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

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

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

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

8. Lease Name and Well No.
[330183]

2. Name of Operator
[229137]

9. API Well No. **30-025-48496**

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory **[14865]**

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)*	Date
Title		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
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.

GCP Rec 02/10/2021

SL

APPROVED WITH CONDITIONS

KZ
02/12/2021

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 12/18/2020

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	2 Pool Code	3 Pool Name
30-025- 30-025-48496	14865	Cruz; Bone Spring

4 Property Code	5 Property Name	6 Well Number
330183	SYLVESTER FEDERAL COM	201H

7 OGRID No.	8 Operator Name	9 Elevation
229137	COG OPERATING LLC	3697'

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
N	17	23-S	33-E		509'	SOUTH	1445'	WEST	LEA

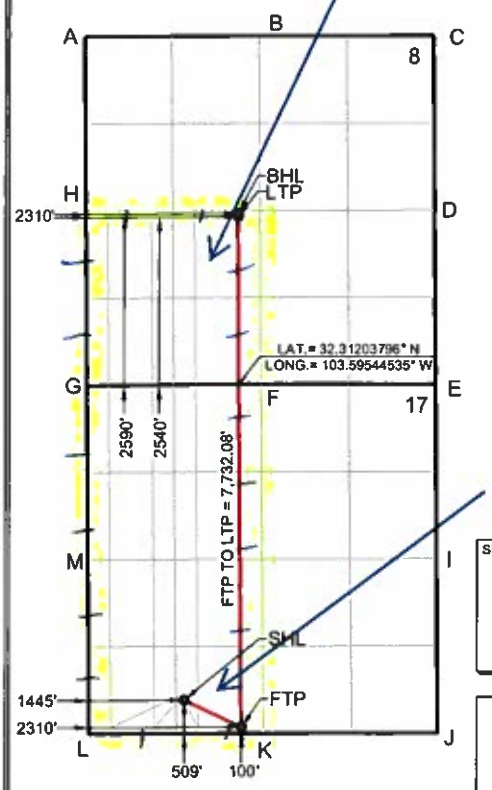
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	8	23-S	33-E		2590'	SOUTH	2310'	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
480			

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



CORNER DATA
NEW MEXICO EAST - NAD 83

A - FOUND IRON PIPE W/ BRASS CAP N:483293.71' E:766948.85'
B - FOUND IRON PIPE W/ BRASS CAP N:483308.13' E:769590.38'
C - FOUND IRON PIPE W/ BRASS CAP N:483318.38' E:772233.44'
D - FOUND IRON PIPE W/ BRASS CAP N:480678.80' E:772252.79'
E - FOUND IRON PIPE W/ BRASS CAP N:478038.46' E:772271.71'
F - FOUND IRON PIPE W/ BRASS CAP N:478040.36' E:769630.04'
G - FOUND IRON PIPE W/ BRASS CAP N:478009.18' E:766988.80'
H - CALCULATED CORNER N:480651.44' E:766968.82'
I - FOUND IRON PIPE W/ BRASS CAP N:475398.17' E:772291.21'
J - FOUND 5/8" IRON ROD W/ RED CAP N:472757.50' E:772310.62'
K - FOUND 5/8" IRON ROD W/ RED CAP N:472746.00' E:769670.79'
L - FOUND IRON PIPE W/ BRASS CAP N:472734.43' E:767030.78'
M - FOUND IRON PIPE W/ BRASS CAP N:475375.27' E:767010.00'

SURFACE HOLE LOCATION (SHL)	FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83	NEW MEXICO EAST - NAD 83
X=768471.80	X=769339.99
Y=473249.75	Y=472844.55
LAT.= 32.29889666° N	LAT.= 32.29776652° N
LONG.= 103.59822779° W	LONG.= 103.59542719° W
509' FSL, 1445' FWL	100' FSL, 2310' FWL
SECTION 17	SECTION 17

LAST TAKE POINT (LTP)	BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83	NEW MEXICO EAST - NAD 83
X=769279.48	X=769279.08
Y=480576.39	Y=480626.39
LAT.= 32.31901972° N	LAT.= 32.31915716° N
LONG.= 103.59545084° W	LONG.= 103.59545095° W
2540' FSL, 2310' FWL	2590' FSL, 2310' FWL
SECTION 8	SECTION 8

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.

Mayte Reyes 9-18-2020
Signature Date

Mayte Reyes
Printed Name

mreyes1@concho.com
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 SMELKER
NEW MEXICO
25036
09/01/2020
PROFESSIONAL SURVEYOR

Certificate Number

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: **9/23/2020**

☒ Original Operator & OGRID No.: **COG Operating LLC, OGRID 229137**

☐ 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, recomplete 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
Sylvester Fed Com 201H	**30-025-30-025-48496**	**N-17-23S-33E**	**509' FSL 1445' FWL**	**3700 MCFD**		**Will connect on well pad.**

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 **DCP** and will be connected to **Eunice low**/high pressure gathering system located in **Lea** County, New Mexico. It will require approximately **an undetermined amount of feet** of pipeline on lease to connect the facility to **low**/high pressure gathering system. **COG Operating LLC** provides (periodically) to **DCP** 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 **DCP** have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at **Eunice** Processing Plant located in **Sec 5 Twn, 21S Rng, 36E, Lea** County, New Mexico. 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

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

APD Print Report
02/09/2021

APD ID: 10400062022
Submission Date: 09/25/2020
Operator Name: COG OPERATING LLC
Federal/Indian APD: FED
Well Name: SYLVESTER FEDERAL COM
Well Number: 201H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Application

Section 1 - General

APD ID: 10400062022
Tie to previous NOS?
Submission Date: 09/25/2020
BLM Office: CARLSBAD
User: MAYTE REYES
Title: Regulatory Analyst
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM20073
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? Y
Permitting Agent? NO
APD Operator: COG OPERATING LLC
Operator letter of designation:

Operator Info

Operator Organization Name: COG OPERATING LLC
Operator Address: 600 West Illinois Ave
Zip: 79701
Operator PO Box:
Operator City: Midland
State: TX
Operator Phone: (432)683-7443
Operator Internet Address: RODOM@CONCHO.COM

Section 2 - Well Information

Well in Master Development Plan? EXISTING
Master Development Plan name: No
Well in Master SUPO?
Master SUPO name:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Well in Master Drilling Plan? **Master Drilling Plan name:**

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** cruz **Pool Name:** Bone Spring

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** SYLVESTER FEDERAL COM **Number:** 201H, 202H, 203H and 204H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 21 Miles **Distance to nearest well:** 18 FT **Distance to lease line:** 50 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: COG_Sylvester_201H_C102_20200920120400.pdf

Well work start Date: 02/01/2021 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	509	FSL	1445	FWL	23S	33E	17	Aliquot SESW	32.2988966	-103.5982277	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3697	0	0	Y
KOP Leg #1	509	FSL	1445	FWL	23S	33E	17	Aliquot SESW	32.2988966	-103.5982277	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3697	0	0	Y

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	100	FSL	2310	FWL	23S	33E	17	Aliquot SESW	32.2977665	-103.5954271	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-5709	9474	9406	Y
EXIT Leg #1	2540	FSL	2310	FWL	23S	33E	8	Aliquot NESW	32.3190197	-103.5954508	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 020073	-5816	16992	9513	Y
BHL Leg #1	2590	FSL	2310	FWL	23S	33E	8	Aliquot NESW	32.2988966	-103.5982279	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 020073	-5836	17042	9533	Y

Drilling Plan

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
874111	UNKNOWN	3697	0	0	ALLUVIUM	NONE	N
874112	RUSTLER	2401	1296	1296	GYPSUM	NONE	N
874113	TOP SALT	1896	1801	1801	SALT	NONE	N
874114	BOTTOM SALT	-1136	4833	4833	ANHYDRITE, SALT	NONE	N
874115	LAMAR	-1419	5116	5116	LIMESTONE	NATURAL GAS, OIL	N
874116	BELL CANYON	-1463	5160	5160	SANDSTONE	NATURAL GAS, OIL	N
874117	CHERRY CANYON	-2345	6042	6042	SANDSTONE	NATURAL GAS, OIL	N
874118	BRUSHY CANYON	-3691	7388	7388	SANDSTONE	NATURAL GAS, OIL	N
874119	BONE SPRING	-5199	8896	8896	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
874120	---	-5575	9272	9272	SHALE	NATURAL GAS, OIL	Y
874121	---	-5952	9649	9649	SHALE	NATURAL GAS, OIL	N

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
874122	BONE SPRING 1ST	-6328	10025	10025	HALITE, SANDSTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M **Rating Depth:** 5116

Equipment: Annular. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.
Requesting Variance? NO

Variance request:

Testing Procedure: 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 of the components installed will be functional and tested.
Choke Diagram Attachment:

COG_Sylvester_3M_Choke_20200920152508.pdf

BOP Diagram Attachment:

COG_Sylvester_3M_BOP_20200920152516.pdf

COG_Sylvester_Flex_Hose_Variance_20200920152538.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 9533

Equipment: BOP and BOPE will be installed per Onshore Order #2 requirements prior to drilling below the surface casing and will be rated to the above pressure rating or greater, see attached diagrams. Required safety valves, with appropriate wrenches and subs for the drill string being utilized, will be in the open position and accessible on the rig floor.
Requesting Variance? YES

Variance request: 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. 5M Variance is requested. A variance is requested to use a multibowl wellhead.
Testing Procedure: The BOP and BOPE will be fully tested per Onshore Order #2 when initially installed, whenever any seal subject to test pressure is broken, and/or following related repairs.
Choke Diagram Attachment:

COG_Sylvester_5M_Choke_20200925112520.pdf

BOP Diagram Attachment:

COG_Sylvester_5M_BOP_20200925112528.pdf

COG_Sylvester_Flex_Hose_Variance_20200925112537.pdf

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1325	0	1325	3697	2372	1325	J-55	54.5	OTHER - BTC	1.86	1.2	DRY	12.59	DRY	12 9
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	5116	0	5116	3697	-1419	5116	L-80	40	OTHER - BTC	1.15	1.57	DRY	5.73	DRY	5.
3	PRODUCTION	8.75	5.5	NEW	API	N	0	17042	0	9533	3697	-5836	17042	P-110	17	OTHER - BTC	1.62	2.91	DRY	3.5	DRY	3.

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_201H_Casing_Prog_20200920153715.pdf

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

COG_Sylvester_201H_Casing_Prog_20200920153908.pdf

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_201H_Casing_Prog_20200920153935.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_201H_Casing_Prog_20200920154139.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1325	600	1.75	13.5	1050	50	Class C + 4% Gel	1% CaCl2
SURFACE	Tail		0	1325	250	1.34	14.8	335	50	Class C	2% CaCl2
INTERMEDIATE	Lead		0	5116	970	2	12.7	1940	50	35:65:6 C Blend	As needed
INTERMEDIATE	Tail		0	5116	250	1.34	14.8	335	50	Class C	2% CaCl

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead	1	9533	17042	610	2.5	11.9	1525	25	50:50:10 H Blend	As needed
PRODUCTION	Tail		9533	17042	2040	1.24	14.4	2529	25	50:50:2 Class H Blend	As needed

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1325	OTHER : FW Gel	8.6	8.8							FW Gel
1325	5116	OTHER : Saturated Brine	10	10.1							Saturated Brine
5116	17042	OTHER : Cut Brine	8.6	9.3							Cut Brine

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

None planned

List of open and cased hole logs run in the well:

CEMENT BOND LOG,COMPENSATED NEUTRON LOG,GAMMA RAY LOG,

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4615 **Anticipated Surface Pressure:** 2517

Anticipated Bottom Hole Temperature(F): 155

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

COG_Sylvester_H2S_SUP_20200920160600.pdf

COG_Sylvester_201H_202H_203H_204H_H2S_Schematic_20200925112801.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Sylvester_201H_Directional_Plan_20200920161447.pdf

COG_Sylvester_201H_AC_RPT_20200920161455.pdf

COG_Sylvester_201H_Cement_Prog_20200925100429.pdf

Other proposed operations facets description:

Drilling program attached.
GCP attached.
Cement program attached.

Other proposed operations facets attachment:

COG_Sylvester_201H_Drilling_Prog_20200920161505.pdf

13_5_8_5k_speed_head__10k_tubing_head_drawing_20200920161605.pdf

COG_Sylvester_201H_GCP_20200925100442.pdf

Other Variance attachment:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

COG_Sylvester_Existing_Road_20200920161753.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

COG_Sylvester_Acces_Roads_Plat_Maps_20200920161913.pdf

New road type: RESOURCE

Length: 1216.85 Feet **Width (ft.):** 30

Max slope (%): 33 **Max grade (%):** 1

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.

New road access plan or profile prepared? N

New road access plan attachment:

Access road engineering design? N

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Blading

Access other construction information: No turnouts are planned

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: None necessary

Road Drainage Control Structures (DCS) description: None needed

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

COG_Sylvester_201H_1Mile_Data_20200920163532.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: The facility layout for the Sylvester Federal 17 M CTB. This CTB will be built to accommodate the Sylvester Federal #201H, #202, #203H, #204H, #205H, #501H, #502H, #701H, #702H. We plan to install (1) buried 4 FP 601HT production flowline from each wellhead to the inlet manifold of the proposed CTB (9 lines total); the route for these flowlines will follow the flowlines route as shown in the diagram below. We will install (1) buried 4 gas lines for gas lift supply from the CTB common to each well pad (1 lines total); the route for the gas lift lines will follow the gas lift route as shown in the attached layout.

Production Facilities map:

COG_Sylvester_Federal_17_M_CTB_20200920163551.pdf

COG_Sylvester_Power_Lines_20200920163606.pdf

COG_Sylvester_Flowline_Gas_Line_20200920163618.pdf

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Brine Water

Water source use type: INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: COMMERCIAL

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 30000 **Source volume (acre-feet):** 3.86679289

Source volume (gal): 1260000

Water source type: OTHER

Describe type: Fresh Water

Water source use type: ICE PAD CONSTRUCTION & MAINTENANCE
SURFACE CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 450000 **Source volume (acre-feet):** 58.00189335

Source volume (gal): 18900000

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Water source and transportation map:

COG_Sylvester_Brine_H2O_20200920164103.pdf

COG_Sylvester_Fresh_H2O_20200920164117.pdf

Water source comments: Fresh water will be obtained from the Jaz Master Frac Pond located in Section 17. T23S, R33E. Brine water will be obtained from the Malaga II Brine station in Section 12. T23S. R28E.

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from the nearest BLM approved caliche pit.

Construction Materials source location attachment:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Section 7 - Methods for Handling Waste

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations

Amount of waste: 125 pounds

Waste disposal frequency : Weekly

Safe containment description: Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: SEWAGE

Waste content description: Human waste and gray water

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal facility
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: DRILLING

Waste content description: Drilling fluids and produced oil and water during drilling and completion operations

Amount of waste: 6000 barrels

Waste disposal frequency : One Time Only

Safe containment description: All drilling waste will be stored safely and disposed of properly

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Roll off cuttings containers on tracks

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

COG_Sylvester_201H_202H_203H_204H_Layout_20200920165821.pdf

Comments:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: SYLVESTER FEDERAL COM

Multiple Well Pad Number: 201H, 202H, 203H and 204H

Recontouring attachment:

COG_Sylvester_201H_202H_203H_204H_Reclamation_20200920170055.pdf

Drainage/Erosion control construction: Immediately following construction, straw waddles will be placed as necessary at the well site to reduce sediment impacts to fragile/sensitive soils.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has re-established and that erosion is controlled.

Well pad proposed disturbance (acres): 3.67
Road proposed disturbance (acres): 0.39
Powerline proposed disturbance (acres): 2.17
Pipeline proposed disturbance (acres): 0.16
Other proposed disturbance (acres): 5.74
Total proposed disturbance: 12.129999999999999

Well pad interim reclamation (acres): 0.06
Road interim reclamation (acres): 0.39
Powerline interim reclamation (acres): 2.17
Pipeline interim reclamation (acres): 0.16
Other interim reclamation (acres): 5.74
Total interim reclamation: 8.52

Well pad long term disturbance (acres): 3.21
Road long term disturbance (acres): 0.39
Powerline long term disturbance (acres): 2.17
Pipeline long term disturbance (acres): 0.16
Other long term disturbance (acres): 5.74
Total long term disturbance: 11.67

Disturbance Comments:

Reconstruction method: If needed, portions of the pad not needed for production operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused. The stockpiled topsoil will be spread out over reclaimed area and reseeded with BLM approved seed mixture.

Topsoil redistribution: East

Soil treatment: None

Existing Vegetation at the well pad: Shinnery Oak/Mesquite grassland

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: N/A

Existing Vegetation Community at other disturbances attachment:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: N/A

Weed treatment plan attachment:

Monitoring plan description: N/A

Monitoring plan attachment:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

COG_Sylvester_Closed_Loop_20200920170628.pdf

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: STATE OF NEW MEXICO

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW Applications

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

SUPO Additional Information: SUP attached. Onsite not needed. State surface.

Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO Attachment

COG_Sylvester_201H_SUP_20200925103140.pdf
COG_Sylvester_201H_C102_20200925103147.pdf
COG_Sylvester_Acces_Roads_Plat_Maps_20200925103216.pdf
COG_Sylvester_Federal_17_M_CTB_20200925103225.pdf
COG_Sylvester_Flowline_Gas_Line_20200925103239.pdf
COG_Sylvester_Power_Lines_20200925103255.pdf

PWD

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000215

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM **Well Number:** 201H

Operator Certification

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: MAYTE REYES **Signed on:** 09/20/2020

Title: Regulatory Analyst

Street Address: 2208 West Main Street

City: Artesia **State:** NM **Zip:** 88210

Phone: (575)748-6940

Email address: MREYES1@CONCHO.COM

Field Representative

Representative Name: Gerald Herrera

Street Address: 2208 West Main Street

City: Artesia **State:** NM **Zip:** 88210

Phone: (575)748-6940

Email address: gherrera@concho.com

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 26Q033VH

Casing Program

Hole Size	Casing From	Casing To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5”	0	1325	13.375”	54.5	J55	BTC	1.86	1.20	12.59
12.25”	0	4000	9.625”	40	J55	BTC	1.22	1.08	4.46
12.25"	4000	5116	9.625"	40	L80	BTC	1.15	1.57	5.73
8.75”	0	17,042	5.5”	17	P110	BTC	1.62	2.91	3.50
			BLM Minimum Safety Factor				1.125	1	1.6 Dry 1.8 Wet

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

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)
SYLVESTER FED COM PROJECT
SYLVESTER FED COM #201H

OWB

Plan: PWP1

Standard Survey Report

14 September, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Well:	SYLVESTER FED COM #201H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Project BULLDOG 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 SYLVESTER FED COM #201H

Well Position	**+N/-S**	0.0 usft	**Northing:**	473,190.18 usft	**Latitude:**	32° 17' 55.583 N
	+E/-W	0.0 usft	**Easting:**	727,288.44 usft	**Longitude:**	103° 35' 51.885 W
Position Uncertainty		3.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,697.0 usft

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	9/11/2020	6.65	59.99	47,612.56042341

