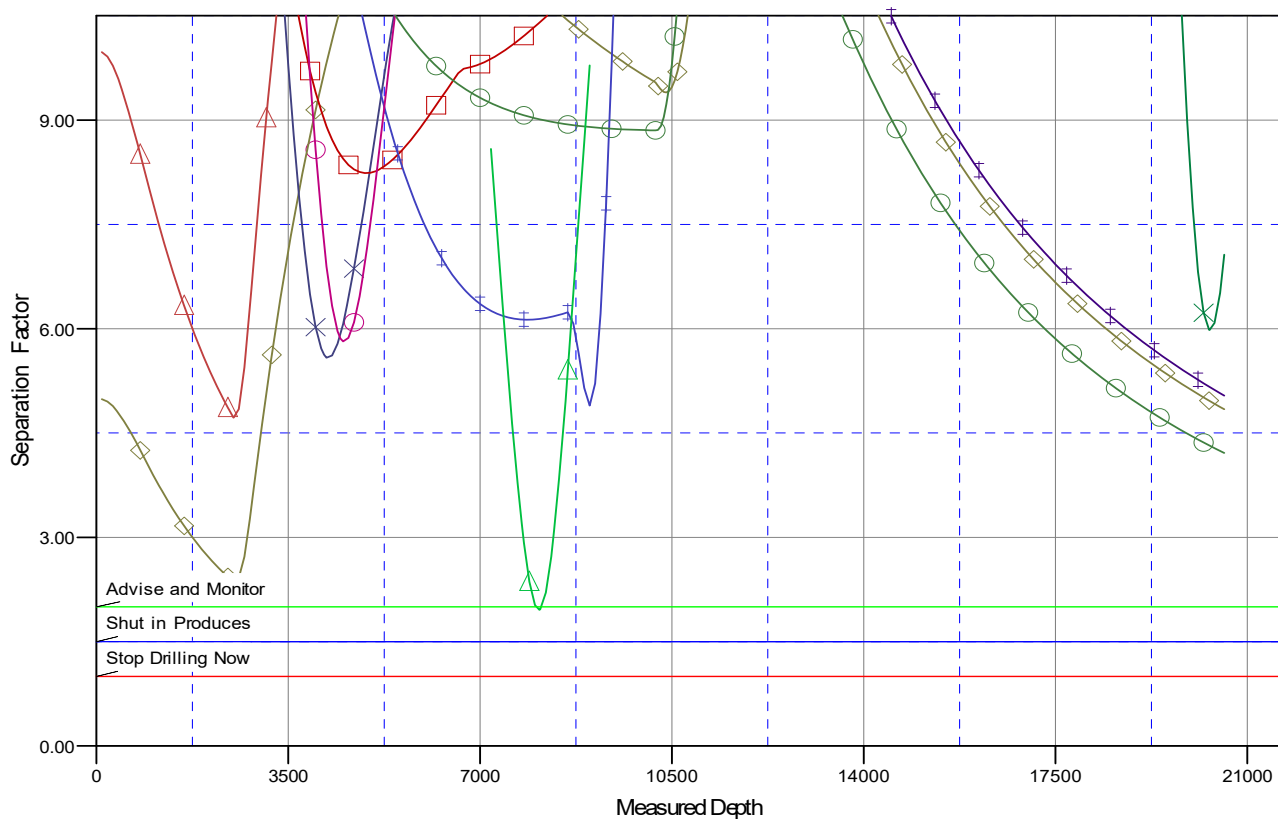
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: CABO WABO FED COM #703H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.21°

Separation Factor Plot



LEGEND

CABO WABO FED COM #702H, OWB, PWP1 V0	CABO WABO FED COM #802H, OWB, PWP0 V0	CABO WABO 25 FEDERAL #8H, OWB-PILOT HOLE, AWP-PH V0
CABO WABO FED COM #50H, OWB, PWP0 V0	CABO WABO FED COM #502H, OWB, PWP0 V0	CABO WABO 25 FEDERAL #8H, LATERAL 01, AWP-LAT 01 V0
CABO WABO FED COM #70H, OWB, PWP1 V0	CABO WABO FED COM #80H, OWB, PWP0 V0	
CABO WABO FED COM #704H, OWB, PWP1 V0	CABO WABO FED COM #803H, OWB, PWP0 V0	

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

CABO WABO FEDERAL PROJECT (ATLAS 2529)

CABO WABO FED COM #703H

OWB

Plan: PWP1

Standard Survey Report

19 May, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	ATLAS PROSPECT (NM-E)		
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		

Well	CABO WABO FED COM #703H			
Well Position	+N/-S	0.0 usft	Northing:	408,375.85 usfi
	+E/-W	0.0 usft	Easting:	624,265.52 usfi
Position Uncertainty		3.0 usft	Wellhead Elevation:	usfi
			Latitude:	32° 7' 19.579 N
			Longitude:	103° 55' 54.979 W
			Ground Level:	3,146.0 usft

Wellbore	OWB
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/19/2020	6.83	59.79	47,509.69530774