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	6.25

Survey Tool Program **Date** 9/11/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,042.1	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
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Well:	SYLVESTER FED COM #201H	**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)
1,500.0	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	115.02	2,600.0	-0.7	1.6	-0.6	2.00	2.00	0.00
2,700.0	4.00	115.02	2,699.8	-3.0	6.3	-2.2	2.00	2.00	0.00
2,750.0	5.00	115.02	2,749.7	-4.6	9.9	-3.5	2.00	2.00	0.00
Start 6330.7 hold at 2750.0 MD									
2,800.0	5.00	115.02	2,799.5	-6.5	13.8	-4.9	0.00	0.00	0.00
2,900.0	5.00	115.02	2,899.1	-10.1	21.7	-7.7	0.00	0.00	0.00
3,000.0	5.00	115.02	2,998.7	-13.8	29.6	-10.5	0.00	0.00	0.00
3,100.0	5.00	115.02	3,098.4	-17.5	37.5	-13.3	0.00	0.00	0.00
3,200.0	5.00	115.02	3,198.0	-21.2	45.4	-16.1	0.00	0.00	0.00
3,300.0	5.00	115.02	3,297.6	-24.9	53.3	-18.9	0.00	0.00	0.00
3,400.0	5.00	115.02	3,397.2	-28.6	61.2	-21.7	0.00	0.00	0.00
3,500.0	5.00	115.02	3,496.8	-32.3	69.1	-24.5	0.00	0.00	0.00
3,600.0	5.00	115.02	3,596.4	-35.9	77.0	-27.3	0.00	0.00	0.00
3,700.0	5.00	115.02	3,696.1	-39.6	84.9	-30.2	0.00	0.00	0.00
3,800.0	5.00	115.02	3,795.7	-43.3	92.8	-33.0	0.00	0.00	0.00
3,900.0	5.00	115.02	3,895.3	-47.0	100.7	-35.8	0.00	0.00	0.00
4,000.0	5.00	115.02	3,994.9	-50.7	108.6	-38.6	0.00	0.00	0.00
4,100.0	5.00	115.02	4,094.5	-54.4	116.5	-41.4	0.00	0.00	0.00
4,200.0	5.00	115.02	4,194.2	-58.1	124.4	-44.2	0.00	0.00	0.00
4,300.0	5.00	115.02	4,293.8	-61.7	132.3	-47.0	0.00	0.00	0.00
4,400.0	5.00	115.02	4,393.4	-65.4	140.2	-49.8	0.00	0.00	0.00
4,500.0	5.00	115.02	4,493.0	-69.1	148.1	-52.6	0.00	0.00	0.00
4,600.0	5.00	115.02	4,592.6	-72.8	156.0	-55.4	0.00	0.00	0.00
4,700.0	5.00	115.02	4,692.3	-76.5	163.9	-58.2	0.00	0.00	0.00
4,800.0	5.00	115.02	4,791.9	-80.2	171.8	-61.0	0.00	0.00	0.00
4,900.0	5.00	115.02	4,891.5	-83.9	179.7	-63.8	0.00	0.00	0.00
5,000.0	5.00	115.02	4,991.1	-87.5	187.6	-66.6	0.00	0.00	0.00
5,100.0	5.00	115.02	5,090.7	-91.2	195.5	-69.4	0.00	0.00	0.00
5,200.0	5.00	115.02	5,190.4	-94.9	203.4	-72.2	0.00	0.00	0.00
5,300.0	5.00	115.02	5,290.0	-98.6	211.3	-75.0	0.00	0.00	0.00
5,400.0	5.00	115.02	5,389.6	-102.3	219.2	-77.8	0.00	0.00	0.00
5,500.0	5.00	115.02	5,489.2	-106.0	227.1	-80.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Well:	SYLVESTER FED COM #201H	**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)
5,600.0	5.00	115.02	5,588.8	-109.7	235.0	-83.4	0.00	0.00	0.00
5,700.0	5.00	115.02	5,688.5	-113.3	242.9	-86.2	0.00	0.00	0.00
5,800.0	5.00	115.02	5,788.1	-117.0	250.8	-89.1	0.00	0.00	0.00
5,900.0	5.00	115.02	5,887.7	-120.7	258.7	-91.9	0.00	0.00	0.00
6,000.0	5.00	115.02	5,987.3	-124.4	266.6	-94.7	0.00	0.00	0.00
6,100.0	5.00	115.02	6,086.9	-128.1	274.5	-97.5	0.00	0.00	0.00
6,200.0	5.00	115.02	6,186.6	-131.8	282.4	-100.3	0.00	0.00	0.00
6,300.0	5.00	115.02	6,286.2	-135.5	290.2	-103.1	0.00	0.00	0.00
6,400.0	5.00	115.02	6,385.8	-139.1	298.1	-105.9	0.00	0.00	0.00
6,500.0	5.00	115.02	6,485.4	-142.8	306.0	-108.7	0.00	0.00	0.00
6,600.0	5.00	115.02	6,585.0	-146.5	313.9	-111.5	0.00	0.00	0.00
6,700.0	5.00	115.02	6,684.7	-150.2	321.8	-114.3	0.00	0.00	0.00
6,800.0	5.00	115.02	6,784.3	-153.9	329.7	-117.1	0.00	0.00	0.00
6,900.0	5.00	115.02	6,883.9	-157.6	337.6	-119.9	0.00	0.00	0.00
7,000.0	5.00	115.02	6,983.5	-161.3	345.5	-122.7	0.00	0.00	0.00
7,100.0	5.00	115.02	7,083.1	-165.0	353.4	-125.5	0.00	0.00	0.00
7,200.0	5.00	115.02	7,182.7	-168.6	361.3	-128.3	0.00	0.00	0.00
7,300.0	5.00	115.02	7,282.4	-172.3	369.2	-131.1	0.00	0.00	0.00
7,400.0	5.00	115.02	7,382.0	-176.0	377.1	-133.9	0.00	0.00	0.00
7,500.0	5.00	115.02	7,481.6	-179.7	385.0	-136.7	0.00	0.00	0.00
7,600.0	5.00	115.02	7,581.2	-183.4	392.9	-139.5	0.00	0.00	0.00
7,700.0	5.00	115.02	7,680.8	-187.1	400.8	-142.3	0.00	0.00	0.00
7,800.0	5.00	115.02	7,780.5	-190.8	408.7	-145.1	0.00	0.00	0.00
7,900.0	5.00	115.02	7,880.1	-194.4	416.6	-148.0	0.00	0.00	0.00
8,000.0	5.00	115.02	7,979.7	-198.1	424.5	-150.8	0.00	0.00	0.00
8,100.0	5.00	115.02	8,079.3	-201.8	432.4	-153.6	0.00	0.00	0.00
8,200.0	5.00	115.02	8,178.9	-205.5	440.3	-156.4	0.00	0.00	0.00
8,300.0	5.00	115.02	8,278.6	-209.2	448.2	-159.2	0.00	0.00	0.00
8,400.0	5.00	115.02	8,378.2	-212.9	456.1	-162.0	0.00	0.00	0.00
8,500.0	5.00	115.02	8,477.8	-216.6	464.0	-164.8	0.00	0.00	0.00
8,600.0	5.00	115.02	8,577.4	-220.2	471.9	-167.6	0.00	0.00	0.00
8,700.0	5.00	115.02	8,677.0	-223.9	479.8	-170.4	0.00	0.00	0.00
8,800.0	5.00	115.02	8,776.7	-227.6	487.7	-173.2	0.00	0.00	0.00
8,900.0	5.00	115.02	8,876.3	-231.3	495.6	-176.0	0.00	0.00	0.00
9,000.0	5.00	115.02	8,975.9	-235.0	503.5	-178.8	0.00	0.00	0.00
9,080.7	5.00	115.02	9,056.3	-238.0	509.9	-181.1	0.00	0.00	0.00
Start DLS 12.00 TFO -91.40									
9,100.0	5.46	89.89	9,075.5	-238.3	511.5	-181.2	12.00	2.37	-130.24
9,200.0	15.03	42.62	9,173.9	-228.7	525.1	-170.2	12.00	9.57	-47.27
9,300.0	26.63	33.66	9,267.3	-200.4	546.4	-139.8	12.00	11.60	-8.97
9,400.0	38.47	29.93	9,351.4	-154.6	574.5	-91.2	12.00	11.84	-3.72
9,500.0	50.37	27.77	9,422.7	-93.4	608.0	-26.7	12.00	11.91	-2.17
9,600.0	62.31	26.25	9,478.0	-19.3	645.7	51.0	12.00	11.93	-1.52
9,700.0	74.25	25.03	9,515.0	64.3	685.8	138.5	12.00	11.95	-1.22

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Well:	SYLVESTER FED COM #201H	**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)
9,800.0	86.21	23.95	9,531.9	153.8	726.5	232.0	12.00	11.95	-1.08
9,833.1	90.16	23.60	9,533.0	184.1	739.9	263.5	12.00	11.95	-1.05
Start DLS 4.00 TFO -89.97									
9,900.0	90.16	20.92	9,532.8	246.0	765.2	327.8	4.00	0.00	-4.00
10,000.0	90.16	16.92	9,532.5	340.6	797.6	425.3	4.00	0.00	-4.00
10,100.0	90.16	12.92	9,532.2	437.2	823.4	524.2	4.00	0.00	-4.00
10,200.0	90.16	8.92	9,531.9	535.3	842.3	623.8	4.00	0.00	-4.00
10,300.0	90.16	4.92	9,531.6	634.6	854.4	723.8	4.00	0.00	-4.00
10,400.0	90.16	0.92	9,531.4	734.4	859.5	823.6	4.00	0.00	-4.00
10,434.4	90.16	359.55	9,531.3	768.8	859.6	857.8	4.00	0.00	-4.00
Start 6607.9 hold at 10434.4 MD									
10,500.0	90.16	359.55	9,531.1	834.4	859.1	923.0	0.00	0.00	0.00
10,600.0	90.16	359.55	9,530.8	934.4	858.3	1,022.3	0.00	0.00	0.00
10,700.0	90.16	359.55	9,530.5	1,034.4	857.5	1,121.6	0.00	0.00	0.00
10,800.0	90.16	359.55	9,530.3	1,134.4	856.7	1,220.9	0.00	0.00	0.00
10,900.0	90.16	359.55	9,530.0	1,234.4	855.9	1,320.2	0.00	0.00	0.00
11,000.0	90.16	359.55	9,529.7	1,334.4	855.1	1,419.5	0.00	0.00	0.00
11,100.0	90.16	359.55	9,529.4	1,434.4	854.4	1,518.9	0.00	0.00	0.00
11,200.0	90.16	359.55	9,529.2	1,534.4	853.6	1,618.2	0.00	0.00	0.00
11,300.0	90.16	359.55	9,528.9	1,634.4	852.8	1,717.5	0.00	0.00	0.00
11,400.0	90.16	359.55	9,528.6	1,734.4	852.0	1,816.8	0.00	0.00	0.00
11,500.0	90.16	359.55	9,528.3	1,834.4	851.2	1,916.1	0.00	0.00	0.00
11,600.0	90.16	359.55	9,528.0	1,934.4	850.4	2,015.5	0.00	0.00	0.00
11,700.0	90.16	359.55	9,527.8	2,034.4	849.6	2,114.8	0.00	0.00	0.00
11,800.0	90.16	359.55	9,527.5	2,134.4	848.8	2,214.1	0.00	0.00	0.00
11,900.0	90.16	359.55	9,527.2	2,234.4	848.0	2,313.4	0.00	0.00	0.00
12,000.0	90.16	359.55	9,526.9	2,334.4	847.3	2,412.7	0.00	0.00	0.00
12,100.0	90.16	359.55	9,526.7	2,434.4	846.5	2,512.0	0.00	0.00	0.00
12,200.0	90.16	359.55	9,526.4	2,534.4	845.7	2,611.4	0.00	0.00	0.00
12,300.0	90.16	359.55	9,526.1	2,634.4	844.9	2,710.7	0.00	0.00	0.00
12,400.0	90.16	359.55	9,525.8	2,734.4	844.1	2,810.0	0.00	0.00	0.00
12,500.0	90.16	359.55	9,525.6	2,834.4	843.3	2,909.3	0.00	0.00	0.00
12,600.0	90.16	359.55	9,525.3	2,934.4	842.5	3,008.6	0.00	0.00	0.00
12,700.0	90.16	359.55	9,525.0	3,034.4	841.7	3,107.9	0.00	0.00	0.00
12,800.0	90.16	359.55	9,524.7	3,134.4	840.9	3,207.3	0.00	0.00	0.00
12,900.0	90.16	359.55	9,524.5	3,234.4	840.2	3,306.6	0.00	0.00	0.00
13,000.0	90.16	359.55	9,524.2	3,334.3	839.4	3,405.9	0.00	0.00	0.00
13,100.0	90.16	359.55	9,523.9	3,434.3	838.6	3,505.2	0.00	0.00	0.00
13,200.0	90.16	359.55	9,523.6	3,534.3	837.8	3,604.5	0.00	0.00	0.00
13,300.0	90.16	359.55	9,523.3	3,634.3	837.0	3,703.8	0.00	0.00	0.00
13,400.0	90.16	359.55	9,523.1	3,734.3	836.2	3,803.2	0.00	0.00	0.00
13,500.0	90.16	359.55	9,522.8	3,834.3	835.4	3,902.5	0.00	0.00	0.00
13,600.0	90.16	359.55	9,522.5	3,934.3	834.6	4,001.8	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Well:	SYLVESTER FED COM #201H	**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)
13,700.0	90.16	359.55	9,522.2	4,034.3	833.8	4,101.1	0.00	0.00	0.00
13,800.0	90.16	359.55	9,522.0	4,134.3	833.0	4,200.4	0.00	0.00	0.00
13,900.0	90.16	359.55	9,521.7	4,234.3	832.3	4,299.7	0.00	0.00	0.00
14,000.0	90.16	359.55	9,521.4	4,334.3	831.5	4,399.1	0.00	0.00	0.00
14,100.0	90.16	359.55	9,521.1	4,434.3	830.7	4,498.4	0.00	0.00	0.00
14,200.0	90.16	359.55	9,520.9	4,534.3	829.9	4,597.7	0.00	0.00	0.00
14,300.0	90.16	359.55	9,520.6	4,634.3	829.1	4,697.0	0.00	0.00	0.00
14,400.0	90.16	359.55	9,520.3	4,734.3	828.3	4,796.3	0.00	0.00	0.00
14,500.0	90.16	359.55	9,520.0	4,834.3	827.5	4,895.6	0.00	0.00	0.00
14,600.0	90.16	359.55	9,519.8	4,934.3	826.7	4,995.0	0.00	0.00	0.00
14,700.0	90.16	359.55	9,519.5	5,034.3	825.9	5,094.3	0.00	0.00	0.00
14,800.0	90.16	359.55	9,519.2	5,134.3	825.2	5,193.6	0.00	0.00	0.00
14,900.0	90.16	359.55	9,518.9	5,234.3	824.4	5,292.9	0.00	0.00	0.00
15,000.0	90.16	359.55	9,518.6	5,334.3	823.6	5,392.2	0.00	0.00	0.00
15,100.0	90.16	359.55	9,518.4	5,434.3	822.8	5,491.5	0.00	0.00	0.00
15,200.0	90.16	359.55	9,518.1	5,534.3	822.0	5,590.9	0.00	0.00	0.00
15,300.0	90.16	359.55	9,517.8	5,634.3	821.2	5,690.2	0.00	0.00	0.00
15,400.0	90.16	359.55	9,517.5	5,734.3	820.4	5,789.5	0.00	0.00	0.00
15,500.0	90.16	359.55	9,517.3	5,834.3	819.6	5,888.8	0.00	0.00	0.00
15,600.0	90.16	359.55	9,517.0	5,934.3	818.8	5,988.1	0.00	0.00	0.00
15,700.0	90.16	359.55	9,516.7	6,034.3	818.1	6,087.4	0.00	0.00	0.00
15,800.0	90.16	359.55	9,516.4	6,134.3	817.3	6,186.8	0.00	0.00	0.00
15,900.0	90.16	359.55	9,516.2	6,234.2	816.5	6,286.1	0.00	0.00	0.00
16,000.0	90.16	359.55	9,515.9	6,334.2	815.7	6,385.4	0.00	0.00	0.00
16,100.0	90.16	359.55	9,515.6	6,434.2	814.9	6,484.7	0.00	0.00	0.00
16,200.0	90.16	359.55	9,515.3	6,534.2	814.1	6,584.0	0.00	0.00	0.00
16,300.0	90.16	359.55	9,515.1	6,634.2	813.3	6,683.3	0.00	0.00	0.00
16,400.0	90.16	359.55	9,514.8	6,734.2	812.5	6,782.7	0.00	0.00	0.00
16,500.0	90.16	359.55	9,514.5	6,834.2	811.7	6,882.0	0.00	0.00	0.00
16,600.0	90.16	359.55	9,514.2	6,934.2	811.0	6,981.3	0.00	0.00	0.00
16,700.0	90.16	359.55	9,513.9	7,034.2	810.2	7,080.6	0.00	0.00	0.00
16,800.0	90.16	359.55	9,513.7	7,134.2	809.4	7,179.9	0.00	0.00	0.00
16,900.0	90.16	359.55	9,513.4	7,234.2	808.6	7,279.2	0.00	0.00	0.00
17,000.0	90.16	359.55	9,513.1	7,334.2	807.8	7,378.6	0.00	0.00	0.00
17,042.2	90.16	359.55	9,513.0	7,376.4	807.5	7,420.5	0.00	0.00	0.00
TD at 17042.2									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Well:	SYLVESTER FED COM #201H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (SYLVESTER FE - plan misses target center by 0.1usft at 16992.2usft MD (9513.1 TVD, 7326.4 N, 807.9 E) - Point	0.00	0.00	9,513.0	7,326.4	807.8	480,516.61	728,096.27	32° 19' 8.026 N	103° 35' 41.886 W
PBHL (SYLVESTER F - plan hits target center - Rectangle (sides W100.0 H7,763.0 D20.0)	0.17	179.55	9,513.0	7,376.4	807.5	480,566.61	728,095.90	32° 19' 8.521 N	103° 35' 41.886 W
FTP (SYLVESTER FE - plan misses target center by 419.0usft at 9474.9usft MD (9406.2 TVD, -110.1 N, 599.2 E) - Circle (radius 50.0)	0.00	0.00	9,533.0	-405.2	868.2	472,784.99	728,156.62	32° 17' 51.515 N	103° 35' 41.803 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2500	2500	0	0	Start Build 2.00
2750	2750	-5	10	Start 6330.7 hold at 2750.0 MD
9081	9056	-238	510	Start DLS 12.00 TFO -91.40
9833	9533	184	740	Start DLS 4.00 TFO -89.97
10,434	9531	769	860	Start 6607.9 hold at 10434.4 MD
17,042	9513	7376	807	TD at 17042.2

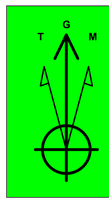
Checked By: _____ Approved By: _____ Date: _____

CONCHO

Project:	BULLDOG PROSPECT (NM-E)
Site:	SYLVESTER FED COM PROJECT
Well:	SYLVESTER FED COM #201H
Wellbore:	OWB
Design:	PWP1
GL:	3697.0
*KB=30' @ 3727.0usft (TBD)	

WELL DETAILS: SYLVESTER FED COM #201H

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.0	0.0	473190.18	727288.44	32° 17' 55.583 N	103° 35' 51.885 W

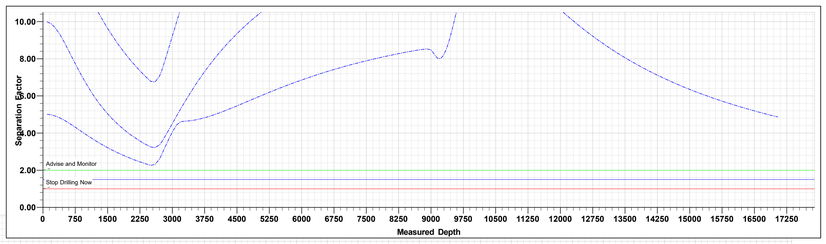


Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.26°

Magnetic Field
Strength: 47612.6nT
Dip Angle: 59.99°
Date: 9/11/2020
Model: IGRF2020

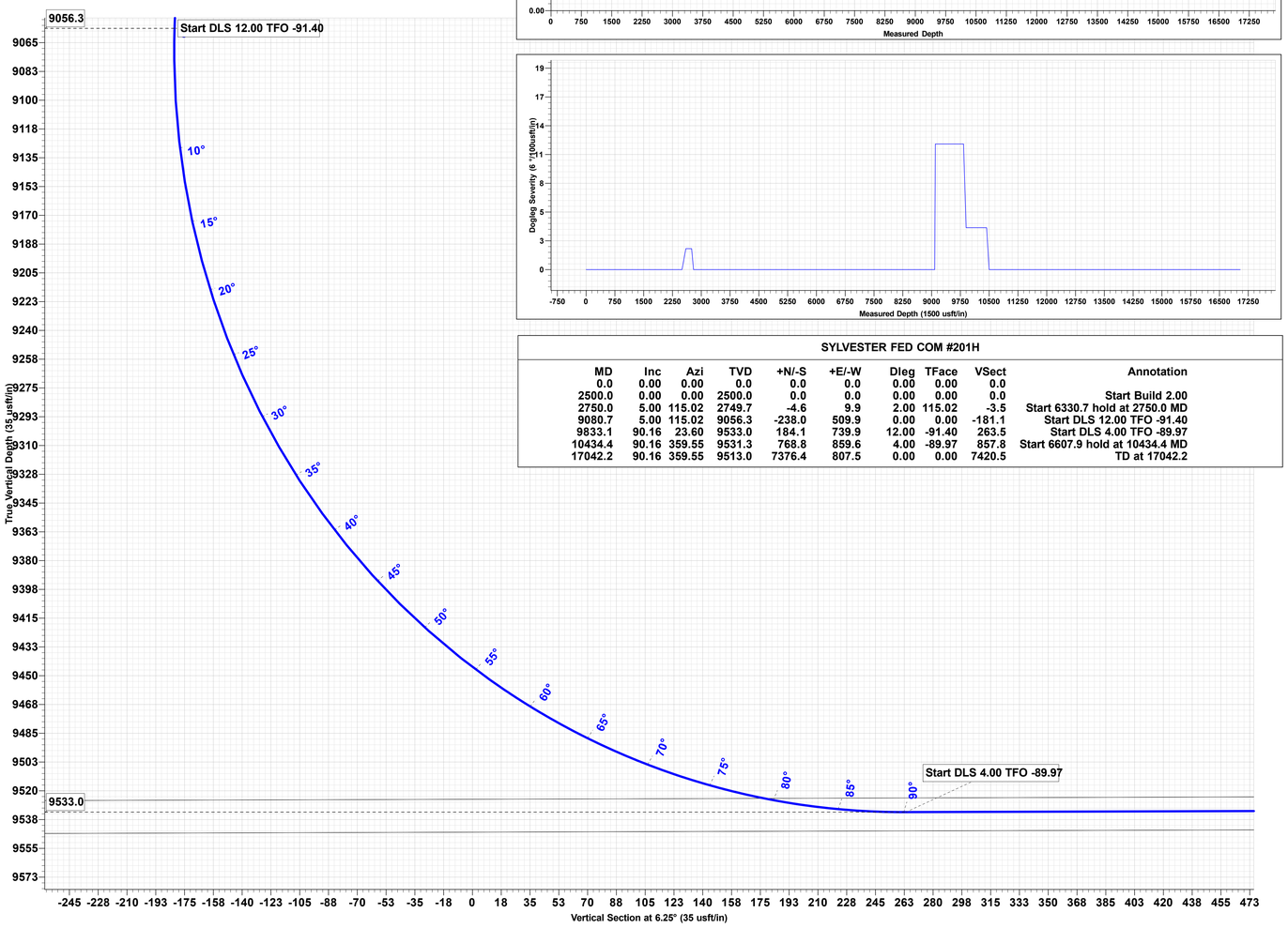
DESIGN TARGET DETAILS

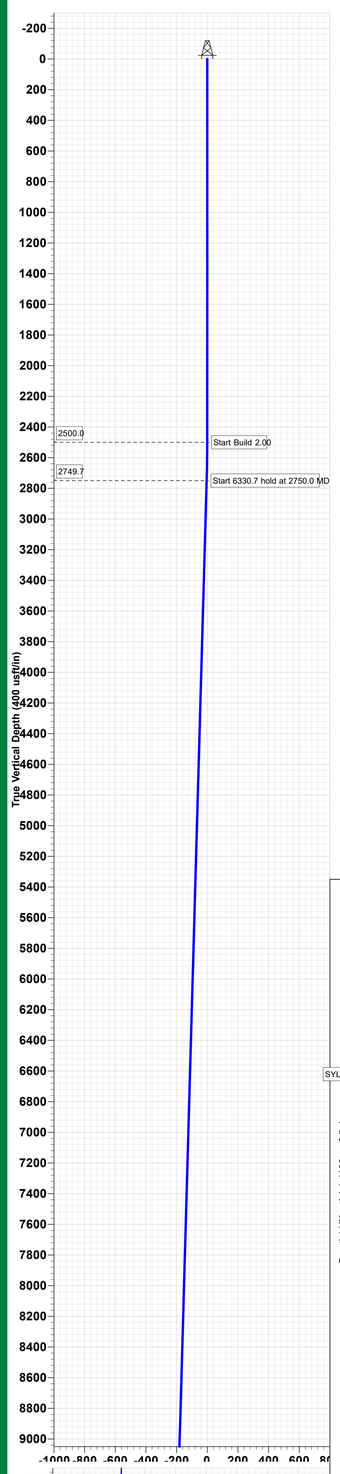
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP (SYLVESTER FED COM #201H)	9513.0	7326.4	807.8	480516.61	728096.27	32° 19' 8.026 N	103° 35' 41.886 W
PBHL (SYLVESTER FED COM #201H)	9513.0	7376.4	807.5	480566.61	728095.90	32° 19' 8.521 N	103° 35' 41.886 W
FTP (SYLVESTER FED COM #201H)	9533.0	-405.2	868.2	472784.99	728156.62	32° 17' 51.515 N	103° 35' 41.803 W