Design	PWP1
---------------	------

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	186.66

Survey Tool Program		Date	5/19/2020	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	10,239.1	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
10,239.1	20,577.8	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
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
1,700.0	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
2,100.0	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
Start Build 2.00									
2,600.0	2.00	250.00	2,600.0	-0.6	-1.6	0.8	2.00	2.00	0.00
2,700.0	4.00	250.00	2,699.8	-2.4	-6.6	3.1	2.00	2.00	0.00
2,800.0	6.00	250.00	2,799.5	-5.4	-14.7	7.0	2.00	2.00	0.00
Start 7439.1 hold at 2800.0 MD									
2,900.0	6.00	250.00	2,898.9	-8.9	-24.6	11.7	0.00	0.00	0.00
3,000.0	6.00	250.00	2,998.4	-12.5	-34.4	16.4	0.00	0.00	0.00
3,100.0	6.00	250.00	3,097.8	-16.1	-44.2	21.1	0.00	0.00	0.00
3,200.0	6.00	250.00	3,197.3	-19.7	-54.0	25.8	0.00	0.00	0.00
3,300.0	6.00	250.00	3,296.7	-23.2	-63.9	30.5	0.00	0.00	0.00
3,400.0	6.00	250.00	3,396.2	-26.8	-73.7	35.2	0.00	0.00	0.00
3,500.0	6.00	250.00	3,495.6	-30.4	-83.5	39.9	0.00	0.00	0.00
3,600.0	6.00	250.00	3,595.1	-34.0	-93.3	44.6	0.00	0.00	0.00
3,700.0	6.00	250.00	3,694.5	-37.5	-103.1	49.2	0.00	0.00	0.00
3,800.0	6.00	250.00	3,794.0	-41.1	-113.0	53.9	0.00	0.00	0.00
3,900.0	6.00	250.00	3,893.4	-44.7	-122.8	58.6	0.00	0.00	0.00
4,000.0	6.00	250.00	3,992.9	-48.3	-132.6	63.3	0.00	0.00	0.00
4,100.0	6.00	250.00	4,092.3	-51.8	-142.4	68.0	0.00	0.00	0.00
4,200.0	6.00	250.00	4,191.8	-55.4	-152.3	72.7	0.00	0.00	0.00
4,300.0	6.00	250.00	4,291.2	-59.0	-162.1	77.4	0.00	0.00	0.00
4,400.0	6.00	250.00	4,390.7	-62.6	-171.9	82.1	0.00	0.00	0.00
4,500.0	6.00	250.00	4,490.1	-66.1	-181.7	86.8	0.00	0.00	0.00
4,600.0	6.00	250.00	4,589.6	-69.7	-191.6	91.5	0.00	0.00	0.00
4,700.0	6.00	250.00	4,689.0	-73.3	-201.4	96.1	0.00	0.00	0.00
4,800.0	6.00	250.00	4,788.5	-76.9	-211.2	100.8	0.00	0.00	0.00
4,900.0	6.00	250.00	4,887.9	-80.4	-221.0	105.5	0.00	0.00	0.00
5,000.0	6.00	250.00	4,987.4	-84.0	-230.8	110.2	0.00	0.00	0.00
5,100.0	6.00	250.00	5,086.9	-87.6	-240.7	114.9	0.00	0.00	0.00
5,200.0	6.00	250.00	5,186.3	-91.2	-250.5	119.6	0.00	0.00	0.00
5,300.0	6.00	250.00	5,285.8	-94.7	-260.3	124.3	0.00	0.00	0.00
5,400.0	6.00	250.00	5,385.2	-98.3	-270.1	129.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
5,500.0	6.00	250.00	5,484.7	-101.9	-280.0	133.7	0.00	0.00	0.00
5,600.0	6.00	250.00	5,584.1	-105.5	-289.8	138.4	0.00	0.00	0.00
5,700.0	6.00	250.00	5,683.6	-109.0	-299.6	143.0	0.00	0.00	0.00
5,800.0	6.00	250.00	5,783.0	-112.6	-309.4	147.7	0.00	0.00	0.00
5,900.0	6.00	250.00	5,882.5	-116.2	-319.2	152.4	0.00	0.00	0.00
6,000.0	6.00	250.00	5,981.9	-119.8	-329.1	157.1	0.00	0.00	0.00
6,100.0	6.00	250.00	6,081.4	-123.3	-338.9	161.8	0.00	0.00	0.00
6,200.0	6.00	250.00	6,180.8	-126.9	-348.7	166.5	0.00	0.00	0.00
6,300.0	6.00	250.00	6,280.3	-130.5	-358.5	171.2	0.00	0.00	0.00
6,400.0	6.00	250.00	6,379.7	-134.1	-368.4	175.9	0.00	0.00	0.00
6,500.0	6.00	250.00	6,479.2	-137.6	-378.2	180.6	0.00	0.00	0.00
6,600.0	6.00	250.00	6,578.6	-141.2	-388.0	185.2	0.00	0.00	0.00
6,700.0	6.00	250.00	6,678.1	-144.8	-397.8	189.9	0.00	0.00	0.00
6,800.0	6.00	250.00	6,777.5	-148.4	-407.6	194.6	0.00	0.00	0.00
6,900.0	6.00	250.00	6,877.0	-151.9	-417.5	199.3	0.00	0.00	0.00
7,000.0	6.00	250.00	6,976.4	-155.5	-427.3	204.0	0.00	0.00	0.00
7,100.0	6.00	250.00	7,075.9	-159.1	-437.1	208.7	0.00	0.00	0.00
7,200.0	6.00	250.00	7,175.3	-162.7	-446.9	213.4	0.00	0.00	0.00
7,300.0	6.00	250.00	7,274.8	-166.2	-456.8	218.1	0.00	0.00	0.00
7,400.0	6.00	250.00	7,374.3	-169.8	-466.6	222.8	0.00	0.00	0.00
7,500.0	6.00	250.00	7,473.7	-173.4	-476.4	227.5	0.00	0.00	0.00
7,600.0	6.00	250.00	7,573.2	-177.0	-486.2	232.1	0.00	0.00	0.00
7,700.0	6.00	250.00	7,672.6	-180.5	-496.0	236.8	0.00	0.00	0.00
7,800.0	6.00	250.00	7,772.1	-184.1	-505.9	241.5	0.00	0.00	0.00
7,900.0	6.00	250.00	7,871.5	-187.7	-515.7	246.2	0.00	0.00	0.00
8,000.0	6.00	250.00	7,971.0	-191.3	-525.5	250.9	0.00	0.00	0.00
8,100.0	6.00	250.00	8,070.4	-194.8	-535.3	255.6	0.00	0.00	0.00
8,200.0	6.00	250.00	8,169.9	-198.4	-545.2	260.3	0.00	0.00	0.00
8,300.0	6.00	250.00	8,269.3	-202.0	-555.0	265.0	0.00	0.00	0.00
8,400.0	6.00	250.00	8,368.8	-205.6	-564.8	269.7	0.00	0.00	0.00
8,500.0	6.00	250.00	8,468.2	-209.1	-574.6	274.4	0.00	0.00	0.00
8,600.0	6.00	250.00	8,567.7	-212.7	-584.4	279.0	0.00	0.00	0.00
8,700.0	6.00	250.00	8,667.1	-216.3	-594.3	283.7	0.00	0.00	0.00
8,800.0	6.00	250.00	8,766.6	-219.9	-604.1	288.4	0.00	0.00	0.00
8,900.0	6.00	250.00	8,866.0	-223.4	-613.9	293.1	0.00	0.00	0.00
9,000.0	6.00	250.00	8,965.5	-227.0	-623.7	297.8	0.00	0.00	0.00
9,100.0	6.00	250.00	9,064.9	-230.6	-633.6	302.5	0.00	0.00	0.00
9,200.0	6.00	250.00	9,164.4	-234.2	-643.4	307.2	0.00	0.00	0.00
9,300.0	6.00	250.00	9,263.8	-237.7	-653.2	311.9	0.00	0.00	0.00
9,400.0	6.00	250.00	9,363.3	-241.3	-663.0	316.6	0.00	0.00	0.00
9,500.0	6.00	250.00	9,462.7	-244.9	-672.9	321.2	0.00	0.00	0.00
9,600.0	6.00	250.00	9,562.2	-248.5	-682.7	325.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
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Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
9,700.0	6.00	250.00	9,661.7	-252.0	-692.5	330.6	0.00	0.00	0.00
9,800.0	6.00	250.00	9,761.1	-255.6	-702.3	335.3	0.00	0.00	0.00
9,900.0	6.00	250.00	9,860.6	-259.2	-712.1	340.0	0.00	0.00	0.00
10,000.0	6.00	250.00	9,960.0	-262.8	-722.0	344.7	0.00	0.00	0.00
10,100.0	6.00	250.00	10,059.5	-266.3	-731.8	349.4	0.00	0.00	0.00
10,200.0	6.00	250.00	10,158.9	-269.9	-741.6	354.1	0.00	0.00	0.00
10,239.1	6.00	250.00	10,197.8	-271.3	-745.4	355.9	0.00	0.00	0.00
Start DLS 10.00 TFO -46.68									
10,300.0	11.10	226.36	10,258.0	-276.5	-752.7	361.9	10.00	8.37	-38.82
10,400.0	20.66	215.15	10,354.1	-297.6	-769.9	384.8	10.00	9.56	-11.21
10,500.0	30.50	210.92	10,444.2	-333.9	-793.1	423.6	10.00	9.84	-4.23
10,600.0	40.41	208.62	10,525.6	-384.2	-821.7	476.9	10.00	9.91	-2.30
10,700.0	50.35	207.10	10,595.7	-447.1	-854.9	543.2	10.00	9.94	-1.52
10,800.0	60.31	205.97	10,652.5	-520.6	-891.5	620.5	10.00	9.96	-1.13
10,900.0	70.27	205.04	10,694.3	-602.5	-930.6	706.3	10.00	9.96	-0.93
11,000.0	80.24	204.23	10,719.7	-690.3	-970.8	798.2	10.00	9.97	-0.82
11,097.3	89.94	203.48	10,728.0	-778.8	-1,010.0	890.7	10.00	9.97	-0.77
Start DLS 2.00 TFO -90.01									
11,100.0	89.94	203.43	10,728.0	-781.4	-1,011.0	893.3	2.00	0.00	-2.00
11,200.0	89.94	201.43	10,728.1	-873.8	-1,049.2	989.5	2.00	0.00	-2.00
11,300.0	89.94	199.43	10,728.2	-967.5	-1,084.1	1,086.6	2.00	0.00	-2.00
11,400.0	89.94	197.43	10,728.3	-1,062.4	-1,115.7	1,184.5	2.00	0.00	-2.00
11,500.0	89.94	195.43	10,728.4	-1,158.3	-1,144.0	1,283.1	2.00	0.00	-2.00
11,600.0	89.94	193.43	10,728.5	-1,255.1	-1,168.9	1,382.2	2.00	0.00	-2.00
11,700.0	89.94	191.43	10,728.7	-1,352.8	-1,190.4	1,481.6	2.00	0.00	-2.00
11,800.0	89.94	189.43	10,728.8	-1,451.1	-1,208.5	1,581.4	2.00	0.00	-2.00
11,900.0	89.94	187.43	10,728.9	-1,550.0	-1,223.1	1,681.4	2.00	0.00	-2.00
12,000.0	89.94	185.43	10,729.0	-1,649.4	-1,234.3	1,781.4	2.00	0.00	-2.00
12,100.0	89.94	183.43	10,729.1	-1,749.1	-1,242.0	1,881.3	2.00	0.00	-2.00
12,200.0	89.94	181.43	10,729.2	-1,849.0	-1,246.3	1,981.0	2.00	0.00	-2.00
12,289.8	89.94	179.63	10,729.3	-1,938.7	-1,247.1	2,070.2	2.00	0.00	-2.00
Start 8288.0 hold at 12289.8 MD									