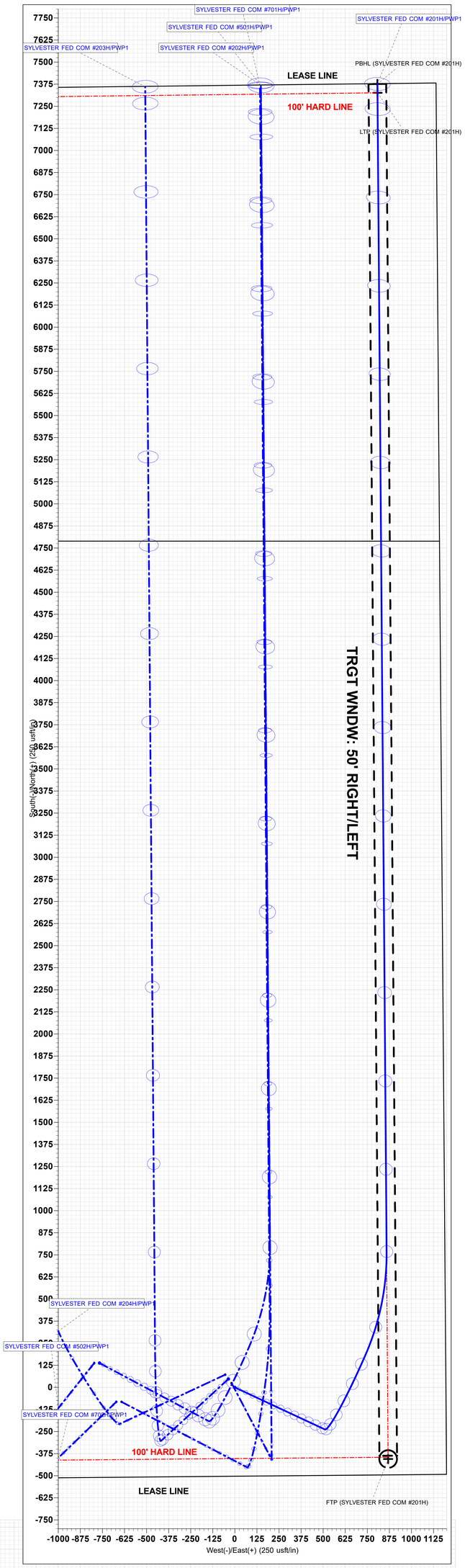


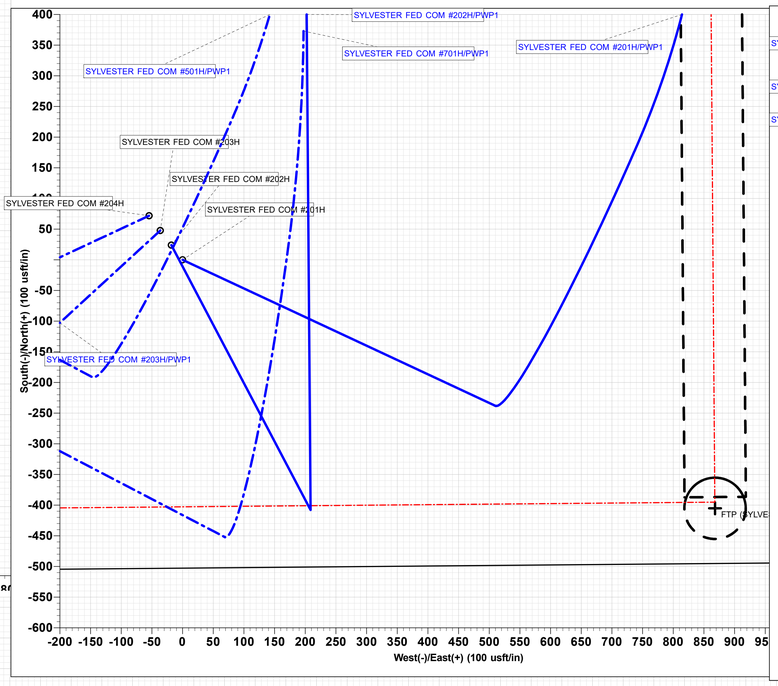
SYLVESTER FED COM #201H

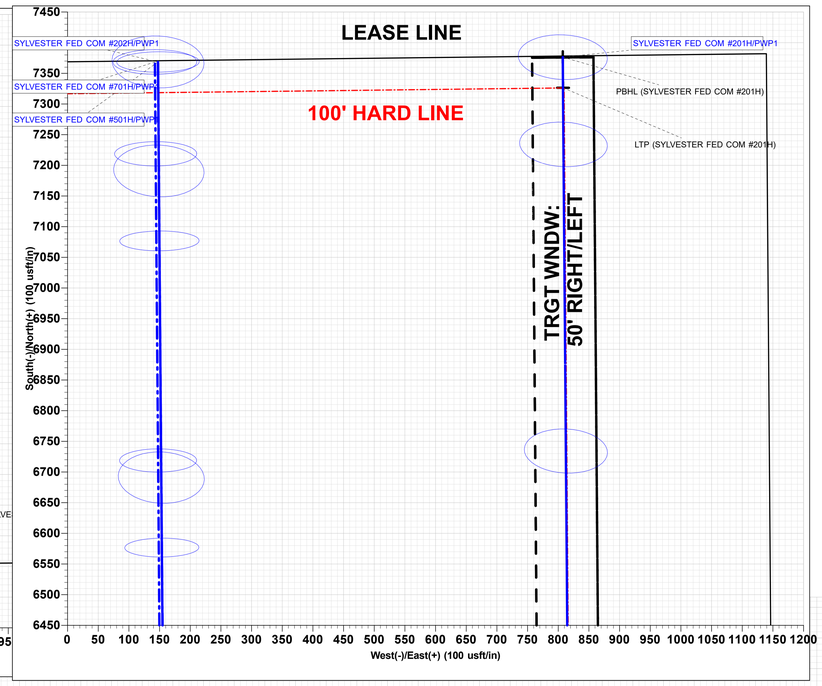
MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2750.0	5.00	115.02	2749.7	-4.6	9.9	2.00	115.02	-3.5	Start 6330.7 hold at 2750.0 MD
9080.7	5.00	115.02	9056.3	-238.0	509.9	0.00	0.00	-181.1	Start DLS 12.00 TFO -91.40
9833.1	90.16	23.60	9533.0	184.1	739.9	12.00	-91.40	263.5	Start DLS 4.00 TFO -89.97
10434.4	90.16	359.55	9531.3	768.8	859.6	4.00	-89.97	857.8	Start 6607.9 hold at 10434.4 MD
17042.2	90.16	359.55	9513.0	7376.4	807.5	0.00	0.00	7420.5	TD at 17042.2



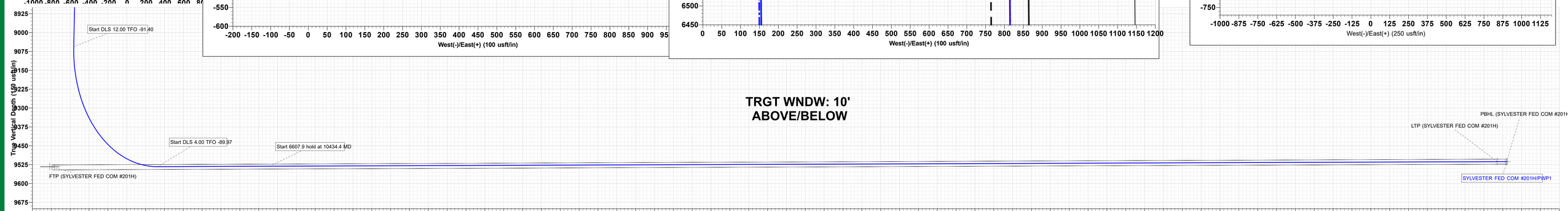








TRGT WNDW: 10' ABOVE/BELOW



DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)
SYLVESTER FED COM PROJECT
SYLVESTER FED COM #201H

OWB
PWP1

Anticollision Report

14 September, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 9/11/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,042.1	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SYLVESTER FED COM PROJECT						
SYLVESTER FED COM #202H - OWB - PWP1	2,500.0	2,501.0	30.1	16.8	2.262	CC, ES, SF
SYLVESTER FED COM #203H - OWB - PWP1	2,500.1	2,501.1	60.0	41.5	3.249	CC, ES
SYLVESTER FED COM #203H - OWB - PWP1	2,600.0	2,601.1	61.4	42.3	3.213	SF
SYLVESTER FED COM #204H - OWB - PWP1	2,416.0	2,418.0	90.3	77.3	6.966	CC
SYLVESTER FED COM #204H - OWB - PWP1	2,500.0	2,502.0	90.3	77.0	6.784	ES
SYLVESTER FED COM #204H - OWB - PWP1	2,600.0	2,601.2	92.2	78.6	6.748	SF
SYLVESTER FED COM #501H - OWB - PWP1	2,746.2	2,780.9	778.4	758.0	38.311	CC
SYLVESTER FED COM #501H - OWB - PWP1	9,100.0	9,134.6	787.1	722.2	12.128	ES
SYLVESTER FED COM #501H - OWB - PWP1	9,225.0	9,257.4	793.2	727.4	12.058	SF
SYLVESTER FED COM #502H - OWB - PWP1	2,500.0	2,500.0	808.0	795.3	63.575	CC, ES
SYLVESTER FED COM #502H - OWB - PWP1	4,800.0	4,791.9	992.2	970.6	46.032	SF
SYLVESTER FED COM #701H - OWB - PWP1	2,739.7	2,784.3	645.4	631.8	47.546	CC
SYLVESTER FED COM #701H - OWB - PWP1	9,080.7	9,125.3	664.9	623.0	15.860	ES
SYLVESTER FED COM #701H - OWB - PWP1	9,150.0	9,194.4	667.8	625.6	15.805	SF
SYLVESTER FED COM #702H - OWB - PWP1	2,500.0	2,499.0	676.3	663.7	53.283	CC, ES
SYLVESTER FED COM #702H - OWB - PWP1	6,200.0	6,126.5	987.2	960.2	36.519	SF