12,300.0	89.94	179.63	10,729.3	-1,949.0	-1,247.0	2,080.4	0.00	0.00	0.00
12,400.0	89.94	179.63	10,729.4	-2,049.0	-1,246.4	2,179.7	0.00	0.00	0.00
12,500.0	89.94	179.63	10,729.5	-2,149.0	-1,245.7	2,278.9	0.00	0.00	0.00
12,600.0	89.94	179.63	10,729.6	-2,249.0	-1,245.1	2,378.2	0.00	0.00	0.00
12,700.0	89.94	179.63	10,729.7	-2,349.0	-1,244.5	2,477.4	0.00	0.00	0.00
12,800.0	89.94	179.63	10,729.8	-2,449.0	-1,243.8	2,576.7	0.00	0.00	0.00
12,900.0	89.94	179.63	10,729.9	-2,549.0	-1,243.2	2,675.9	0.00	0.00	0.00
13,000.0	89.94	179.63	10,730.0	-2,649.0	-1,242.5	2,775.2	0.00	0.00	0.00
13,100.0	89.94	179.63	10,730.1	-2,749.0	-1,241.9	2,874.4	0.00	0.00	0.00
13,200.0	89.94	179.63	10,730.2	-2,849.0	-1,241.2	2,973.7	0.00	0.00	0.00
13,300.0	89.94	179.63	10,730.3	-2,949.0	-1,240.6	3,072.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
13,400.0	89.94	179.63	10,730.4	-3,049.0	-1,239.9	3,172.2	0.00	0.00	0.00
13,500.0	89.94	179.63	10,730.6	-3,149.0	-1,239.3	3,271.4	0.00	0.00	0.00
13,600.0	89.94	179.63	10,730.7	-3,249.0	-1,238.6	3,370.7	0.00	0.00	0.00
13,700.0	89.94	179.63	10,730.8	-3,349.0	-1,238.0	3,469.9	0.00	0.00	0.00
13,800.0	89.94	179.63	10,730.9	-3,449.0	-1,237.3	3,569.1	0.00	0.00	0.00
13,900.0	89.94	179.63	10,731.0	-3,549.0	-1,236.7	3,668.4	0.00	0.00	0.00
14,000.0	89.94	179.63	10,731.1	-3,649.0	-1,236.1	3,767.6	0.00	0.00	0.00
14,100.0	89.94	179.63	10,731.2	-3,749.0	-1,235.4	3,866.9	0.00	0.00	0.00
14,200.0	89.94	179.63	10,731.3	-3,849.0	-1,234.8	3,966.1	0.00	0.00	0.00
14,300.0	89.94	179.63	10,731.4	-3,948.9	-1,234.1	4,065.4	0.00	0.00	0.00
14,400.0	89.94	179.63	10,731.5	-4,048.9	-1,233.5	4,164.6	0.00	0.00	0.00
14,500.0	89.94	179.63	10,731.6	-4,148.9	-1,232.8	4,263.9	0.00	0.00	0.00
14,600.0	89.94	179.63	10,731.7	-4,248.9	-1,232.2	4,363.1	0.00	0.00	0.00
14,700.0	89.94	179.63	10,731.8	-4,348.9	-1,231.5	4,462.4	0.00	0.00	0.00
14,800.0	89.94	179.63	10,731.9	-4,448.9	-1,230.9	4,561.6	0.00	0.00	0.00
14,900.0	89.94	179.63	10,732.0	-4,548.9	-1,230.2	4,660.9	0.00	0.00	0.00
15,000.0	89.94	179.63	10,732.1	-4,648.9	-1,229.6	4,760.1	0.00	0.00	0.00
15,100.0	89.94	179.63	10,732.2	-4,748.9	-1,229.0	4,859.4	0.00	0.00	0.00
15,200.0	89.94	179.63	10,732.3	-4,848.9	-1,228.3	4,958.6	0.00	0.00	0.00
15,300.0	89.94	179.63	10,732.4	-4,948.9	-1,227.7	5,057.9	0.00	0.00	0.00
15,400.0	89.94	179.63	10,732.6	-5,048.9	-1,227.0	5,157.1	0.00	0.00	0.00
15,500.0	89.94	179.63	10,732.7	-5,148.9	-1,226.4	5,256.4	0.00	0.00	0.00
15,600.0	89.94	179.63	10,732.8	-5,248.9	-1,225.7	5,355.6	0.00	0.00	0.00
15,700.0	89.94	179.63	10,732.9	-5,348.9	-1,225.1	5,454.9	0.00	0.00	0.00
15,800.0	89.94	179.63	10,733.0	-5,448.9	-1,224.4	5,554.1	0.00	0.00	0.00
15,900.0	89.94	179.63	10,733.1	-5,548.9	-1,223.8	5,653.4	0.00	0.00	0.00
16,000.0	89.94	179.63	10,733.2	-5,648.9	-1,223.1	5,752.6	0.00	0.00	0.00
16,100.0	89.94	179.63	10,733.3	-5,748.9	-1,222.5	5,851.9	0.00	0.00	0.00
16,200.0	89.94	179.63	10,733.4	-5,848.9	-1,221.9	5,951.1	0.00	0.00	0.00
16,300.0	89.94	179.63	10,733.5	-5,948.9	-1,221.2	6,050.4	0.00	0.00	0.00
16,400.0	89.94	179.63	10,733.6	-6,048.9	-1,220.6	6,149.6	0.00	0.00	0.00
16,500.0	89.94	179.63	10,733.7	-6,148.9	-1,219.9	6,248.9	0.00	0.00	0.00
16,600.0	89.94	179.63	10,733.8	-6,248.9	-1,219.3	6,348.1	0.00	0.00	0.00
16,700.0	89.94	179.63	10,733.9	-6,348.9	-1,218.6	6,447.4	0.00	0.00	0.00
16,800.0	89.94	179.63	10,734.0	-6,448.9	-1,218.0	6,546.6	0.00	0.00	0.00
16,900.0	89.94	179.63	10,734.1	-6,548.9	-1,217.3	6,645.9	0.00	0.00	0.00
17,000.0	89.94	179.63	10,734.2	-6,648.9	-1,216.7	6,745.1	0.00	0.00	0.00
17,100.0	89.94	179.63	10,734.3	-6,748.9	-1,216.0	6,844.4	0.00	0.00	0.00
17,200.0	89.94	179.63	10,734.4	-6,848.9	-1,215.4	6,943.6	0.00	0.00	0.00
17,300.0	89.94	179.63	10,734.6	-6,948.9	-1,214.8	7,042.9	0.00	0.00	0.00
17,400.0	89.94	179.63	10,734.7	-7,048.9	-1,214.1	7,142.1	0.00	0.00	0.00
17,500.0	89.94	179.63	10,734.8	-7,148.9	-1,213.5	7,241.4	0.00	0.00	0.00
17,600.0	89.94	179.63	10,734.9	-7,248.9	-1,212.8	7,340.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
17,700.0	89.94	179.63	10,735.0	-7,348.9	-1,212.2	7,439.9	0.00	0.00	0.00
17,800.0	89.94	179.63	10,735.1	-7,448.9	-1,211.5	7,539.1	0.00	0.00	0.00
17,900.0	89.94	179.63	10,735.2	-7,548.9	-1,210.9	7,638.3	0.00	0.00	0.00
18,000.0	89.94	179.63	10,735.3	-7,648.9	-1,210.2	7,737.6	0.00	0.00	0.00
18,100.0	89.94	179.63	10,735.4	-7,748.9	-1,209.6	7,836.8	0.00	0.00	0.00
18,200.0	89.94	179.63	10,735.5	-7,848.9	-1,208.9	7,936.1	0.00	0.00	0.00
18,300.0	89.94	179.63	10,735.6	-7,948.9	-1,208.3	8,035.3	0.00	0.00	0.00
18,400.0	89.94	179.63	10,735.7	-8,048.9	-1,207.7	8,134.6	0.00	0.00	0.00
18,500.0	89.94	179.63	10,735.8	-8,148.9	-1,207.0	8,233.8	0.00	0.00	0.00
18,600.0	89.94	179.63	10,735.9	-8,248.9	-1,206.4	8,333.1	0.00	0.00	0.00
18,700.0	89.94	179.63	10,736.0	-8,348.9	-1,205.7	8,432.3	0.00	0.00	0.00
18,800.0	89.94	179.63	10,736.1	-8,448.9	-1,205.1	8,531.6	0.00	0.00	0.00
18,900.0	89.94	179.63	10,736.2	-8,548.9	-1,204.4	8,630.8	0.00	0.00	0.00
19,000.0	89.94	179.63	10,736.3	-8,648.8	-1,203.8	8,730.1	0.00	0.00	0.00
19,100.0	89.94	179.63	10,736.4	-8,748.8	-1,203.1	8,829.3	0.00	0.00	0.00
19,200.0	89.94	179.63	10,736.6	-8,848.8	-1,202.5	8,928.6	0.00	0.00	0.00
19,300.0	89.94	179.63	10,736.7	-8,948.8	-1,201.8	9,027.8	0.00	0.00	0.00
19,400.0	89.94	179.63	10,736.8	-9,048.8	-1,201.2	9,127.1	0.00	0.00	0.00
19,500.0	89.94	179.63	10,736.9	-9,148.8	-1,200.5	9,226.3	0.00	0.00	0.00
19,600.0	89.94	179.63	10,737.0	-9,248.8	-1,199.9	9,325.6	0.00	0.00	0.00
19,700.0	89.94	179.63	10,737.1	-9,348.8	-1,199.3	9,424.8	0.00	0.00	0.00
19,800.0	89.94	179.63	10,737.2	-9,448.8	-1,198.6	9,524.1	0.00	0.00	0.00
19,900.0	89.94	179.63	10,737.3	-9,548.8	-1,198.0	9,623.3	0.00	0.00	0.00
20,000.0	89.94	179.63	10,737.4	-9,648.8	-1,197.3	9,722.6	0.00	0.00	0.00
20,100.0	89.94	179.63	10,737.5	-9,748.8	-1,196.7	9,821.8	0.00	0.00	0.00
20,200.0	89.94	179.63	10,737.6	-9,848.8	-1,196.0	9,921.1	0.00	0.00	0.00
20,300.0	89.94	179.63	10,737.7	-9,948.8	-1,195.4	10,020.3	0.00	0.00	0.00
20,400.0	89.94	179.63	10,737.8	-10,048.8	-1,194.7	10,119.6	0.00	0.00	0.00
20,500.0	89.94	179.63	10,737.9	-10,148.8	-1,194.1	10,218.8	0.00	0.00	0.00
20,577.8	89.94	179.63	10,738.0	-10,226.6	-1,193.6	10,296.0	0.00	0.00	0.00
TD at 20577.8									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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									
FTP (CABO WABO FI	0.00	0.01	10,728.0	-131.1	-1,259.2	408,244.73	623,006.32	32° 7' 18.328 N	103° 56' 9.627 W
- plan misses target center by 529.9usft at 10700.0usft MD (10595.7 TVD, -447.1 N, -854.9 E)									
- Circle (radius 50.0)									
PBHL (CABO WABO	-0.06	359.63	10,738.0	-10,226.6	-1,193.6	398,149.26	623,071.93	32° 5' 38.417 N	103° 56' 9.297 W
- plan hits target center									
- Rectangle (sides W100.0 H10,067.0 D20.0)									
LTP (CABO WABO FE	0.00	0.00	10,738.0	-10,096.6	-1,194.4	398,279.25	623,071.08	32° 5' 39.704 N	103° 56' 9.301 W
- plan misses target center by 0.1usft at 20447.8usft MD (10737.9 TVD, -10096.6 N, -1194.4 E)									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2500	2500	0	0	Start Build 2.00
2800	2799	-5	-15	Start 7439.1 hold at 2800.0 MD
10,239	10,198	-271	-745	Start DLS 10.00 TFO -46.68
11,097	10,728	-779	-1010	Start DLS 2.00 TFO -90.01
12,290	10,729	-1939	-1247	Start 8288.0 hold at 12289.8 MD
20,578	10,738	-10,227	-1194	TD at 20577.8