Offset Design SYLVESTER FED COM PROJECT - SYLVESTER FED COM #202H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 8943-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	3.0	3.0	-37.34	23.9	-18.2	30.1				
100.0	100.0	101.0	101.0	3.0	3.0	-37.34	23.9	-18.2	30.1	24.1	6.00	5.012	
200.0	200.0	201.0	201.0	3.0	3.0	-37.34	23.9	-18.2	30.1	24.0	6.04	4.979	
300.0	300.0	301.0	301.0	3.1	3.0	-37.34	23.9	-18.2	30.1	24.0	6.13	4.910	
400.0	400.0	401.0	401.0	3.2	3.0	-37.34	23.9	-18.2	30.1	23.8	6.26	4.810	
500.0	500.0	501.0	501.0	3.4	3.1	-37.34	23.9	-18.2	30.1	23.7	6.42	4.686	
600.0	600.0	601.0	601.0	3.6	3.1	-37.34	23.9	-18.2	30.1	23.5	6.62	4.544	
700.0	700.0	701.0	701.0	3.8	3.1	-37.34	23.9	-18.2	30.1	23.2	6.85	4.392	
800.0	800.0	801.0	801.0	4.0	3.2	-37.34	23.9	-18.2	30.1	23.0	7.11	4.234	
900.0	900.0	901.0	901.0	4.2	3.2	-37.34	23.9	-18.2	30.1	22.7	7.38	4.075	
1,000.0	1,000.0	1,001.0	1,001.0	4.5	3.2	-37.34	23.9	-18.2	30.1	22.4	7.68	3.918	
1,100.0	1,100.0	1,101.0	1,101.0	4.8	3.3	-37.34	23.9	-18.2	30.1	22.1	7.99	3.765	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #202H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 8943-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,200.0	1,200.0	1,201.0	1,201.0	5.1	3.4	-37.34	23.9	-18.2	30.1	21.8	8.32	3.617	
1,300.0	1,300.0	1,301.0	1,301.0	5.3	3.4	-37.34	23.9	-18.2	30.1	21.4	8.66	3.475	
1,400.0	1,400.0	1,401.0	1,401.0	5.6	3.5	-37.34	23.9	-18.2	30.1	21.1	9.01	3.340	
1,500.0	1,500.0	1,501.0	1,501.0	6.0	3.5	-37.34	23.9	-18.2	30.1	20.7	9.37	3.212	
1,600.0	1,600.0	1,601.0	1,601.0	6.3	3.6	-37.34	23.9	-18.2	30.1	20.4	9.73	3.091	
1,700.0	1,700.0	1,701.0	1,701.0	6.6	3.7	-37.34	23.9	-18.2	30.1	20.0	10.11	2.976	
1,800.0	1,800.0	1,801.0	1,801.0	6.9	3.8	-37.34	23.9	-18.2	30.1	19.6	10.49	2.868	
1,900.0	1,900.0	1,901.0	1,901.0	7.2	3.9	-37.34	23.9	-18.2	30.1	19.2	10.88	2.766	
2,000.0	2,000.0	2,001.0	2,001.0	7.6	3.9	-37.34	23.9	-18.2	30.1	18.8	11.27	2.669	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	4.0	-37.34	23.9	-18.2	30.1	18.4	11.67	2.578	
2,200.0	2,200.0	2,201.0	2,201.0	8.2	4.1	-37.34	23.9	-18.2	30.1	18.0	12.07	2.492	
2,300.0	2,300.0	2,301.0	2,301.0	8.6	4.2	-37.34	23.9	-18.2	30.1	17.6	12.48	2.411	
2,400.0	2,400.0	2,401.0	2,401.0	8.9	4.3	-37.34	23.9	-18.2	30.1	17.2	12.89	2.334	
2,500.0	2,500.0	2,501.0	2,501.0	9.2	4.4	-37.34	23.9	-18.2	30.1	16.8	13.30	2.262	CC, ES, SF
2,600.0	2,600.0	2,601.0	2,601.0	9.6	4.5	-153.81	23.9	-18.2	31.6	18.0	13.68	2.313	
2,700.0	2,699.8	2,700.8	2,700.8	9.9	4.6	-157.41	23.9	-18.2	36.4	22.4	14.01	2.599	
2,750.0	2,749.7	2,750.7	2,750.7	10.0	4.6	-159.54	23.9	-18.2	40.1	25.9	14.17	2.827	
2,800.0	2,799.5	2,800.5	2,800.5	10.2	4.7	-161.52	23.9	-18.2	44.2	29.8	14.33	3.083	
2,900.0	2,899.1	2,900.1	2,900.1	10.5	4.8	-164.53	23.9	-18.2	52.5	37.9	14.66	3.583	
3,000.0	2,998.7	2,999.7	2,999.7	10.8	4.9	-166.72	23.9	-18.2	61.0	46.0	15.00	4.063	
3,100.0	3,098.4	3,101.5	3,101.5	11.2	4.9	-169.06	22.3	-17.4	67.9	52.6	15.31	4.436	
3,200.0	3,198.0	3,203.6	3,203.4	11.5	4.9	-172.33	17.5	-14.9	71.8	56.2	15.55	4.617	
3,300.0	3,297.6	3,304.4	3,303.9	11.8	4.9	-176.49	10.1	-11.0	73.4	57.6	15.81	4.642	
3,400.0	3,397.2	3,404.3	3,403.4	12.2	4.8	179.40	2.4	-6.9	75.0	58.9	16.09	4.661	
3,500.0	3,496.8	3,504.1	3,502.8	12.5	4.8	175.50	-5.3	-2.9	77.0	60.6	16.41	4.694	
3,600.0	3,596.4	3,604.0	3,602.3	12.9	4.8	171.80	-13.0	1.2	79.4	62.6	16.75	4.739	
3,700.0	3,696.1	3,703.8	3,701.8	13.2	4.8	168.33	-20.7	5.2	82.0	64.9	17.11	4.795	
3,800.0	3,795.7	3,803.7	3,801.2	13.5	4.8	165.09	-28.4	9.3	85.0	67.5	17.48	4.860	
3,900.0	3,895.3	3,903.5	3,900.7	13.9	4.8	162.08	-36.1	13.3	88.2	70.3	17.88	4.932	
4,000.0	3,994.9	4,003.4	4,000.2	14.2	4.8	159.28	-43.8	17.4	91.6	73.3	18.28	5.010	
4,100.0	4,094.5	4,103.2	4,099.6	14.6	4.8	156.69	-51.5	21.4	95.2	76.5	18.69	5.094	
4,200.0	4,194.2	4,203.0	4,199.1	14.9	4.8	154.29	-59.3	25.5	99.0	79.9	19.10	5.183	
4,300.0	4,293.8	4,302.9	4,298.6	15.3	4.8	152.07	-67.0	29.5	103.0	83.4	19.52	5.274	
4,400.0	4,393.4	4,402.7	4,398.0	15.6	4.8	150.02	-74.7	33.6	107.1	87.1	19.95	5.368	
4,500.0	4,493.0	4,502.6	4,497.5	16.0	4.8	148.13	-82.4	37.6	111.3	90.9	20.37	5.464	
4,600.0	4,592.6	4,602.4	4,597.0	16.3	4.8	146.37	-90.1	41.7	115.7	94.9	20.80	5.562	
4,700.0	4,692.3	4,702.3	4,696.4	16.6	4.9	144.75	-97.8	45.7	120.1	98.9	21.22	5.660	
4,800.0	4,791.9	4,802.1	4,795.9	17.0	4.9	143.24	-105.5	49.8	124.6	103.0	21.65	5.758	
4,900.0	4,891.5	4,902.0	4,895.4	17.3	4.9	141.83	-113.2	53.8	129.3	107.2	22.07	5.856	
5,000.0	4,991.1	5,001.8	4,994.8	17.7	5.0	140.53	-120.9	57.9	133.9	111.4	22.50	5.954	
5,100.0	5,090.7	5,101.6	5,094.3	18.1	5.0	139.31	-128.6	61.9	138.7	115.8	22.92	6.050	
5,200.0	5,190.4	5,201.5	5,193.8	18.4	5.1	138.18	-136.3	66.0	143.5	120.2	23.35	6.146	
5,300.0	5,290.0	5,301.3	5,293.2	18.8	5.1	137.11	-144.0	70.0	148.4	124.6	23.78	6.241	
5,400.0	5,389.6	5,401.2	5,392.7	19.1	5.2	136.12	-151.7	74.1	153.3	129.1	24.20	6.334	
5,500.0	5,489.2	5,501.0	5,492.1	19.5	5.2	135.19	-159.4	78.1	158.2	133.6	24.63	6.425	
5,600.0	5,588.8	5,600.9	5,591.6	19.8	5.3	134.31	-167.1	82.2	163.2	138.2	25.05	6.516	
5,700.0	5,688.5	5,700.7	5,691.1	20.2	5.3	133.49	-174.8	86.2	168.3	142.8	25.48	6.604	
5,800.0	5,788.1	5,800.6	5,790.5	20.5	5.4	132.71	-182.5	90.3	173.3	147.4	25.91	6.691	
5,900.0	5,887.7	5,900.4	5,890.0	20.9	5.5	131.98	-190.2	94.3	178.4	152.1	26.33	6.775	
6,000.0	5,987.3	6,000.3	5,989.5	21.2	5.5	131.29	-197.9	98.4	183.6	156.8	26.76	6.858	
6,100.0	6,086.9	6,100.1	6,088.9	21.6	5.6	130.64	-205.6	102.4	188.7	161.5	27.19	6.940	
6,200.0	6,186.6	6,199.9	6,188.4	22.0	5.7	130.02	-213.3	106.5	193.9	166.2	27.62	7.019	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #202H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 8943-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,300.0	6,286.2	6,299.8	6,287.9	22.3	5.8	129.44	-221.0	110.5	199.1	171.0	28.05	7.097	
6,400.0	6,385.8	6,399.6	6,387.3	22.7	5.8	128.88	-228.7	114.6	204.3	175.8	28.48	7.172	
6,500.0	6,485.4	6,499.5	6,486.8	23.0	5.9	128.35	-236.4	118.6	209.5	180.6	28.91	7.246	
6,600.0	6,585.0	6,599.3	6,586.3	23.4	6.0	127.85	-244.1	122.7	214.7	185.4	29.34	7.318	
6,700.0	6,684.7	6,699.2	6,685.7	23.7	6.1	127.37	-251.8	126.7	220.0	190.2	29.78	7.389	
6,800.0	6,784.3	6,799.0	6,785.2	24.1	6.2	126.91	-259.5	130.8	225.3	195.1	30.21	7.457	
6,900.0	6,883.9	6,898.9	6,884.7	24.5	6.3	126.48	-267.2	134.8	230.6	199.9	30.64	7.524	
7,000.0	6,983.5	6,998.7	6,984.1	24.8	6.3	126.06	-274.9	138.9	235.9	204.8	31.08	7.589	
7,100.0	7,083.1	7,098.5	7,083.6	25.2	6.4	125.67	-282.6	142.9	241.2	209.7	31.51	7.653	
7,200.0	7,182.7	7,198.4	7,183.1	25.5	6.5	125.28	-290.3	147.0	246.5	214.6	31.95	7.715	
7,300.0	7,282.4	7,298.2	7,282.5	25.9	6.6	124.92	-298.0	151.0	251.8	219.4	32.39	7.775	
7,400.0	7,382.0	7,398.1	7,382.0	26.2	6.7	124.57	-305.7	155.1	257.2	224.4	32.83	7.834	
7,500.0	7,481.6	7,497.9	7,481.4	26.6	6.8	124.24	-313.4	159.1	262.5	229.3	33.27	7.891	
7,600.0	7,581.2	7,597.8	7,580.9	27.0	6.9	123.91	-321.1	163.2	267.9	234.2	33.71	7.947	
7,700.0	7,680.8	7,697.6	7,680.4	27.3	7.0	123.61	-328.8	167.2	273.3	239.1	34.15	8.002	
7,800.0	7,780.5	7,797.5	7,779.8	27.7	7.1	123.31	-336.5	171.3	278.6	244.1	34.60	8.054	
7,900.0	7,880.1	7,897.3	7,879.3	28.0	7.2	123.02	-344.2	175.3	284.0	249.0	35.04	8.106	
8,000.0	7,979.7	7,997.2	7,978.8	28.4	7.3	122.75	-351.9	179.4	289.4	253.9	35.48	8.156	
8,100.0	8,079.3	8,097.0	8,078.2	28.8	7.4	122.48	-359.6	183.4	294.8	258.9	35.93	8.205	
8,200.0	8,178.9	8,196.8	8,177.7	29.1	7.5	122.23	-367.4	187.5	300.2	263.9	36.38	8.253	
8,300.0	8,278.6	8,296.7	8,277.2	29.5	7.6	121.98	-375.1	191.5	305.6	268.8	36.83	8.300	
8,400.0	8,378.2	8,396.5	8,376.6	29.8	7.7	121.74	-382.8	195.5	311.1	273.8	37.27	8.345	
8,500.0	8,477.8	8,496.4	8,476.1	30.2	7.8	121.51	-390.5	199.6	316.5	278.8	37.72	8.389	
8,600.0	8,577.4	8,596.2	8,575.6	30.6	7.9	121.29	-398.2	203.6	321.9	283.7	38.18	8.432	
8,700.0	8,677.0	8,697.2	8,676.3	30.9	8.0	121.38	-404.4	206.9	327.2	288.5	38.62	8.472	
8,800.0	8,776.7	8,798.1	8,777.2	31.3	8.0	122.08	-407.5	208.6	332.1	293.0	39.04	8.505	
8,900.0	8,876.3	8,898.3	8,877.3	31.6	8.1	123.27	-407.9	208.7	336.8	297.4	39.48	8.532	
9,000.0	8,975.9	9,027.7	9,006.3	32.0	8.1	125.95	-400.3	208.7	339.3	299.3	39.97	8.487	
9,080.7	9,056.3	9,139.7	9,113.1	32.3	8.2	132.21	-367.7	208.4	332.9	292.5	40.43	8.233	
9,100.0	9,075.5	9,163.7	9,134.9	32.4	8.2	158.91	-357.5	208.4	331.0	290.4	40.54	8.163	
9,125.0	9,100.4	9,193.7	9,161.3	32.5	8.2	-176.50	-343.3	208.2	329.1	288.5	40.68	8.091	
9,150.0	9,125.1	9,222.5	9,185.7	32.5	8.2	-161.71	-328.1	208.1	328.1	287.3	40.81	8.040	
9,166.9	9,141.7	9,241.3	9,201.2	32.6	8.2	-154.82	-317.4	208.0	327.9	287.0	40.90	8.018	
9,175.0	9,149.6	9,250.1	9,208.3	32.6	8.2	-152.06	-312.1	208.0	328.0	287.0	40.94	8.011	
9,200.0	9,173.9	9,276.8	9,229.1	32.7	8.2	-145.03	-295.6	207.9	328.7	287.7	41.05	8.007	
9,225.0	9,197.9	9,302.4	9,248.3	32.8	8.3	-139.43	-278.5	207.7	330.4	289.3	41.16	8.028	
9,250.0	9,221.5	9,327.2	9,265.9	32.9	8.3	-134.68	-261.1	207.6	333.1	291.8	41.26	8.074	
9,275.0	9,244.6	9,351.1	9,282.0	33.0	8.3	-130.47	-243.4	207.5	336.7	295.3	41.34	8.144	
9,300.0	9,267.3	9,374.3	9,296.8	33.0	8.3	-126.63	-225.6	207.3	341.2	299.8	41.42	8.238	
9,325.0	9,289.3	9,396.8	9,310.3	33.1	8.4	-123.04	-207.5	207.2	346.7	305.2	41.49	8.355	
9,350.0	9,310.7	9,418.7	9,322.6	33.2	8.4	-119.64	-189.4	207.0	352.9	311.4	41.56	8.493	
9,375.0	9,331.4	9,440.0	9,333.8	33.3	8.4	-116.39	-171.2	206.9	360.0	318.4	41.62	8.650	
9,400.0	9,351.4	9,460.9	9,343.9	33.3	8.5	-113.25	-153.0	206.7	367.8	326.1	41.68	8.825	
9,425.0	9,370.6	9,481.2	9,353.0	33.4	8.5	-110.22	-134.8	206.6	376.3	334.6	41.73	9.016	
9,450.0	9,388.9	9,501.2	9,361.1	33.4	8.6	-107.27	-116.7	206.5	385.4	343.6	41.79	9.221	
9,475.0	9,406.3	9,520.7	9,368.4	33.5	8.6	-104.40	-98.5	206.3	395.0	353.1	41.85	9.438	
9,500.0	9,422.7	9,539.9	9,374.8	33.5	8.6	-101.62	-80.4	206.2	405.0	363.1	41.90	9.666	
9,525.0	9,438.1	9,558.8	9,380.4	33.6	8.7	-98.92	-62.3	206.0	415.5	373.5	41.96	9.902	
9,550.0	9,452.5	9,577.5	9,385.2	33.6	8.7	-96.31	-44.3	205.9	426.3	384.3	42.02	10.146	
9,575.0	9,465.8	9,595.9	9,389.2	33.7	8.8	-93.78	-26.4	205.7	437.4	395.3	42.08	10.395	
9,600.0	9,478.0	9,614.1	9,392.5	33.7	8.8	-91.34	-8.5	205.6	448.6	406.5	42.13	10.648	
9,625.0	9,489.1	9,632.1	9,395.1	33.7	8.9	-88.99	9.3	205.5	460.1	417.9	42.19	10.904	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #202H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 8943-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,650.0	9,498.9	9,650.0	9,397.1	33.8	8.9	-86.73	27.2	205.3	471.6	429.4	42.25	11.162	
9,675.0	9,507.6	9,667.6	9,398.3	33.8	9.0	-84.58	44.7	205.2	483.2	440.9	42.31	11.420	
9,700.0	9,515.0	9,685.2	9,398.9	33.8	9.1	-82.53	62.3	205.0	494.8	452.4	42.37	11.677	
9,725.0	9,521.1	9,705.0	9,398.9	33.9	9.1	-80.55	82.1	204.9	506.3	463.9	42.44	11.929	
9,750.0	9,526.0	9,727.1	9,398.9	33.9	9.2	-78.76	104.2	204.7	517.6	475.1	42.53	12.170	
9,775.0	9,529.6	9,749.6	9,398.8	33.9	9.3	-77.20	126.7	204.5	528.6	485.9	42.62	12.400	
9,800.0	9,531.9	9,772.2	9,398.7	34.0	9.4	-75.88	149.3	204.4	539.2	496.4	42.72	12.620	
9,825.0	9,532.9	9,795.0	9,398.7	34.0	9.5	-74.78	172.1	204.2	549.4	506.5	42.83	12.828	
9,833.1	9,533.0	9,802.4	9,398.7	34.0	9.5	-74.47	179.5	204.1	552.6	509.7	42.86	12.892	
9,900.0	9,532.8	9,864.1	9,398.5	34.1	9.8	-75.43	241.2	203.6	577.7	534.5	43.19	13.375	
10,000.0	9,532.5	9,958.4	9,398.2	34.2	10.2	-76.55	335.5	202.9	609.9	566.2	43.73	13.948	
10,100.0	9,532.2	10,054.8	9,398.0	34.3	10.8	-77.35	431.9	202.1	635.8	591.5	44.33	14.341	
10,200.0	9,531.9	10,152.8	9,397.7	34.5	11.3	-77.90	529.9	201.4	655.1	610.1	45.00	14.557	
10,300.0	9,531.6	10,252.0	9,397.4	34.6	11.9	-78.25	629.1	200.6	667.6	621.9	45.72	14.602	
10,400.0	9,531.4	10,351.8	9,397.2	34.8	12.5	-78.41	728.9	199.8	673.4	626.9	46.49	14.485	
10,434.4	9,531.3	10,386.2	9,397.1	34.9	12.8	-78.43	763.2	199.5	673.8	627.1	46.76	14.410	
10,500.0	9,531.1	10,451.8	9,396.9	35.0	13.2	-78.43	828.9	199.0	673.8	626.5	47.29	14.248	
10,600.0	9,530.8	10,551.8	9,396.6	35.2	13.9	-78.43	928.9	198.2	673.8	625.7	48.14	13.996	
10,700.0	9,530.5	10,651.8	9,396.3	35.4	14.6	-78.43	1,028.9	197.4	673.8	624.8	49.03	13.742	
10,800.0	9,530.3	10,751.8	9,396.1	35.7	15.3	-78.43	1,128.9	196.6	673.8	623.8	49.96	13.487	
10,900.0	9,530.0	10,851.8	9,395.8	35.9	16.0	-78.43	1,228.9	195.9	673.8	622.9	50.92	13.232	
11,000.0	9,529.7	10,951.8	9,395.5	36.2	16.8	-78.43	1,328.9	195.1	673.8	621.9	51.92	12.978	
11,100.0	9,529.4	11,051.8	9,395.2	36.5	17.5	-78.43	1,428.8	194.3	673.8	620.9	52.95	12.726	
11,200.0	9,529.2	11,151.8	9,395.0	36.8	18.3	-78.43	1,528.8	193.5	673.8	619.8	54.00	12.477	
11,300.0	9,528.9	11,251.8	9,394.7	37.1	19.1	-78.43	1,628.8	192.7	673.8	618.7	55.08	12.232	
11,400.0	9,528.6	11,351.8	9,394.4	37.5	19.9	-78.43	1,728.8	191.9	673.8	617.6	56.19	11.991	
11,500.0	9,528.3	11,451.8	9,394.2	37.8	20.7	-78.43	1,828.8	191.1	673.8	616.5	57.32	11.754	
11,600.0	9,528.0	11,551.8	9,393.9	38.2	21.4	-78.43	1,928.8	190.3	673.8	615.3	58.48	11.522	
11,700.0	9,527.8	11,651.8	9,393.6	38.6	22.2	-78.43	2,028.8	189.6	673.8	614.1	59.66	11.294	
11,800.0	9,527.5	11,751.8	9,393.3	39.0	23.1	-78.43	2,128.8	188.8	673.8	612.9	60.86	11.072	
11,900.0	9,527.2	11,851.8	9,393.1	39.5	23.9	-78.43	2,228.8	188.0	673.8	611.7	62.07	10.855	
12,000.0	9,526.9	11,951.8	9,392.8	39.9	24.7	-78.43	2,328.8	187.2	673.8	610.5	63.31	10.643	
12,100.0	9,526.7	12,051.8	9,392.5	40.3	25.5	-78.43	2,428.8	186.4	673.8	609.2	64.56	10.436	
12,200.0	9,526.4	12,151.8	9,392.2	40.8	26.3	-78.43	2,528.8	185.6	673.8	607.9	65.84	10.234	
12,300.0	9,526.1	12,251.8	9,392.0	41.3	27.1	-78.43	2,628.8	184.8	673.8	606.6	67.12	10.038	
12,400.0	9,525.8	12,351.8	9,391.7	41.8	28.0	-78.43	2,728.8	184.0	673.8	605.3	68.43	9.847	
12,500.0	9,525.6	12,451.8	9,391.4	42.3	28.8	-78.43	2,828.8	183.3	673.8	604.0	69.75	9.660	
12,600.0	9,525.3	12,551.8	9,391.1	42.8	29.6	-78.43	2,928.8	182.5	673.8	602.7	71.08	9.479	
12,700.0	9,525.0	12,651.8	9,390.9	43.3	30.4	-78.43	3,028.8	181.7	673.8	601.3	72.42	9.303	
12,800.0	9,524.7	12,751.8	9,390.6	43.9	31.3	-78.43	3,128.8	180.9	673.8	600.0	73.78	9.132	
12,900.0	9,524.5	12,851.8	9,390.3	44.4	32.1	-78.43	3,228.8	180.1	673.8	598.6	75.15	8.965	
13,000.0	9,524.2	12,951.8	9,390.1	45.0	32.9	-78.43	3,328.8	179.3	673.8	597.2	76.54	8.803	
13,100.0	9,523.9	13,051.8	9,389.8	45.5	33.8	-78.43	3,428.8	178.5	673.8	595.8	77.93	8.645	
13,200.0	9,523.6	13,151.8	9,389.5	46.1	34.6	-78.43	3,528.8	177.7	673.8	594.4	79.34	8.492	
13,300.0	9,523.3	13,251.8	9,389.2	46.7	35.5	-78.43	3,628.8	177.0	673.8	593.0	80.76	8.343	
13,400.0	9,523.1	13,351.8	9,389.0	47.3	36.3	-78.43	3,728.8	176.2	673.7	591.6	82.18	8.198	
13,500.0	9,522.8	13,451.8	9,388.7	47.9	37.1	-78.43	3,828.8	175.4	673.7	590.1	83.62	8.057	
13,600.0	9,522.5	13,551.8	9,388.4	48.5	38.0	-78.43	3,928.8	174.6	673.7	588.7	85.06	7.921	
13,700.0	9,522.2	13,651.8	9,388.1	49.1	38.8	-78.43	4,028.8	173.8	673.7	587.2	86.52	7.787	
13,800.0	9,522.0	13,751.8	9,387.9	49.8	39.7	-78.43	4,128.8	173.0	673.7	585.8	87.98	7.658	
13,900.0	9,521.7	13,851.8	9,387.6	50.4	40.5	-78.43	4,228.8	172.2	673.7	584.3	89.45	7.532	
14,000.0	9,521.4	13,951.8	9,387.3	51.0	41.4	-78.43	4,328.7	171.4	673.7	582.8	90.93	7.410	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #202H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 8943-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,100.0	9,521.1	14,051.8	9,387.0	51.7	42.2	-78.43	4,428.7	170.7	673.7	581.3	92.41	7.291	
14,200.0	9,520.9	14,151.8	9,386.8	52.3	43.1	-78.43	4,528.7	169.9	673.7	579.8	93.91	7.175	
14,300.0	9,520.6	14,251.8	9,386.5	53.0	43.9	-78.43	4,628.7	169.1	673.7	578.3	95.40	7.062	
14,400.0	9,520.3	14,351.8	9,386.2	53.6	44.7	-78.43	4,728.7	168.3	673.7	576.8	96.91	6.952	
14,500.0	9,520.0	14,451.8	9,385.9	54.3	45.6	-78.43	4,828.7	167.5	673.7	575.3	98.42	6.845	
14,600.0	9,519.8	14,551.8	9,385.7	55.0	46.4	-78.43	4,928.7	166.7	673.7	573.8	99.94	6.741	
14,700.0	9,519.5	14,651.8	9,385.4	55.7	47.3	-78.43	5,028.7	165.9	673.7	572.3	101.47	6.640	
14,800.0	9,519.2	14,751.8	9,385.1	56.4	48.1	-78.43	5,128.7	165.1	673.7	570.7	103.00	6.541	
14,900.0	9,518.9	14,851.8	9,384.9	57.0	49.0	-78.43	5,228.7	164.4	673.7	569.2	104.53	6.445	
15,000.0	9,518.6	14,951.8	9,384.6	57.7	49.9	-78.43	5,328.7	163.6	673.7	567.6	106.07	6.351	
15,100.0	9,518.4	15,051.8	9,384.3	58.4	50.7	-78.44	5,428.7	162.8	673.7	566.1	107.62	6.260	
15,200.0	9,518.1	15,151.8	9,384.0	59.1	51.6	-78.44	5,528.7	162.0	673.7	564.5	109.17	6.171	
15,300.0	9,517.8	15,251.8	9,383.8	59.9	52.4	-78.44	5,628.7	161.2	673.7	563.0	110.72	6.085	
15,400.0	9,517.5	15,351.8	9,383.5	60.6	53.3	-78.44	5,728.7	160.4	673.7	561.4	112.28	6.000	
15,500.0	9,517.3	15,451.8	9,383.2	61.3	54.1	-78.44	5,828.7	159.6	673.7	559.9	113.85	5.918	
15,600.0	9,517.0	15,551.8	9,382.9	62.0	55.0	-78.44	5,928.7	158.8	673.7	558.3	115.42	5.837	
15,700.0	9,516.7	15,651.8	9,382.7	62.7	55.8	-78.44	6,028.7	158.1	673.7	556.7	116.99	5.759	
15,800.0	9,516.4	15,751.8	9,382.4	63.4	56.7	-78.44	6,128.7	157.3	673.7	555.1	118.56	5.682	
15,900.0	9,516.2	15,851.8	9,382.1	64.2	57.5	-78.44	6,228.7	156.5	673.7	553.5	120.14	5.607	
16,000.0	9,515.9	15,951.8	9,381.8	64.9	58.4	-78.44	6,328.7	155.7	673.7	552.0	121.73	5.534	
16,100.0	9,515.6	16,051.8	9,381.6	65.6	59.2	-78.44	6,428.7	154.9	673.7	550.4	123.31	5.463	
16,200.0	9,515.3	16,151.8	9,381.3	66.4	60.1	-78.44	6,528.7	154.1	673.7	548.8	124.90	5.394	
16,300.0	9,515.1	16,251.8	9,381.0	67.1	61.0	-78.44	6,628.7	153.3	673.7	547.2	126.50	5.326	
16,400.0	9,514.8	16,351.8	9,380.8	67.9	61.8	-78.44	6,728.7	152.5	673.7	545.6	128.09	5.259	
16,500.0	9,514.5	16,451.8	9,380.5	68.6	62.7	-78.44	6,828.7	151.8	673.7	544.0	129.69	5.194	
16,600.0	9,514.2	16,551.8	9,380.2	69.4	63.5	-78.44	6,928.7	151.0	673.7	542.4	131.30	5.131	
16,700.0	9,513.9	16,651.8	9,379.9	70.1	64.4	-78.44	7,028.7	150.2	673.7	540.8	132.90	5.069	
16,800.0	9,513.7	16,751.8	9,379.7	70.9	65.2	-78.44	7,128.6	149.4	673.7	539.2	134.51	5.008	
16,900.0	9,513.4	16,851.8	9,379.4	71.6	66.1	-78.44	7,228.6	148.6	673.7	537.6	136.12	4.949	
17,000.0	9,513.1	16,951.8	9,379.1	72.4	67.0	-78.44	7,328.6	147.8	673.7	535.9	137.73	4.891	
17,040.0	9,513.0	16,991.8	9,379.0	72.7	67.3	-78.44	7,368.6	147.5	673.7	535.3	138.38	4.868	
17,042.2	9,513.0	16,991.8	9,379.0	72.7	67.3	-78.44	7,368.6	147.5	673.7	535.3	138.39	4.868	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #203H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	3.0	3.0	-37.24	47.8	-36.3	60.0				
100.0	100.0	101.0	101.0	3.0	3.0	-37.24	47.8	-36.3	60.0	54.0	6.01	9.990	
200.0	200.0	201.0	201.0	3.0	3.0	-37.24	47.8	-36.3	60.0	53.9	6.08	9.871	
300.0	300.0	301.0	301.0	3.1	3.1	-37.24	47.8	-36.3	60.0	53.8	6.23	9.625	
400.0	400.0	401.0	401.0	3.2	3.2	-37.24	47.8	-36.3	60.0	53.5	6.46	9.281	
500.0	500.0	501.0	501.0	3.4	3.4	-37.24	47.8	-36.3	60.0	53.2	6.76	8.870	
600.0	600.0	601.0	601.0	3.6	3.6	-37.24	47.8	-36.3	60.0	52.9	7.12	8.423	
700.0	700.0	701.0	701.0	3.8	3.8	-37.24	47.8	-36.3	60.0	52.5	7.53	7.963	
800.0	800.0	801.0	801.0	4.0	4.0	-37.24	47.8	-36.3	60.0	52.0	7.99	7.511	
900.0	900.0	901.0	901.0	4.2	4.2	-37.24	47.8	-36.3	60.0	51.5	8.48	7.076	
1,000.0	1,000.0	1,001.0	1,001.0	4.5	4.5	-37.24	47.8	-36.3	60.0	51.0	9.00	6.667	
1,100.0	1,100.0	1,101.0	1,101.0	4.8	4.8	-37.24	47.8	-36.3	60.0	50.4	9.55	6.285	
1,200.0	1,200.0	1,201.0	1,201.0	5.1	5.1	-37.24	47.8	-36.3	60.0	49.9	10.11	5.932	
1,300.0	1,300.0	1,301.0	1,301.0	5.3	5.4	-37.24	47.8	-36.3	60.0	49.3	10.70	5.608	
1,400.0	1,400.0	1,401.0	1,401.0	5.6	5.7	-37.24	47.8	-36.3	60.0	48.7	11.30	5.310	
1,500.0	1,500.0	1,501.0	1,501.0	6.0	6.0	-37.24	47.8	-36.3	60.0	48.1	11.91	5.036	
1,600.0	1,600.0	1,601.0	1,601.0	6.3	6.3	-37.24	47.8	-36.3	60.0	47.5	12.54	4.785	
1,700.0	1,700.0	1,701.0	1,701.0	6.6	6.6	-37.24	47.8	-36.3	60.0	46.8	13.17	4.555	
1,800.0	1,800.0	1,801.0	1,801.0	6.9	6.9	-37.24	47.8	-36.3	60.0	46.2	13.81	4.343	
1,900.0	1,900.0	1,901.0	1,901.0	7.2	7.2	-37.24	47.8	-36.3	60.0	45.5	14.46	4.148	
2,000.0	2,000.0	2,001.0	2,001.0	7.6	7.6	-37.24	47.8	-36.3	60.0	44.9	15.12	3.968	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-37.24	47.8	-36.3	60.0	44.2	15.78	3.802	
2,200.0	2,200.0	2,201.0	2,201.0	8.2	8.2	-37.24	47.8	-36.3	60.0	43.6	16.44	3.648	
2,300.0	2,300.0	2,301.0	2,301.0	8.6	8.6	-37.24	47.8	-36.3	60.0	42.9	17.11	3.506	
2,400.0	2,400.0	2,401.0	2,401.0	8.9	8.9	-37.24	47.8	-36.3	60.0	42.2	17.79	3.373	
2,500.0	2,500.0	2,501.0	2,501.0	9.2	9.2	-37.24	47.8	-36.3	60.0	41.5	18.46	3.249	
2,500.1	2,500.1	2,501.1	2,501.1	9.2	9.2	-37.24	47.8	-36.3	60.0	41.5	18.46	3.249	CC, ES
2,600.0	2,600.0	2,601.1	2,601.1	9.6	9.6	-154.67	46.6	-37.6	61.4	42.3	19.12	3.213	SF
2,700.0	2,699.8	2,700.7	2,700.5	9.9	9.9	-161.10	43.0	-41.5	66.3	46.6	19.75	3.358	
2,750.0	2,749.7	2,750.2	2,749.9	10.0	10.0	-165.23	40.4	-44.3	70.5	50.4	20.06	3.512	
2,800.0	2,799.5	2,799.7	2,799.3	10.2	10.2	-169.09	37.7	-47.2	75.4	55.0	20.38	3.699	
2,900.0	2,899.1	2,898.8	2,898.0	10.5	10.5	-175.43	32.3	-53.1	86.1	65.1	21.01	4.097	
3,000.0	2,998.7	2,997.8	2,996.7	10.8	10.8	179.66	26.9	-59.0	97.6	75.9	21.65	4.508	
3,100.0	3,098.4	3,096.8	3,095.4	11.2	11.1	175.81	21.5	-64.9	109.7	87.4	22.29	4.920	
3,200.0	3,198.0	3,195.9	3,194.1	11.5	11.5	172.73	16.1	-70.8	122.1	99.2	22.94	5.325	
3,300.0	3,297.6	3,294.9	3,292.8	11.8	11.8	170.22	10.7	-76.6	134.9	111.3	23.59	5.718	
3,400.0	3,397.2	3,393.9	3,391.5	12.2	12.1	168.15	5.3	-82.5	147.8	123.6	24.24	6.098	
3,500.0	3,496.8	3,492.9	3,490.2	12.5	12.5	166.41	-0.1	-88.4	160.9	136.0	24.90	6.463	
3,600.0	3,596.4	3,592.0	3,588.9	12.9	12.8	164.94	-5.5	-94.3	174.2	148.6	25.57	6.813	
3,700.0	3,696.1	3,691.0	3,687.6	13.2	13.1	163.67	-10.9	-100.2	187.5	161.3	26.23	7.148	
3,800.0	3,795.7	3,790.0	3,786.3	13.5	13.5	162.58	-16.3	-106.0	200.9	174.0	26.90	7.469	
3,900.0	3,895.3	3,889.0	3,885.0	13.9	13.8	161.62	-21.7	-111.9	214.4	186.8	27.58	7.776	
4,000.0	3,994.9	3,988.1	3,983.7	14.2	14.1	160.77	-27.1	-117.8	228.0	199.7	28.25	8.069	
4,100.0	4,094.5	4,087.1	4,082.4	14.6	14.5	160.02	-32.5	-123.7	241.5	212.6	28.93	8.349	
4,200.0	4,194.2	4,186.1	4,181.1	14.9	14.8	159.35	-37.9	-129.6	255.1	225.5	29.61	8.617	
4,300.0	4,293.8	4,285.2	4,279.8	15.3	15.1	158.75	-43.3	-135.4	268.8	238.5	30.29	8.874	
4,400.0	4,393.4	4,384.2	4,378.5	15.6	15.5	158.20	-48.7	-141.3	282.5	251.5	30.97	9.119	
4,500.0	4,493.0	4,483.2	4,477.3	16.0	15.8	157.71	-54.1	-147.2	296.1	264.5	31.66	9.354	
4,600.0	4,592.6	4,582.2	4,576.0	16.3	16.2	157.25	-59.5	-153.1	309.9	277.5	32.35	9.579	
4,700.0	4,692.3	4,681.3	4,674.7	16.6	16.5	156.84	-64.9	-159.0	323.6	290.6	33.04	9.795	
4,800.0	4,791.9	4,780.3	4,773.4	17.0	16.9	156.46	-70.3	-164.8	337.3	303.6	33.73	10.002	
4,900.0	4,891.5	4,879.3	4,872.1	17.3	17.2	156.11	-75.7	-170.7	351.1	316.7	34.42	10.201	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #203H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,991.1	4,978.3	4,970.8	17.7	17.5	155.79	-81.1	-176.6	364.9	329.7	35.11	10.391	
5,100.0	5,090.7	5,077.4	5,069.5	18.1	17.9	155.49	-86.5	-182.5	378.6	342.8	35.81	10.575	
5,200.0	5,190.4	5,176.4	5,168.2	18.4	18.2	155.21	-91.9	-188.4	392.4	355.9	36.50	10.751	
5,300.0	5,290.0	5,275.4	5,266.9	18.8	18.6	154.95	-97.3	-194.2	406.2	369.0	37.20	10.921	
5,400.0	5,389.6	5,374.5	5,365.6	19.1	18.9	154.71	-102.7	-200.1	420.0	382.1	37.90	11.084	
5,500.0	5,489.2	5,473.5	5,464.3	19.5	19.3	154.48	-108.1	-206.0	433.8	395.3	38.59	11.241	
5,600.0	5,588.8	5,572.5	5,563.0	19.8	19.6	154.27	-113.5	-211.9	447.7	408.4	39.29	11.393	
5,700.0	5,688.5	5,671.5	5,661.7	20.2	20.0	154.07	-118.9	-217.8	461.5	421.5	39.99	11.539	
5,800.0	5,788.1	5,770.6	5,760.4	20.5	20.3	153.88	-124.3	-223.6	475.3	434.6	40.70	11.680	
5,900.0	5,887.7	5,869.6	5,859.1	20.9	20.7	153.70	-129.7	-229.5	489.2	447.8	41.40	11.816	
6,000.0	5,987.3	5,968.6	5,957.8	21.2	21.0	153.53	-135.1	-235.4	503.0	460.9	42.10	11.948	
6,100.0	6,086.9	6,067.6	6,056.5	21.6	21.4	153.38	-140.5	-241.3	516.8	474.0	42.80	12.075	
6,200.0	6,186.6	6,166.7	6,155.2	22.0	21.7	153.22	-145.9	-247.2	530.7	487.2	43.51	12.197	
6,300.0	6,286.2	6,265.7	6,253.9	22.3	22.1	153.08	-151.3	-253.0	544.5	500.3	44.21	12.316	
6,400.0	6,385.8	6,364.7	6,352.6	22.7	22.4	152.95	-156.7	-258.9	558.4	513.5	44.92	12.431	
6,500.0	6,485.4	6,463.8	6,451.4	23.0	22.8	152.82	-162.1	-264.8	572.2	526.6	45.62	12.543	
6,600.0	6,585.0	6,562.8	6,550.1	23.4	23.1	152.69	-167.5	-270.7	586.1	539.8	46.33	12.650	
6,700.0	6,684.7	6,661.8	6,648.8	23.7	23.5	152.57	-172.9	-276.6	600.0	552.9	47.04	12.755	
6,800.0	6,784.3	6,760.8	6,747.5	24.1	23.9	152.46	-178.3	-282.4	613.8	566.1	47.75	12.856	
6,900.0	6,883.9	6,859.9	6,846.2	24.5	24.2	152.35	-183.7	-288.3	627.7	579.2	48.45	12.954	
7,000.0	6,983.5	6,958.9	6,944.9	24.8	24.6	152.25	-189.1	-294.2	641.6	592.4	49.16	13.050	
7,100.0	7,083.1	7,057.9	7,043.6	25.2	24.9	152.15	-194.5	-300.1	655.4	605.6	49.87	13.142	
7,200.0	7,182.7	7,156.9	7,142.3	25.5	25.3	152.06	-199.9	-306.0	669.3	618.7	50.58	13.232	
7,300.0	7,282.4	7,256.0	7,241.0	25.9	25.6	151.97	-205.3	-311.8	683.2	631.9	51.29	13.320	
7,400.0	7,382.0	7,355.0	7,339.7	26.2	26.0	151.88	-210.7	-317.7	697.1	645.1	52.00	13.404	
7,500.0	7,481.6	7,454.0	7,438.4	26.6	26.3	151.80	-216.2	-323.6	710.9	658.2	52.71	13.487	
7,600.0	7,581.2	7,553.1	7,537.1	27.0	26.7	151.72	-221.6	-329.5	724.8	671.4	53.42	13.567	
7,700.0	7,680.8	7,652.1	7,635.8	27.3	27.0	151.64	-227.0	-335.4	738.7	684.6	54.14	13.645	
7,800.0	7,780.5	7,751.1	7,734.5	27.7	27.4	151.57	-232.4	-341.2	752.6	697.7	54.85	13.721	
7,900.0	7,880.1	7,850.1	7,833.2	28.0	27.8	151.49	-237.8	-347.1	766.5	710.9	55.56	13.795	
8,000.0	7,979.7	7,949.2	7,931.9	28.4	28.1	151.42	-243.2	-353.0	780.3	724.1	56.27	13.867	
8,100.0	8,079.3	8,048.2	8,030.6	28.8	28.5	151.36	-248.6	-358.9	794.2	737.2	56.99	13.937	
8,200.0	8,178.9	8,147.2	8,129.3	29.1	28.8	151.29	-254.0	-364.8	808.1	750.4	57.70	14.006	
8,300.0	8,278.6	8,246.2	8,228.0	29.5	29.2	151.23	-259.4	-370.6	822.0	763.6	58.41	14.072	
8,400.0	8,378.2	8,345.3	8,326.7	29.8	29.5	151.17	-264.8	-376.5	835.9	776.8	59.13	14.137	
8,500.0	8,477.8	8,444.3	8,425.4	30.2	29.9	151.11	-270.2	-382.4	849.8	789.9	59.84	14.201	
8,600.0	8,577.4	8,543.3	8,524.2	30.6	30.2	151.06	-275.6	-388.3	863.7	803.1	60.55	14.263	
8,700.0	8,677.0	8,642.4	8,622.9	30.9	30.6	151.00	-281.0	-394.2	877.5	816.3	61.27	14.323	
8,800.0	8,776.7	8,741.4	8,721.6	31.3	31.0	150.95	-286.4	-400.0	891.4	829.5	61.98	14.382	
8,900.0	8,876.3	8,840.4	8,820.3	31.6	31.3	150.90	-291.8	-405.9	905.3	842.6	62.70	14.439	
9,000.0	8,975.9	8,939.4	8,919.0	32.0	31.7	150.85	-297.2	-411.8	919.2	855.8	63.41	14.495	
9,080.7	9,056.3	9,019.4	8,998.6	32.3	32.0	150.81	-301.5	-416.5	930.4	866.4	63.99	14.540	
9,100.0	9,075.5	9,039.3	9,018.5	32.4	32.0	176.11	-302.6	-417.7	933.3	869.2	64.14	14.552	
9,125.0	9,100.4	9,067.3	9,046.4	32.5	32.1	-161.13	-302.9	-419.4	937.5	873.1	64.34	14.571	
9,150.0	9,125.1	9,095.2	9,074.3	32.5	32.2	-148.16	-301.5	-421.1	942.1	877.6	64.53	14.599	
9,175.0	9,149.6	9,123.1	9,101.9	32.6	32.3	-140.31	-298.6	-422.8	947.3	882.6	64.72	14.636	
9,200.0	9,173.9	9,150.9	9,129.3	32.7	32.4	-135.05	-294.0	-424.4	952.9	888.0	64.91	14.680	
9,225.0	9,197.9	9,178.5	9,156.2	32.8	32.5	-131.19	-287.9	-426.1	959.0	893.9	65.09	14.733	
9,250.0	9,221.5	9,206.0	9,182.6	32.9	32.6	-128.14	-280.3	-427.7	965.5	900.2	65.27	14.793	
9,275.0	9,244.6	9,233.4	9,208.3	33.0	32.7	-125.59	-271.3	-429.4	972.5	907.0	65.44	14.860	
9,300.0	9,267.3	9,260.5	9,233.3	33.0	32.8	-123.36	-260.8	-430.9	979.8	914.2	65.61	14.935	
9,325.0	9,289.3	9,287.5	9,257.6	33.1	32.8	-121.33	-249.0	-432.5	987.6	921.8	65.77	15.016	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #203H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.0	9,310.7	9,314.3	9,280.9	33.2	32.9	-119.44	-236.0	-434.0	995.7	929.8	65.92	15.105	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #204H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 8948-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.0	2.0	3.0	3.0	-37.21	71.9	-54.6	90.3				
100.0	100.0	102.0	102.0	3.0	3.0	-37.21	71.9	-54.6	90.3	84.3	6.00	15.036	
200.0	200.0	202.0	202.0	3.0	3.0	-37.21	71.9	-54.6	90.3	84.2	6.04	14.937	
300.0	300.0	302.0	302.0	3.1	3.0	-37.21	71.9	-54.6	90.3	84.1	6.13	14.729	
400.0	400.0	402.0	402.0	3.2	3.0	-37.21	71.9	-54.6	90.3	84.0	6.26	14.429	
500.0	500.0	502.0	502.0	3.4	3.1	-37.21	71.9	-54.6	90.3	83.8	6.42	14.056	
600.0	600.0	602.0	602.0	3.6	3.1	-37.21	71.9	-54.6	90.3	83.6	6.62	13.631	
700.0	700.0	702.0	702.0	3.8	3.1	-37.21	71.9	-54.6	90.3	83.4	6.85	13.174	
800.0	800.0	802.0	802.0	4.0	3.2	-37.21	71.9	-54.6	90.3	83.2	7.11	12.701	
900.0	900.0	902.0	902.0	4.2	3.2	-37.21	71.9	-54.6	90.3	82.9	7.38	12.224	
1,000.0	1,000.0	1,002.0	1,002.0	4.5	3.2	-37.21	71.9	-54.6	90.3	82.6	7.68	11.753	
1,100.0	1,100.0	1,102.0	1,102.0	4.8	3.3	-37.21	71.9	-54.6	90.3	82.3	7.99	11.293	
1,200.0	1,200.0	1,202.0	1,202.0	5.1	3.4	-37.21	71.9	-54.6	90.3	81.9	8.32	10.850	
1,300.0	1,300.0	1,302.0	1,302.0	5.3	3.4	-37.21	71.9	-54.6	90.3	81.6	8.66	10.425	
1,400.0	1,400.0	1,402.0	1,402.0	5.6	3.5	-37.21	71.9	-54.6	90.3	81.3	9.01	10.020	
1,500.0	1,500.0	1,502.0	1,502.0	6.0	3.5	-37.21	71.9	-54.6	90.3	80.9	9.37	9.636	
1,600.0	1,600.0	1,602.0	1,602.0	6.3	3.6	-37.21	71.9	-54.6	90.3	80.5	9.74	9.272	
1,700.0	1,700.0	1,702.0	1,702.0	6.6	3.7	-37.21	71.9	-54.6	90.3	80.2	10.11	8.928	
1,800.0	1,800.0	1,802.0	1,802.0	6.9	3.8	-37.21	71.9	-54.6	90.3	79.8	10.49	8.603	
1,900.0	1,900.0	1,902.0	1,902.0	7.2	3.9	-37.21	71.9	-54.6	90.3	79.4	10.88	8.296	
2,000.0	2,000.0	2,002.0	2,002.0	7.6	3.9	-37.21	71.9	-54.6	90.3	79.0	11.27	8.007	
2,100.0	2,100.0	2,102.0	2,102.0	7.9	4.0	-37.21	71.9	-54.6	90.3	78.6	11.67	7.734	
2,200.0	2,200.0	2,202.0	2,202.0	8.2	4.1	-37.21	71.9	-54.6	90.3	78.2	12.07	7.476	
2,300.0	2,300.0	2,302.0	2,302.0	8.6	4.2	-37.21	71.9	-54.6	90.3	77.8	12.48	7.232	
2,400.0	2,400.0	2,402.0	2,402.0	8.9	4.3	-37.21	71.9	-54.6	90.3	77.4	12.89	7.002	
2,416.0	2,416.0	2,418.0	2,418.0	8.9	4.3	-37.21	71.9	-54.6	90.3	77.3	12.96	6.966	CC
2,500.0	2,500.0	2,502.0	2,502.0	9.2	4.4	-37.21	71.9	-54.6	90.3	77.0	13.30	6.784	ES
2,600.0	2,600.0	2,601.2	2,601.2	9.6	4.4	-153.80	71.1	-56.2	92.2	78.6	13.67	6.748	SF
2,700.0	2,699.8	2,700.0	2,699.8	9.9	4.4	-158.02	68.9	-60.9	98.4	84.5	13.96	7.051	
2,750.0	2,749.7	2,748.8	2,748.5	10.0	4.4	-160.80	67.3	-64.4	103.4	89.3	14.10	7.336	
2,800.0	2,799.5	2,797.4	2,796.9	10.2	4.5	-163.82	65.4	-68.6	109.4	95.2	14.23	7.685	
2,900.0	2,899.1	2,895.9	2,894.8	10.5	4.5	-169.39	61.0	-77.9	122.6	108.1	14.52	8.442	
3,000.0	2,998.7	2,994.3	2,992.7	10.8	4.5	-173.86	56.7	-87.2	136.7	121.9	14.83	9.217	
3,100.0	3,098.4	3,092.8	3,090.7	11.2	4.5	-177.48	52.3	-96.5	151.5	136.3	15.16	9.991	
3,200.0	3,198.0	3,191.3	3,188.6	11.5	4.5	179.55	48.0	-105.9	166.7	151.2	15.51	10.753	
3,300.0	3,297.6	3,289.8	3,286.6	11.8	4.5	177.07	43.6	-115.2	182.4	166.5	15.86	11.496	
3,400.0	3,397.2	3,388.3	3,384.5	12.2	4.6	174.99	39.3	-124.5	198.3	182.1	16.23	12.216	
3,500.0	3,496.8	3,486.8	3,482.5	12.5	4.6	173.22	34.9	-133.9	214.4	197.8	16.61	12.911	
3,600.0	3,596.4	3,585.3	3,580.4	12.9	4.6	171.70	30.6	-143.2	230.7	213.7	16.99	13.580	
3,700.0	3,696.1	3,683.8	3,678.4	13.2	4.7	170.38	26.2	-152.5	247.2	229.8	17.38	14.223	
3,800.0	3,795.7	3,782.3	3,776.3	13.5	4.7	169.22	21.9	-161.9	263.7	246.0	17.77	14.839	
3,900.0	3,895.3	3,880.7	3,874.3	13.9	4.8	168.20	17.5	-171.2	280.4	262.2	18.17	15.429	
4,000.0	3,994.9	3,979.2	3,972.2	14.2	4.8	167.30	13.2	-180.5	297.1	278.5	18.58	15.994	
4,100.0	4,094.5	4,077.7	4,070.2	14.6	4.9	166.49	8.8	-189.8	313.9	294.9	18.98	16.535	
4,200.0	4,194.2	4,176.2	4,168.1	14.9	4.9	165.76	4.5	-199.2	330.8	311.4	19.40	17.053	
4,300.0	4,293.8	4,274.7	4,266.1	15.3	5.0	165.10	0.1	-208.5	347.6	327.8	19.81	17.548	
4,400.0	4,393.4	4,373.2	4,364.0	15.6	5.1	164.51	-4.2	-217.8	364.6	344.3	20.23	18.023	
4,500.0	4,493.0	4,471.7	4,462.0	16.0	5.1	163.97	-8.6	-227.2	381.5	360.9	20.65	18.477	
4,600.0	4,592.6	4,570.2	4,559.9	16.3	5.2	163.47	-12.9	-236.5	398.5	377.5	21.07	18.912	
4,700.0	4,692.3	4,668.6	4,657.9	16.6	5.3	163.01	-17.3	-245.8	415.6	394.1	21.50	19.329	
4,800.0	4,791.9	4,767.1	4,755.8	17.0	5.4	162.59	-21.6	-255.2	432.6	410.7	21.93	19.728	
4,900.0	4,891.5	4,865.6	4,853.8	17.3	5.4	162.20	-26.0	-264.5	449.7	427.3	22.36	20.110	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #204H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 8948-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,991.1	4,964.1	4,951.7	17.7	5.5	161.84	-30.3	-273.8	466.8	444.0	22.79	20.477	
5,100.0	5,090.7	5,062.6	5,049.7	18.1	5.6	161.51	-34.7	-283.2	483.9	460.6	23.23	20.830	
5,200.0	5,190.4	5,161.1	5,147.6	18.4	5.7	161.20	-39.0	-292.5	501.0	477.3	23.67	21.168	
5,300.0	5,290.0	5,259.6	5,245.6	18.8	5.8	160.91	-43.4	-301.8	518.1	494.0	24.11	21.492	
5,400.0	5,389.6	5,358.1	5,343.5	19.1	5.9	160.64	-47.7	-311.1	535.3	510.7	24.55	21.804	
5,500.0	5,489.2	5,456.6	5,441.5	19.5	5.9	160.38	-52.1	-320.5	552.4	527.4	24.99	22.104	
5,600.0	5,588.8	5,555.0	5,539.4	19.8	6.0	160.14	-56.4	-329.8	569.6	544.2	25.44	22.392	
5,700.0	5,688.5	5,653.5	5,637.4	20.2	6.1	159.91	-60.8	-339.1	586.8	560.9	25.88	22.669	
5,800.0	5,788.1	5,752.0	5,735.3	20.5	6.2	159.70	-65.1	-348.5	604.0	577.6	26.33	22.936	
5,900.0	5,887.7	5,850.5	5,833.2	20.9	6.3	159.50	-69.5	-357.8	621.1	594.4	26.78	23.193	
6,000.0	5,987.3	5,949.0	5,931.2	21.2	6.4	159.31	-73.9	-367.1	638.3	611.1	27.23	23.440	
6,100.0	6,086.9	6,047.5	6,029.1	21.6	6.5	159.13	-78.2	-376.5	655.5	627.9	27.69	23.679	
6,200.0	6,186.6	6,146.0	6,127.1	22.0	6.6	158.96	-82.6	-385.8	672.8	644.6	28.14	23.909	
6,300.0	6,286.2	6,244.5	6,225.0	22.3	6.7	158.79	-86.9	-395.1	690.0	661.4	28.59	24.131	
6,400.0	6,385.8	6,343.0	6,323.0	22.7	6.8	158.64	-91.3	-404.4	707.2	678.1	29.05	24.345	
6,500.0	6,485.4	6,441.4	6,420.9	23.0	6.9	158.49	-95.6	-413.8	724.4	694.9	29.51	24.552	
6,600.0	6,585.0	6,539.9	6,518.9	23.4	7.0	158.35	-100.0	-423.1	741.7	711.7	29.96	24.751	
6,700.0	6,684.7	6,638.4	6,616.8	23.7	7.1	158.22	-104.3	-432.4	758.9	728.5	30.42	24.944	
6,800.0	6,784.3	6,736.9	6,714.8	24.1	7.2	158.09	-108.7	-441.8	776.1	745.2	30.88	25.131	
6,900.0	6,883.9	6,835.4	6,812.7	24.5	7.3	157.97	-113.0	-451.1	793.4	762.0	31.34	25.312	
7,000.0	6,983.5	6,933.9	6,910.7	24.8	7.4	157.85	-117.4	-460.4	810.6	778.8	31.81	25.486	
7,100.0	7,083.1	7,032.4	7,008.6	25.2	7.5	157.74	-121.7	-469.8	827.9	795.6	32.27	25.655	
7,200.0	7,182.7	7,130.9	7,106.6	25.5	7.6	157.63	-126.1	-479.1	845.1	812.4	32.73	25.819	
7,300.0	7,282.4	7,229.3	7,204.5	25.9	7.7	157.52	-130.4	-488.4	862.4	829.2	33.20	25.977	
7,400.0	7,382.0	7,327.8	7,302.5	26.2	7.9	157.42	-134.8	-497.7	879.6	846.0	33.66	26.131	
7,500.0	7,481.6	7,426.3	7,400.4	26.6	8.0	157.33	-139.1	-507.1	896.9	862.8	34.13	26.280	
7,600.0	7,581.2	7,524.8	7,498.4	27.0	8.1	157.24	-143.5	-516.4	914.2	879.6	34.60	26.424	
7,700.0	7,680.8	7,623.3	7,596.3	27.3	8.2	157.15	-147.8	-525.7	931.4	896.4	35.06	26.564	
7,800.0	7,780.5	7,721.8	7,694.3	27.7	8.3	157.06	-152.2	-535.1	948.7	913.1	35.53	26.700	
7,900.0	7,880.1	7,820.3	7,792.2	28.0	8.4	156.98	-156.5	-544.4	965.9	929.9	36.00	26.832	
8,000.0	7,979.7	7,918.8	7,890.2	28.4	8.5	156.90	-160.9	-553.7	983.2	946.7	36.47	26.960	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #501H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-79.81	137.8	-766.1	779.0				
100.0	100.0	70.0	70.0	3.0	3.0	-79.81	137.8	-766.1	778.4	772.4	6.01	129.450	
200.0	200.0	170.0	170.0	3.0	3.1	-79.81	137.8	-766.1	778.4	772.3	6.10	127.605	
300.0	300.0	270.0	270.0	3.1	3.2	-79.81	137.8	-766.1	778.4	772.1	6.27	124.180	
400.0	400.0	370.0	370.0	3.2	3.3	-79.81	137.8	-766.1	778.4	771.9	6.51	119.541	
500.0	500.0	470.0	470.0	3.4	3.4	-79.81	137.8	-766.1	778.4	771.6	6.82	114.105	
600.0	600.0	570.0	570.0	3.6	3.6	-79.81	137.8	-766.1	778.4	771.2	7.19	108.256	
700.0	700.0	670.0	670.0	3.8	3.8	-79.81	137.8	-766.1	778.4	770.8	7.61	102.302	
800.0	800.0	770.0	770.0	4.0	4.1	-79.81	137.8	-766.1	778.4	770.3	8.07	96.463	
900.0	900.0	870.0	870.0	4.2	4.3	-79.81	137.8	-766.1	778.4	769.8	8.57	90.879	
1,000.0	1,000.0	970.0	970.0	4.5	4.6	-79.81	137.8	-766.1	778.4	769.3	9.09	85.626	
1,100.0	1,100.0	1,070.0	1,070.0	4.8	4.9	-79.81	137.8	-766.1	778.4	768.8	9.64	80.740	
1,200.0	1,200.0	1,170.0	1,170.0	5.1	5.2	-79.81	137.8	-766.1	778.4	768.2	10.21	76.226	
1,300.0	1,300.0	1,270.0	1,270.0	5.3	5.5	-79.81	137.8	-766.1	778.4	767.6	10.80	72.074	
1,400.0	1,400.0	1,370.0	1,370.0	5.6	5.8	-79.81	137.8	-766.1	778.4	767.0	11.40	68.262	
1,500.0	1,500.0	1,470.0	1,470.0	6.0	6.1	-79.81	137.8	-766.1	778.4	766.4	12.02	64.766	
1,600.0	1,600.0	1,570.0	1,570.0	6.3	6.4	-79.81	137.8	-766.1	778.4	765.8	12.64	61.559	
1,700.0	1,700.0	1,670.0	1,670.0	6.6	6.7	-79.81	137.8	-766.1	778.4	765.1	13.28	58.613	
1,800.0	1,800.0	1,770.0	1,770.0	6.9	7.0	-79.81	137.8	-766.1	778.4	764.5	13.92	55.905	
1,900.0	1,900.0	1,870.0	1,870.0	7.2	7.3	-79.81	137.8	-766.1	778.4	763.8	14.57	53.411	
2,000.0	2,000.0	1,970.0	1,970.0	7.6	7.7	-79.81	137.8	-766.1	778.4	763.2	15.23	51.109	
2,100.0	2,100.0	2,070.0	2,070.0	7.9	8.0	-79.81	137.8	-766.1	778.4	762.5	15.89	48.982	
2,200.0	2,200.0	2,170.0	2,170.0	8.2	8.3	-79.81	137.8	-766.1	778.4	761.8	16.56	47.012	
2,300.0	2,300.0	2,270.0	2,270.0	8.6	8.7	-79.81	137.8	-766.1	778.4	761.2	17.23	45.183	
2,400.0	2,400.0	2,370.0	2,370.0	8.9	9.0	-79.81	137.8	-766.1	778.4	760.5	17.90	43.482	
2,500.0	2,500.0	2,470.0	2,470.0	9.2	9.3	-79.81	137.8	-766.1	778.4	759.8	18.58	41.898	
2,600.0	2,600.0	2,594.4	2,594.4	9.6	9.8	165.18	137.0	-764.7	779.0	759.7	19.31	40.343	
2,700.0	2,699.8	2,729.4	2,729.1	9.9	10.2	165.14	133.5	-758.0	778.7	758.7	20.01	38.906	
2,746.2	2,745.9	2,780.9	2,780.5	10.0	10.4	165.12	131.4	-754.1	778.4	758.0	20.32	38.311	CC
2,750.0	2,749.7	2,784.7	2,784.3	10.0	10.4	165.12	131.2	-753.8	778.4	758.0	20.34	38.266	
2,800.0	2,799.5	2,834.7	2,834.1	10.2	10.5	165.10	129.2	-750.0	778.4	757.8	20.66	37.676	
2,900.0	2,899.1	2,934.7	2,933.7	10.5	10.9	165.07	125.1	-742.3	778.6	757.2	21.31	36.540	
3,000.0	2,998.7	3,034.7	3,033.3	10.8	11.2	165.04	121.0	-734.6	778.7	756.7	21.96	35.463	
3,100.0	3,098.4	3,134.7	3,132.9	11.2	11.5	165.01	116.9	-726.9	778.8	756.2	22.61	34.441	
3,200.0	3,198.0	3,234.7	3,232.5	11.5	11.8	164.98	112.8	-719.2	778.9	755.7	23.27	33.470	
3,300.0	3,297.6	3,334.7	3,332.2	11.8	12.2	164.94	108.7	-711.5	779.1	755.1	23.94	32.547	
3,400.0	3,397.2	3,434.7	3,431.8	12.2	12.5	164.91	104.6	-703.8	779.2	754.6	24.60	31.669	
3,500.0	3,496.8	3,534.7	3,531.4	12.5	12.9	164.88	100.5	-696.1	779.3	754.1	25.28	30.833	
3,600.0	3,596.4	3,634.7	3,631.0	12.9	13.2	164.85	96.5	-688.4	779.5	753.5	25.95	30.037	
3,700.0	3,696.1	3,734.7	3,730.6	13.2	13.5	164.82	92.4	-680.7	779.6	753.0	26.63	29.278	
3,800.0	3,795.7	3,834.7	3,830.2	13.5	13.9	164.78	88.3	-673.0	779.7	752.4	27.31	28.554	
3,900.0	3,895.3	3,934.7	3,929.9	13.9	14.2	164.75	84.2	-665.3	779.8	751.9	27.99	27.863	
4,000.0	3,994.9	4,034.7	4,029.5	14.2	14.6	164.72	80.1	-657.6	780.0	751.3	28.67	27.202	
4,100.0	4,094.5	4,134.7	4,129.1	14.6	14.9	164.69	76.0	-649.9	780.1	750.7	29.36	26.571	
4,200.0	4,194.2	4,234.7	4,228.7	14.9	15.2	164.66	71.9	-642.2	780.2	750.2	30.05	25.966	
4,300.0	4,293.8	4,334.7	4,328.3	15.3	15.6	164.62	67.8	-634.5	780.4	749.6	30.74	25.387	
4,400.0	4,393.4	4,434.7	4,428.0	15.6	15.9	164.59	63.7	-626.8	780.5	749.1	31.43	24.832	
4,500.0	4,493.0	4,534.7	4,527.6	16.0	16.3	164.56	59.6	-619.1	780.6	748.5	32.13	24.300	
4,600.0	4,592.6	4,634.7	4,627.2	16.3	16.6	164.53	55.5	-611.5	780.8	747.9	32.82	23.789	
4,700.0	4,692.3	4,734.7	4,726.8	16.6	17.0	164.50	51.4	-603.8	780.9	747.4	33.52	23.298	
4,800.0	4,791.9	4,834.7	4,826.4	17.0	17.3	164.47	47.4	-596.1	781.0	746.8	34.22	22.827	
4,900.0	4,891.5	4,934.7	4,926.1	17.3	17.7	164.43	43.3	-588.4	781.2	746.3	34.92	22.373	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #501H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,991.1	5,034.7	5,025.7	17.7	18.0	164.40	39.2	-580.7	781.3	745.7	35.62	21.937	
5,100.0	5,090.7	5,134.7	5,125.3	18.1	18.4	164.37	35.1	-573.0	781.4	745.1	36.32	21.516	
5,200.0	5,190.4	5,234.7	5,224.9	18.4	18.7	164.34	31.0	-565.3	781.6	744.5	37.02	21.111	
5,300.0	5,290.0	5,334.7	5,324.5	18.8	19.1	164.31	26.9	-557.6	781.7	744.0	37.72	20.721	
5,400.0	5,389.6	5,434.7	5,424.1	19.1	19.4	164.27	22.8	-549.9	781.8	743.4	38.43	20.344	
5,500.0	5,489.2	5,534.7	5,523.8	19.5	19.8	164.24	18.7	-542.2	782.0	742.8	39.14	19.981	
5,600.0	5,588.8	5,634.7	5,623.4	19.8	20.2	164.21	14.6	-534.5	782.1	742.3	39.84	19.630	
5,700.0	5,688.5	5,734.7	5,723.0	20.2	20.5	164.18	10.5	-526.8	782.2	741.7	40.55	19.291	
5,800.0	5,788.1	5,834.7	5,822.6	20.5	20.9	164.15	6.4	-519.1	782.4	741.1	41.26	18.963	
5,900.0	5,887.7	5,934.7	5,922.2	20.9	21.2	164.12	2.3	-511.4	782.5	740.5	41.97	18.646	
6,000.0	5,987.3	6,034.7	6,021.9	21.2	21.6	164.08	-1.7	-503.7	782.6	740.0	42.68	18.339	
6,100.0	6,086.9	6,134.7	6,121.5	21.6	21.9	164.05	-5.8	-496.0	782.8	739.4	43.39	18.042	
6,200.0	6,186.6	6,234.7	6,221.1	22.0	22.3	164.02	-9.9	-488.3	782.9	738.8	44.10	17.754	
6,300.0	6,286.2	6,334.7	6,320.7	22.3	22.6	163.99	-14.0	-480.6	783.1	738.2	44.81	17.475	
6,400.0	6,385.8	6,434.7	6,420.3	22.7	23.0	163.96	-18.1	-472.9	783.2	737.7	45.52	17.205	
6,500.0	6,485.4	6,534.7	6,519.9	23.0	23.4	163.93	-22.2	-465.2	783.3	737.1	46.23	16.943	
6,600.0	6,585.0	6,634.7	6,619.6	23.4	23.7	163.89	-26.3	-457.5	783.5	736.5	46.95	16.688	
6,700.0	6,684.7	6,734.7	6,719.2	23.7	24.1	163.86	-30.4	-449.8	783.6	735.9	47.66	16.441	
6,800.0	6,784.3	6,834.7	6,818.8	24.1	24.4	163.83	-34.5	-442.2	783.7	735.4	48.37	16.201	
6,900.0	6,883.9	6,934.7	6,918.4	24.5	24.8	163.80	-38.6	-434.5	783.9	734.8	49.09	15.968	
7,000.0	6,983.5	7,034.7	7,018.0	24.8	25.1	163.77	-42.7	-426.8	784.0	734.2	49.80	15.742	
7,100.0	7,083.1	7,134.7	7,117.7	25.2	25.5	163.74	-46.8	-419.1	784.1	733.6	50.52	15.522	
7,200.0	7,182.7	7,234.7	7,217.3	25.5	25.9	163.71	-50.8	-411.4	784.3	733.1	51.24	15.308	
7,300.0	7,282.4	7,334.7	7,316.9	25.9	26.2	163.67	-54.9	-403.7	784.4	732.5	51.95	15.099	
7,400.0	7,382.0	7,434.7	7,416.5	26.2	26.6	163.64	-59.0	-396.0	784.6	731.9	52.67	14.896	
7,500.0	7,481.6	7,534.7	7,516.1	26.6	26.9	163.61	-63.1	-388.3	784.7	731.3	53.38	14.699	
7,600.0	7,581.2	7,634.7	7,615.8	27.0	27.3	163.58	-67.2	-380.6	784.8	730.7	54.10	14.507	
7,700.0	7,680.8	7,734.7	7,715.4	27.3	27.7	163.55	-71.3	-372.9	785.0	730.2	54.82	14.319	
7,800.0	7,780.5	7,834.7	7,815.0	27.7	28.0	163.52	-75.4	-365.2	785.1	729.6	55.54	14.137	
7,900.0	7,880.1	7,934.7	7,914.6	28.0	28.4	163.48	-79.5	-357.5	785.3	729.0	56.26	13.959	
8,000.0	7,979.7	8,034.7	8,014.2	28.4	28.7	163.45	-83.6	-349.8	785.4	728.4	56.97	13.785	
8,100.0	8,079.3	8,134.7	8,113.8	28.8	29.1	163.42	-87.7	-342.1	785.5	727.8	57.69	13.616	
8,200.0	8,178.9	8,234.6	8,213.5	29.1	29.5	163.39	-91.8	-334.4	785.7	727.3	58.41	13.451	
8,300.0	8,278.6	8,334.6	8,313.1	29.5	29.8	163.36	-95.9	-326.7	785.8	726.7	59.13	13.289	
8,400.0	8,378.2	8,434.6	8,412.7	29.8	30.2	163.33	-99.9	-319.0	786.0	726.1	59.85	13.132	
8,500.0	8,477.8	8,534.6	8,512.3	30.2	30.5	163.30	-104.0	-311.3	786.1	725.5	60.57	12.978	
8,600.0	8,577.4	8,634.6	8,611.9	30.6	30.9	163.26	-108.1	-303.6	786.2	725.0	61.29	12.828	
8,700.0	8,677.0	8,734.6	8,711.6	30.9	31.3	163.23	-112.2	-295.9	786.4	724.4	62.01	12.682	
8,800.0	8,776.7	8,834.6	8,811.2	31.3	31.6	163.20	-116.3	-288.2	786.5	723.8	62.73	12.538	
8,900.0	8,876.3	8,934.6	8,910.8	31.6	32.0	163.17	-120.4	-280.6	786.7	723.2	63.45	12.398	
9,000.0	8,975.9	9,034.6	9,010.4	32.0	32.3	163.14	-124.5	-272.9	786.8	722.6	64.17	12.261	
9,080.7	9,056.3	9,115.3	9,090.8	32.3	32.6	163.11	-127.8	-266.6	786.9	722.2	64.75	12.153	
9,100.0	9,075.5	9,134.6	9,110.0	32.4	32.7	-171.88	-128.6	-265.2	787.1	722.2	64.89	12.128	ES
9,125.0	9,100.4	9,159.6	9,134.9	32.5	32.8	-149.59	-129.6	-263.2	787.5	722.5	65.07	12.102	
9,150.0	9,125.1	9,184.4	9,159.6	32.5	32.9	-137.23	-130.6	-261.3	788.4	723.1	65.25	12.082	
9,175.0	9,149.6	9,209.0	9,184.1	32.6	33.0	-130.11	-131.6	-259.4	789.6	724.2	65.43	12.068	
9,200.0	9,173.9	9,233.3	9,208.3	32.7	33.1	-125.68	-132.6	-257.6	791.2	725.6	65.61	12.060	
9,225.0	9,197.9	9,257.4	9,232.3	32.8	33.1	-122.76	-133.6	-255.7	793.2	727.4	65.78	12.058	SF
9,250.0	9,221.5	9,281.0	9,255.8	32.9	33.2	-120.75	-134.6	-253.9	795.6	729.7	65.95	12.064	
9,275.0	9,244.6	9,304.1	9,278.9	33.0	33.3	-119.33	-135.5	-252.1	798.5	732.4	66.12	12.077	
9,300.0	9,267.3	9,326.8	9,301.4	33.0	33.4	-118.28	-136.5	-250.4	801.9	735.6	66.29	12.098	
9,325.0	9,289.3	9,348.8	9,323.4	33.1	33.5	-117.50	-137.4	-248.7	805.8	739.4	66.45	12.127	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #501H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.0	9,310.7	9,370.3	9,344.7	33.2	33.5	-116.90	-138.2	-247.0	810.3	743.7	66.61	12.165	
9,375.0	9,331.4	9,391.0	9,365.4	33.3	33.6	-116.41	-139.1	-245.4	815.3	748.6	66.76	12.212	
9,400.0	9,351.4	9,410.9	9,385.2	33.3	33.7	-116.00	-139.9	-243.9	821.0	754.1	66.91	12.270	
9,425.0	9,370.6	9,430.0	9,404.3	33.4	33.8	-115.61	-140.7	-242.4	827.3	760.2	67.05	12.338	
9,450.0	9,388.9	9,448.3	9,422.5	33.4	33.8	-115.22	-141.4	-241.0	834.2	767.1	67.19	12.416	
9,475.0	9,406.3	9,465.6	9,439.8	33.5	33.9	-114.80	-142.1	-239.7	841.9	774.6	67.32	12.506	
9,500.0	9,422.7	9,482.0	9,456.1	33.5	34.0	-114.33	-142.8	-238.4	850.3	782.8	67.44	12.607	
9,525.0	9,438.1	9,497.4	9,471.4	33.6	34.0	-113.78	-143.4	-237.2	859.4	791.8	67.56	12.720	
9,550.0	9,452.5	9,511.7	9,485.6	33.6	34.1	-113.14	-144.0	-236.1	869.2	801.5	67.67	12.845	
9,575.0	9,465.8	9,524.9	9,498.8	33.7	34.1	-112.38	-144.6	-235.1	879.8	812.0	67.77	12.981	
9,600.0	9,478.0	9,537.0	9,510.8	33.7	34.2	-111.49	-145.1	-234.2	891.0	823.2	67.86	13.130	
9,625.0	9,489.1	9,547.9	9,521.7	33.7	34.2	-110.45	-145.5	-233.4	903.1	835.1	67.95	13.291	
9,650.0	9,498.9	9,557.7	9,531.4	33.8	34.2	-109.25	-145.9	-232.6	915.8	847.7	68.02	13.463	
9,675.0	9,507.6	9,566.2	9,539.9	33.8	34.3	-107.87	-146.2	-232.0	929.1	861.0	68.09	13.646	
9,700.0	9,515.0	9,573.5	9,547.2	33.8	34.3	-106.30	-146.5	-231.4	943.1	875.0	68.14	13.840	
9,725.0	9,521.1	9,579.5	9,553.2	33.9	34.3	-104.53	-146.8	-230.9	957.8	889.6	68.19	14.045	
9,750.0	9,526.0	9,584.2	9,557.9	33.9	34.3	-102.56	-147.0	-230.6	972.9	904.7	68.23	14.260	
9,775.0	9,529.6	9,587.7	9,561.3	33.9	34.3	-100.37	-147.1	-230.3	988.6	920.4	68.26	14.484	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #502H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 10592-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-80.20	137.5	-796.2	808.0				
100.0	100.0	100.0	100.0	3.0	3.0	-80.20	137.5	-796.2	808.0	802.0	6.00	134.603	
200.0	200.0	200.0	200.0	3.0	3.0	-80.20	137.5	-796.2	808.0	801.9	6.04	133.764	
300.0	300.0	300.0	300.0	3.1	3.0	-80.20	137.5	-796.2	808.0	801.9	6.12	132.005	
400.0	400.0	400.0	400.0	3.2	3.0	-80.20	137.5	-796.2	808.0	801.7	6.24	129.460	
500.0	500.0	500.0	500.0	3.4	3.1	-80.20	137.5	-796.2	808.0	801.6	6.40	126.296	
600.0	600.0	600.0	600.0	3.6	3.1	-80.20	137.5	-796.2	808.0	801.4	6.59	122.691	
700.0	700.0	700.0	700.0	3.8	3.1	-80.20	137.5	-796.2	808.0	801.2	6.80	118.807	
800.0	800.0	800.0	800.0	4.0	3.2	-80.20	137.5	-796.2	808.0	800.9	7.04	114.778	
900.0	900.0	900.0	900.0	4.2	3.2	-80.20	137.5	-796.2	808.0	800.7	7.30	110.712	
1,000.0	1,000.0	1,000.0	1,000.0	4.5	3.2	-80.20	137.5	-796.2	808.0	800.4	7.57	106.685	
1,100.0	1,100.0	1,100.0	1,100.0	4.8	3.3	-80.20	137.5	-796.2	808.0	800.1	7.86	102.753	
1,200.0	1,200.0	1,200.0	1,200.0	5.1	3.4	-80.20	137.5	-796.2	808.0	799.8	8.17	98.951	
1,300.0	1,300.0	1,300.0	1,300.0	5.3	3.4	-80.20	137.5	-796.2	808.0	799.5	8.48	95.302	
1,400.0	1,400.0	1,400.0	1,400.0	5.6	3.5	-80.20	137.5	-796.2	808.0	799.2	8.80	91.818	
1,500.0	1,500.0	1,500.0	1,500.0	6.0	3.5	-80.20	137.5	-796.2	808.0	798.9	9.13	88.502	
1,600.0	1,600.0	1,600.0	1,600.0	6.3	3.6	-80.20	137.5	-796.2	808.0	798.5	9.47	85.354	
1,700.0	1,700.0	1,700.0	1,700.0	6.6	3.7	-80.20	137.5	-796.2	808.0	798.2	9.81	82.371	
1,800.0	1,800.0	1,800.0	1,800.0	6.9	3.8	-80.20	137.5	-796.2	808.0	797.8	10.16	79.547	
1,900.0	1,900.0	1,900.0	1,900.0	7.2	3.9	-80.20	137.5	-796.2	808.0	797.5	10.51	76.874	
2,000.0	2,000.0	2,000.0	2,000.0	7.6	3.9	-80.20	137.5	-796.2	808.0	797.1	10.87	74.345	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	4.0	-80.20	137.5	-796.2	808.0	796.8	11.23	71.951	
2,200.0	2,200.0	2,200.0	2,200.0	8.2	4.1	-80.20	137.5	-796.2	808.0	796.4	11.59	69.685	
2,300.0	2,300.0	2,300.0	2,300.0	8.6	4.2	-80.20	137.5	-796.2	808.0	796.0	11.96	67.539	
2,400.0	2,400.0	2,400.0	2,400.0	8.9	4.3	-80.20	137.5	-796.2	808.0	795.6	12.33	65.505	
2,500.0	2,500.0	2,500.0	2,500.0	9.2	4.4	-80.20	137.5	-796.2	808.0	795.3	12.71	63.575	CC, ES
2,600.0	2,600.0	2,600.0	2,600.0	9.6	4.5	164.80	137.5	-796.2	809.7	796.6	13.07	61.930	
2,700.0	2,699.8	2,699.8	2,699.8	9.9	4.6	164.87	137.5	-796.2	814.7	801.3	13.43	60.662	
2,750.0	2,749.7	2,749.7	2,749.7	10.0	4.6	164.92	137.5	-796.2	818.5	804.9	13.61	60.138	
2,800.0	2,799.5	2,799.5	2,799.5	10.2	4.7	165.00	137.5	-796.2	822.7	808.9	13.79	59.657	
2,900.0	2,899.1	2,899.1	2,899.1	10.5	4.8	165.16	137.5	-796.2	831.1	817.0	14.15	58.723	
3,000.0	2,998.7	2,998.7	2,998.7	10.8	4.9	165.31	137.5	-796.2	839.6	825.1	14.52	57.821	
3,100.0	3,098.4	3,098.4	3,098.4	11.2	5.0	165.46	137.5	-796.2	848.0	833.1	14.89	56.950	
3,200.0	3,198.0	3,198.0	3,198.0	11.5	5.1	165.61	137.5	-796.2	856.4	841.2	15.26	56.110	
3,300.0	3,297.6	3,297.6	3,297.6	11.8	5.2	165.75	137.5	-796.2	864.9	849.3	15.64	55.299	
3,400.0	3,397.2	3,397.2	3,397.2	12.2	5.3	165.89	137.5	-796.2	873.3	857.3	16.02	54.517	
3,500.0	3,496.8	3,496.8	3,496.8	12.5	5.4	166.03	137.5	-796.2	881.8	865.4	16.40	53.763	
3,600.0	3,596.4	3,596.4	3,596.4	12.9	5.5	166.16	137.5	-796.2	890.3	873.5	16.79	53.036	
3,700.0	3,696.1	3,696.1	3,696.1	13.2	5.6	166.30	137.5	-796.2	898.7	881.6	17.17	52.334	
3,800.0	3,795.7	3,795.7	3,795.7	13.5	5.8	166.43	137.5	-796.2	907.2	889.6	17.56	51.656	
3,900.0	3,895.3	3,895.3	3,895.3	13.9	5.9	166.56	137.5	-796.2	915.7	897.7	17.95	51.003	
4,000.0	3,994.9	3,994.9	3,994.9	14.2	6.0	166.68	137.5	-796.2	924.2	905.8	18.35	50.371	
4,100.0	4,094.5	4,094.5	4,094.5	14.6	6.1	166.80	137.5	-796.2	932.6	913.9	18.74	49.762	
4,200.0	4,194.2	4,194.2	4,194.2	14.9	6.2	166.93	137.5	-796.2	941.1	922.0	19.14	49.174	
4,300.0	4,293.8	4,293.8	4,293.8	15.3	6.3	167.04	137.5	-796.2	949.6	930.1	19.54	48.605	
4,400.0	4,393.4	4,393.4	4,393.4	15.6	6.4	167.16	137.5	-796.2	958.1	938.2	19.94	48.055	
4,500.0	4,493.0	4,493.0	4,493.0	16.0	6.6	167.28	137.5	-796.2	966.6	946.3	20.34	47.524	
4,600.0	4,592.6	4,592.6	4,592.6	16.3	6.7	167.39	137.5	-796.2	975.1	954.4	20.74	47.010	
4,700.0	4,692.3	4,692.3	4,692.3	16.6	6.8	167.50	137.5	-796.2	983.6	962.5	21.15	46.513	
4,800.0	4,791.9	4,791.9	4,791.9	17.0	6.9	167.61	137.5	-796.2	992.2	970.6	21.55	46.032	SF