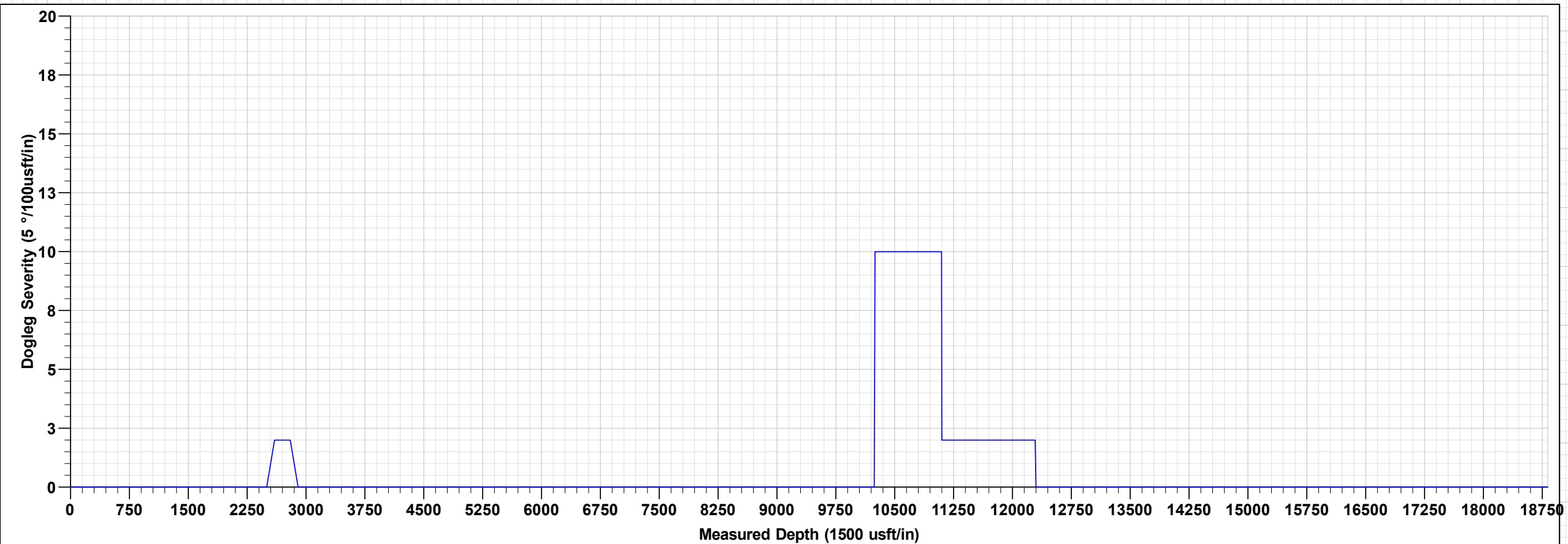
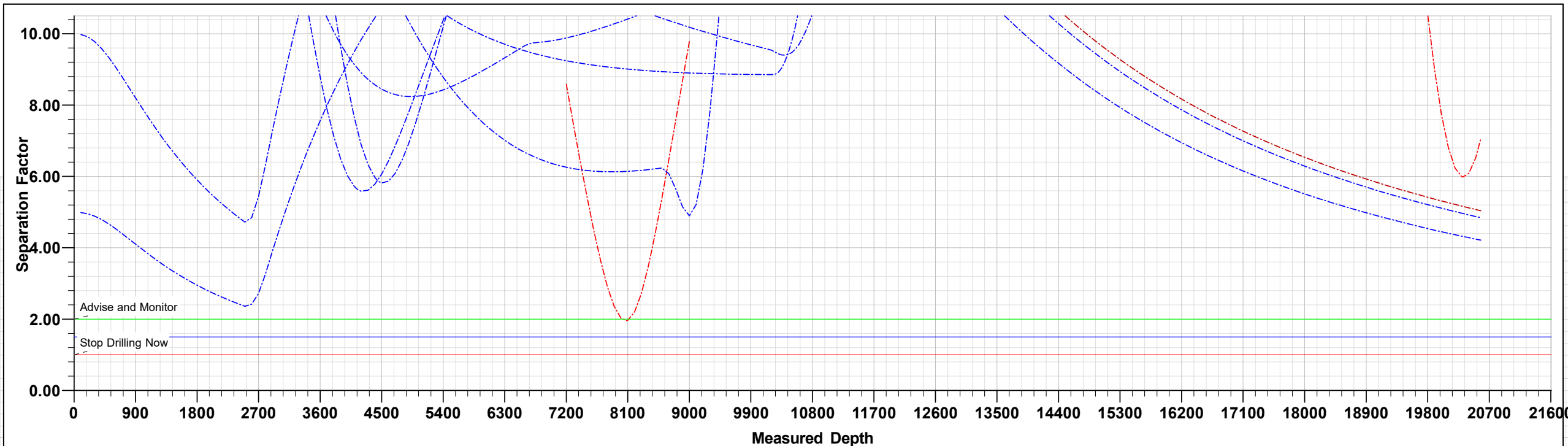
Checked By: _____ Approved By: _____ Date: _____