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #701H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 11897-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-97.28	-81.9	-641.5	646.7				
100.0	100.0	99.0	99.0	3.0	3.0	-97.28	-81.9	-641.5	646.7	640.7	6.00	107.730	
200.0	200.0	199.0	199.0	3.0	3.0	-97.28	-81.9	-641.5	646.7	640.6	6.04	107.060	
300.0	300.0	299.0	299.0	3.1	3.0	-97.28	-81.9	-641.5	646.7	640.6	6.12	105.655	
400.0	400.0	399.0	399.0	3.2	3.0	-97.28	-81.9	-641.5	646.7	640.4	6.24	103.620	
500.0	500.0	499.0	499.0	3.4	3.1	-97.28	-81.9	-641.5	646.7	640.3	6.40	101.091	
600.0	600.0	599.0	599.0	3.6	3.1	-97.28	-81.9	-641.5	646.7	640.1	6.58	98.210	
700.0	700.0	699.0	699.0	3.8	3.1	-97.28	-81.9	-641.5	646.7	639.9	6.80	95.104	
800.0	800.0	799.0	799.0	4.0	3.2	-97.28	-81.9	-641.5	646.7	639.6	7.04	91.884	
900.0	900.0	899.0	899.0	4.2	3.2	-97.28	-81.9	-641.5	646.7	639.4	7.30	88.633	
1,000.0	1,000.0	999.0	999.0	4.5	3.2	-97.28	-81.9	-641.5	646.7	639.1	7.57	85.414	
1,100.0	1,100.0	1,099.0	1,099.0	4.8	3.3	-97.28	-81.9	-641.5	646.7	638.8	7.86	82.270	
1,200.0	1,200.0	1,199.0	1,199.0	5.1	3.4	-97.28	-81.9	-641.5	646.7	638.5	8.16	79.231	
1,300.0	1,300.0	1,299.0	1,299.0	5.3	3.4	-97.28	-81.9	-641.5	646.7	638.2	8.47	76.313	
1,400.0	1,400.0	1,399.0	1,399.0	5.6	3.5	-97.28	-81.9	-641.5	646.7	637.9	8.80	73.527	
1,500.0	1,500.0	1,499.0	1,499.0	6.0	3.5	-97.28	-81.9	-641.5	646.7	637.6	9.12	70.876	
1,600.0	1,600.0	1,599.0	1,599.0	6.3	3.6	-97.28	-81.9	-641.5	646.7	637.2	9.46	68.359	
1,700.0	1,700.0	1,699.0	1,699.0	6.6	3.7	-97.28	-81.9	-641.5	646.7	636.9	9.80	65.973	
1,800.0	1,800.0	1,799.0	1,799.0	6.9	3.8	-97.28	-81.9	-641.5	646.7	636.5	10.15	63.715	
1,900.0	1,900.0	1,899.0	1,899.0	7.2	3.9	-97.28	-81.9	-641.5	646.7	636.2	10.50	61.577	
2,000.0	2,000.0	1,999.0	1,999.0	7.6	3.9	-97.28	-81.9	-641.5	646.7	635.8	10.86	59.554	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	4.0	-97.28	-81.9	-641.5	646.7	635.5	11.22	57.640	
2,200.0	2,200.0	2,199.0	2,199.0	8.2	4.1	-97.28	-81.9	-641.5	646.7	635.1	11.58	55.827	
2,300.0	2,300.0	2,299.0	2,299.0	8.6	4.2	-97.28	-81.9	-641.5	646.7	634.7	11.95	54.110	
2,400.0	2,400.0	2,399.0	2,399.0	8.9	4.3	-97.28	-81.9	-641.5	646.7	634.4	12.32	52.483	
2,500.0	2,500.0	2,499.0	2,499.0	9.2	4.4	-97.28	-81.9	-641.5	646.7	634.0	12.69	50.940	
2,600.0	2,600.0	2,621.5	2,621.5	9.6	4.4	147.68	-83.1	-639.2	646.4	633.4	13.07	49.469	
2,700.0	2,699.8	2,744.2	2,743.9	9.9	4.4	147.60	-86.7	-632.2	645.6	632.2	13.43	48.081	
2,739.7	2,739.4	2,784.3	2,783.9	10.0	4.4	147.57	-88.3	-629.2	645.4	631.8	13.57	47.546	CC
2,750.0	2,749.7	2,794.7	2,794.2	10.0	4.4	147.57	-88.7	-628.4	645.4	631.8	13.61	47.413	
2,800.0	2,799.5	2,844.7	2,844.0	10.2	4.4	147.56	-90.7	-624.6	645.6	631.8	13.80	46.784	
2,900.0	2,899.1	2,944.7	2,943.6	10.5	4.5	147.53	-94.7	-617.0	645.9	631.7	14.18	45.562	
3,000.0	2,998.7	3,044.7	3,043.3	10.8	4.5	147.51	-98.6	-609.3	646.2	631.6	14.56	44.387	
3,100.0	3,098.4	3,144.7	3,142.9	11.2	4.5	147.49	-102.6	-601.7	646.5	631.5	14.94	43.257	
3,200.0	3,198.0	3,244.7	3,242.5	11.5	4.5	147.47	-106.6	-594.1	646.8	631.4	15.34	42.171	
3,300.0	3,297.6	3,344.7	3,342.2	11.8	4.5	147.44	-110.6	-586.4	647.1	631.3	15.73	41.127	
3,400.0	3,397.2	3,444.7	3,441.8	12.2	4.6	147.42	-114.5	-578.8	647.4	631.3	16.13	40.124	
3,500.0	3,496.8	3,544.7	3,541.4	12.5	4.6	147.40	-118.5	-571.2	647.7	631.2	16.54	39.160	
3,600.0	3,596.4	3,644.7	3,641.0	12.9	4.6	147.38	-122.5	-563.6	648.0	631.0	16.95	38.233	
3,700.0	3,696.1	3,744.7	3,740.7	13.2	4.7	147.36	-126.5	-555.9	648.3	630.9	17.36	37.343	
3,800.0	3,795.7	3,844.7	3,840.3	13.5	4.7	147.33	-130.4	-548.3	648.6	630.8	17.78	36.487	
3,900.0	3,895.3	3,944.7	3,939.9	13.9	4.8	147.31	-134.4	-540.7	648.9	630.7	18.19	35.665	
4,000.0	3,994.9	4,044.7	4,039.6	14.2	4.8	147.29	-138.4	-533.1	649.2	630.6	18.62	34.873	
4,100.0	4,094.5	4,144.7	4,139.2	14.6	4.9	147.27	-142.4	-525.4	649.5	630.5	19.04	34.112	
4,200.0	4,194.2	4,244.7	4,238.8	14.9	4.9	147.24	-146.3	-517.8	649.8	630.4	19.47	33.379	
4,300.0	4,293.8	4,344.7	4,338.4	15.3	5.0	147.22	-150.3	-510.2	650.1	630.2	19.90	32.674	
4,400.0	4,393.4	4,444.7	4,438.1	15.6	5.1	147.20	-154.3	-502.5	650.5	630.1	20.33	31.995	
4,500.0	4,493.0	4,544.7	4,537.7	16.0	5.1	147.18	-158.3	-494.9	650.8	630.0	20.76	31.341	
4,600.0	4,592.6	4,644.7	4,637.3	16.3	5.2	147.16	-162.2	-487.3	651.1	629.9	21.20	30.711	
4,700.0	4,692.3	4,744.7	4,737.0	16.6	5.3	147.13	-166.2	-479.7	651.4	629.7	21.64	30.103	
4,800.0	4,791.9	4,844.7	4,836.6	17.0	5.3	147.11	-170.2	-472.0	651.7	629.6	22.08	29.517	
4,900.0	4,891.5	4,944.7	4,936.2	17.3	5.4	147.09	-174.2	-464.4	652.0	629.5	22.52	28.951	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #701H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 11897-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,991.1	5,044.7	5,035.8	17.7	5.5	147.07	-178.1	-456.8	652.3	629.3	22.96	28.405	
5,100.0	5,090.7	5,144.7	5,135.5	18.1	5.6	147.05	-182.1	-449.1	652.6	629.2	23.41	27.878	
5,200.0	5,190.4	5,244.7	5,235.1	18.4	5.7	147.03	-186.1	-441.5	652.9	629.1	23.86	27.369	
5,300.0	5,290.0	5,344.7	5,334.7	18.8	5.7	147.00	-190.1	-433.9	653.2	628.9	24.30	26.876	
5,400.0	5,389.6	5,444.7	5,434.4	19.1	5.8	146.98	-194.0	-426.3	653.5	628.8	24.75	26.401	
5,500.0	5,489.2	5,544.7	5,534.0	19.5	5.9	146.96	-198.0	-418.6	653.8	628.6	25.21	25.940	
5,600.0	5,588.8	5,644.7	5,633.6	19.8	6.0	146.94	-202.0	-411.0	654.1	628.5	25.66	25.495	
5,700.0	5,688.5	5,744.7	5,733.2	20.2	6.1	146.92	-206.0	-403.4	654.5	628.3	26.11	25.064	
5,800.0	5,788.1	5,844.7	5,832.9	20.5	6.2	146.90	-209.9	-395.8	654.8	628.2	26.57	24.647	
5,900.0	5,887.7	5,944.7	5,932.5	20.9	6.3	146.87	-213.9	-388.1	655.1	628.0	27.02	24.242	
6,000.0	5,987.3	6,044.7	6,032.1	21.2	6.4	146.85	-217.9	-380.5	655.4	627.9	27.48	23.850	
6,100.0	6,086.9	6,144.7	6,131.8	21.6	6.5	146.83	-221.9	-372.9	655.7	627.7	27.94	23.470	
6,200.0	6,186.6	6,244.6	6,231.4	22.0	6.6	146.81	-225.8	-365.2	656.0	627.6	28.40	23.102	
6,300.0	6,286.2	6,344.6	6,331.0	22.3	6.7	146.79	-229.8	-357.6	656.3	627.4	28.86	22.744	
6,400.0	6,385.8	6,444.6	6,430.6	22.7	6.8	146.77	-233.8	-350.0	656.6	627.3	29.32	22.397	
6,500.0	6,485.4	6,544.6	6,530.3	23.0	6.9	146.74	-237.8	-342.4	656.9	627.1	29.78	22.060	
6,600.0	6,585.0	6,644.6	6,629.9	23.4	7.0	146.72	-241.7	-334.7	657.2	627.0	30.24	21.733	
6,700.0	6,684.7	6,744.6	6,729.5	23.7	7.1	146.70	-245.7	-327.1	657.5	626.8	30.70	21.415	
6,800.0	6,784.3	6,844.6	6,829.2	24.1	7.2	146.68	-249.7	-319.5	657.8	626.7	31.17	21.106	
6,900.0	6,883.9	6,944.6	6,928.8	24.5	7.3	146.66	-253.7	-311.9	658.2	626.5	31.63	20.806	
7,000.0	6,983.5	7,044.6	7,028.4	24.8	7.4	146.64	-257.6	-304.2	658.5	626.4	32.10	20.513	
7,100.0	7,083.1	7,144.6	7,128.0	25.2	7.5	146.61	-261.6	-296.6	658.8	626.2	32.57	20.229	
7,200.0	7,182.7	7,244.6	7,227.7	25.5	7.6	146.59	-265.6	-289.0	659.1	626.1	33.03	19.952	
7,300.0	7,282.4	7,344.6	7,327.3	25.9	7.7	146.57	-269.6	-281.3	659.4	625.9	33.50	19.683	
7,400.0	7,382.0	7,444.6	7,426.9	26.2	7.8	146.55	-273.5	-273.7	659.7	625.7	33.97	19.421	
7,500.0	7,481.6	7,544.6	7,526.6	26.6	7.9	146.53	-277.5	-266.1	660.0	625.6	34.44	19.165	
7,600.0	7,581.2	7,644.6	7,626.2	27.0	8.0	146.51	-281.5	-258.5	660.3	625.4	34.91	18.916	
7,700.0	7,680.8	7,744.6	7,725.8	27.3	8.1	146.49	-285.5	-250.8	660.6	625.3	35.38	18.673	
7,800.0	7,780.5	7,844.6	7,825.4	27.7	8.2	146.47	-289.4	-243.2	660.9	625.1	35.85	18.437	
7,900.0	7,880.1	7,944.6	7,925.1	28.0	8.3	146.44	-293.4	-235.6	661.3	624.9	36.32	18.206	
8,000.0	7,979.7	8,044.6	8,024.7	28.4	8.5	146.42	-297.4	-227.9	661.6	624.8	36.79	17.981	
8,100.0	8,079.3	8,144.6	8,124.3	28.8	8.6	146.40	-301.4	-220.3	661.9	624.6	37.27	17.761	
8,200.0	8,178.9	8,244.6	8,224.0	29.1	8.7	146.38	-305.3	-212.7	662.2	624.5	37.74	17.547	
8,300.0	8,278.6	8,344.6	8,323.6	29.5	8.8	146.36	-309.3	-205.1	662.5	624.3	38.21	17.337	
8,400.0	8,378.2	8,444.6	8,423.2	29.8	8.9	146.34	-313.3	-197.4	662.8	624.1	38.69	17.133	
8,500.0	8,477.8	8,544.6	8,522.8	30.2	9.0	146.32	-317.3	-189.8	663.1	624.0	39.16	16.933	
8,600.0	8,577.4	8,644.6	8,622.5	30.6	9.1	146.30	-321.2	-182.2	663.4	623.8	39.64	16.738	
8,700.0	8,677.0	8,744.6	8,722.1	30.9	9.3	146.27	-325.2	-174.6	663.7	623.6	40.11	16.548	
8,800.0	8,776.7	8,844.6	8,821.7	31.3	9.4	146.25	-329.2	-166.9	664.1	623.5	40.59	16.361	
8,900.0	8,876.3	8,944.6	8,921.4	31.6	9.5	146.23	-333.2	-159.3	664.4	623.3	41.06	16.179	
9,000.0	8,975.9	9,044.6	9,021.0	32.0	9.6	146.21	-337.1	-151.7	664.7	623.1	41.54	16.001	
9,080.7	9,056.3	9,125.3	9,101.4	32.3	9.7	146.19	-340.3	-145.5	664.9	623.0	41.93	15.860	ES
9,100.0	9,075.5	9,144.6	9,120.6	32.4	9.7	171.22	-341.1	-144.0	665.2	623.2	42.02	15.831	
9,125.0	9,100.4	9,169.6	9,145.4	32.5	9.8	-166.46	-342.1	-142.1	666.2	624.0	42.14	15.810	
9,150.0	9,125.1	9,194.4	9,170.2	32.5	9.8	-154.03	-343.1	-140.3	667.8	625.6	42.26	15.805	SF
9,175.0	9,149.6	9,219.0	9,194.7	32.6	9.8	-146.81	-344.1	-138.4	670.2	627.9	42.37	15.818	
9,200.0	9,173.9	9,243.3	9,219.0	32.7	9.8	-142.26	-345.0	-136.5	673.4	630.9	42.49	15.848	
9,225.0	9,197.9	9,267.4	9,242.9	32.8	9.9	-139.20	-346.0	-134.7	677.2	634.6	42.60	15.896	
9,250.0	9,221.5	9,291.0	9,266.4	32.9	9.9	-137.01	-346.9	-132.9	681.8	639.1	42.71	15.963	
9,275.0	9,244.6	9,314.2	9,289.5	33.0	9.9	-135.38	-347.9	-131.1	687.2	644.4	42.82	16.048	
9,300.0	9,267.3	9,336.8	9,312.1	33.0	9.9	-134.12	-348.8	-129.4	693.4	650.5	42.93	16.152	
9,325.0	9,289.3	9,358.9	9,334.1	33.1	10.0	-133.09	-349.6	-127.7	700.4	657.3	43.03	16.276	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #701H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 11897-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.0	9,310.7	9,380.3	9,355.4	33.2	10.0	-132.21	-350.5	-126.1	708.2	665.0	43.13	16.419	
9,375.0	9,331.4	9,401.0	9,376.0	33.3	10.0	-131.42	-351.3	-124.5	716.8	673.6	43.22	16.583	
9,400.0	9,351.4	9,421.0	9,395.9	33.3	10.0	-130.68	-352.1	-123.0	726.3	682.9	43.31	16.768	
9,425.0	9,370.6	9,440.1	9,415.0	33.4	10.1	-129.94	-352.9	-121.5	736.6	693.2	43.40	16.974	
9,450.0	9,388.9	9,458.4	9,433.2	33.4	10.1	-129.16	-353.6	-120.1	747.7	704.3	43.47	17.200	
9,475.0	9,406.3	9,475.7	9,450.5	33.5	10.1	-128.33	-354.3	-118.8	759.7	716.2	43.54	17.448	
9,500.0	9,422.7	9,492.1	9,466.8	33.5	10.1	-127.41	-354.9	-117.5	772.6	729.0	43.61	17.717	
9,525.0	9,438.1	9,507.5	9,482.1	33.6	10.2	-126.38	-355.5	-116.4	786.3	742.6	43.67	18.006	
9,550.0	9,452.5	9,521.8	9,496.4	33.6	10.2	-125.21	-356.1	-115.3	800.7	757.0	43.72	18.316	
9,575.0	9,465.8	9,535.1	9,509.6	33.7	10.2	-123.86	-356.6	-114.3	816.0	772.2	43.76	18.646	
9,600.0	9,478.0	9,547.2	9,521.7	33.7	10.2	-122.33	-357.1	-113.3	832.0	788.2	43.80	18.995	
9,625.0	9,489.1	9,558.1	9,532.6	33.7	10.2	-120.57	-357.5	-112.5	848.7	804.9	43.83	19.363	
9,650.0	9,498.9	9,567.9	9,542.3	33.8	10.2	-118.55	-357.9	-111.8	866.1	822.3	43.86	19.749	
9,675.0	9,507.6	9,576.4	9,550.8	33.8	10.2	-116.26	-358.3	-111.1	884.1	840.2	43.87	20.152	
9,700.0	9,515.0	9,583.7	9,558.1	33.8	10.2	-113.67	-358.6	-110.6	902.7	858.8	43.88	20.570	
9,725.0	9,521.1	9,589.8	9,564.1	33.9	10.2	-110.74	-358.8	-110.1	921.8	877.9	43.89	21.003	
9,750.0	9,526.0	9,594.5	9,568.8	33.9	10.3	-107.47	-359.0	-109.7	941.4	897.5	43.89	21.449	
9,775.0	9,529.6	9,598.0	9,572.3	33.9	10.3	-103.85	-359.1	-109.5	961.4	917.5	43.89	21.907	
9,800.0	9,531.9	9,600.1	9,574.4	34.0	10.3	-99.89	-359.2	-109.3	981.7	937.8	43.88	22.375	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #702H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 11901-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-96.96	-81.9	-671.4	676.4				
100.0	100.0	99.0	99.0	3.0	3.0	-96.96	-81.9	-671.4	676.3	670.3	6.00	112.674	
200.0	200.0	199.0	199.0	3.0	3.0	-96.96	-81.9	-671.4	676.3	670.3	6.04	111.973	
300.0	300.0	299.0	299.0	3.1	3.0	-96.96	-81.9	-671.4	676.3	670.2	6.12	110.503	
400.0	400.0	399.0	399.0	3.2	3.0	-96.96	-81.9	-671.4	676.3	670.1	6.24	108.375	
500.0	500.0	499.0	499.0	3.4	3.1	-96.96	-81.9	-671.4	676.3	670.0	6.40	105.731	
600.0	600.0	599.0	599.0	3.6	3.1	-96.96	-81.9	-671.4	676.3	669.8	6.58	102.717	
700.0	700.0	699.0	699.0	3.8	3.1	-96.96	-81.9	-671.4	676.3	669.5	6.80	99.470	
800.0	800.0	799.0	799.0	4.0	3.2	-96.96	-81.9	-671.4	676.3	669.3	7.04	96.102	
900.0	900.0	899.0	899.0	4.2	3.2	-96.96	-81.9	-671.4	676.3	669.1	7.30	92.702	
1,000.0	1,000.0	999.0	999.0	4.5	3.2	-96.96	-81.9	-671.4	676.3	668.8	7.57	89.336	
1,100.0	1,100.0	1,099.0	1,099.0	4.8	3.3	-96.96	-81.9	-671.4	676.3	668.5	7.86	86.048	
1,200.0	1,200.0	1,199.0	1,199.0	5.1	3.4	-96.96	-81.9	-671.4	676.3	668.2	8.16	82.870	
1,300.0	1,300.0	1,299.0	1,299.0	5.3	3.4	-96.96	-81.9	-671.4	676.3	667.9	8.47	79.819	
1,400.0	1,400.0	1,399.0	1,399.0	5.6	3.5	-96.96	-81.9	-671.4	676.3	667.6	8.79	76.905	
1,500.0	1,500.0	1,499.0	1,499.0	6.0	3.5	-96.96	-81.9	-671.4	676.3	667.2	9.12	74.132	
1,600.0	1,600.0	1,599.0	1,599.0	6.3	3.6	-96.96	-81.9	-671.4	676.3	666.9	9.46	71.500	
1,700.0	1,700.0	1,699.0	1,699.0	6.6	3.7	-96.96	-81.9	-671.4	676.3	666.5	9.80	69.006	
1,800.0	1,800.0	1,799.0	1,799.0	6.9	3.8	-96.96	-81.9	-671.4	676.3	666.2	10.15	66.644	
1,900.0	1,900.0	1,899.0	1,899.0	7.2	3.9	-96.96	-81.9	-671.4	676.3	665.8	10.50	64.408	
2,000.0	2,000.0	1,999.0	1,999.0	7.6	3.9	-96.96	-81.9	-671.4	676.3	665.5	10.86	62.293	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	4.0	-96.96	-81.9	-671.4	676.3	665.1	11.22	60.290	
2,200.0	2,200.0	2,199.0	2,199.0	8.2	4.1	-96.96	-81.9	-671.4	676.3	664.8	11.58	58.395	
2,300.0	2,300.0	2,299.0	2,299.0	8.6	4.2	-96.96	-81.9	-671.4	676.3	664.4	11.95	56.599	
2,400.0	2,400.0	2,399.0	2,399.0	8.9	4.3	-96.96	-81.9	-671.4	676.3	664.0	12.32	54.897	
2,500.0	2,500.0	2,499.0	2,499.0	9.2	4.4	-96.96	-81.9	-671.4	676.3	663.7	12.69	53.283	CC, ES
2,600.0	2,600.0	2,599.0	2,599.0	9.6	4.5	148.09	-81.9	-671.4	677.8	664.8	13.06	51.915	
2,700.0	2,699.8	2,698.8	2,698.8	9.9	4.6	148.27	-81.9	-671.4	682.3	668.9	13.41	50.878	
2,750.0	2,749.7	2,748.7	2,748.7	10.0	4.6	148.41	-81.9	-671.4	685.6	672.0	13.59	50.458	
2,800.0	2,799.5	2,798.5	2,798.5	10.2	4.7	148.60	-81.9	-671.4	689.3	675.6	13.77	50.076	
2,900.0	2,899.1	2,898.1	2,898.1	10.5	4.8	148.97	-81.9	-671.4	696.8	682.7	14.12	49.333	
3,000.0	2,998.7	2,997.7	2,997.7	10.8	4.9	149.34	-81.9	-671.4	704.3	689.8	14.49	48.617	
3,100.0	3,098.4	3,097.4	3,097.4	11.2	5.0	149.69	-81.9	-671.4	711.8	697.0	14.85	47.927	
3,200.0	3,198.0	3,197.0	3,197.0	11.5	5.1	150.04	-81.9	-671.4	719.4	704.1	15.22	47.263	
3,300.0	3,297.6	3,296.6	3,296.6	11.8	5.2	150.39	-81.9	-671.4	726.9	711.3	15.59	46.623	
3,400.0	3,397.2	3,396.2	3,396.2	12.2	5.3	150.72	-81.9	-671.4	734.5	718.6	15.97	46.006	
3,500.0	3,496.8	3,495.8	3,495.8	12.5	5.4	151.05	-81.9	-671.4	742.1	725.8	16.34	45.413	
3,600.0	3,596.4	3,595.4	3,595.4	12.9	5.5	151.37	-81.9	-671.4	749.8	733.1	16.72	44.841	
3,700.0	3,696.1	3,695.1	3,695.1	13.2	5.6	151.69	-81.9	-671.4	757.5	740.4	17.10	44.290	
3,800.0	3,795.7	3,794.7	3,794.7	13.5	5.8	152.00	-81.9	-671.4	765.1	747.7	17.49	43.759	
3,900.0	3,895.3	3,894.3	3,894.3	13.9	5.9	152.30	-81.9	-671.4	772.9	755.0	17.87	43.247	
4,000.0	3,994.9	3,993.9	3,993.9	14.2	6.0	152.60	-81.9	-671.4	780.6	762.3	18.26	42.753	
4,100.0	4,094.5	4,093.5	4,093.5	14.6	6.1	152.89	-81.9	-671.4	788.3	769.7	18.65	42.277	
4,200.0	4,194.2	4,193.2	4,193.2	14.9	6.2	153.18	-81.9	-671.4	796.1	777.1	19.04	41.818	
4,300.0	4,293.8	4,292.8	4,292.8	15.3	6.3	153.46	-81.9	-671.4	803.9	784.5	19.43	41.375	
4,400.0	4,393.4	4,392.4	4,392.4	15.6	6.4	153.73	-81.9	-671.4	811.7	791.9	19.82	40.947	
4,500.0	4,493.0	4,492.0	4,492.0	16.0	6.6	154.00	-81.9	-671.4	819.6	799.3	20.22	40.534	
4,600.0	4,592.6	4,591.6	4,591.6	16.3	6.7	154.26	-81.9	-671.4	827.4	806.8	20.62	40.135	
4,700.0	4,692.3	4,691.3	4,691.3	16.6	6.8	154.52	-81.9	-671.4	835.3	814.3	21.01	39.749	
4,800.0	4,791.9	4,790.9	4,790.9	17.0	6.9	154.78	-81.9	-671.4	843.2	821.7	21.41	39.375	
4,900.0	4,891.5	4,890.5	4,890.5	17.3	7.0	155.03	-81.9	-671.4	851.1	829.2	21.81	39.014	
5,000.0	4,991.1	4,990.1	4,990.1	17.7	7.2	155.27	-81.9	-671.4	859.0	836.8	22.22	38.665	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
Reference Site:	SYLVESTER FED COM PROJECT	**MD Reference:**	*KB=30' @ 3727.0usft (TBD)
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**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 SYLVESTER FED COM PROJECT - SYLVESTER FED COM #702H - OWB - PWP1 — **Offset Site Error:** 3.0 usft

Survey Program: 0-Standard Keeper 104, 11901-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,090.7	5,089.7	5,089.7	18.1	7.3	155.51	-81.9	-671.4	866.9	844.3	22.62	38.327	
5,200.0	5,190.4	5,189.4	5,189.4	18.4	7.4	155.75	-81.9	-671.4	874.8	851.8	23.02	37.999	
5,300.0	5,290.0	5,289.0	5,289.0	18.8	7.5	155.98	-81.9	-671.4	882.8	859.4	23.43	37.682	
5,400.0	5,389.6	5,388.6	5,388.6	19.1	7.6	156.21	-81.9	-671.4	890.8	866.9	23.83	37.375	
5,500.0	5,489.2	5,488.2	5,488.2	19.5	7.8	156.43	-81.9	-671.4	898.8	874.5	24.24	37.076	
5,600.0	5,588.8	5,571.9	5,571.9	19.8	7.8	156.58	-82.5	-672.0	907.5	882.9	24.63	36.850	
5,700.0	5,688.5	5,653.3	5,653.2	20.2	7.8	156.61	-84.8	-674.3	918.3	893.3	25.01	36.717	
5,800.0	5,788.1	5,734.2	5,733.9	20.5	7.8	156.54	-88.6	-678.3	931.0	905.6	25.39	36.670	
5,900.0	5,887.7	5,829.6	5,829.0	20.9	7.8	156.38	-94.3	-684.2	945.0	919.2	25.79	36.640	
6,000.0	5,987.3	5,928.6	5,927.6	21.2	7.8	156.22	-100.3	-690.4	959.1	932.9	26.20	36.600	
6,100.0	6,086.9	6,027.5	6,026.1	21.6	7.7	156.06	-106.3	-696.6	973.1	946.5	26.62	36.560	
6,200.0	6,186.6	6,126.5	6,124.7	22.0	7.7	155.91	-112.3	-702.8	987.2	960.2	27.03	36.519	SF

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
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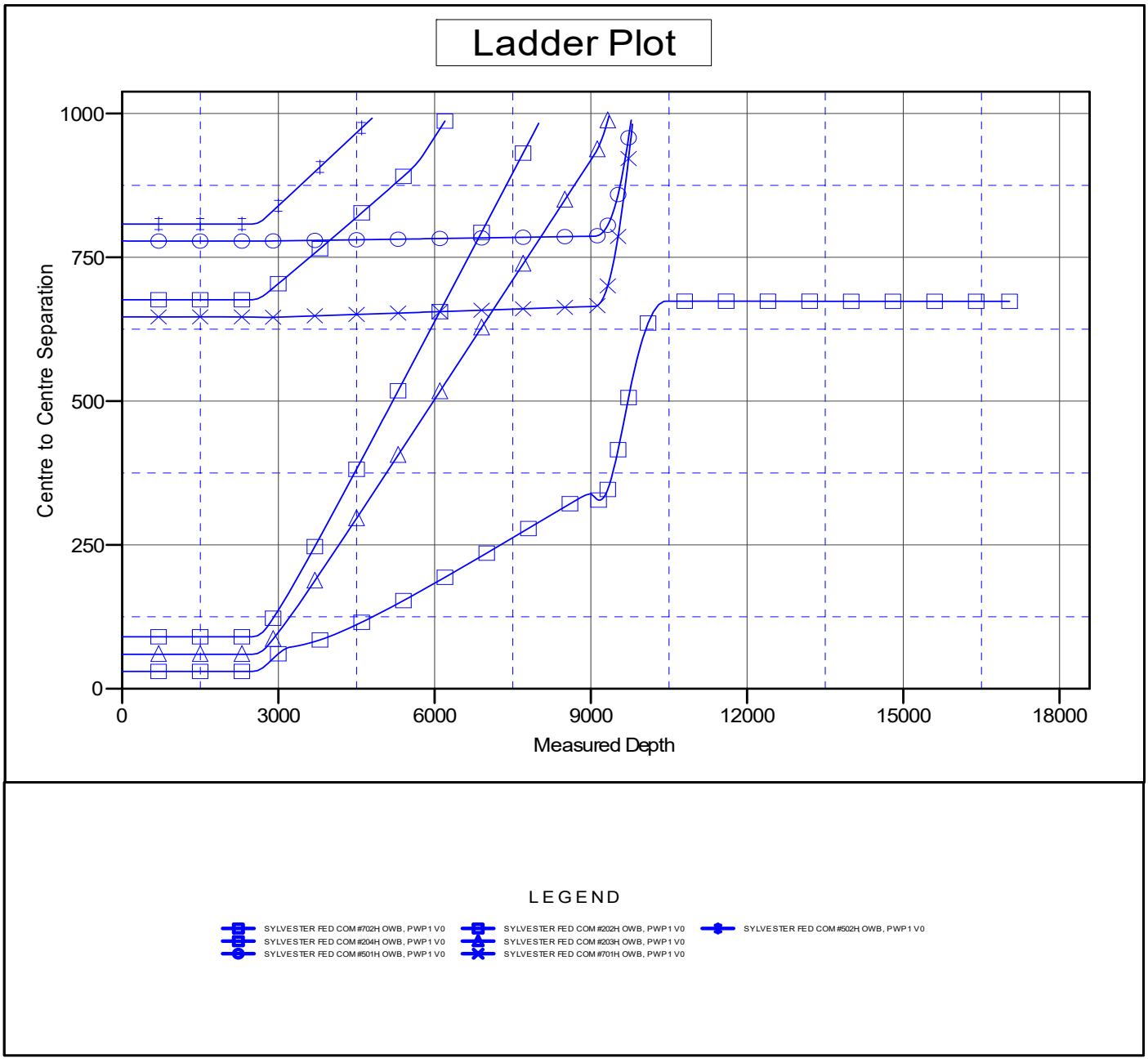
Site Error:	3.0 usft	**North Reference:**	Grid
Reference Well:	SYLVESTER FED COM #201H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to *KB=30' @ 3727.0usft (TBD)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: SYLVESTER FED COM #201H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.39°



Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well SYLVESTER FED COM #201H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	*KB=30' @ 3727.0usft (TBD)
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Reference Well:	SYLVESTER FED COM #201H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
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Central Meridian is 104° 20' 0.000 W

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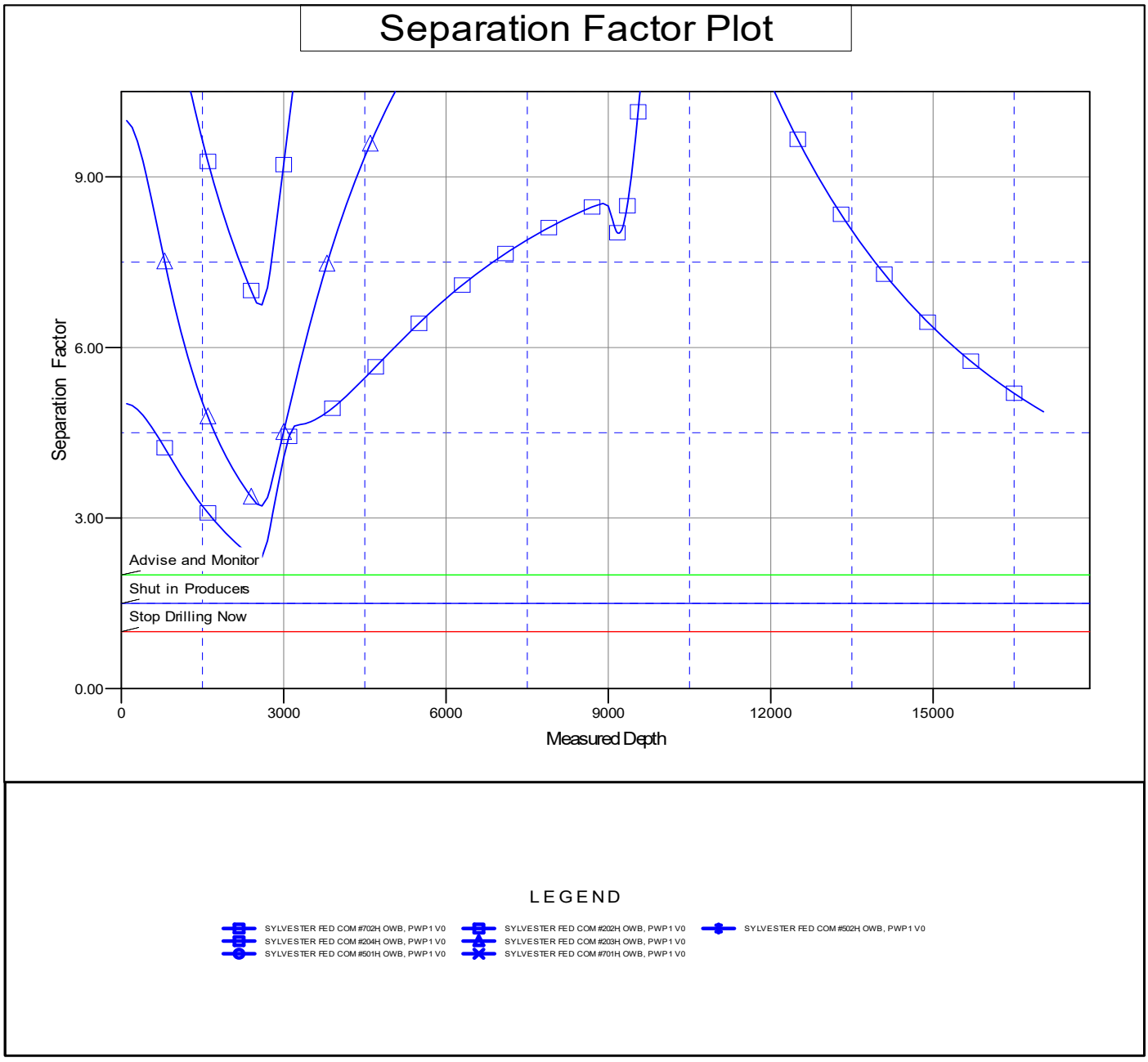

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**COG Operating LLC**
LEASE NO.:	**NMNM-20073**
WELL NAME & NO.:	**Sylvester Federal Com 201H**
SURFACE HOLE FOOTAGE:	**0509' FSL & 1445' FWL**
BOTTOM HOLE FOOTAGE	**2590' FSL & 2310' FWL Sec. 08, T.23 S., R.33 E.**
LOCATION:	**Section 17, T.23 S., R.33 E., NMPM**
COUNTY:	**Lea County, New Mexico**

COA

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Rustler and Delaware.

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

Approval Date: 12/18/2020

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1375** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and 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 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.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    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. 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.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, 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. 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.
- 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.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. 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. 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 Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - 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.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. 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 be operational at all times 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 dog house or stairway area.

3. 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.

Approval Date: 12/18/2020

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). 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.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

5. 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. 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.

6. 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.

B. 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. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. 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.

3. 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.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. 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).

    b. 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).

Approval Date: 12/18/2020

c. 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.

d. The results of the test shall be reported to the appropriate BLM office.

e. 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.

f. 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.

g. 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.

C. DRILLING MUD

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.

D. WASTE MATERIAL AND FLUIDS

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.

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

JAM 12072020

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 (H_2S).
b. The proper use and maintenance of personal protective equipment and life support systems.
c. The proper use of H_2S 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 H_2S 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. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S 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 H_2S 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

	OFFICE	MOBILE
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

	OFFICE
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

COG Operating LLC

Rig Plat & Closed Loop Equipment Diagram

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

Flare Lines will be from both Choke Manifold & Separator to edge of location.

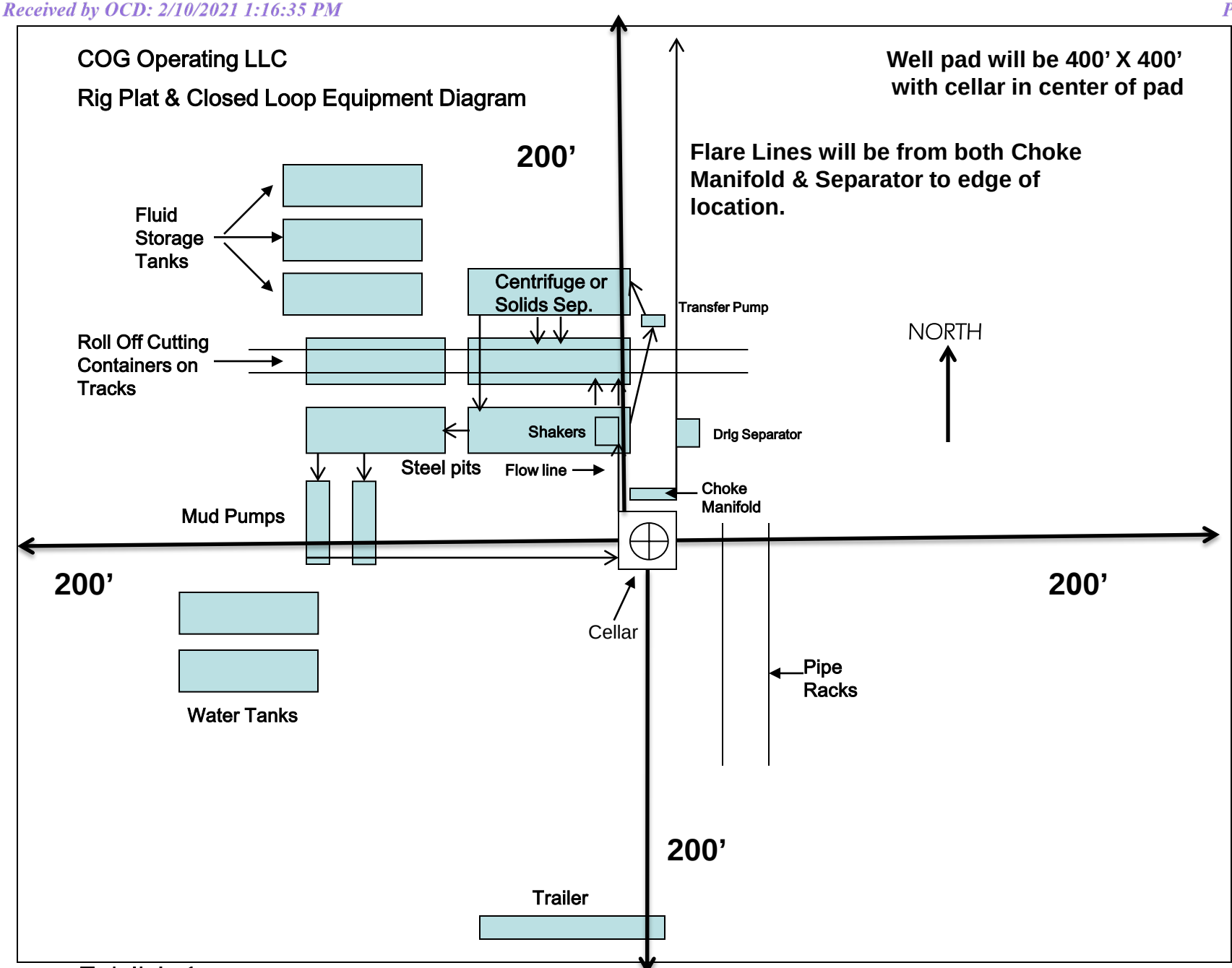

Exhibit 1

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

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

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

Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

COG Operating, LLC - Sylverster Federal Com 201H

1. Geologic Formations

TVD of target	9,533' EOC	Pilot hole depth	NA
MD at TD:	17,042'	Deepest expected fresh water:	345'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1296	Water	
Top of Salt	1801	Salt	
Base of Salt	4833	Salt	
Lamar	5116	Salt Water	
Bell Canyon	5160	Salt Water	
Cherry Canyon	6042	Oil/Gas	
Brushy Canyon	7388	Oil/Gas	
Bone Springs	8896	Oil/Gas	
M. Avalon Shale	9272	Target Oil/Gas	
L. Avalon Shale	9649	Not Penetrated	
Basal Avalon	X	Not Penetrated	
1st Bone Spring Sand	10025	Not Penetrated	
2nd Bone Spring Sand	X	Not Penetrated	
3rd Bone Spring Sand	X	Not Penetrated	

2. Casing Program

Hole Size	Casing From	Casing To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0	1325	13.375"	54.5	J55	BTC	1.86	1.20	12.59
12.25"	0	4000	9.625"	40	J55	BTC	1.22	1.08	4.46
12.25"	4000	5116	9.625"	40	L80	BTC	1.15	1.57	5.73
8.75"	0	17,042	5.5"	17	P110	BTC	1.62	2.91	3.50
			BLM Minimum Safety Factor				1.125	1	1.6 Dry 1.8 Wet

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

	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.	N
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 3rd 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 2nd 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?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	600	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl2
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter.	970	12.7	2.0	9.6	16	Lead: 35:65:6 C Blend
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl
5.5 Prod	610	11.9	2.5	19	72	Lead: 50:50:10 H Blend
	2040	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

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%
1st Intermediate	0'	50%
Production	4,616'	25% OH in Lateral (KOP to EOL) – 40% OH in Vertical

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:
12-1/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram	x	3M
			Pipe Ram	x	
			Double Ram		
			Other*		
8-3/4"	13-5/8"	5M	Annular	x	50% testing pressure
			Blind Ram	x	5M
			Pipe Ram	x	
			Double Ram		
			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.

X	Formation integrity test will be performed per Onshore Order #2. 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	Saturated Brine	10 - 10.1	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine	8.6 - 9.3	28-34	N/C

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	4615 psi at 9533' TVD
Abnormal Temperature	NO 155 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

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 17689

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
COG OPERATING LLC 600 W Illinois Ave Midland, TX79701	229137	17689	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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