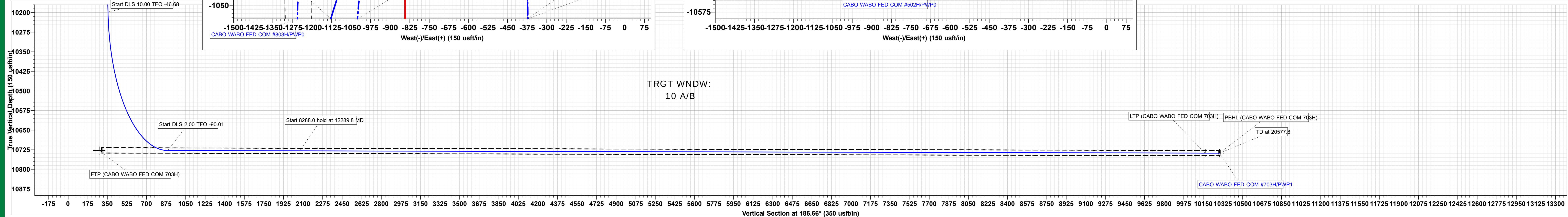
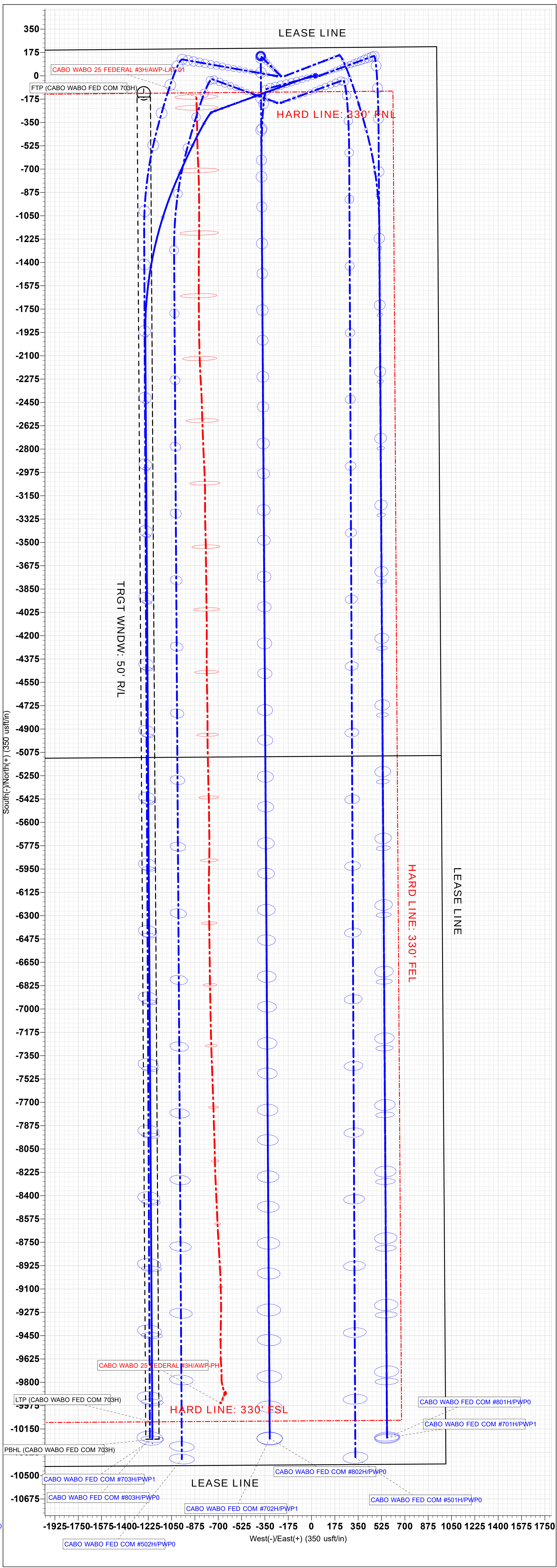
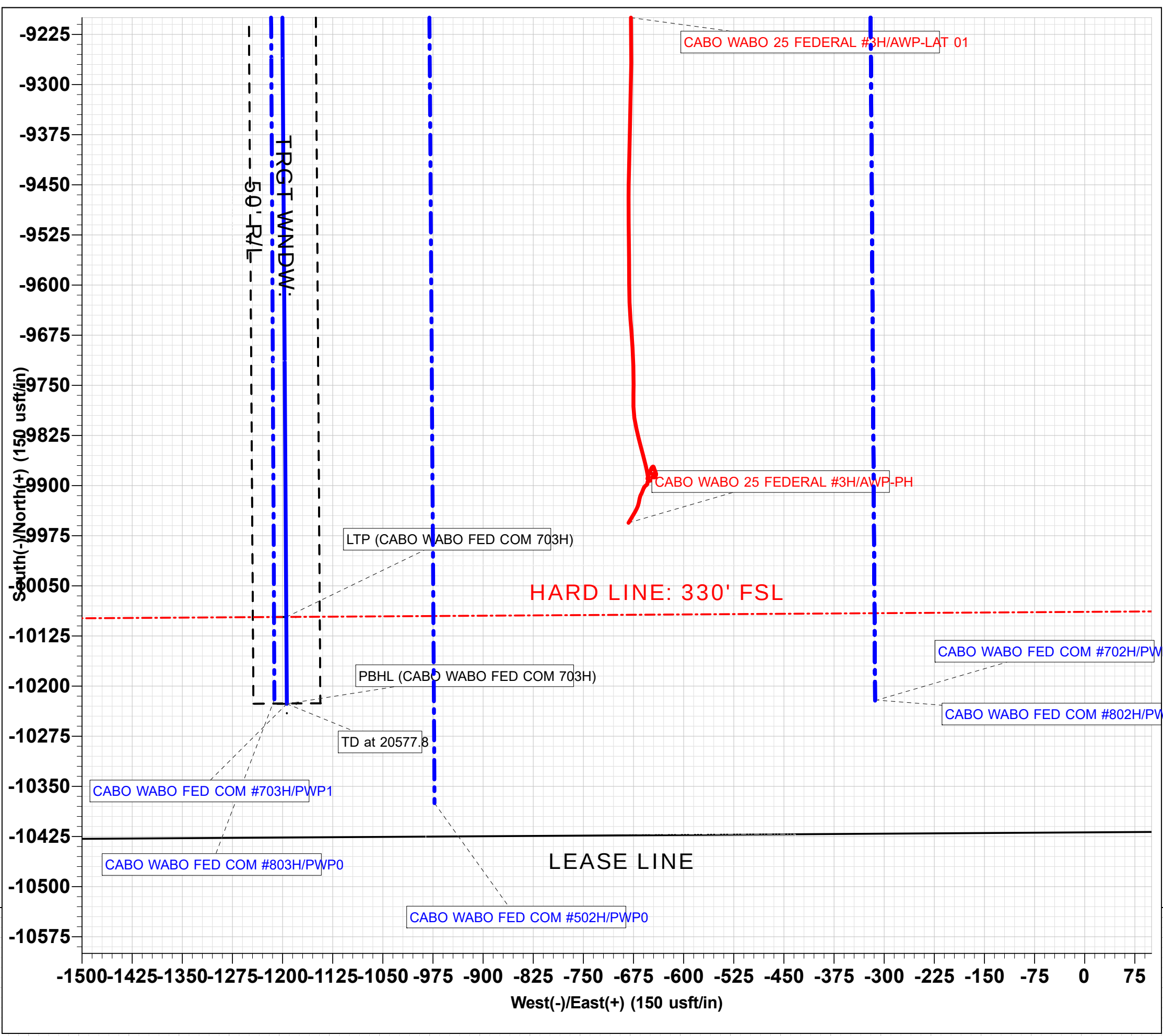
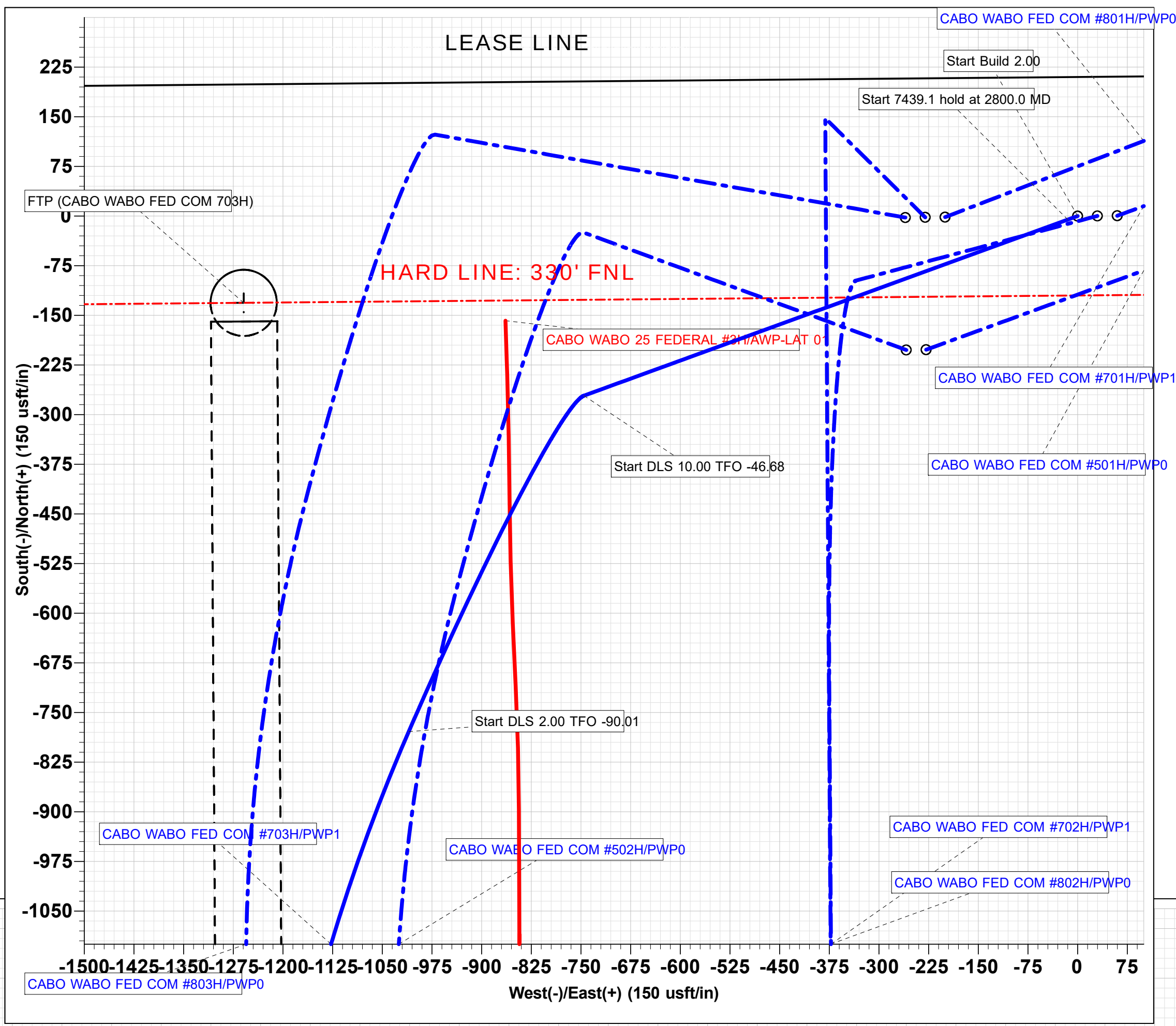
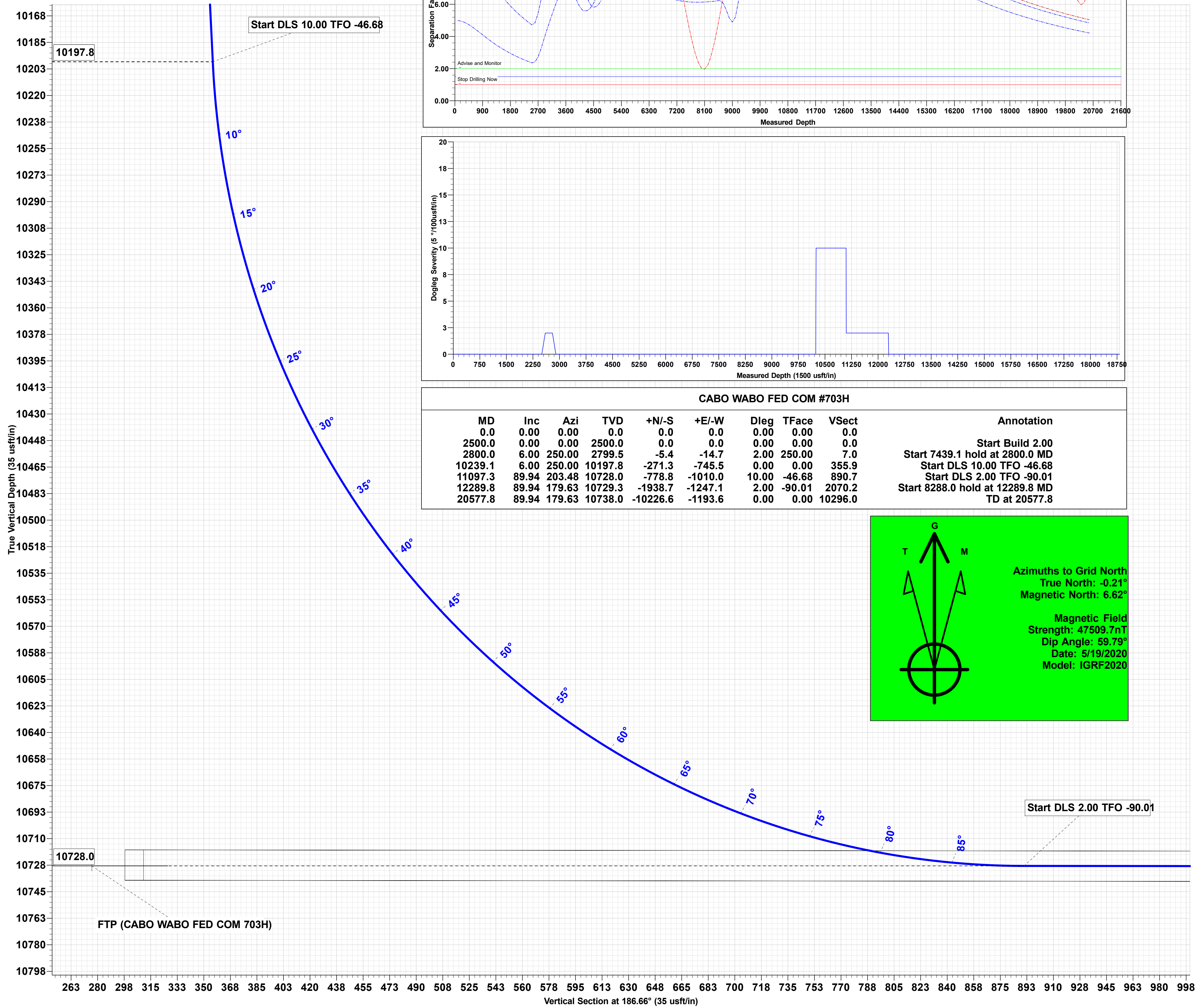
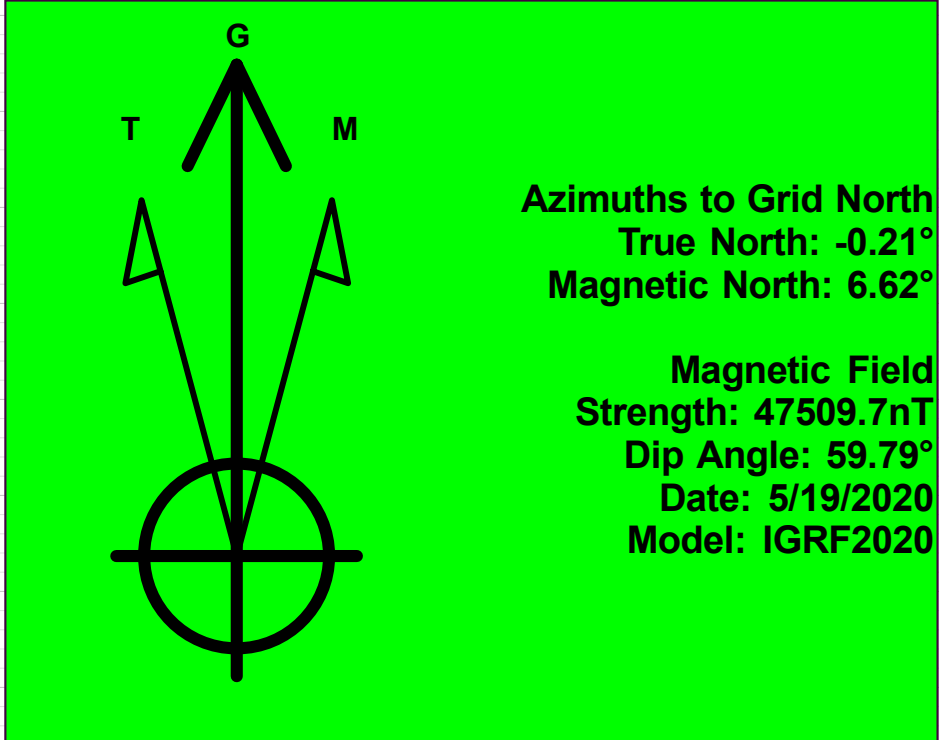
Project: ATLAS PROSPECT (NM-E)
Site: CABO WABO FEDERAL PROJECT (ATLAS 2529)
Well: CABO WABO FED COM #703H
Wellbore: OWB
Design: PWP1
GL: 3146.0
KB=27' @ 3173.0usft (Nabors 893)

WELL DETAILS: CABO WABO FED COM #703H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	408375.85	624265.52	32° 7' 19.579 N	103° 55' 54.979 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
FTP (CABO WABO FED COM 703H)	10728.0	-131.1	-1259.2	408244.73	623006.32	32° 7' 18.328 N
LTP (CABO WABO FED COM 703H)	10738.0	-10096.6	-1194.4	398279.25	623071.08	32° 5' 39.704 N
PBHL (CABO WABO FED COM 703H)	10738.0	-10226.6	-1193.6	398149.26	623071.93	32° 5' 38.417 N



CABO WABO FED COM #703H									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSet	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start 7439.1 hold at 2800.0 MD
2800.0	6.00	250.00	2799.5	-5.4	-14.7	2.00	250.00	7.0	Start DLS 10.00 TFO -46.68
10239.1	6.00	250.00	10197.8	-271.3	-745.5	0.00	0.00	355.9	Start DLS 2.00 TFO -90.01
11097.3	89.94	203.48	10728.0	-778.8	-1010.0	10.00	-46.68	890.7	Start 8288.0 hold at 12289.8 MD
12289.8	89.94	179.63	10729.3	-1938.7	-1247.1	2.00	-90.01	2070.2	TD at 20577.8
20577.8	89.94	179.63	10738.0	-10226.6	-1193.6	0.00	0.00	10296.0	



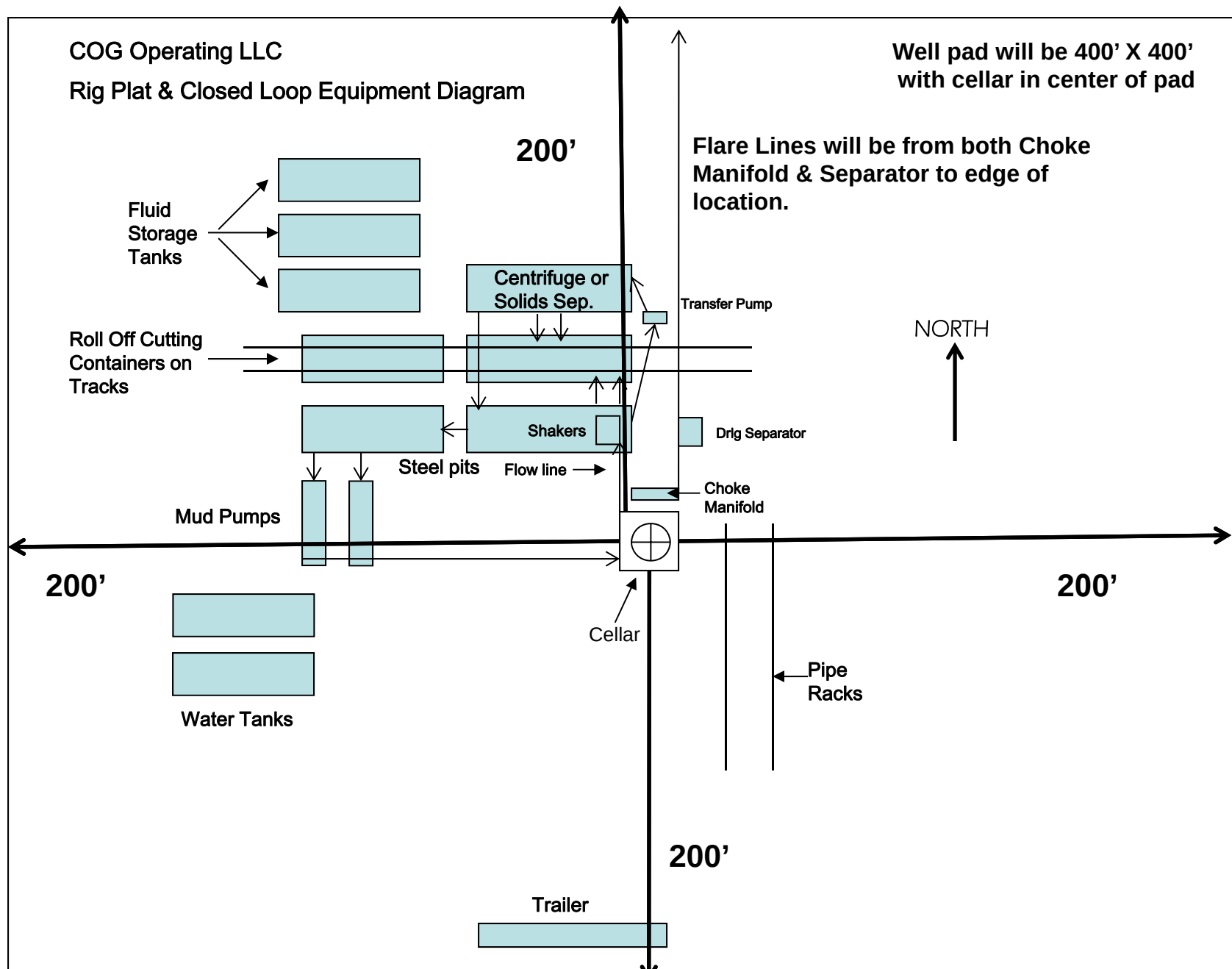


Exhibit 1

"I further certify that COG will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 5/28/20

☒ Original

Operator & OGRID No.: COG Production LLC, (217955)

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Cabo Wabo Federal Com 701H	30-015-	A-24-25S-29E	210' FNL & 880' FEL	±4200	None Planned	APD Submission Plan Subject to change
Cabo Wabo Federal Com 702H	30-015-	A-24-25S-29E	210' FNL & 910' FEL	±4200	None Planned	APD Submission Plan Subject to change
Cabo Wabo Federal Com 703H	30-015-	A-24-25S-29E	210' FNL & 940' FEL	±4200	None Planned	APD Submission Plan Subject to change
Cabo Wabo Federal Com 704H	30-015-	C-24-25S-29E	210' FNL & 1730' FWL	±4200	None Planned	APD Submission Plan Subject to change
Cabo Wabo Federal Com 705H	30-015-	C-24-25S-29E	210' FNL & 1700' FWL	±4200	None Planned	APD Submission Plan Subject to change
Cabo Wabo Federal Com 706H	30-015-	C-24-25S-29E	210' FNL & 1670' FWL	±4200	None Planned	APD Submission Plan Subject to change

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to **ETC Field Services LLC** and will be connected to **Red Bluff** low pressure gathering system located in **Culberson** County, Texas. **COG Operating LLC** provides (periodically) to **ETC Field Services LLC** a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, **COG Operating LLC** and **ETC Field Services LLC** have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at **ETC Field Services LLC** Processing Plant located in Sec. **35**, Blk. **57, T2**, **Culberson** County, Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines

- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines