

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

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

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. <div style="text-align: center; font-weight: bold; font-size: 1.2em;">[330183]</div>
2. Name of Operator <div style="text-align: center; font-weight: bold; font-size: 1.2em;">[229137]</div>		9. API Well No. <div style="text-align: center; font-weight: bold; font-size: 1.2em;">30-025-49321</div>
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory <div style="text-align: center; font-weight: bold; font-size: 1.2em;">[14865]</div>
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.

NGMP Rec 08/17/2021

SL

(Continued on page 2)



Approval Date: 04/22/2021

KZ
 08/18/2021

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to an evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: SWSW / 650 FSL / 650 FWL / TWSP: 23S / RANGE: 33E / SECTION: 17 / LAT: 32.2992895 / LONG: -103.6008014 (TVD: 0 feet, MD: 0 feet)
PPP: SWNW / 2641 FNL / 330 FWL / TWSP: 23S / RANGE: 33E / SECTION: 17 / LAT: 32.3047641 / LONG: -103.6018443 (TVD: 10900 feet, MD: 10940 feet)
PPP: SWSW / 100 FSL / 330 FWL / TWSP: 23S / RANGE: 33E / SECTION: 17 / LAT: 32.2977799 / LONG: -103.6018349 (TVD: 10900 feet, MD: 10940 feet)
BHL: NWSW / 2590 FSL / 330 FWL / TWSP: 23S / RANGE: 33E / SECTION: 8 / LAT: 32.3191302 / LONG: -103.6018602 (TVD: 11103 feet, MD: 18497 feet)

BLM Point of Contact

Name: Deborah Ham
Title: Legal Landlaw Examiner
Phone: (575) 234-5965
Email: dham@blm.gov

CONFIDENTIAL

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

CONFIDENTIAL

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

NMNM020073

NMNM126494

LAT = 32.30476419
LONG = 103.60184433

FTP LTP = 7,17.39'

SHL

FTP

100' 650'

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'

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 _____

STATE

SURFACE HOLE LOCATION (SHL)
NEW MEXICO EAST - NAD 83
X=767673.60
Y=473387.25
LAT = 32.2928957° N
LONG = 103.60080144° W
650' FSL, 650' FWL
SECTION 17

FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83
X=767360.00
Y=472835.81
LAT = 32.29777995° N
LONG = 103.60183497° W
100' FSL, 330' FWL
SECTION 17

LAST TAKE POINT (LTP)
NEW MEXICO EAST - NAD 83
X=767299.58
Y=480553.02
LAT = 32.31899279° N
LONG = 103.60186008° W
2540' FSL, 330' FWL
SECTION 8

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83
X=767299.20
Y=480603.02
LAT = 32.31913023° N
LONG = 103.60186020° W
2590' FSL, 330' FWL
SECTION 8

" 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: _____

Certificate Number _____

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: COG Operating LLC **OGRID:** 229137 **Date:** 08 / 17 / 21

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Sylvester Federal Com 502H	30-025-49321	M-17-23S-33E	650' FSL & 650' FWL	± 1378	± 3160	± 2342

IV. Central Delivery Point Name: _____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Sylvester Federal Com 502H	30-025-49321	4/16/23	± 25 days from spud	8/20/23	8/30/23	9/4/23

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

All ConocoPhillips production facility equipment will be sized per industry standards (API 12J) with adequate retention time to effectively separate all phases of production. Each project will take into consideration the number of wells and type curves for each formation pool to ensure adequate facility capacity. Design considerations will also include review of all piping, tanks, VRU's and associated equipment to ensure optimized gas capture minimized risk of release.

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

- During drilling, flare stacks will be located a minimum of 100 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety, and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

C. Completion Operations

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
- Individual well test separators will be set to properly separate gas and liquids. A temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline.

D. Venting and flaring during production operations

- During each phase of well life (drilling, completion and production) of a ConocoPhillips well, COP personnel will follow all necessary procedures to ensure both the operation and the equipment are within the NMAC 19.15.27.8 Subsection D guidelines.
- During well operations that require unloading of the well to atmospheric pressure, all reasonable actions will be taken to minimize vented gas
- Through the life of the well all flaring shall be measured, and venting events quantified using the data available and industry best practice.

E. Performance standards for separation, storage tank and flare equipment

- All storage tanks and separation equipment are designed minimize risk of liquid or vapor release and optimize gas capture. This includes automation for automatic gauging and pressure monitoring.

- All flare stacks are equipped with auto ignition devices and/or continuous pilots and are designed to operate at maximum combustion efficiency pursuant NMAC 19.15.27.8 Subsection E. Flares will follow COP spacing guidelines to ensure they are a safe distance from combustibles and operations equipment.
- COP personnel will conduct routine AVO inspections on a regular basis per NMAC 19.15.27.8 Subsection E guidelines.

F. Measurement of vented and flared natural gas.

- Measurement equipment will be installed to quantify gas flared during drilling, completion and production of the well.
- All measurement devices installed will meet accuracy ratings per AGA and API standards.
- Measurement devices will be installed without manifolds that allow diversion of gas around the metering element, except for the sole purpose of inspection of servicing the measurement device.

VIII. Best Management Practices

- Operator will curtail or shut in production, within reasonable limits, during upset conditions to minimize venting and flaring.
- When feasible, Operator will use equipment to capture gas that would otherwise be vented or flared.
- During completions and production operations Operator will minimize blowdowns to atmosphere
- When feasible, Operator will use electric or air actuated equipment to reduce bleed emissions

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: <i>Mayte Reyes</i>
Printed Name: Mayte Reyes
Title: Sr. Regulatory Coordinator
E-mail Address: mayte.x.reyes@conocophillips.com
Date: 8/17/2021
Phone: 575-748-6945
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



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

APD Print Report

05/18/2021

APD ID: 10400062191

Submission Date: 09/25/2020

Highlighted data
reflects the most
recent changes

Operator Name: COG OPERATING LLC

Federal/Indian APD: FED

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Application

Section 1 - General

APD ID: 10400062191

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: NMNM126494

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:

Approval Date: 04/22/2021

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**Well in Master Drilling Plan?****Master Drilling Plan name:****Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**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:** 501H, 502H**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:** 30 FT**Distance to lease line:** 50 FT**Reservoir well spacing assigned acres Measurement:** 480 Acres**Well plat:** COG_Sylvester_502H_C102_20201230120155.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	650	FSL	650	FW L	23S	33E	17	Aliquot SWS W	32.29928 95	- 103.6008 014	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	369 7	0	0	Y
KOP Leg #1	650	FSL	650	FW L	23S	33E	17	Aliquot SWS W	32.29928 95	- 103.6008 014	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	369 7	0	0	Y

Approval Date: 04/22/2021

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Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

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	330	FW L	23S	33E	17	Aliquot SWS W	32.2977799	- 103.6018349	LEA	NEW MEXICO	NEW MEXICO	S	STATE	- 7203	10940	10900	Y
PPP Leg #1-2	2641	FNL	330	FW L	23S	33E	17	Aliquot SWN W	32.3047641	- 103.6018443	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 126494	- 7203	10940	10900	Y
EXIT Leg #1	2540	FSL	330	FW L	23S	33E	8	Aliquot NWS W	32.3189927	- 103.60186	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 20073	- 7371	18400	11068	Y
BHL Leg #1	2590	FSL	330	FW L	23S	33E	8	Aliquot NWS W	32.3191302	- 103.6018602	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 20073	- 7406	18497	11103	Y

Drilling Plan

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
878950	UNKNOWN	3697	0	0	ALLUVIUM	NONE	N
878951	RUSTLER	2398	1299	1299	GYP SUM	NONE	N
878952	TOP SALT	1892	1805	1805	SALT	NONE	N
878953	BOTTOM SALT	-1131	4828	4828	ANHYDRITE, SALT	NONE	N
878954	LAMAR	-1412	5109	5109	LIMESTONE	NATURAL GAS, OIL	N
878955	BELL CANYON	-1458	5155	5155	SANDSTONE	NATURAL GAS, OIL	N
878956	CHERRY CANYON	-2336	6033	6033	SANDSTONE	NATURAL GAS, OIL	N
878957	BRUSHY CANYON	-3691	7388	7388	SANDSTONE	NATURAL GAS, OIL	N
878958	BONE SPRING	-5197	8894	8894	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
878959	---	-5581	9278	9278	SHALE	NATURAL GAS, OIL	Y

Approval Date: 04/22/2021

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
878960	---	-5965	9662	9662	SHALE	NATURAL GAS, OIL	N
878961	BONE SPRING 1ST	-6350	10047	10047	HALITE, SANDSTONE	NATURAL GAS, OIL	N
884675	BONE SPRING 2ND	-7016	10713	10713	HALITE, SANDSTONE	NATURAL GAS, OIL	N
884676	BONE SPRING 3RD	-8227	11924	11924	HALITE, SANDSTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M**Rating Depth:** 5109

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_Flex_Hose_Variance_20200920152538.pdf

COG_Sylvester_3M_BOP_20200920152516.pdf

Pressure Rating (PSI): 5M**Rating Depth:** 11103

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_20200925141911.pdf

BOP Diagram Attachment:

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Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

COG_Sylvester_5M_Choke_20200925141911.pdf

COG_Sylvester_5M_BOP_20200925141917.pdf

COG_Sylvester_Flex_Hose_Variance_20200925141924.pdf

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	12.59
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	5109	0	5109	3697	-1412	5109	L-80	40	OTHER - BTC	1.15	1.35	DRY	5.73	DRY	5.73
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18497	0	11103	3697	-7406	18497	P-110	17	OTHER - BTC	1.39	2.5	DRY	3.01	DRY	3.01

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_502H_Casing_Prog_20200925142721.pdf

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

Casing Attachments

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

COG_Sylvester_502H_Casing_Prog_20200925142820.pdf

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_502H_Casing_Prog_20200925142842.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_502H_Casing_Prog_20200925142655.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	5109	970	2	12.7	1940	50	35:65:6 C Blend	As needed
INTERMEDIATE	Tail		0	5109	250	1.34	14.8	335	50	Class C	2% CaCl

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Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead	1	1110 3	1849 7	840	2.5	11.9	2100	25	50:50:10 H Blend	As needed
PRODUCTION	Tail		1110 3	1849 7	2010	1.24	14.4	2492	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	5109	OTHER : Saturated Brine	10	10.1							Saturated Brine
5109	1849 7	OTHER : Cut Brine	8.6	9.3							Cut Brine

Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H

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: 5370**Anticipated Surface Pressure:** 2927**Anticipated Bottom Hole Temperature(F):** 165**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards 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_501H_502H_H2S_Schematic_20200925143155.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Sylvester_502H_AC_RPT_20200925143232.pdf

COG_Sylvester_502H_Directional_Plan_20200925143238.pdf

Other proposed operations facets description:

Drilling program attached.

GCP attached.

Cement program attached.

Other proposed operations facets attachment:

13_5_8_5k_speed_head__10k_tubing_head_drawing_20200920161605.pdf

COG_Sylvester_502H_Drilling_Prog_20200925143246.pdf

COG_Sylvester_502H_Cement_Prog_20200925143256.pdf

COG_Sylvester_502H_GCP_20200925143301.pdf

Other Variance attachment:

SUPO

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**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:** 1217

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

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**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_502H_1Mile_Data_20200925140327.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_Flowline_Gas_Line_20200920163618.pdf

COG_Sylvester_Power_Lines_20200920163606.pdf

Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**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:** 502H**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:** 502H**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: 502H

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_501H_502H_Layout_20210111153223.pdf

Comments:

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Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

Section 10 - Plans for Surface Reclamation**Type of disturbance:** New Surface Disturbance**Multiple Well Pad Name:** SYLVESTER FEDERAL COM**Multiple Well Pad Number:** 501H, 502H**Recontouring attachment:**

COG_Sylvester_501H_502H_Reclamation_20210111153339.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:** Immediately following construction, straw waddles will be placed as necessary at the well site to reduce sediment impacts to fragile/sensitive soils.**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**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:** North**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:**

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**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:**

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**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

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**SUPO Additional Information:** SUP attached. Onsite not needed. State surface.**Use a previously conducted onsite?** N**Previous Onsite information:****Other SUPO Attachment**

COG_Sylvester_H2S_SUP_20200925140213.pdf

COG_Sylvester_502H_C102_20200925140218.pdf

COG_Sylvester_Acces_Roads_Plat_Maps_20200925140232.pdf

COG_Sylvester_Federal_17_M_CTB_20200925140238.pdf

COG_Sylvester_Flowline_Gas_Line_20200925140247.pdf

COG_Sylvester_Power_Lines_20200925140256.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:**

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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**Precipitated solids disposal:****Describe 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:****Describe 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:**

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Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

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:** 502H**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:****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:**

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Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

Operator Certification

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 26Q0UKTT

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

Drilling Plan Data Report

05/18/2021

APD ID: 10400062191

Submission Date: 09/25/2020

Highlighted data
reflects the most
recent changes

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
878950	UNKNOWN	3697	0	0	ALLUVIUM	NONE	N
878951	RUSTLER	2398	1299	1299	GYPSUM	NONE	N
878952	TOP SALT	1892	1805	1805	SALT	NONE	N
878953	BOTTOM SALT	-1131	4828	4828	ANHYDRITE, SALT	NONE	N
878954	LAMAR	-1412	5109	5109	LIMESTONE	NATURAL GAS, OIL	N
878955	BELL CANYON	-1458	5155	5155	SANDSTONE	NATURAL GAS, OIL	N
878956	CHERRY CANYON	-2336	6033	6033	SANDSTONE	NATURAL GAS, OIL	N
878957	BRUSHY CANYON	-3691	7388	7388	SANDSTONE	NATURAL GAS, OIL	N
878958	BONE SPRING	-5197	8894	8894	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
878959	---	-5581	9278	9278	SHALE	NATURAL GAS, OIL	Y
878960	---	-5965	9662	9662	SHALE	NATURAL GAS, OIL	N
878961	BONE SPRING 1ST	-6350	10047	10047	HALITE, SANDSTONE	NATURAL GAS, OIL	N
884675	BONE SPRING 2ND	-7016	10713	10713	HALITE, SANDSTONE	NATURAL GAS, OIL	N
884676	BONE SPRING 3RD	-8227	11924	11924	HALITE, SANDSTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H**Pressure Rating (PSI):** 3M**Rating Depth:** 5109**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_Flex_Hose_Variance_20200920152538.pdf

COG_Sylvester_3M_BOP_20200920152516.pdf

Pressure Rating (PSI): 5M**Rating Depth:** 11103**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_20200925141911.pdf

BOP Diagram Attachment:

COG_Sylvester_5M_BOP_20200925141917.pdf

COG_Sylvester_Flex_Hose_Variance_20200925141924.pdf

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
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Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H

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	12.59
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	5109	0	5109	3697	-1412	5109	L-80	40	OTHER - BTC	1.15	1.35	DRY	5.73	DRY	5.73
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18497	0	11103	3697	-7406	18497	P-110	17	OTHER - BTC	1.39	2.5	DRY	3.01	DRY	3.01

Casing Attachments**Casing ID:** 1 **String Type:** SURFACE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

COG_Sylvester_502H_Casing_Prog_20200925142721.pdf

Casing ID: 2 **String Type:** INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:**

COG_Sylvester_502H_Casing_Prog_20200925142820.pdf

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_502H_Casing_Prog_20200925142842.pdf

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

Casing Attachments

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Sylvester_502H_Casing_Prog_20200925142655.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% CaCl ₂
SURFACE	Tail		0	1325	250	1.34	14.8	335	50	Class C	2% CaCl ₂
INTERMEDIATE	Lead		0	5109	970	2	12.7	1940	50	35:65:6 C Blend	As needed
INTERMEDIATE	Tail		0	5109	250	1.34	14.8	335	50	Class C	2% CaCl
PRODUCTION	Lead	1	1110 3	1849 7	840	2.5	11.9	2100	25	50:50:10 H Blend	As needed
PRODUCTION	Tail		1110 3	1849 7	2010	1.24	14.4	2492	25	50:50:2 Class H Blend	As needed

Operator Name: COG OPERATING LLC

Well Name: SYLVESTER FEDERAL COM

Well Number: 502H

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	5109	OTHER : Saturated Brine	10	10.1							Saturated Brine
5109	1849 7	OTHER : Cut Brine	8.6	9.3							Cut Brine

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

Operator Name: COG OPERATING LLC**Well Name:** SYLVESTER FEDERAL COM**Well Number:** 502H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5370**Anticipated Surface Pressure:** 2927**Anticipated Bottom Hole Temperature(F):** 165**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards 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_501H_502H_H2S_Schematic_20200925143155.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Sylvester_502H_AC_RPT_20200925143232.pdf

COG_Sylvester_502H_Directional_Plan_20200925143238.pdf

Other proposed operations facets description:

Drilling program attached.

GCP attached.

Cement program attached.

Other proposed operations facets attachment:

13_5_8_5k_speed_head__10k_tubing_head_drawing_20200920161605.pdf

COG_Sylvester_502H_Drilling_Prog_20200925143246.pdf

COG_Sylvester_502H_Cement_Prog_20200925143256.pdf

COG_Sylvester_502H_GCP_20200925143301.pdf

Other Variance attachment:

DELAWARE BASIN EAST

**BULLDOG PROSPECT (NM-E)
SYLVESTER FED COM PROJECT
SYLVESTER FED COM #502H**

OWB

Plan: PWP1

Standard Survey Report

11 September, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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 #502H				
Well Position	+N/-S	0.0 usft	Northing:	473,327.67 usft	Latitude: 32° 17' 56.998 N
	+E/-W	0.0 usft	Easting:	726,492.24 usft	Longitude: 103° 36' 1.150 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	47,612.52802397

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	357.02	

Survey Tool Program	Date	9/11/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,592.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,592.0	18,496.4	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 #502H
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 #502H	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
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
5,600.0	2.00	218.56	5,600.0	-1.4	-1.1	-1.3	2.00	2.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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)
5,700.0	4.00	218.56	5,699.8	-5.5	-4.4	-5.2	2.00	2.00	0.00
5,765.2	5.30	218.56	5,764.8	-9.6	-7.6	-9.2	2.00	2.00	0.00
Start 4848.0 hold at 5765.2 MD									
5,800.0	5.30	218.56	5,799.5	-12.1	-9.7	-11.6	0.00	0.00	0.00
5,900.0	5.30	218.56	5,899.0	-19.3	-15.4	-18.5	0.00	0.00	0.00
6,000.0	5.30	218.56	5,998.6	-26.6	-21.2	-25.4	0.00	0.00	0.00
6,100.0	5.30	218.56	6,098.2	-33.8	-26.9	-32.3	0.00	0.00	0.00
6,200.0	5.30	218.56	6,197.8	-41.0	-32.7	-39.3	0.00	0.00	0.00
6,300.0	5.30	218.56	6,297.3	-48.2	-38.5	-46.2	0.00	0.00	0.00
6,400.0	5.30	218.56	6,396.9	-55.5	-44.2	-53.1	0.00	0.00	0.00
6,500.0	5.30	218.56	6,496.5	-62.7	-50.0	-60.0	0.00	0.00	0.00
6,600.0	5.30	218.56	6,596.0	-69.9	-55.7	-66.9	0.00	0.00	0.00
6,700.0	5.30	218.56	6,695.6	-77.2	-61.5	-73.8	0.00	0.00	0.00
6,800.0	5.30	218.56	6,795.2	-84.4	-67.3	-80.8	0.00	0.00	0.00
6,900.0	5.30	218.56	6,894.8	-91.6	-73.0	-87.7	0.00	0.00	0.00
7,000.0	5.30	218.56	6,994.3	-98.8	-78.8	-94.6	0.00	0.00	0.00
7,100.0	5.30	218.56	7,093.9	-106.1	-84.6	-101.5	0.00	0.00	0.00
7,200.0	5.30	218.56	7,193.5	-113.3	-90.3	-108.4	0.00	0.00	0.00
7,300.0	5.30	218.56	7,293.1	-120.5	-96.1	-115.4	0.00	0.00	0.00
7,400.0	5.30	218.56	7,392.6	-127.8	-101.8	-122.3	0.00	0.00	0.00
7,500.0	5.30	218.56	7,492.2	-135.0	-107.6	-129.2	0.00	0.00	0.00
7,600.0	5.30	218.56	7,591.8	-142.2	-113.4	-136.1	0.00	0.00	0.00
7,700.0	5.30	218.56	7,691.3	-149.4	-119.1	-143.0	0.00	0.00	0.00
7,800.0	5.30	218.56	7,790.9	-156.7	-124.9	-149.9	0.00	0.00	0.00
7,900.0	5.30	218.56	7,890.5	-163.9	-130.7	-156.9	0.00	0.00	0.00
8,000.0	5.30	218.56	7,990.1	-171.1	-136.4	-163.8	0.00	0.00	0.00
8,100.0	5.30	218.56	8,089.6	-178.3	-142.2	-170.7	0.00	0.00	0.00
8,200.0	5.30	218.56	8,189.2	-185.6	-147.9	-177.6	0.00	0.00	0.00
8,300.0	5.30	218.56	8,288.8	-192.8	-153.7	-184.5	0.00	0.00	0.00
8,400.0	5.30	218.56	8,388.3	-200.0	-159.5	-191.5	0.00	0.00	0.00
8,500.0	5.30	218.56	8,487.9	-207.3	-165.2	-198.4	0.00	0.00	0.00
8,600.0	5.30	218.56	8,587.5	-214.5	-171.0	-205.3	0.00	0.00	0.00
8,700.0	5.30	218.56	8,687.1	-221.7	-176.8	-212.2	0.00	0.00	0.00
8,800.0	5.30	218.56	8,786.6	-228.9	-182.5	-219.1	0.00	0.00	0.00
8,900.0	5.30	218.56	8,886.2	-236.2	-188.3	-226.0	0.00	0.00	0.00
9,000.0	5.30	218.56	8,985.8	-243.4	-194.0	-233.0	0.00	0.00	0.00
9,100.0	5.30	218.56	9,085.3	-250.6	-199.8	-239.9	0.00	0.00	0.00
9,200.0	5.30	218.56	9,184.9	-257.9	-205.6	-246.8	0.00	0.00	0.00
9,300.0	5.30	218.56	9,284.5	-265.1	-211.3	-253.7	0.00	0.00	0.00
9,400.0	5.30	218.56	9,384.1	-272.3	-217.1	-260.6	0.00	0.00	0.00
9,500.0	5.30	218.56	9,483.6	-279.5	-222.9	-267.6	0.00	0.00	0.00
9,600.0	5.30	218.56	9,583.2	-286.8	-228.6	-274.5	0.00	0.00	0.00
9,700.0	5.30	218.56	9,682.8	-294.0	-234.4	-281.4	0.00	0.00	0.00
9,800.0	5.30	218.56	9,782.3	-301.2	-240.1	-288.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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)
9,900.0	5.30	218.56	9,881.9	-308.4	-245.9	-295.2	0.00	0.00	0.00
10,000.0	5.30	218.56	9,981.5	-315.7	-251.7	-302.1	0.00	0.00	0.00
10,100.0	5.30	218.56	10,081.1	-322.9	-257.4	-309.1	0.00	0.00	0.00
10,200.0	5.30	218.56	10,180.6	-330.1	-263.2	-316.0	0.00	0.00	0.00
10,300.0	5.30	218.56	10,280.2	-337.4	-269.0	-322.9	0.00	0.00	0.00
10,400.0	5.30	218.56	10,379.8	-344.6	-274.7	-329.8	0.00	0.00	0.00
10,500.0	5.30	218.56	10,479.3	-351.8	-280.5	-336.7	0.00	0.00	0.00
10,600.0	5.30	218.56	10,578.9	-359.0	-286.2	-343.7	0.00	0.00	0.00
10,613.2	5.30	218.56	10,592.1	-360.0	-287.0	-344.6	0.00	0.00	0.00
Start DLS 12.00 TFO 140.85									
10,700.0	7.12	331.65	10,678.6	-358.4	-292.1	-342.7	12.00	2.10	130.34
10,800.0	18.59	349.53	10,775.9	-337.2	-297.9	-321.2	12.00	11.46	17.87
10,900.0	30.46	353.83	10,866.8	-296.2	-303.6	-280.0	12.00	11.87	4.31
11,000.0	42.40	355.87	10,947.1	-237.1	-308.7	-220.7	12.00	11.94	2.03
11,100.0	54.36	357.13	11,013.4	-162.6	-313.2	-146.1	12.00	11.96	1.27
11,200.0	66.34	358.07	11,062.8	-76.0	-316.8	-59.4	12.00	11.97	0.93
11,300.0	78.31	358.84	11,093.1	19.1	-319.4	35.7	12.00	11.98	0.78
11,399.9	90.28	359.55	11,103.0	118.3	-320.7	134.9	12.00	11.98	0.71
Start 7097.5 hold at 11399.9 MD									
11,400.0	90.28	359.55	11,103.0	118.4	-320.7	135.0	0.00	0.00	0.00
11,500.0	90.28	359.55	11,102.5	218.4	-321.5	234.9	0.00	0.00	0.00
11,600.0	90.28	359.55	11,102.0	318.4	-322.3	334.8	0.00	0.00	0.00
11,700.0	90.28	359.55	11,101.5	418.4	-323.1	434.7	0.00	0.00	0.00
11,800.0	90.28	359.55	11,101.0	518.4	-323.9	534.6	0.00	0.00	0.00
11,900.0	90.28	359.55	11,100.5	618.4	-324.7	634.5	0.00	0.00	0.00
12,000.0	90.28	359.55	11,100.0	718.4	-325.4	734.4	0.00	0.00	0.00
12,100.0	90.28	359.55	11,099.5	818.4	-326.2	834.3	0.00	0.00	0.00
12,200.0	90.28	359.55	11,099.0	918.4	-327.0	934.2	0.00	0.00	0.00
12,300.0	90.28	359.55	11,098.5	1,018.4	-327.8	1,034.1	0.00	0.00	0.00
12,400.0	90.28	359.55	11,098.0	1,118.4	-328.6	1,134.0	0.00	0.00	0.00
12,500.0	90.28	359.55	11,097.6	1,218.4	-329.3	1,233.9	0.00	0.00	0.00
12,600.0	90.28	359.55	11,097.1	1,318.4	-330.1	1,333.8	0.00	0.00	0.00
12,700.0	90.28	359.55	11,096.6	1,418.4	-330.9	1,433.7	0.00	0.00	0.00
12,800.0	90.28	359.55	11,096.1	1,518.4	-331.7	1,533.6	0.00	0.00	0.00
12,900.0	90.28	359.55	11,095.6	1,618.4	-332.5	1,633.5	0.00	0.00	0.00
13,000.0	90.28	359.55	11,095.1	1,718.4	-333.2	1,733.4	0.00	0.00	0.00
13,100.0	90.28	359.55	11,094.6	1,818.4	-334.0	1,833.3	0.00	0.00	0.00
13,200.0	90.28	359.55	11,094.1	1,918.3	-334.8	1,933.2	0.00	0.00	0.00
13,300.0	90.28	359.55	11,093.6	2,018.3	-335.6	2,033.1	0.00	0.00	0.00
13,400.0	90.28	359.55	11,093.1	2,118.3	-336.4	2,133.0	0.00	0.00	0.00
13,500.0	90.28	359.55	11,092.6	2,218.3	-337.2	2,232.9	0.00	0.00	0.00
13,600.0	90.28	359.55	11,092.1	2,318.3	-337.9	2,332.8	0.00	0.00	0.00
13,700.0	90.28	359.55	11,091.6	2,418.3	-338.7	2,432.7	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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)
13,800.0	90.28	359.55	11,091.1	2,518.3	-339.5	2,532.6	0.00	0.00	0.00
13,900.0	90.28	359.55	11,090.7	2,618.3	-340.3	2,632.5	0.00	0.00	0.00
14,000.0	90.28	359.55	11,090.2	2,718.3	-341.1	2,732.4	0.00	0.00	0.00
14,100.0	90.28	359.55	11,089.7	2,818.3	-341.8	2,832.3	0.00	0.00	0.00
14,200.0	90.28	359.55	11,089.2	2,918.3	-342.6	2,932.2	0.00	0.00	0.00
14,300.0	90.28	359.55	11,088.7	3,018.3	-343.4	3,032.1	0.00	0.00	0.00
14,400.0	90.28	359.55	11,088.2	3,118.3	-344.2	3,132.0	0.00	0.00	0.00
14,500.0	90.28	359.55	11,087.7	3,218.3	-345.0	3,231.9	0.00	0.00	0.00
14,600.0	90.28	359.55	11,087.2	3,318.3	-345.8	3,331.8	0.00	0.00	0.00
14,700.0	90.28	359.55	11,086.7	3,418.3	-346.5	3,431.7	0.00	0.00	0.00
14,800.0	90.28	359.55	11,086.2	3,518.3	-347.3	3,531.6	0.00	0.00	0.00
14,900.0	90.28	359.55	11,085.7	3,618.3	-348.1	3,631.5	0.00	0.00	0.00
15,000.0	90.28	359.55	11,085.2	3,718.3	-348.9	3,731.4	0.00	0.00	0.00
15,100.0	90.28	359.55	11,084.7	3,818.3	-349.7	3,831.3	0.00	0.00	0.00
15,200.0	90.28	359.55	11,084.2	3,918.3	-350.4	3,931.2	0.00	0.00	0.00
15,300.0	90.28	359.55	11,083.8	4,018.3	-351.2	4,031.1	0.00	0.00	0.00
15,400.0	90.28	359.55	11,083.3	4,118.3	-352.0	4,131.0	0.00	0.00	0.00
15,500.0	90.28	359.55	11,082.8	4,218.2	-352.8	4,230.9	0.00	0.00	0.00
15,600.0	90.28	359.55	11,082.3	4,318.2	-353.6	4,330.8	0.00	0.00	0.00
15,700.0	90.28	359.55	11,081.8	4,418.2	-354.4	4,430.7	0.00	0.00	0.00
15,800.0	90.28	359.55	11,081.3	4,518.2	-355.1	4,530.6	0.00	0.00	0.00
15,900.0	90.28	359.55	11,080.8	4,618.2	-355.9	4,630.5	0.00	0.00	0.00
16,000.0	90.28	359.55	11,080.3	4,718.2	-356.7	4,730.4	0.00	0.00	0.00
16,100.0	90.28	359.55	11,079.8	4,818.2	-357.5	4,830.3	0.00	0.00	0.00
16,200.0	90.28	359.55	11,079.3	4,918.2	-358.3	4,930.2	0.00	0.00	0.00
16,300.0	90.28	359.55	11,078.8	5,018.2	-359.0	5,030.1	0.00	0.00	0.00
16,400.0	90.28	359.55	11,078.3	5,118.2	-359.8	5,130.0	0.00	0.00	0.00
16,500.0	90.28	359.55	11,077.8	5,218.2	-360.6	5,229.9	0.00	0.00	0.00
16,600.0	90.28	359.55	11,077.3	5,318.2	-361.4	5,329.8	0.00	0.00	0.00
16,700.0	90.28	359.55	11,076.9	5,418.2	-362.2	5,429.7	0.00	0.00	0.00
16,800.0	90.28	359.55	11,076.4	5,518.2	-363.0	5,529.6	0.00	0.00	0.00
16,900.0	90.28	359.55	11,075.9	5,618.2	-363.7	5,629.5	0.00	0.00	0.00
17,000.0	90.28	359.55	11,075.4	5,718.2	-364.5	5,729.4	0.00	0.00	0.00
17,100.0	90.28	359.55	11,074.9	5,818.2	-365.3	5,829.3	0.00	0.00	0.00
17,200.0	90.28	359.55	11,074.4	5,918.2	-366.1	5,929.2	0.00	0.00	0.00
17,300.0	90.28	359.55	11,073.9	6,018.2	-366.9	6,029.1	0.00	0.00	0.00
17,400.0	90.28	359.55	11,073.4	6,118.2	-367.6	6,129.0	0.00	0.00	0.00
17,500.0	90.28	359.55	11,072.9	6,218.2	-368.4	6,228.9	0.00	0.00	0.00
17,600.0	90.28	359.55	11,072.4	6,318.2	-369.2	6,328.8	0.00	0.00	0.00
17,700.0	90.28	359.55	11,071.9	6,418.2	-370.0	6,428.7	0.00	0.00	0.00
17,800.0	90.28	359.55	11,071.4	6,518.2	-370.8	6,528.6	0.00	0.00	0.00
17,900.0	90.28	359.55	11,070.9	6,618.1	-371.6	6,628.5	0.00	0.00	0.00
18,000.0	90.28	359.55	11,070.5	6,718.1	-372.3	6,728.4	0.00	0.00	0.00
18,100.0	90.28	359.55	11,070.0	6,818.1	-373.1	6,828.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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)
18,200.0	90.28	359.55	11,069.5	6,918.1	-373.9	6,928.2	0.00	0.00	0.00
18,300.0	90.28	359.55	11,069.0	7,018.1	-374.7	7,028.1	0.00	0.00	0.00
18,400.0	90.28	359.55	11,068.5	7,118.1	-375.5	7,128.0	0.00	0.00	0.00
18,497.4	90.28	359.55	11,068.0	7,215.6	-376.2	7,225.4	0.00	0.00	0.00
TD at 18497.4									

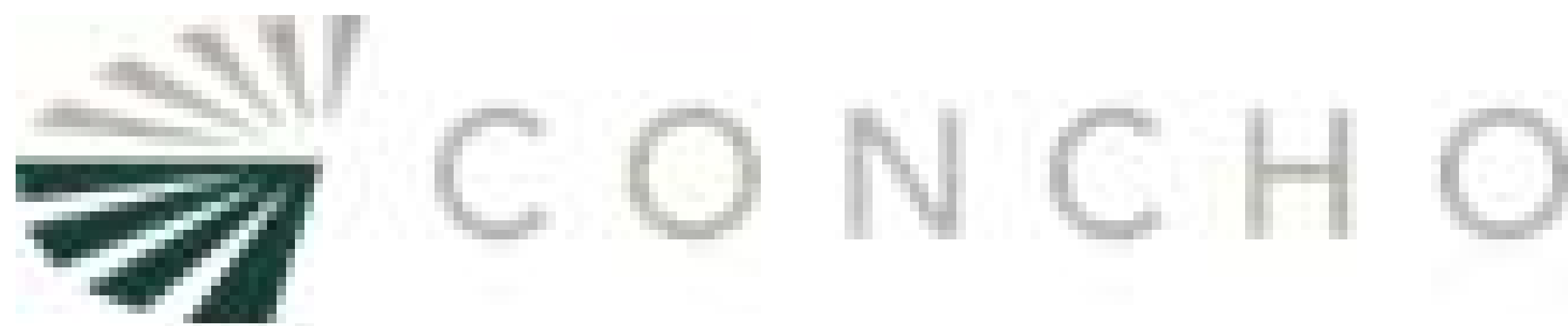
Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (SYLVESTER F	0.28	179.55	11,068.0	7,215.6	-376.2	480,543.23	726,116.02	32° 19' 8.424 N	103° 36' 4.959 W
- plan hits target center									
- Rectangle (sides W100.0 H7,585.0 D20.0)									
LTP (SYLVESTER FE	0.00	0.00	11,068.0	7,165.6	-375.8	480,493.24	726,116.40	32° 19' 7.930 N	103° 36' 4.958 W
- plan misses target center by 47.4usft at 18400.0usft MD (11068.5 TVD, 7118.1 N, -375.5 E)									
- Point									
FTP (SYLVESTER FE	0.00	0.00	11,103.0	-551.4	-315.6	472,776.31	726,176.63	32° 17' 51.563 N	103° 36' 4.870 W
- plan misses target center by 343.2usft at 10939.8usft MD (10900.2 TVD, -274.7 N, -305.7 E)									
- Circle (radius 50.0)									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5500	5500	0	0	Start Build 2.00
5765	5765	-10	-8	Start 4848.0 hold at 5765.2 MD
10,613	10,592	-360	-287	Start DLS 12.00 TFO 140.85
11,400	11,103	118	-321	Start 7097.5 hold at 11399.9 MD
18,497	11,068	7216	-376	TD at 18497.4

Checked By: _____	Approved By: _____	Date: _____
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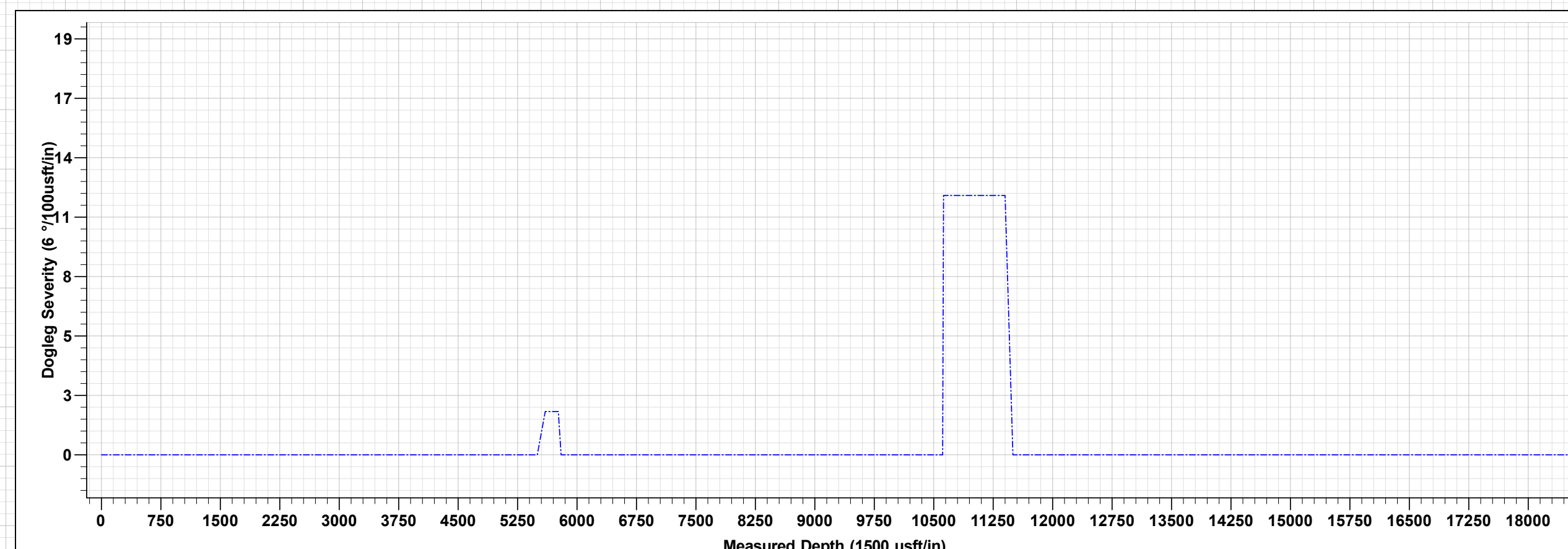
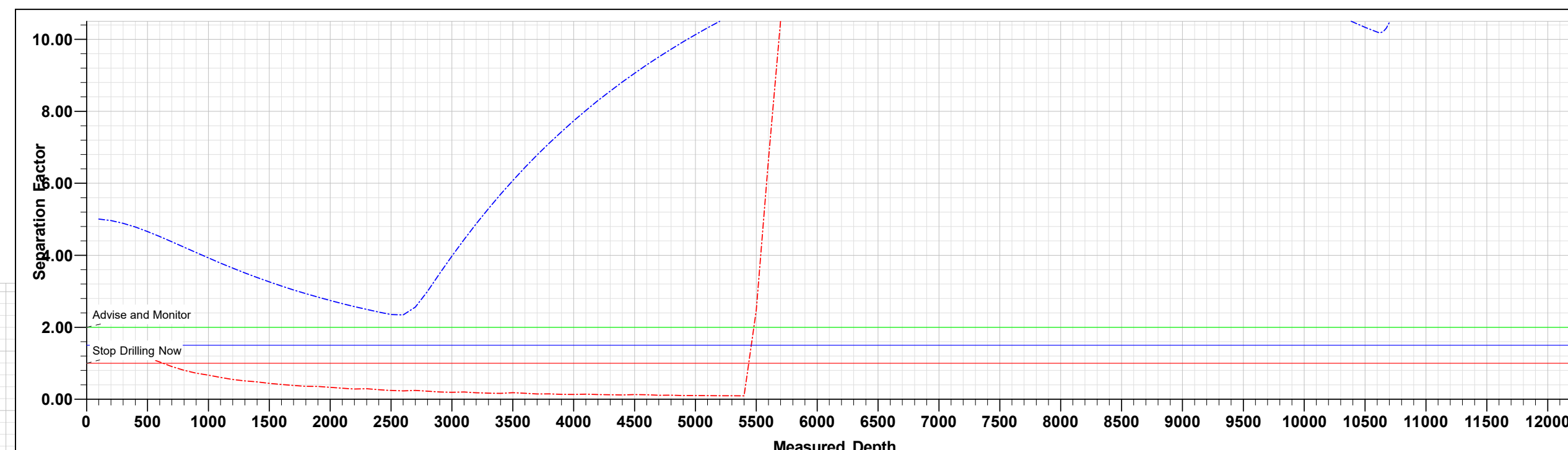
Project: BULLDOG PROSPECT (NM-E)
Site: SYLVESTER FED COM PROJECT
Well: SYLVESTER FED COM #502H
Wellbore: OWB
Design: PWP1
GL: 3697.0
*KB=30' @ 3727.0usft (TBD)

WELL DETAILS: SYLVESTER FED COM #502H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	473327.67	726492.24	32° 17' 56.998 N	103° 36' 1.150 W

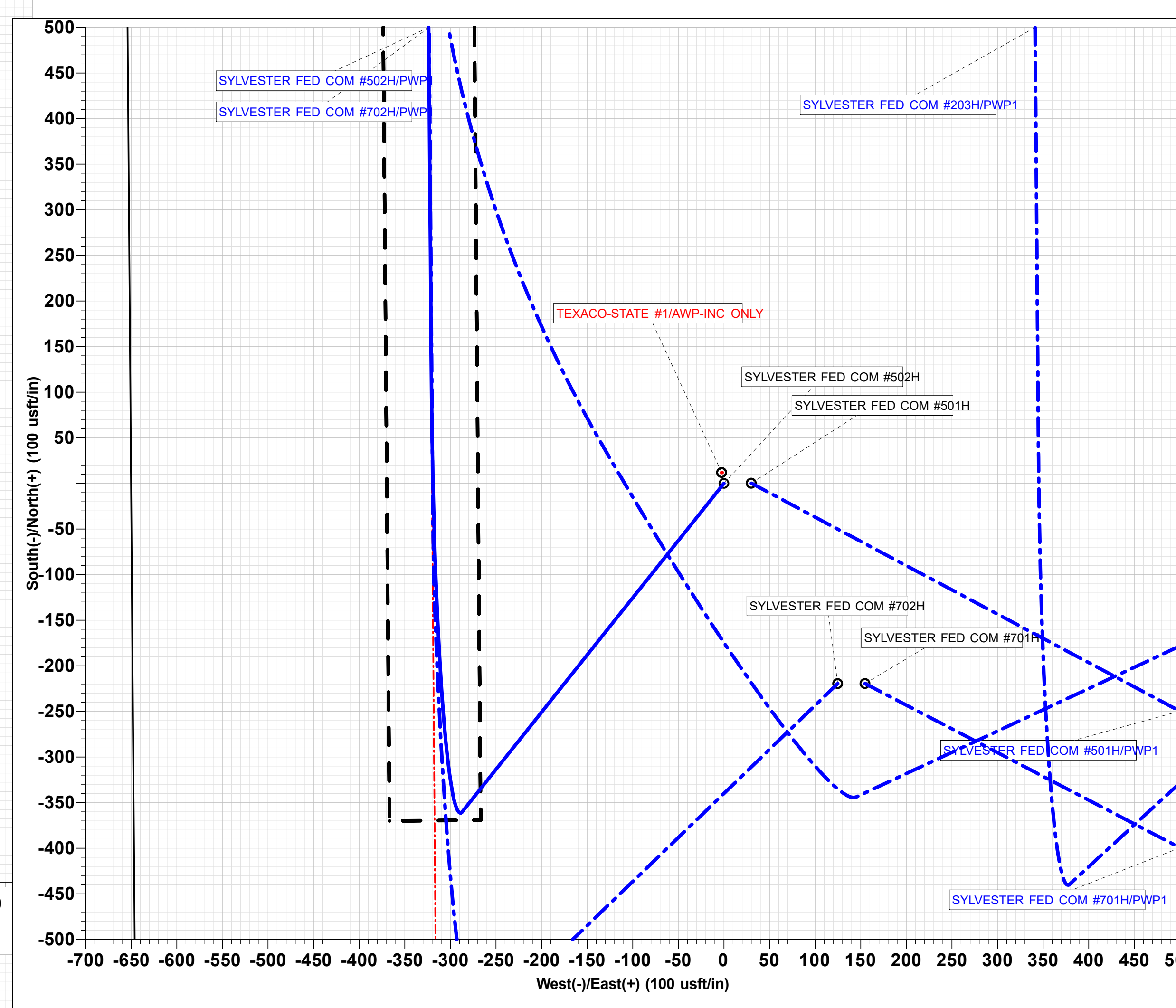
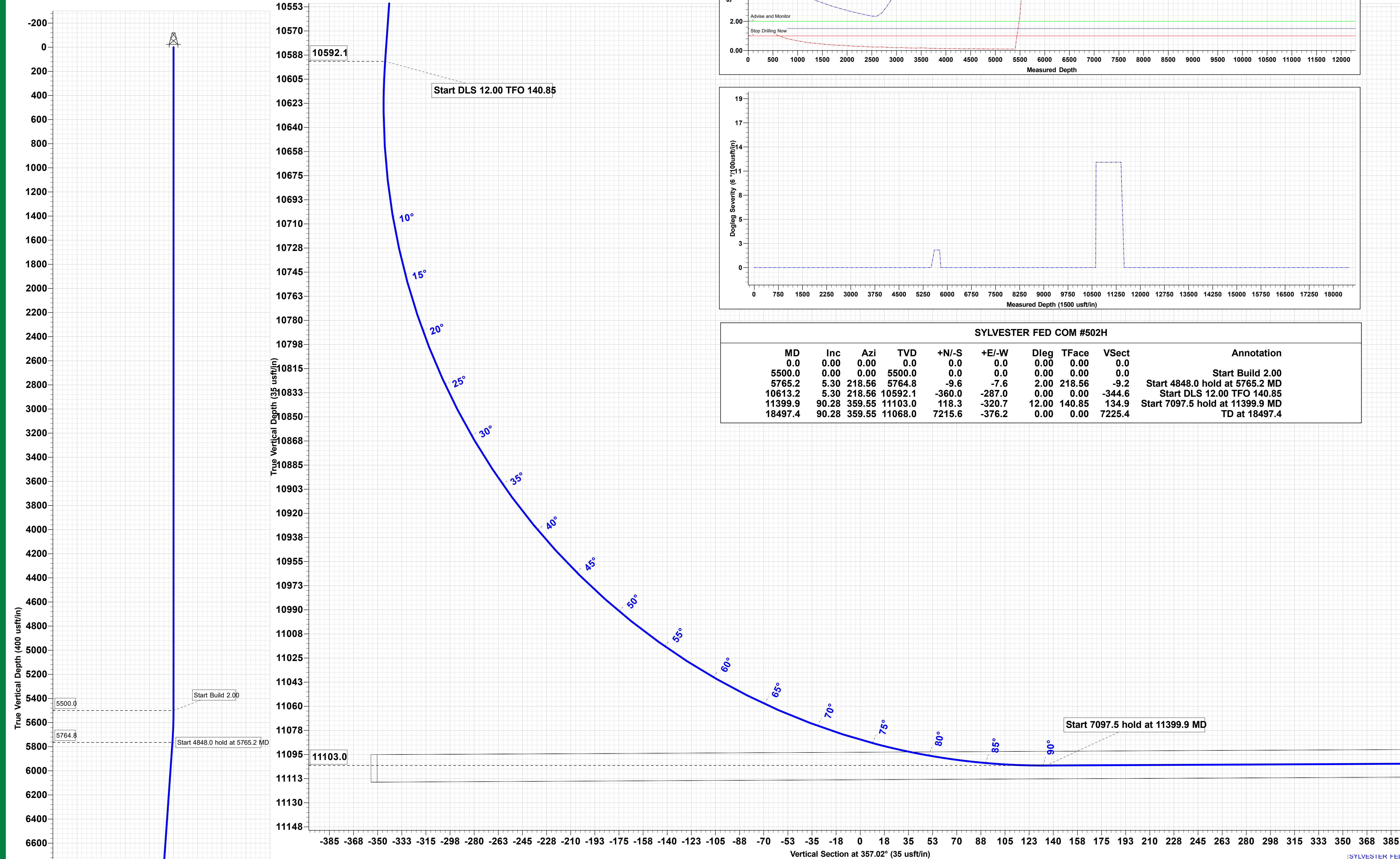
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP (SYLVESTER FED COM #502H)	11068.0	7165.6	-375.8	480493.24	726116.40	32° 19' 7.930 N	103° 36' 4.958 W
PBHL (SYLVESTER FED COM #502H)	11068.0	7215.6	-376.2	480543.23	726116.02	32° 19' 8.424 N	103° 36' 4.959 W
FTP (SYLVESTER FED COM #502H)	11103.0	-551.4	-315.6	472776.31	726176.63	32° 17' 51.563 N	103° 36' 4.870 W



SYLVESTER FED COM #502H

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
5500.0	0.00	0.00	5500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
5765.2	5.30	218.56	5764.8	-9.6	-7.6	2.00	218.56	-9.2	Start 4848.0 hold at 5765.2 MD
10613.2	5.30	218.56	10612.1	-360.0	-287.0	0.00	0.00	-344.6	Start DLS 12.00 TFO 140.85
11399.9	90.28	359.55	11103.0	118.3	-320.7	12.00	140.85	134.9	Start 7097.5 hold at 11399.9 MD
18497.4	90.28	359.55	11068.0	7215.6	-376.2	0.00	0.00	7225.4	TD at 18497.4



DELAWARE BASIN EAST

**BULLDOG PROSPECT (NM-E)
SYLVESTER FED COM PROJECT
SYLVESTER FED COM #502H**

**OWB
PWP1**

Anticollision Report

11 September, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference	PWP1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum ellipse separation of 1,000.0 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	9/11/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,592.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,592.0	18,496.4	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SYLVESTER FED COM PROJECT						
SYLVESTER FED COM #201H - OWB - PWP1	2,500.0	2,500.0	808.0	795.3	63.575	CC, ES
SYLVESTER FED COM #201H - OWB - PWP1	4,900.0	4,823.2	997.8	976.1	45.968	SF
SYLVESTER FED COM #202H - OWB - PWP1	2,916.3	2,917.3	786.2	778.9	108.294	CC
SYLVESTER FED COM #202H - OWB - PWP1	3,000.0	3,000.0	786.2	778.9	107.293	ES
SYLVESTER FED COM #202H - OWB - PWP1	6,300.0	6,247.9	993.5	982.2	87.788	SF
SYLVESTER FED COM #203H - OWB - PWP1	9,387.2	9,480.0	571.2	530.1	13.901	CC, ES, SF
SYLVESTER FED COM #204H - OWB - PWP1	9,319.9	9,454.0	229.3	212.8	13.950	CC, ES
SYLVESTER FED COM #204H - OWB - PWP1	9,500.0	9,514.2	283.0	260.0	12.294	SF
SYLVESTER FED COM #501H - OWB - PWP1	2,500.0	2,470.0	30.1	17.3	2.351	CC, ES
SYLVESTER FED COM #501H - OWB - PWP1	2,600.0	2,569.3	30.8	17.7	2.344	SF
SYLVESTER FED COM #701H - OWB - PWP1	2,500.0	2,499.0	268.5	260.2	32.710	CC, ES
SYLVESTER FED COM #701H - OWB - PWP1	2,600.0	2,591.4	269.9	261.6	32.483	SF
SYLVESTER FED COM #702H - OWB - PWP1	10,620.3	10,613.4	189.3	170.7	10.181	CC, ES
SYLVESTER FED COM #702H - OWB - PWP1	10,625.0	10,618.1	189.3	170.7	10.180	SF
TEXACO-STATE #1 - OWB - AWP-INC ONLY	5,400.0	5,389.4	12.2	-115.6	0.096	Stop Drilling Now, CC, ES

SYLVESTER FED COM PROJECT - SYLVESTER FED COM #201H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	3.0	3.0	99.80	-137.5	796.2	808.0					
100.0	100.0	100.0	100.0	3.0	3.0	99.80	-137.5	796.2	808.0	802.0	6.00	134.603		
200.0	200.0	200.0	200.0	3.0	3.0	99.80	-137.5	796.2	808.0	801.9	6.04	133.764		
300.0	300.0	300.0	300.0	3.0	3.1	99.80	-137.5	796.2	808.0	801.9	6.12	132.005		
400.0	400.0	400.0	400.0	3.0	3.2	99.80	-137.5	796.2	808.0	801.7	6.24	129.460		
500.0	500.0	500.0	500.0	3.1	3.4	99.80	-137.5	796.2	808.0	801.6	6.40	126.296		
600.0	600.0	600.0	600.0	3.1	3.6	99.80	-137.5	796.2	808.0	801.4	6.59	122.691		
700.0	700.0	700.0	700.0	3.1	3.8	99.80	-137.5	796.2	808.0	801.2	6.80	118.807		
800.0	800.0	800.0	800.0	3.2	4.0	99.80	-137.5	796.2	808.0	800.9	7.04	114.778		
900.0	900.0	900.0	900.0	3.2	4.2	99.80	-137.5	796.2	808.0	800.7	7.30	110.712		
1,000.0	1,000.0	1,000.0	1,000.0	3.2	4.5	99.80	-137.5	796.2	808.0	800.4	7.57	106.685		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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

SYLVESTER FED COM PROJECT - SYLVESTER FED COM #201H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,100.0	1,100.0	1,100.0	1,100.0	3.3	4.8	99.80	-137.5	796.2	808.0	800.1	7.86	102.753		
1,200.0	1,200.0	1,200.0	1,200.0	3.4	5.1	99.80	-137.5	796.2	808.0	799.8	8.17	98.951		
1,300.0	1,300.0	1,300.0	1,300.0	3.4	5.3	99.80	-137.5	796.2	808.0	799.5	8.48	95.302		
1,400.0	1,400.0	1,400.0	1,400.0	3.5	5.6	99.80	-137.5	796.2	808.0	799.2	8.80	91.818		
1,500.0	1,500.0	1,500.0	1,500.0	3.5	6.0	99.80	-137.5	796.2	808.0	798.9	9.13	88.502		
1,600.0	1,600.0	1,600.0	1,600.0	3.6	6.3	99.80	-137.5	796.2	808.0	798.5	9.47	85.354		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	6.6	99.80	-137.5	796.2	808.0	798.2	9.81	82.371		
1,800.0	1,800.0	1,800.0	1,800.0	3.8	6.9	99.80	-137.5	796.2	808.0	797.8	10.16	79.547		
1,900.0	1,900.0	1,900.0	1,900.0	3.9	7.2	99.80	-137.5	796.2	808.0	797.5	10.51	76.874		
2,000.0	2,000.0	2,000.0	2,000.0	3.9	7.6	99.80	-137.5	796.2	808.0	797.1	10.87	74.345		
2,100.0	2,100.0	2,100.0	2,100.0	4.0	7.9	99.80	-137.5	796.2	808.0	796.8	11.23	71.951		
2,200.0	2,200.0	2,200.0	2,200.0	4.1	8.2	99.80	-137.5	796.2	808.0	796.4	11.59	69.685		
2,300.0	2,300.0	2,300.0	2,300.0	4.2	8.6	99.80	-137.5	796.2	808.0	796.0	11.96	67.539		
2,400.0	2,400.0	2,400.0	2,400.0	4.3	8.9	99.80	-137.5	796.2	808.0	795.6	12.33	65.505		
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	99.80	-137.5	796.2	808.0	795.3	12.71	63.575 CC, ES		
2,600.0	2,600.0	2,578.6	2,578.6	4.5	9.5	99.82	-137.9	797.2	809.3	796.3	13.00	62.252		
2,700.0	2,700.0	2,657.1	2,657.0	4.6	9.7	99.88	-139.3	800.1	813.3	800.0	13.28	61.237		
2,800.0	2,800.0	2,735.3	2,735.0	4.7	10.0	99.98	-141.6	805.0	819.9	806.3	13.55	60.488		
2,900.0	2,900.0	2,830.8	2,830.2	4.8	10.3	100.12	-145.1	812.5	828.3	814.4	13.90	59.591		
3,000.0	3,000.0	2,930.5	2,929.5	4.9	10.6	100.28	-148.8	820.3	836.7	822.4	14.26	58.654		
3,100.0	3,100.0	3,030.1	3,028.7	5.0	10.9	100.43	-152.4	828.2	845.1	830.5	14.63	57.750		
3,200.0	3,200.0	3,129.7	3,127.9	5.1	11.3	100.58	-156.1	836.1	853.6	838.6	15.01	56.879		
3,300.0	3,300.0	3,229.3	3,227.2	5.2	11.6	100.72	-159.8	843.9	862.0	846.6	15.38	56.038		
3,400.0	3,400.0	3,328.9	3,326.4	5.3	11.9	100.86	-163.4	851.8	870.5	854.7	15.76	55.228		
3,500.0	3,500.0	3,428.6	3,425.7	5.4	12.3	101.00	-167.1	859.7	878.9	862.8	16.14	54.446		
3,600.0	3,600.0	3,528.2	3,524.9	5.5	12.6	101.14	-170.8	867.5	887.4	870.8	16.53	53.692		
3,700.0	3,700.0	3,627.8	3,624.1	5.7	12.9	101.27	-174.5	875.4	895.8	878.9	16.91	52.965		
3,800.0	3,800.0	3,727.4	3,723.4	5.8	13.3	101.40	-178.1	883.3	904.3	887.0	17.30	52.263		
3,900.0	3,900.0	3,827.0	3,822.6	5.9	13.6	101.53	-181.8	891.1	912.8	895.1	17.69	51.586		
4,000.0	4,000.0	3,926.7	3,921.9	6.0	14.0	101.66	-185.5	899.0	921.3	903.2	18.09	50.933		
4,100.0	4,100.0	4,026.3	4,021.1	6.1	14.3	101.78	-189.1	906.9	929.7	911.3	18.48	50.303		
4,200.0	4,200.0	4,125.9	4,120.3	6.2	14.7	101.90	-192.8	914.7	938.2	919.4	18.88	49.694		
4,300.0	4,300.0	4,225.5	4,219.6	6.3	15.0	102.02	-196.5	922.6	946.7	927.4	19.28	49.106		
4,400.0	4,400.0	4,325.1	4,318.8	6.5	15.3	102.14	-200.2	930.5	955.2	935.5	19.68	48.538		
4,500.0	4,500.0	4,424.8	4,418.1	6.6	15.7	102.26	-203.8	938.3	963.7	943.6	20.08	47.989		
4,600.0	4,600.0	4,524.4	4,517.3	6.7	16.0	102.37	-207.5	946.2	972.2	951.7	20.49	47.459		
4,700.0	4,700.0	4,624.0	4,616.5	6.8	16.4	102.48	-211.2	954.1	980.7	959.8	20.89	46.945		
4,800.0	4,800.0	4,723.6	4,715.8	6.9	16.7	102.59	-214.8	962.0	989.2	967.9	21.30	46.449		
4,900.0	4,900.0	4,823.2	4,815.0	7.0	17.1	102.70	-218.5	969.8	997.8	976.1	21.71	45.968 SF		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	3.0	3.0	98.31	-113.6	777.9	786.2				
100.0	100.0	101.0	101.0	3.0	3.0	98.31	-113.6	777.9	786.2	780.2	6.00	131.028	
200.0	200.0	201.0	201.0	3.0	3.0	98.31	-113.6	777.9	786.2	780.2	6.00	130.964	
300.0	300.0	301.0	301.0	3.0	3.0	98.31	-113.6	777.9	786.2	780.2	6.01	130.826	
400.0	400.0	401.0	401.0	3.0	3.0	98.31	-113.6	777.9	786.2	780.2	6.02	130.614	
500.0	500.0	501.0	501.0	3.1	3.1	98.31	-113.6	777.9	786.2	780.2	6.03	130.329	
600.0	600.0	601.0	601.0	3.1	3.1	98.31	-113.6	777.9	786.2	780.1	6.05	129.974	
700.0	700.0	701.0	701.0	3.1	3.1	98.31	-113.6	777.9	786.2	780.1	6.07	129.549	
800.0	800.0	801.0	801.0	3.2	3.2	98.31	-113.6	777.9	786.2	780.1	6.09	129.056	
900.0	900.0	901.0	901.0	3.2	3.2	98.31	-113.6	777.9	786.2	780.1	6.12	128.499	
1,000.0	1,000.0	1,001.0	1,001.0	3.2	3.2	98.31	-113.6	777.9	786.2	780.0	6.15	127.879	
1,100.0	1,100.0	1,101.0	1,101.0	3.3	3.3	98.31	-113.6	777.9	786.2	780.0	6.18	127.200	
1,200.0	1,200.0	1,201.0	1,201.0	3.4	3.4	98.31	-113.6	777.9	786.2	780.0	6.22	126.464	
1,300.0	1,300.0	1,301.0	1,301.0	3.4	3.4	98.31	-113.6	777.9	786.2	779.9	6.26	125.674	
1,400.0	1,400.0	1,401.0	1,401.0	3.5	3.5	98.31	-113.6	777.9	786.2	779.9	6.30	124.835	
1,500.0	1,500.0	1,501.0	1,501.0	3.5	3.5	98.31	-113.6	777.9	786.2	779.9	6.34	123.949	
1,600.0	1,600.0	1,601.0	1,601.0	3.6	3.6	98.31	-113.6	777.9	786.2	779.8	6.39	123.019	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	3.7	98.31	-113.6	777.9	786.2	779.8	6.44	122.050	
1,800.0	1,800.0	1,801.0	1,801.0	3.8	3.8	98.31	-113.6	777.9	786.2	779.7	6.50	121.044	
1,900.0	1,900.0	1,901.0	1,901.0	3.9	3.9	98.31	-113.6	777.9	786.2	779.6	6.55	120.006	
2,000.0	2,000.0	2,001.0	2,001.0	3.9	3.9	98.31	-113.6	777.9	786.2	779.6	6.61	118.937	
2,100.0	2,100.0	2,101.0	2,101.0	4.0	4.0	98.31	-113.6	777.9	786.2	779.5	6.67	117.842	
2,200.0	2,200.0	2,201.0	2,201.0	4.1	4.1	98.31	-113.6	777.9	786.2	779.5	6.74	116.724	
2,300.0	2,300.0	2,301.0	2,301.0	4.2	4.2	98.31	-113.6	777.9	786.2	779.4	6.80	115.586	
2,400.0	2,400.0	2,401.0	2,401.0	4.3	4.3	98.31	-113.6	777.9	786.2	779.3	6.87	114.431	
2,500.0	2,500.0	2,501.0	2,501.0	4.4	4.4	98.31	-113.6	777.9	786.2	779.3	6.94	113.262	
2,600.0	2,600.0	2,601.0	2,601.0	4.5	4.5	98.31	-113.6	777.9	786.2	779.2	7.01	112.080	
2,700.0	2,700.0	2,701.0	2,701.0	4.6	4.6	98.31	-113.6	777.9	786.2	779.1	7.09	110.890	
2,800.0	2,800.0	2,801.0	2,801.0	4.7	4.7	98.31	-113.6	777.9	786.2	779.0	7.17	109.693	
2,900.0	2,900.0	2,901.0	2,901.0	4.8	4.8	98.31	-113.6	777.9	786.2	778.9	7.25	108.491	
2,916.3	2,916.3	2,917.3	2,917.3	4.8	4.8	98.31	-113.6	777.9	786.2	778.9	7.26	108.294 CC	
3,000.0	3,000.0	3,000.0	3,000.0	4.9	4.9	98.31	-113.6	777.9	786.2	778.9	7.33	107.293 ES	
3,100.0	3,100.0	3,086.9	3,086.9	5.0	4.9	98.38	-114.7	778.6	787.1	779.7	7.40	106.331	
3,200.0	3,200.0	3,172.8	3,172.7	5.1	4.9	98.61	-118.2	780.4	789.8	782.3	7.48	105.623	
3,300.0	3,300.0	3,259.9	3,259.5	5.2	4.9	98.99	-124.0	783.4	794.3	786.7	7.56	105.107	
3,400.0	3,400.0	3,359.5	3,358.7	5.3	4.9	99.49	-131.7	787.5	799.5	791.9	7.65	104.579	
3,500.0	3,500.0	3,459.1	3,458.0	5.4	4.8	99.99	-139.3	791.5	804.8	797.1	7.74	104.036	
3,600.0	3,600.0	3,558.7	3,557.2	5.5	4.8	100.47	-147.0	795.5	810.2	802.4	7.83	103.474	
3,700.0	3,700.0	3,658.3	3,656.5	5.7	4.8	100.95	-154.7	799.6	815.6	807.7	7.93	102.895	
3,800.0	3,800.0	3,758.0	3,755.7	5.8	4.8	101.43	-162.4	803.6	821.1	813.1	8.03	102.299	
3,900.0	3,900.0	3,857.6	3,854.9	5.9	4.8	101.89	-170.1	807.7	826.7	818.5	8.13	101.688	
4,000.0	4,000.0	3,957.2	3,954.2	6.0	4.8	102.35	-177.8	811.7	832.3	824.0	8.24	101.062	
4,100.0	4,100.0	4,056.8	4,053.4	6.1	4.8	102.81	-185.5	815.7	837.9	829.6	8.34	100.423	
4,200.0	4,200.0	4,156.4	4,152.7	6.2	4.8	103.26	-193.1	819.8	843.6	835.2	8.46	99.772	
4,300.0	4,300.0	4,256.1	4,251.9	6.3	4.8	103.70	-200.8	823.8	849.4	840.8	8.57	99.109	
4,400.0	4,400.0	4,355.7	4,351.1	6.5	4.8	104.14	-208.5	827.9	855.2	846.5	8.69	98.437	
4,500.0	4,500.0	4,455.3	4,450.4	6.6	4.8	104.57	-216.2	831.9	861.0	852.2	8.81	97.756	
4,600.0	4,600.0	4,554.9	4,549.6	6.7	4.8	104.99	-223.9	835.9	866.9	858.0	8.93	97.067	
4,700.0	4,700.0	4,654.5	4,648.9	6.8	4.9	105.41	-231.6	840.0	872.9	863.8	9.06	96.371	
4,800.0	4,800.0	4,754.2	4,748.1	6.9	4.9	105.83	-239.3	844.0	878.9	869.7	9.19	95.670	
4,900.0	4,900.0	4,853.8	4,847.4	7.0	4.9	106.23	-246.9	848.1	884.9	875.6	9.32	94.965	
5,000.0	5,000.0	4,953.4	4,946.6	7.2	4.9	106.64	-254.6	852.1	891.0	881.5	9.45	94.256	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,100.0	5,053.0	5,045.8	7.3	5.0	107.03	-262.3	856.1	897.1	887.5	9.59	93.545	
5,200.0	5,200.0	5,152.6	5,145.1	7.4	5.0	107.43	-270.0	860.2	903.3	893.6	9.73	92.832	
5,300.0	5,300.0	5,252.2	5,244.3	7.5	5.1	107.81	-277.7	864.2	909.5	899.6	9.87	92.119	
5,400.0	5,400.0	5,351.9	5,343.6	7.6	5.1	108.19	-285.4	868.3	915.8	905.7	10.02	91.406	
5,500.0	5,500.0	5,451.5	5,442.8	7.8	5.2	108.57	-293.1	872.3	922.1	911.9	10.17	90.695	
5,600.0	5,600.0	5,551.1	5,542.1	7.8	5.2	-109.59	-300.7	876.3	929.0	918.7	10.31	90.070	
5,700.0	5,699.8	5,650.8	5,641.4	7.8	5.3	-109.38	-308.4	880.4	937.1	926.6	10.46	89.614	
5,765.2	5,764.8	5,715.7	5,706.0	7.8	5.4	-109.33	-313.4	883.0	943.0	932.4	10.55	89.404	
5,800.0	5,799.5	5,750.4	5,740.5	7.8	5.4	-109.39	-316.1	884.4	946.3	935.7	10.60	89.308	
5,900.0	5,899.0	5,849.9	5,839.7	7.7	5.4	-109.55	-323.8	888.5	955.7	944.9	10.73	89.026	
6,000.0	5,998.6	5,949.4	5,938.8	7.7	5.5	-109.71	-331.5	892.5	965.1	954.2	10.88	88.731	
6,100.0	6,098.2	6,048.9	6,037.9	7.7	5.6	-109.87	-339.1	896.5	974.6	963.6	11.02	88.426	
6,200.0	6,197.8	6,148.4	6,137.1	7.7	5.7	-110.03	-346.8	900.6	984.0	972.9	11.17	88.111	
6,300.0	6,297.3	6,247.9	6,236.2	7.7	5.7	-110.18	-354.5	904.6	993.5	982.2	11.32	87.788 SF	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	3.0	3.0	96.73	-89.7	759.9	765.2				
100.0	100.0	101.0	101.0	3.0	3.0	96.73	-89.7	759.9	765.2	759.2	6.00	127.467	
200.0	200.0	201.0	201.0	3.0	3.0	96.73	-89.7	759.9	765.2	759.1	6.04	126.665	
300.0	300.0	301.0	301.0	3.0	3.1	96.73	-89.7	759.9	765.2	759.0	6.12	124.994	
400.0	400.0	401.0	401.0	3.0	3.2	96.73	-89.7	759.9	765.2	758.9	6.24	122.580	
500.0	500.0	501.0	501.0	3.1	3.4	96.73	-89.7	759.9	765.2	758.8	6.40	119.584	
600.0	600.0	601.0	601.0	3.1	3.6	96.73	-89.7	759.9	765.2	758.6	6.59	116.172	
700.0	700.0	701.0	701.0	3.1	3.8	96.73	-89.7	759.9	765.2	758.4	6.80	112.496	
800.0	800.0	801.0	801.0	3.2	4.0	96.73	-89.7	759.9	765.2	758.1	7.04	108.686	
900.0	900.0	901.0	901.0	3.2	4.2	96.73	-89.7	759.9	765.2	757.9	7.30	104.840	
1,000.0	1,000.0	1,001.0	1,001.0	3.2	4.5	96.73	-89.7	759.9	765.2	757.6	7.57	101.032	
1,100.0	1,100.0	1,101.0	1,101.0	3.3	4.8	96.73	-89.7	759.9	765.2	757.3	7.86	97.314	
1,200.0	1,200.0	1,201.0	1,201.0	3.4	5.1	96.73	-89.7	759.9	765.2	757.0	8.16	93.720	
1,300.0	1,300.0	1,301.0	1,301.0	3.4	5.4	96.73	-89.7	759.9	765.2	756.7	8.48	90.270	
1,400.0	1,400.0	1,401.0	1,401.0	3.5	5.7	96.73	-89.7	759.9	765.2	756.4	8.80	86.975	
1,500.0	1,500.0	1,501.0	1,501.0	3.5	6.0	96.73	-89.7	759.9	765.2	756.0	9.13	83.840	
1,600.0	1,600.0	1,601.0	1,601.0	3.6	6.3	96.73	-89.7	759.9	765.2	755.7	9.46	80.864	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	6.6	96.73	-89.7	759.9	765.2	755.4	9.80	78.044	
1,800.0	1,800.0	1,801.0	1,801.0	3.8	6.9	96.73	-89.7	759.9	765.2	755.0	10.15	75.373	
1,900.0	1,900.0	1,901.0	1,901.0	3.9	7.2	96.73	-89.7	759.9	765.2	754.7	10.50	72.846	
2,000.0	2,000.0	2,001.0	2,001.0	3.9	7.6	96.73	-89.7	759.9	765.2	754.3	10.86	70.454	
2,100.0	2,100.0	2,101.0	2,101.0	4.0	7.9	96.73	-89.7	759.9	765.2	753.9	11.22	68.190	
2,200.0	2,200.0	2,201.0	2,201.0	4.1	8.2	96.73	-89.7	759.9	765.2	753.6	11.59	66.047	
2,300.0	2,300.0	2,301.0	2,301.0	4.2	8.6	96.73	-89.7	759.9	765.2	753.2	11.95	64.017	
2,400.0	2,400.0	2,401.0	2,401.0	4.3	8.9	96.73	-89.7	759.9	765.2	752.8	12.32	62.093	
2,500.0	2,500.0	2,501.2	2,501.2	4.4	9.2	96.73	-89.7	759.9	765.2	752.5	12.70	60.265	
2,600.0	2,600.0	2,622.2	2,622.2	4.5	9.6	96.88	-91.5	758.0	763.8	750.6	13.12	58.212	
2,700.0	2,700.0	2,740.8	2,740.5	4.6	10.0	97.31	-96.6	752.5	759.7	746.1	13.52	56.176	
2,800.0	2,800.0	2,840.5	2,839.9	4.7	10.3	97.78	-102.0	746.5	754.5	740.6	13.88	54.358	
2,900.0	2,900.0	2,940.2	2,939.2	4.8	10.6	98.25	-107.4	740.6	749.3	735.1	14.24	52.618	
3,000.0	3,000.0	3,039.8	3,038.6	4.9	11.0	98.73	-112.9	734.7	744.3	729.7	14.61	50.951	
3,100.0	3,100.0	3,139.5	3,137.9	5.0	11.3	99.22	-118.3	728.8	739.2	724.3	14.98	49.356	
3,200.0	3,200.0	3,239.2	3,237.3	5.1	11.6	99.71	-123.7	722.9	734.3	718.9	15.35	47.829	
3,300.0	3,300.0	3,338.9	3,336.6	5.2	11.9	100.21	-129.2	716.9	729.4	713.6	15.73	46.367	
3,400.0	3,400.0	3,438.5	3,436.0	5.3	12.3	100.72	-134.6	711.0	724.5	708.4	16.11	44.967	
3,500.0	3,500.0	3,538.2	3,535.3	5.4	12.6	101.23	-140.1	705.1	719.7	703.2	16.50	43.625	
3,600.0	3,600.0	3,637.9	3,634.7	5.5	12.9	101.75	-145.5	699.2	715.0	698.1	16.89	42.340	
3,700.0	3,700.0	3,737.6	3,734.0	5.7	13.3	102.28	-150.9	693.3	710.3	693.0	17.28	41.107	
3,800.0	3,800.0	3,837.2	3,833.4	5.8	13.6	102.82	-156.4	687.4	705.7	688.0	17.67	39.926	
3,900.0	3,900.0	3,936.9	3,932.7	5.9	14.0	103.36	-161.8	681.4	701.1	683.0	18.07	38.792	
4,000.0	4,000.0	4,036.6	4,032.1	6.0	14.3	103.91	-167.2	675.5	696.6	678.1	18.48	37.705	
4,100.0	4,100.0	4,136.3	4,131.4	6.1	14.6	104.46	-172.7	669.6	692.2	673.3	18.88	36.661	
4,200.0	4,200.0	4,235.9	4,230.8	6.2	15.0	105.02	-178.1	663.7	687.8	668.5	19.29	35.659	
4,300.0	4,300.0	4,335.6	4,330.1	6.3	15.3	105.59	-183.5	657.8	683.5	663.8	19.70	34.696	
4,400.0	4,400.0	4,435.3	4,429.5	6.5	15.7	106.17	-189.0	651.8	679.3	659.2	20.11	33.771	
4,500.0	4,500.0	4,535.0	4,528.8	6.6	16.0	106.75	-194.4	645.9	675.1	654.6	20.53	32.882	
4,600.0	4,600.0	4,634.6	4,628.2	6.7	16.4	107.34	-199.9	640.0	671.0	650.1	20.95	32.027	
4,700.0	4,700.0	4,734.3	4,727.5	6.8	16.7	107.94	-205.3	634.1	667.0	645.6	21.38	31.205	
4,800.0	4,800.0	4,834.0	4,826.9	6.9	17.0	108.55	-210.7	628.2	663.1	641.3	21.80	30.414	
4,900.0	4,900.0	4,933.7	4,926.2	7.0	17.4	109.16	-216.2	622.3	659.2	637.0	22.23	29.652	
5,000.0	5,000.0	5,033.3	5,025.6	7.2	17.7	109.78	-221.6	616.3	655.4	632.8	22.66	28.919	
5,100.0	5,100.0	5,133.0	5,124.9	7.3	18.1	110.40	-227.0	610.4	651.7	628.6	23.10	28.214	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,200.0	5,232.7	5,224.3	7.4	18.4	111.04	-232.5	604.5	648.1	624.5	23.54	27.534	
5,300.0	5,300.0	5,332.4	5,323.6	7.5	18.8	111.68	-237.9	598.6	644.5	620.5	23.98	26.879	
5,400.0	5,400.0	5,432.0	5,423.0	7.6	19.1	112.32	-243.4	592.7	641.1	616.6	24.42	26.248	
5,500.0	5,500.0	5,531.7	5,522.3	7.8	19.5	112.98	-248.8	586.7	637.7	612.8	24.87	25.639	
5,600.0	5,600.0	5,631.5	5,621.8	7.8	19.8	-105.13	-254.2	580.8	634.8	609.5	25.31	25.081	
5,700.0	5,699.8	5,731.4	5,721.4	7.8	20.2	-104.96	-259.7	574.9	632.9	607.2	25.74	24.593	
5,765.2	5,764.8	5,796.6	5,786.4	7.8	20.4	-105.00	-263.2	571.0	632.1	606.1	26.01	24.308	
5,800.0	5,799.5	5,831.4	5,821.1	7.8	20.6	-105.05	-265.1	568.9	631.8	605.7	26.15	24.164	
5,900.0	5,899.0	5,931.4	5,920.8	7.7	20.9	-105.19	-270.6	563.0	631.0	604.4	26.56	23.758	
6,000.0	5,998.6	6,031.4	6,020.4	7.7	21.3	-105.33	-276.0	557.1	630.1	603.1	26.97	23.363	
6,100.0	6,098.2	6,131.4	6,120.1	7.7	21.6	-105.47	-281.5	551.1	629.3	601.9	27.38	22.979	
6,200.0	6,197.8	6,231.4	6,219.7	7.7	22.0	-105.62	-287.0	545.2	628.4	600.6	27.80	22.605	
6,300.0	6,297.3	6,331.4	6,319.4	7.7	22.3	-105.76	-292.4	539.3	627.6	599.3	28.21	22.242	
6,400.0	6,396.9	6,431.3	6,419.0	7.6	22.7	-105.90	-297.9	533.3	626.7	598.1	28.63	21.889	
6,500.0	6,496.5	6,531.3	6,518.7	7.6	23.0	-106.05	-303.3	527.4	625.9	596.8	29.05	21.545	
6,600.0	6,596.0	6,631.3	6,618.4	7.6	23.4	-106.19	-308.8	521.5	625.0	595.6	29.47	21.210	
6,700.0	6,695.6	6,731.3	6,718.0	7.6	23.7	-106.34	-314.2	515.5	624.2	594.3	29.89	20.884	
6,800.0	6,795.2	6,831.3	6,817.7	7.6	24.1	-106.48	-319.7	509.6	623.4	593.1	30.31	20.567	
6,900.0	6,894.8	6,931.3	6,917.3	7.6	24.5	-106.63	-325.1	503.6	622.5	591.8	30.73	20.257	
7,000.0	6,994.3	7,031.2	7,017.0	7.6	24.8	-106.77	-330.6	497.7	621.7	590.6	31.16	19.955	
7,100.0	7,093.9	7,131.2	7,116.7	7.6	25.2	-106.92	-336.0	491.8	620.9	589.3	31.58	19.661	
7,200.0	7,193.5	7,231.2	7,216.3	7.6	25.5	-107.07	-341.5	485.8	620.1	588.1	32.01	19.374	
7,300.0	7,293.1	7,331.2	7,316.0	7.6	25.9	-107.21	-346.9	479.9	619.3	586.8	32.43	19.094	
7,400.0	7,392.6	7,431.2	7,415.6	7.6	26.3	-107.36	-352.4	474.0	618.5	585.6	32.86	18.821	
7,500.0	7,492.2	7,531.2	7,515.3	7.7	26.6	-107.51	-357.8	468.0	617.7	584.4	33.29	18.554	
7,600.0	7,591.8	7,631.1	7,614.9	7.7	27.0	-107.66	-363.3	462.1	616.9	583.1	33.72	18.293	
7,700.0	7,691.3	7,731.1	7,714.6	7.7	27.3	-107.81	-368.8	456.2	616.1	581.9	34.15	18.040	
7,800.0	7,790.9	7,831.1	7,814.3	7.7	27.7	-107.95	-374.2	450.2	615.3	580.7	34.58	17.792	
7,900.0	7,890.5	7,931.1	7,913.9	7.7	28.0	-108.10	-379.7	444.3	614.5	579.5	35.02	17.549	
8,000.0	7,990.1	8,031.1	8,013.6	7.8	28.4	-108.25	-385.1	438.3	613.7	578.3	35.45	17.313	
8,100.0	8,089.6	8,131.1	8,113.2	7.8	28.8	-108.40	-390.6	432.4	612.9	577.1	35.88	17.081	
8,200.0	8,189.2	8,231.1	8,212.9	7.8	29.1	-108.55	-396.0	426.5	612.2	575.9	36.32	16.855	
8,300.0	8,288.8	8,331.0	8,312.6	7.9	29.5	-108.70	-401.5	420.5	611.4	574.6	36.76	16.633	
8,400.0	8,388.3	8,431.0	8,412.2	7.9	29.8	-108.86	-406.9	414.6	610.6	573.4	37.20	16.417	
8,500.0	8,487.9	8,531.0	8,511.9	8.0	30.2	-109.01	-412.4	408.7	609.9	572.2	37.64	16.205	
8,600.0	8,587.5	8,631.0	8,611.5	8.0	30.6	-109.16	-417.8	402.7	609.1	571.0	38.08	15.998	
8,700.0	8,687.1	8,731.0	8,711.2	8.0	30.9	-109.31	-423.3	396.8	608.4	569.9	38.52	15.795	
8,800.0	8,786.6	8,831.0	8,810.8	8.1	31.3	-109.46	-428.7	390.8	607.6	568.7	38.96	15.597	
8,900.0	8,886.2	8,930.9	8,910.5	8.2	31.6	-109.62	-434.2	384.9	606.9	567.5	39.40	15.403	
9,000.0	8,985.8	9,030.9	9,010.2	8.2	32.0	-109.77	-439.7	379.0	606.1	566.3	39.85	15.213	
9,100.0	9,085.3	9,135.0	9,112.0	8.3	32.6	-112.51	-421.1	369.1	600.0	559.6	40.48	14.822	
9,200.0	9,184.9	9,236.9	9,211.7	8.3	32.9	-118.43	-366.9	361.5	587.1	546.2	40.87	14.364	
9,300.0	9,284.5	9,342.2	9,315.8	8.4	33.2	-124.63	-309.1	356.6	575.3	534.2	41.04	14.016	
9,387.2	9,371.3	9,480.0	9,405.7	8.5	33.3	-129.21	-266.1	353.9	571.2	530.1	41.09	13.901 CC, ES, SF	
9,400.0	9,384.1	9,487.2	9,410.2	8.5	33.3	-129.80	-260.5	353.5	571.3	530.2	41.10	13.901	
9,500.0	9,483.6	9,534.2	9,437.6	8.5	33.4	-133.81	-222.4	351.6	579.2	538.0	41.18	14.066	
9,600.0	9,583.2	9,638.9	9,553.3	8.6	33.5	-136.88	-192.6	350.3	600.5	559.2	41.34	14.524	
9,700.0	9,682.8	9,745.2	9,667.3	8.7	33.5	-139.25	-169.2	349.4	635.0	593.5	41.51	15.297	
9,800.0	9,782.3	9,845.7	9,775.8	8.7	33.5	-141.11	-150.5	348.7	681.2	639.7	41.58	16.385	
9,900.0	9,881.9	9,944.2	9,881.9	8.8	33.6	-142.61	-135.3	348.2	737.4	695.9	41.53	17.756	
10,000.0	9,981.5	10,044.0	9,981.5	8.9	33.6	-144.22	-118.5	347.7	801.6	760.2	41.42	19.352	
10,100.0	10,081.1	10,144.0	10,081.1	9.0	33.6	-144.22	-118.5	347.7	872.3	831.0	41.25	21.147	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance									Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,180.6	9,666.1	9,493.0	9.1	33.6	-145.68	-103.2	347.3	947.8	906.7	41.13	23.045	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	2.0	2.0	3.0	3.0	95.05	-65.6	741.6	744.5				
100.0	100.0	102.0	102.0	3.0	3.0	95.05	-65.6	741.6	744.5	738.5	6.00	124.081	
200.0	200.0	202.0	202.0	3.0	3.0	95.05	-65.6	741.6	744.5	738.5	6.00	124.023	
300.0	300.0	302.0	302.0	3.0	3.0	95.05	-65.6	741.6	744.5	738.5	6.01	123.896	
400.0	400.0	402.0	402.0	3.0	3.0	95.05	-65.6	741.6	744.5	738.5	6.02	123.701	
500.0	500.0	502.0	502.0	3.1	3.1	95.05	-65.6	741.6	744.5	738.5	6.03	123.440	
600.0	600.0	602.0	602.0	3.1	3.1	95.05	-65.6	741.6	744.5	738.5	6.05	123.113	
700.0	700.0	702.0	702.0	3.1	3.1	95.05	-65.6	741.6	744.5	738.4	6.07	122.723	
800.0	800.0	802.0	802.0	3.2	3.2	95.05	-65.6	741.6	744.5	738.4	6.09	122.270	
900.0	900.0	902.0	902.0	3.2	3.2	95.05	-65.6	741.6	744.5	738.4	6.11	121.758	
1,000.0	1,000.0	1,002.0	1,002.0	3.2	3.2	95.05	-65.6	741.6	744.5	738.4	6.14	121.188	
1,100.0	1,100.0	1,102.0	1,102.0	3.3	3.3	95.05	-65.6	741.6	744.5	738.3	6.18	120.564	
1,200.0	1,200.0	1,202.0	1,202.0	3.4	3.4	95.05	-65.6	741.6	744.5	738.3	6.21	119.887	
1,300.0	1,300.0	1,302.0	1,302.0	3.4	3.4	95.05	-65.6	741.6	744.5	738.3	6.25	119.160	
1,400.0	1,400.0	1,402.0	1,402.0	3.5	3.5	95.05	-65.6	741.6	744.5	738.2	6.29	118.387	
1,500.0	1,500.0	1,502.0	1,502.0	3.5	3.5	95.05	-65.6	741.6	744.5	738.2	6.33	117.571	
1,600.0	1,600.0	1,602.0	1,602.0	3.6	3.6	95.05	-65.6	741.6	744.5	738.1	6.38	116.714	
1,700.0	1,700.0	1,702.0	1,702.0	3.7	3.7	95.05	-65.6	741.6	744.5	738.1	6.43	115.820	
1,800.0	1,800.0	1,802.0	1,802.0	3.8	3.8	95.05	-65.6	741.6	744.5	738.0	6.48	114.892	
1,900.0	1,900.0	1,902.0	1,902.0	3.9	3.9	95.05	-65.6	741.6	744.5	738.0	6.53	113.932	
2,000.0	2,000.0	2,002.0	2,002.0	3.9	3.9	95.05	-65.6	741.6	744.5	737.9	6.59	112.945	
2,100.0	2,100.0	2,102.0	2,102.0	4.0	4.0	95.05	-65.6	741.6	744.5	737.9	6.65	111.932	
2,200.0	2,200.0	2,202.0	2,202.0	4.1	4.1	95.05	-65.6	741.6	744.5	737.8	6.71	110.897	
2,300.0	2,300.0	2,302.0	2,302.0	4.2	4.2	95.05	-65.6	741.6	744.5	737.7	6.78	109.843	
2,400.0	2,400.0	2,402.0	2,402.0	4.3	4.3	95.05	-65.6	741.6	744.5	737.7	6.84	108.772	
2,500.0	2,500.0	2,502.6	2,502.6	4.4	4.4	95.05	-65.6	741.6	744.5	737.6	6.91	107.684	
2,600.0	2,600.0	2,631.5	2,631.5	4.5	4.4	95.17	-66.9	738.9	742.5	735.5	7.00	106.059	
2,700.0	2,700.0	2,759.9	2,759.6	4.6	4.4	95.52	-70.6	730.9	736.6	729.5	7.10	103.780	
2,800.0	2,800.0	2,868.3	2,867.3	4.7	4.5	95.96	-75.2	720.9	727.8	720.6	7.19	101.157	
2,900.0	2,900.0	2,967.7	2,966.2	4.8	4.5	96.39	-79.6	711.5	718.8	711.5	7.29	98.557	
3,000.0	3,000.0	3,067.2	3,065.1	4.9	4.5	96.83	-84.0	702.1	709.9	702.5	7.40	95.965	
3,100.0	3,100.0	3,166.6	3,164.1	5.0	4.5	97.28	-88.4	692.7	701.0	693.5	7.51	93.387	
3,200.0	3,200.0	3,266.1	3,263.0	5.1	4.5	97.74	-92.8	683.2	692.2	684.6	7.62	90.830	
3,300.0	3,300.0	3,365.5	3,361.9	5.2	4.6	98.21	-97.2	673.8	683.4	675.7	7.74	88.300	
3,400.0	3,400.0	3,465.0	3,460.8	5.3	4.6	98.69	-101.6	664.4	674.7	666.8	7.86	85.802	
3,500.0	3,500.0	3,564.4	3,559.7	5.4	4.6	99.19	-106.0	655.0	666.0	658.0	7.99	83.341	
3,600.0	3,600.0	3,663.9	3,658.6	5.5	4.7	99.70	-110.4	645.6	657.4	649.2	8.12	80.920	
3,700.0	3,700.0	3,763.3	3,757.5	5.7	4.7	100.23	-114.8	636.1	648.8	640.5	8.26	78.544	
3,800.0	3,800.0	3,862.8	3,856.4	5.8	4.8	100.77	-119.2	626.7	640.3	631.9	8.40	76.214	
3,900.0	3,900.0	3,962.2	3,955.3	5.9	4.8	101.32	-123.6	617.3	631.8	623.2	8.55	73.932	
4,000.0	4,000.0	4,061.7	4,054.2	6.0	4.9	101.89	-128.0	607.9	623.4	614.7	8.69	71.701	
4,100.0	4,100.0	4,161.1	4,153.1	6.1	4.9	102.47	-132.4	598.5	615.0	606.2	8.85	69.521	
4,200.0	4,200.0	4,260.6	4,252.0	6.2	5.0	103.07	-136.8	589.0	606.8	597.8	9.00	67.394	
4,300.0	4,300.0	4,360.0	4,350.9	6.3	5.1	103.69	-141.1	579.6	598.6	589.4	9.16	65.320	
4,400.0	4,400.0	4,459.5	4,449.8	6.5	5.1	104.32	-145.5	570.2	590.4	581.1	9.33	63.299	
4,500.0	4,500.0	4,558.9	4,548.8	6.6	5.2	104.97	-149.9	560.8	582.3	572.8	9.49	61.332	
4,600.0	4,600.0	4,658.4	4,647.7	6.7	5.3	105.64	-154.3	551.3	574.4	564.7	9.67	59.418	
4,700.0	4,700.0	4,757.8	4,746.6	6.8	5.4	106.32	-158.7	541.9	566.4	556.6	9.84	57.558	
4,800.0	4,800.0	4,857.3	4,845.5	6.9	5.4	107.03	-163.1	532.5	558.6	548.6	10.02	55.750	
4,900.0	4,900.0	4,956.7	4,944.4	7.0	5.5	107.76	-167.5	523.1	550.9	540.7	10.20	53.994	
5,000.0	5,000.0	5,056.2	5,043.3	7.2	5.6	108.50	-171.9	513.7	543.2	532.8	10.39	52.290	
5,100.0	5,100.0	5,155.7	5,142.2	7.3	5.7	109.27	-176.3	504.2	535.7	525.1	10.58	50.636	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toelface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,255.1	5,241.1	7.4	5.8	110.06	-180.7	494.8	528.2	517.4	10.77	49.033	
5,300.0	5,300.0	5,354.6	5,340.0	7.5	5.9	110.87	-185.1	485.4	520.9	509.9	10.97	47.479	
5,400.0	5,400.0	5,454.0	5,438.9	7.6	5.9	111.71	-189.5	476.0	513.6	502.5	11.17	45.974	
5,500.0	5,500.0	5,553.5	5,537.8	7.8	6.0	112.56	-193.9	466.5	506.5	495.1	11.38	44.517	
5,600.0	5,600.0	5,653.1	5,636.9	7.8	6.1	-105.43	-198.3	457.1	499.9	488.4	11.57	43.193	
5,700.0	5,699.8	5,752.9	5,736.1	7.8	6.2	-105.22	-202.7	447.7	494.4	482.6	11.75	42.070	
5,765.2	5,764.8	5,818.0	5,800.9	7.8	6.3	-105.28	-205.6	441.5	491.2	479.4	11.86	41.431	
5,800.0	5,799.5	5,852.7	5,835.5	7.8	6.3	-105.33	-207.1	438.2	489.6	477.7	11.91	41.109	
5,900.0	5,899.0	5,952.6	5,934.8	7.7	6.4	-105.46	-211.5	428.7	485.1	473.0	12.07	40.198	
6,000.0	5,998.6	6,052.5	6,034.2	7.7	6.5	-105.59	-215.9	419.3	480.6	468.4	12.23	39.305	
6,100.0	6,098.2	6,152.4	6,133.5	7.7	6.6	-105.73	-220.3	409.8	476.1	463.7	12.39	38.431	
6,200.0	6,197.8	6,252.3	6,232.8	7.7	6.7	-105.87	-224.7	400.3	471.6	459.0	12.55	37.574	
6,300.0	6,297.3	6,352.2	6,332.2	7.7	6.8	-106.01	-229.2	390.9	467.1	454.3	12.71	36.735	
6,400.0	6,396.9	6,452.1	6,431.5	7.6	6.9	-106.15	-233.6	381.4	462.5	449.7	12.88	35.913	
6,500.0	6,496.5	6,552.0	6,530.9	7.6	7.0	-106.30	-238.0	372.0	458.0	445.0	13.05	35.107	
6,600.0	6,596.0	6,651.9	6,630.2	7.6	7.1	-106.45	-242.4	362.5	453.5	440.3	13.22	34.318	
6,700.0	6,695.6	6,751.8	6,729.6	7.6	7.2	-106.60	-246.8	353.0	449.0	435.7	13.39	33.545	
6,800.0	6,795.2	6,851.7	6,828.9	7.6	7.3	-106.76	-251.2	343.6	444.6	431.0	13.56	32.788	
6,900.0	6,894.8	6,951.6	6,928.3	7.6	7.4	-106.92	-255.6	334.1	440.1	426.3	13.73	32.047	
7,000.0	6,994.3	7,051.4	7,027.6	7.6	7.6	-107.08	-260.0	324.6	435.6	421.7	13.91	31.321	
7,100.0	7,093.9	7,151.3	7,126.9	7.6	7.7	-107.24	-264.5	315.2	431.1	417.0	14.08	30.610	
7,200.0	7,193.5	7,251.2	7,226.3	7.6	7.8	-107.41	-268.9	305.7	426.6	412.3	14.26	29.913	
7,300.0	7,293.1	7,351.1	7,325.6	7.6	7.9	-107.59	-273.3	296.2	422.1	407.7	14.44	29.231	
7,400.0	7,392.6	7,451.0	7,425.0	7.6	8.0	-107.76	-277.7	286.8	417.7	403.0	14.62	28.563	
7,500.0	7,492.2	7,550.9	7,524.3	7.7	8.1	-107.94	-282.1	277.3	413.2	398.4	14.81	27.909	
7,600.0	7,591.8	7,650.8	7,623.7	7.7	8.2	-108.13	-286.5	267.9	408.7	393.7	14.99	27.268	
7,700.0	7,691.3	7,750.7	7,723.0	7.7	8.3	-108.31	-290.9	258.4	404.3	389.1	15.17	26.640	
7,800.0	7,790.9	7,850.6	7,822.4	7.7	8.4	-108.51	-295.3	248.9	399.8	384.4	15.36	26.026	
7,900.0	7,890.5	7,950.5	7,921.7	7.7	8.6	-108.70	-299.8	239.5	395.4	379.8	15.55	25.424	
8,000.0	7,990.1	8,050.4	8,021.0	7.8	8.7	-108.90	-304.2	230.0	390.9	375.2	15.74	24.834	
8,100.0	8,089.6	8,150.2	8,120.4	7.8	8.8	-109.11	-308.6	220.5	386.5	370.5	15.93	24.257	
8,200.0	8,189.2	8,250.1	8,219.7	7.8	8.9	-109.32	-313.0	211.1	382.0	365.9	16.12	23.692	
8,300.0	8,288.8	8,350.0	8,319.1	7.9	9.0	-109.54	-317.4	201.6	377.6	361.3	16.32	23.139	
8,400.0	8,388.3	8,449.9	8,418.4	7.9	9.2	-109.76	-321.8	192.2	373.2	356.7	16.51	22.597	
8,500.0	8,487.9	8,549.8	8,517.8	8.0	9.3	-109.98	-326.2	182.7	368.8	352.0	16.71	22.066	
8,600.0	8,587.5	8,649.7	8,617.1	8.0	9.4	-110.21	-330.6	173.2	364.3	347.4	16.91	21.546	
8,700.0	8,687.1	8,749.6	8,716.5	8.0	9.5	-110.45	-335.1	163.8	359.9	342.8	17.11	21.037	
8,800.0	8,786.6	8,849.5	8,815.8	8.1	9.6	-110.69	-339.5	154.3	355.5	338.2	17.31	20.539	
8,900.0	8,886.2	8,950.4	8,916.2	8.2	9.7	-110.95	-343.9	144.7	351.1	333.6	17.49	20.080	
9,000.0	8,985.8	9,151.5	9,109.7	8.2	9.8	-116.76	-315.7	105.2	331.1	311.6	19.52	16.962	
9,100.0	9,085.3	9,294.3	9,227.8	8.3	10.0	-129.96	-253.8	55.4	291.4	270.5	20.91	13.933	
9,200.0	9,184.9	9,385.5	9,289.1	8.3	10.1	-144.70	-198.8	16.5	251.4	232.0	19.42	12.947	
9,300.0	9,284.5	9,444.8	9,321.6	8.4	10.2	-157.00	-157.7	-11.0	230.0	213.3	16.64	13.821	
9,319.9	9,304.3	9,454.0	9,326.1	8.4	10.2	-159.05	-150.9	-15.5	229.3	212.8	16.44	13.950 CC, ES	
9,400.0	9,384.1	9,485.2	9,340.2	8.5	10.3	-166.08	-127.5	-30.6	240.5	222.4	18.13	13.266	
9,500.0	9,483.6	9,514.2	9,351.6	8.5	10.3	-172.59	-105.1	-44.8	283.0	260.0	23.02	12.294 SF	
9,600.0	9,583.2	9,535.8	9,359.1	8.6	10.3	-177.33	-87.8	-55.6	347.3	320.3	27.03	12.852	
9,700.0	9,682.8	9,550.0	9,363.5	8.7	10.4	179.67	-76.4	-62.7	424.3	394.6	29.70	14.286	
9,800.0	9,782.3	9,565.8	9,367.9	8.7	10.4	176.44	-63.5	-70.7	508.6	477.2	31.41	16.192	
9,900.0	9,881.9	9,575.0	9,370.2	8.8	10.4	174.61	-55.9	-75.3	597.3	564.6	32.67	18.285	
10,000.0	9,981.5	9,585.5	9,372.7	8.9	10.4	172.60	-47.2	-80.6	688.8	655.2	33.59	20.504	
10,100.0	10,081.1	9,600.0	9,375.7	9.0	10.5	169.92	-35.0	-87.9	782.2	747.9	34.30	22.804	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,180.6	9,600.0	9,375.7	9.1	10.5	169.92	-35.0	-87.9	876.9	841.9	34.99	25.060	
10,300.0	10,280.2	9,600.0	9,375.7	9.1	10.5	169.92	-35.0	-87.9	972.5	937.0	35.58	27.333	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	3.0	3.0	89.47	0.3	30.1	42.5				
100.0	100.0	70.0	70.0	3.0	3.0	89.47	0.3	30.1	30.1	24.1	6.01	5.006	
200.0	200.0	170.0	170.0	3.0	3.1	89.47	0.3	30.1	30.1	24.0	6.06	4.963	
300.0	300.0	270.0	270.0	3.0	3.2	89.47	0.3	30.1	30.1	23.9	6.16	4.888	
400.0	400.0	370.0	370.0	3.0	3.3	89.47	0.3	30.1	30.1	23.8	6.29	4.785	
500.0	500.0	470.0	470.0	3.1	3.4	89.47	0.3	30.1	30.1	23.6	6.46	4.661	
600.0	600.0	570.0	570.0	3.1	3.6	89.47	0.3	30.1	30.1	23.4	6.65	4.523	
700.0	700.0	670.0	670.0	3.1	3.8	89.47	0.3	30.1	30.1	23.2	6.88	4.377	
800.0	800.0	770.0	770.0	3.2	4.1	89.47	0.3	30.1	30.1	23.0	7.12	4.226	
900.0	900.0	870.0	870.0	3.2	4.3	89.47	0.3	30.1	30.1	22.7	7.38	4.075	
1,000.0	1,000.0	970.0	970.0	3.2	4.6	89.47	0.3	30.1	30.1	22.4	7.66	3.927	
1,100.0	1,100.0	1,070.0	1,070.0	3.3	4.9	89.47	0.3	30.1	30.1	22.1	7.96	3.783	
1,200.0	1,200.0	1,170.0	1,170.0	3.4	5.2	89.47	0.3	30.1	30.1	21.8	8.26	3.643	
1,300.0	1,300.0	1,270.0	1,270.0	3.4	5.5	89.47	0.3	30.1	30.1	21.5	8.57	3.510	
1,400.0	1,400.0	1,370.0	1,370.0	3.5	5.8	89.47	0.3	30.1	30.1	21.2	8.90	3.382	
1,500.0	1,500.0	1,470.0	1,470.0	3.5	6.1	89.47	0.3	30.1	30.1	20.9	9.23	3.261	
1,600.0	1,600.0	1,570.0	1,570.0	3.6	6.4	89.47	0.3	30.1	30.1	20.5	9.56	3.147	
1,700.0	1,700.0	1,670.0	1,670.0	3.7	6.7	89.47	0.3	30.1	30.1	20.2	9.91	3.038	
1,800.0	1,800.0	1,770.0	1,770.0	3.8	7.0	89.47	0.3	30.1	30.1	19.8	10.25	2.935	
1,900.0	1,900.0	1,870.0	1,870.0	3.9	7.3	89.47	0.3	30.1	30.1	19.5	10.61	2.837	
2,000.0	2,000.0	1,970.0	1,970.0	3.9	7.7	89.47	0.3	30.1	30.1	19.1	10.96	2.745	
2,100.0	2,100.0	2,070.0	2,070.0	4.0	8.0	89.47	0.3	30.1	30.1	18.8	11.32	2.657	
2,200.0	2,200.0	2,170.0	2,170.0	4.1	8.3	89.47	0.3	30.1	30.1	18.4	11.69	2.575	
2,300.0	2,300.0	2,270.0	2,270.0	4.2	8.7	89.47	0.3	30.1	30.1	18.0	12.05	2.496	
2,400.0	2,400.0	2,370.0	2,370.0	4.3	9.0	89.47	0.3	30.1	30.1	17.7	12.42	2.422	
2,500.0	2,500.0	2,470.0	2,470.0	4.4	9.3	89.47	0.3	30.1	30.1	17.3	12.80	2.351 CC, ES	
2,600.0	2,600.0	2,569.3	2,569.3	4.5	9.7	90.21	-0.1	30.8	30.8	17.7	13.16	2.344 SF	
2,700.0	2,700.0	2,668.3	2,668.2	4.6	10.0	93.39	-2.0	34.5	34.6	21.1	13.51	2.559	
2,800.0	2,800.0	2,767.0	2,766.6	4.7	10.3	97.68	-5.5	41.0	41.5	27.7	13.86	2.997	
2,900.0	2,900.0	2,866.6	2,865.8	4.8	10.6	101.16	-9.6	48.7	49.8	35.6	14.24	3.496	
3,000.0	3,000.0	2,966.2	2,965.1	4.9	11.0	103.65	-13.7	56.4	58.2	43.6	14.63	3.977	
3,100.0	3,100.0	3,065.8	3,064.3	5.0	11.3	105.51	-17.8	64.0	66.7	51.7	15.03	4.437	
3,200.0	3,200.0	3,165.5	3,163.6	5.1	11.6	106.94	-21.8	71.7	75.2	59.8	15.42	4.876	
3,300.0	3,300.0	3,265.1	3,262.8	5.2	11.9	108.09	-25.9	79.4	83.8	68.0	15.82	5.295	
3,400.0	3,400.0	3,364.7	3,362.0	5.3	12.3	109.02	-30.0	87.0	92.4	76.2	16.22	5.695	
3,500.0	3,500.0	3,464.3	3,461.3	5.4	12.6	109.79	-34.1	94.7	101.0	84.4	16.62	6.076	
3,600.0	3,600.0	3,563.9	3,560.5	5.5	12.9	110.44	-38.1	102.4	109.6	92.6	17.03	6.439	
3,700.0	3,700.0	3,663.6	3,659.8	5.7	13.3	110.99	-42.2	110.0	118.3	100.9	17.43	6.786	
3,800.0	3,800.0	3,763.2	3,759.0	5.8	13.6	111.47	-46.3	117.7	126.9	109.1	17.84	7.116	
3,900.0	3,900.0	3,862.8	3,858.2	5.9	14.0	111.89	-50.4	125.3	135.6	117.4	18.25	7.432	
4,000.0	4,000.0	3,962.4	3,957.5	6.0	14.3	112.26	-54.4	133.0	144.3	125.6	18.65	7.734	
4,100.0	4,100.0	4,062.0	4,056.7	6.1	14.6	112.59	-58.5	140.7	152.9	133.9	19.07	8.022	
4,200.0	4,200.0	4,161.7	4,156.0	6.2	15.0	112.88	-62.6	148.3	161.6	142.1	19.48	8.298	
4,300.0	4,300.0	4,261.3	4,255.2	6.3	15.3	113.14	-66.7	156.0	170.3	150.4	19.89	8.562	
4,400.0	4,400.0	4,360.9	4,354.4	6.5	15.7	113.38	-70.8	163.7	179.0	158.7	20.31	8.814	
4,500.0	4,500.0	4,460.5	4,453.7	6.6	16.0	113.59	-74.8	171.3	187.7	167.0	20.72	9.057	
4,600.0	4,600.0	4,560.1	4,552.9	6.7	16.4	113.79	-78.9	179.0	196.4	175.2	21.14	9.289	
4,700.0	4,700.0	4,659.8	4,652.2	6.8	16.7	113.97	-83.0	186.7	205.1	183.5	21.56	9.512	
4,800.0	4,800.0	4,759.4	4,751.4	6.9	17.1	114.13	-87.1	194.3	213.8	191.8	21.98	9.726	
4,900.0	4,900.0	4,859.0	4,850.7	7.0	17.4	114.28	-91.1	202.0	222.5	200.1	22.40	9.931	
5,000.0	5,000.0	4,958.6	4,949.9	7.2	17.8	114.42	-95.2	209.7	231.2	208.3	22.82	10.129	
5,100.0	5,100.0	5,058.2	5,049.1	7.3	18.1	114.55	-99.3	217.3	239.9	216.6	23.25	10.318	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toelface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,200.0	5,157.9	5,148.4	7.4	18.5	114.67	-103.4	225.0	248.6	224.9	23.67	10.501	
5,300.0	5,300.0	5,257.5	5,247.6	7.5	18.8	114.78	-107.4	232.7	257.3	233.2	24.09	10.677	
5,400.0	5,400.0	5,357.1	5,346.9	7.6	19.2	114.89	-111.5	240.3	266.0	241.4	24.52	10.847	
5,500.0	5,500.0	5,456.7	5,446.1	7.8	19.5	114.99	-115.6	248.0	274.7	249.7	24.95	11.010	
5,600.0	5,600.0	5,556.3	5,545.3	7.8	19.9	-103.65	-119.7	255.7	283.8	258.4	25.35	11.193	
5,700.0	5,699.8	5,655.7	5,644.3	7.8	20.2	-104.35	-123.7	263.3	293.7	268.0	25.73	11.418	
5,765.2	5,764.8	5,720.3	5,708.7	7.8	20.5	-105.11	-126.4	268.3	300.8	274.8	25.96	11.586	
5,800.0	5,799.5	5,754.8	5,743.0	7.8	20.6	-105.65	-127.8	270.9	304.7	278.6	26.08	11.680	
5,900.0	5,899.0	5,853.8	5,841.7	7.7	20.9	-107.11	-131.8	278.6	316.0	289.5	26.44	11.949	
6,000.0	5,998.6	5,952.9	5,940.4	7.7	21.3	-108.47	-135.9	286.2	327.5	300.6	26.81	12.214	
6,100.0	6,098.2	6,051.9	6,039.1	7.7	21.6	-109.74	-139.9	293.8	339.1	311.9	27.19	12.474	
6,200.0	6,197.8	6,151.0	6,137.7	7.7	22.0	-110.92	-144.0	301.4	350.9	323.4	27.57	12.730	
6,300.0	6,297.3	6,250.0	6,236.4	7.7	22.3	-112.03	-148.0	309.1	362.9	334.9	27.96	12.980	
6,400.0	6,396.9	6,349.1	6,335.1	7.6	22.7	-113.07	-152.1	316.7	375.0	346.6	28.35	13.226	
6,500.0	6,496.5	6,448.1	6,433.7	7.6	23.0	-114.04	-156.2	324.3	387.2	358.4	28.75	13.467	
6,600.0	6,596.0	6,547.2	6,532.4	7.6	23.4	-114.95	-160.2	331.9	399.5	370.3	29.15	13.703	
6,700.0	6,695.6	6,646.2	6,631.1	7.6	23.8	-115.81	-164.3	339.5	411.9	382.3	29.56	13.934	
6,800.0	6,795.2	6,745.2	6,729.7	7.6	24.1	-116.62	-168.3	347.2	424.3	394.4	29.97	14.160	
6,900.0	6,894.8	6,844.3	6,828.4	7.6	24.5	-117.38	-172.4	354.8	436.9	406.5	30.38	14.380	
7,000.0	6,994.3	6,943.3	6,927.1	7.6	24.8	-118.10	-176.4	362.4	449.5	418.7	30.80	14.596	
7,100.0	7,093.9	7,042.4	7,025.7	7.6	25.2	-118.78	-180.5	370.0	462.2	431.0	31.21	14.808	
7,200.0	7,193.5	7,141.4	7,124.4	7.6	25.5	-119.42	-184.5	377.7	475.0	443.3	31.64	15.014	
7,300.0	7,293.1	7,240.5	7,223.1	7.6	25.9	-120.03	-188.6	385.3	487.8	455.7	32.06	15.216	
7,400.0	7,392.6	7,339.5	7,321.7	7.6	26.2	-120.61	-192.6	392.9	500.7	468.2	32.48	15.413	
7,500.0	7,492.2	7,438.6	7,420.4	7.7	26.6	-121.16	-196.7	400.5	513.6	480.7	32.91	15.605	
7,600.0	7,591.8	7,537.6	7,519.1	7.7	26.9	-121.68	-200.7	408.1	526.5	493.2	33.34	15.793	
7,700.0	7,691.3	7,636.7	7,617.7	7.7	27.3	-122.18	-204.8	415.8	539.5	505.7	33.77	15.977	
7,800.0	7,790.9	7,735.7	7,716.4	7.7	27.7	-122.65	-208.8	423.4	552.6	518.4	34.20	16.156	
7,900.0	7,890.5	7,834.7	7,815.1	7.7	28.0	-123.11	-212.9	431.0	565.6	531.0	34.63	16.332	
8,000.0	7,990.1	7,933.8	7,913.7	7.8	28.4	-123.54	-216.9	438.6	578.7	543.7	35.07	16.503	
8,100.0	8,089.6	8,032.8	8,012.4	7.8	28.7	-123.95	-221.0	446.3	591.9	556.4	35.51	16.670	
8,200.0	8,189.2	8,131.9	8,111.1	7.8	29.1	-124.35	-225.0	453.9	605.0	569.1	35.94	16.833	
8,300.0	8,288.8	8,230.9	8,209.8	7.9	29.4	-124.72	-229.1	461.5	618.2	581.8	36.38	16.992	
8,400.0	8,388.3	8,330.0	8,308.4	7.9	29.8	-125.09	-233.2	469.1	631.4	594.6	36.82	17.148	
8,500.0	8,487.9	8,429.0	8,407.1	8.0	30.2	-125.43	-237.2	476.7	644.7	607.4	37.27	17.300	
8,600.0	8,587.5	8,528.1	8,505.8	8.0	30.5	-125.77	-241.3	484.4	657.9	620.2	37.71	17.448	
8,700.0	8,687.1	8,627.1	8,604.4	8.0	30.9	-126.09	-245.3	492.0	671.2	633.1	38.15	17.593	
8,800.0	8,786.6	8,726.2	8,703.1	8.1	31.2	-126.39	-249.4	499.6	684.5	645.9	38.60	17.734	
8,900.0	8,886.2	8,825.2	8,801.8	8.2	31.6	-126.69	-253.4	507.2	697.8	658.8	39.05	17.872	
9,000.0	8,985.8	8,924.2	8,900.4	8.2	31.9	-126.98	-257.5	514.8	711.2	671.7	39.49	18.007	
9,100.0	9,085.3	9,023.3	8,999.1	8.3	32.3	-127.25	-261.5	522.5	724.5	684.6	39.94	18.139	
9,200.0	9,184.9	9,122.3	9,097.8	8.3	32.7	-127.52	-265.6	530.1	737.9	697.5	40.39	18.268	
9,300.0	9,284.5	9,221.4	9,196.4	8.4	33.0	-127.77	-269.6	537.7	751.3	710.5	40.85	18.394	
9,400.0	9,384.1	9,320.4	9,295.1	8.5	33.4	-128.02	-273.7	545.3	764.7	723.4	41.30	18.517	
9,500.0	9,483.6	9,419.5	9,393.8	8.5	33.7	-128.25	-277.7	553.0	778.1	736.4	41.75	18.637	
9,600.0	9,583.2	9,518.5	9,492.4	8.6	34.1	-128.48	-281.8	560.6	791.5	749.3	42.21	18.754	
9,700.0	9,682.8	9,617.6	9,591.1	8.7	34.4	-128.71	-285.8	568.2	805.0	762.3	42.66	18.869	
9,800.0	9,782.3	9,716.6	9,689.8	8.7	34.8	-128.92	-289.9	575.8	818.4	775.3	43.12	18.981	
9,900.0	9,881.9	9,815.7	9,788.4	8.8	35.2	-129.13	-293.9	583.4	831.9	788.3	43.58	19.090	
10,000.0	9,981.5	9,914.7	9,887.1	8.9	35.5	-129.33	-298.0	591.1	845.4	801.3	44.04	19.197	
10,100.0	10,081.1	10,013.7	9,985.8	9.0	35.9	-129.53	-302.0	598.7	858.9	814.4	44.50	19.302	
10,200.0	10,180.6	10,112.8	10,084.5	9.1	36.2	-129.71	-306.1	606.3	872.3	827.4	44.96	19.404	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.0	10,280.2	10,211.8	10,183.1	9.1	36.6	-129.90	-310.2	613.9	885.8	840.4	45.42	19.504	
10,400.0	10,379.8	10,310.9	10,281.8	9.2	37.0	-130.07	-314.2	621.6	899.4	853.5	45.88	19.602	
10,500.0	10,479.3	10,409.9	10,380.5	9.3	37.3	-130.25	-318.3	629.2	912.9	866.5	46.34	19.698	
10,600.0	10,578.9	10,509.0	10,479.1	9.4	37.7	-130.41	-322.3	636.8	926.4	879.5	46.91	19.750	
10,613.2	10,592.1	10,522.1	10,492.2	9.4	37.7	-130.44	-322.8	637.8	928.2	881.2	46.96	19.767	
10,625.0	10,603.8	10,533.7	10,503.8	9.4	37.8	-142.57	-323.3	638.7	929.8	882.8	47.00	19.782	
10,650.0	10,628.8	10,558.5	10,528.5	9.4	37.8	173.13	-324.3	640.6	933.1	886.0	47.10	19.813	
10,675.0	10,653.7	10,583.2	10,553.1	9.4	37.9	133.35	-325.4	642.5	936.4	889.2	47.19	19.842	
10,700.0	10,678.6	10,607.8	10,577.6	9.4	38.0	115.73	-326.4	644.4	939.7	892.4	47.29	19.869	
10,725.0	10,703.3	10,632.2	10,601.8	9.4	38.1	107.44	-327.4	646.3	942.9	895.5	47.40	19.895	
10,750.0	10,727.8	10,656.3	10,625.9	9.4	38.2	102.84	-328.3	648.1	946.1	898.6	47.50	19.920	
10,775.0	10,752.1	10,675.0	10,644.5	9.4	38.3	99.92	-329.1	649.6	949.4	901.8	47.61	19.941	
10,800.0	10,775.9	10,688.3	10,657.8	9.4	38.3	97.80	-329.3	650.7	952.8	905.1	47.73	19.964	
10,825.0	10,799.4	10,700.0	10,669.4	9.4	38.4	96.19	-329.2	651.9	956.5	908.7	47.85	19.990	
10,850.0	10,822.4	10,714.1	10,683.5	9.5	38.4	94.96	-328.8	653.4	960.5	912.5	47.97	20.023	
10,875.0	10,844.9	10,725.0	10,694.2	9.5	38.5	93.87	-328.2	654.7	964.7	916.6	48.09	20.060	
10,900.0	10,866.8	10,739.7	10,708.8	9.5	38.5	93.04	-327.0	656.6	969.1	920.9	48.20	20.105	
10,925.0	10,888.0	10,750.0	10,718.9	9.5	38.5	92.20	-325.9	658.0	973.9	925.5	48.32	20.153	
10,950.0	10,908.5	10,765.1	10,733.7	9.5	38.6	91.57	-324.0	660.3	978.8	930.4	48.43	20.210	
10,975.0	10,928.2	10,775.0	10,743.4	9.6	38.6	90.85	-322.5	661.8	984.1	935.5	48.55	20.269	
11,000.0	10,947.1	10,790.2	10,758.1	9.6	38.7	90.33	-319.8	664.4	989.5	940.8	48.65	20.339	
11,025.0	10,965.1	10,800.0	10,767.6	9.6	38.7	89.67	-317.9	666.1	995.2	946.4	48.76	20.409	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	144.80	-219.4	154.7	268.5				
100.0	100.0	99.0	99.0	3.0	3.0	144.80	-219.4	154.7	268.5	262.5	6.00	44.739	
200.0	200.0	199.0	199.0	3.0	3.0	144.80	-219.4	154.7	268.5	262.4	6.01	44.683	
300.0	300.0	299.0	299.0	3.0	3.0	144.80	-219.4	154.7	268.5	262.4	6.02	44.563	
400.0	400.0	399.0	399.0	3.0	3.0	144.80	-219.4	154.7	268.5	262.4	6.05	44.379	
500.0	500.0	499.0	499.0	3.1	3.1	144.80	-219.4	154.7	268.5	262.4	6.08	44.135	
600.0	600.0	599.0	599.0	3.1	3.1	144.80	-219.4	154.7	268.5	262.3	6.12	43.832	
700.0	700.0	699.0	699.0	3.1	3.1	144.80	-219.4	154.7	268.5	262.3	6.17	43.475	
800.0	800.0	799.0	799.0	3.2	3.2	144.80	-219.4	154.7	268.5	262.2	6.23	43.068	
900.0	900.0	899.0	899.0	3.2	3.2	144.80	-219.4	154.7	268.5	262.2	6.30	42.615	
1,000.0	1,000.0	999.0	999.0	3.2	3.2	144.80	-219.4	154.7	268.5	262.1	6.37	42.121	
1,100.0	1,100.0	1,099.0	1,099.0	3.3	3.3	144.80	-219.4	154.7	268.5	262.0	6.45	41.591	
1,200.0	1,200.0	1,199.0	1,199.0	3.4	3.4	144.80	-219.4	154.7	268.5	261.9	6.54	41.030	
1,300.0	1,300.0	1,299.0	1,299.0	3.4	3.4	144.80	-219.4	154.7	268.5	261.8	6.64	40.442	
1,400.0	1,400.0	1,399.0	1,399.0	3.5	3.5	144.80	-219.4	154.7	268.5	261.7	6.74	39.833	
1,500.0	1,500.0	1,499.0	1,499.0	3.5	3.5	144.80	-219.4	154.7	268.5	261.6	6.85	39.206	
1,600.0	1,600.0	1,599.0	1,599.0	3.6	3.6	144.80	-219.4	154.7	268.5	261.5	6.96	38.565	
1,700.0	1,700.0	1,699.0	1,699.0	3.7	3.7	144.80	-219.4	154.7	268.5	261.4	7.08	37.914	
1,800.0	1,800.0	1,799.0	1,799.0	3.8	3.8	144.80	-219.4	154.7	268.5	261.3	7.21	37.258	
1,900.0	1,900.0	1,899.0	1,899.0	3.9	3.9	144.80	-219.4	154.7	268.5	261.1	7.34	36.598	
2,000.0	2,000.0	1,999.0	1,999.0	3.9	3.9	144.80	-219.4	154.7	268.5	261.0	7.47	35.938	
2,100.0	2,100.0	2,099.0	2,099.0	4.0	4.0	144.80	-219.4	154.7	268.5	260.8	7.61	35.281	
2,200.0	2,200.0	2,199.0	2,199.0	4.1	4.1	144.80	-219.4	154.7	268.5	260.7	7.75	34.627	
2,300.0	2,300.0	2,299.0	2,299.0	4.2	4.2	144.80	-219.4	154.7	268.5	260.6	7.90	33.980	
2,400.0	2,400.0	2,399.0	2,399.0	4.3	4.3	144.80	-219.4	154.7	268.5	260.4	8.05	33.341	
2,500.0	2,500.0	2,499.0	2,499.0	4.4	4.4	144.80	-219.4	154.7	268.5	260.2	8.21	32.710 CC, ES	
2,600.0	2,600.0	2,591.4	2,591.3	4.5	4.4	144.66	-220.1	156.0	269.9	261.6	8.31	32.483 SF	
2,700.0	2,700.0	2,683.4	2,683.3	4.6	4.4	144.24	-222.1	159.9	274.1	265.8	8.36	32.807	
2,800.0	2,800.0	2,777.7	2,777.3	4.7	4.4	143.56	-225.5	166.5	281.2	272.8	8.39	33.494	
2,900.0	2,900.0	2,877.3	2,876.5	4.8	4.5	142.81	-229.5	174.1	288.9	280.5	8.44	34.235	
3,000.0	3,000.0	2,976.9	2,975.8	4.9	4.5	142.10	-233.4	181.7	296.7	288.2	8.49	34.953	
3,100.0	3,100.0	3,076.6	3,075.0	5.0	4.5	141.43	-237.4	189.3	304.6	296.0	8.54	35.646	
3,200.0	3,200.0	3,176.2	3,174.3	5.1	4.5	140.79	-241.4	196.9	312.5	303.9	8.60	36.313	
3,300.0	3,300.0	3,275.8	3,273.6	5.2	4.5	140.18	-245.3	204.5	320.4	311.7	8.67	36.951	
3,400.0	3,400.0	3,375.5	3,372.8	5.3	4.5	139.61	-249.3	212.1	328.3	319.6	8.74	37.560	
3,500.0	3,500.0	3,475.1	3,472.1	5.4	4.6	139.06	-253.2	219.7	336.3	327.5	8.82	38.140	
3,600.0	3,600.0	3,574.7	3,571.3	5.5	4.6	138.53	-257.2	227.3	344.4	335.5	8.90	38.690	
3,700.0	3,700.0	3,674.3	3,670.6	5.7	4.6	138.03	-261.2	234.9	352.4	343.4	8.99	39.210	
3,800.0	3,800.0	3,774.0	3,769.9	5.8	4.7	137.55	-265.1	242.5	360.5	351.4	9.08	39.701	
3,900.0	3,900.0	3,873.6	3,869.1	5.9	4.7	137.09	-269.1	250.1	368.6	359.4	9.18	40.161	
4,000.0	4,000.0	3,973.2	3,968.4	6.0	4.8	136.66	-273.0	257.7	376.7	367.4	9.28	40.593	
4,100.0	4,100.0	4,072.9	4,067.6	6.1	4.8	136.24	-277.0	265.3	384.8	375.4	9.39	40.996	
4,200.0	4,200.0	4,172.5	4,166.9	6.2	4.9	135.83	-281.0	272.9	393.0	383.5	9.50	41.371	
4,300.0	4,300.0	4,272.1	4,266.2	6.3	4.9	135.45	-284.9	280.5	401.2	391.6	9.62	41.720	
4,400.0	4,400.0	4,371.7	4,365.4	6.5	5.0	135.08	-288.9	288.1	409.4	399.6	9.74	42.043	
4,500.0	4,500.0	4,471.4	4,464.7	6.6	5.1	134.72	-292.8	295.7	417.6	407.7	9.86	42.341	
4,600.0	4,600.0	4,571.0	4,563.9	6.7	5.1	134.38	-296.8	303.3	425.8	415.8	9.99	42.616	
4,700.0	4,700.0	4,670.6	4,663.2	6.8	5.2	134.05	-300.8	310.9	434.0	423.9	10.12	42.869	
4,800.0	4,800.0	4,770.3	4,762.5	6.9	5.3	133.73	-304.7	318.5	442.3	432.0	10.26	43.101	
4,900.0	4,900.0	4,869.9	4,861.7	7.0	5.4	133.43	-308.7	326.1	450.6	440.2	10.40	43.313	
5,000.0	5,000.0	4,969.5	4,961.0	7.2	5.4	133.13	-312.6	333.7	458.8	448.3	10.55	43.506	
5,100.0	5,100.0	5,069.2	5,060.2	7.3	5.5	132.85	-316.6	341.3	467.1	456.4	10.69	43.682	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,168.8	5,159.5	7.4	5.6	132.58	-320.6	348.9	475.4	464.6	10.84	43.841	
5,300.0	5,300.0	5,268.4	5,258.8	7.5	5.7	132.31	-324.5	356.5	483.8	472.8	11.00	43.985	
5,400.0	5,400.0	5,368.0	5,358.0	7.6	5.8	132.06	-328.5	364.1	492.1	480.9	11.15	44.115	
5,500.0	5,500.0	5,467.7	5,457.3	7.8	5.8	131.81	-332.4	371.7	500.4	489.1	11.31	44.231	
5,600.0	5,600.0	5,567.2	5,556.5	7.8	5.9	-87.02	-336.4	379.3	508.7	497.2	11.44	44.457	
5,700.0	5,699.8	5,666.7	5,655.5	7.8	6.0	-87.67	-340.4	386.9	516.8	505.3	11.53	44.804	
5,765.2	5,764.8	5,731.3	5,719.9	7.8	6.1	-88.28	-342.9	391.8	522.1	510.5	11.59	45.041	
5,800.0	5,799.5	5,765.8	5,754.3	7.8	6.1	-88.70	-344.3	394.4	525.0	513.3	11.62	45.168	
5,900.0	5,899.0	5,864.8	5,853.0	7.7	6.2	-89.87	-348.2	402.0	533.3	521.6	11.72	45.519	
6,000.0	5,998.6	5,963.9	5,951.6	7.7	6.3	-91.02	-352.2	409.5	541.9	530.1	11.82	45.848	
6,100.0	6,098.2	6,062.9	6,050.3	7.7	6.4	-92.12	-356.1	417.1	550.7	538.7	11.93	46.157	
6,200.0	6,197.8	6,162.0	6,149.0	7.7	6.5	-93.20	-360.0	424.6	559.7	547.6	12.05	46.447	
6,300.0	6,297.3	6,261.0	6,247.7	7.7	6.6	-94.23	-364.0	432.2	568.8	556.7	12.18	46.719	
6,400.0	6,396.9	6,360.1	6,346.4	7.6	6.7	-95.24	-367.9	439.8	578.2	565.9	12.31	46.974	
6,500.0	6,496.5	6,459.1	6,445.1	7.6	6.8	-96.21	-371.9	447.3	587.7	575.3	12.45	47.214	
6,600.0	6,596.0	6,558.2	6,543.8	7.6	6.9	-97.16	-375.8	454.9	597.4	584.8	12.59	47.440	
6,700.0	6,695.6	6,657.2	6,642.4	7.6	7.0	-98.07	-379.7	462.4	607.3	594.5	12.74	47.653	
6,800.0	6,795.2	6,756.3	6,741.1	7.6	7.1	-98.95	-383.7	470.0	617.3	604.4	12.90	47.854	
6,900.0	6,894.8	6,855.3	6,839.8	7.6	7.2	-99.81	-387.6	477.5	627.4	614.4	13.06	48.044	
7,000.0	6,994.3	6,954.4	6,938.5	7.6	7.3	-100.63	-391.5	485.1	637.7	624.5	13.22	48.224	
7,100.0	7,093.9	7,053.4	7,037.2	7.6	7.4	-101.44	-395.5	492.6	648.1	634.7	13.39	48.395	
7,200.0	7,193.5	7,152.5	7,135.9	7.6	7.5	-102.21	-399.4	500.2	658.6	645.1	13.56	48.557	
7,300.0	7,293.1	7,251.5	7,234.5	7.6	7.6	-102.96	-403.4	507.8	669.3	655.5	13.74	48.712	
7,400.0	7,392.6	7,350.6	7,333.2	7.6	7.7	-103.69	-407.3	515.3	680.0	666.1	13.92	48.860	
7,500.0	7,492.2	7,449.6	7,431.9	7.7	7.8	-104.40	-411.2	522.9	690.9	676.8	14.10	49.001	
7,600.0	7,591.8	7,548.7	7,530.6	7.7	7.9	-105.08	-415.2	530.4	701.9	687.6	14.28	49.136	
7,700.0	7,691.3	7,647.7	7,629.3	7.7	8.0	-105.75	-419.1	538.0	712.9	698.4	14.47	49.265	
7,800.0	7,790.9	7,746.8	7,728.0	7.7	8.1	-106.39	-423.0	545.5	724.1	709.4	14.66	49.389	
7,900.0	7,890.5	7,845.8	7,826.6	7.7	8.2	-107.01	-427.0	553.1	735.3	720.5	14.85	49.509	
8,000.0	7,990.1	7,944.9	7,925.3	7.8	8.3	-107.62	-430.9	560.6	746.6	731.6	15.05	49.624	
8,100.0	8,089.6	8,043.9	8,024.0	7.8	8.5	-108.20	-434.8	568.2	758.0	742.8	15.24	49.734	
8,200.0	8,189.2	8,143.0	8,122.7	7.8	8.6	-108.77	-438.8	575.8	769.5	754.1	15.44	49.841	
8,300.0	8,288.8	8,242.0	8,221.4	7.9	8.7	-109.33	-442.7	583.3	781.1	765.4	15.64	49.943	
8,400.0	8,388.3	8,341.1	8,320.1	7.9	8.8	-109.86	-446.7	590.9	792.7	776.8	15.84	50.042	
8,500.0	8,487.9	8,440.1	8,418.7	8.0	8.9	-110.38	-450.6	598.4	804.4	788.3	16.04	50.138	
8,600.0	8,587.5	8,539.2	8,517.4	8.0	9.0	-110.89	-454.5	606.0	816.1	799.9	16.25	50.230	
8,700.0	8,687.1	8,638.2	8,616.1	8.0	9.1	-111.38	-458.5	613.5	827.9	811.5	16.45	50.319	
8,800.0	8,786.6	8,737.3	8,714.8	8.1	9.2	-111.86	-462.4	621.1	839.8	823.2	16.66	50.405	
8,900.0	8,886.2	8,836.3	8,813.5	8.2	9.4	-112.32	-466.3	628.6	851.8	834.9	16.87	50.488	
9,000.0	8,985.8	8,935.4	8,912.2	8.2	9.5	-112.78	-470.3	636.2	863.7	846.7	17.08	50.568	
9,100.0	9,085.3	9,034.4	9,010.8	8.3	9.6	-113.22	-474.2	643.8	875.8	858.5	17.29	50.645	
9,200.0	9,184.9	9,133.5	9,109.5	8.3	9.7	-113.64	-478.2	651.3	887.9	870.4	17.51	50.720	
9,300.0	9,284.5	9,232.5	9,208.2	8.4	9.8	-114.06	-482.1	658.9	900.0	882.3	17.72	50.792	
9,400.0	9,384.1	9,331.6	9,306.9	8.5	9.9	-114.47	-486.0	666.4	912.2	894.2	17.93	50.861	
9,500.0	9,483.6	9,430.6	9,405.6	8.5	10.1	-114.86	-490.0	674.0	924.4	906.2	18.15	50.928	
9,600.0	9,583.2	9,529.7	9,504.3	8.6	10.2	-115.24	-493.9	681.5	936.7	918.3	18.37	50.993	
9,700.0	9,682.8	9,628.8	9,602.9	8.7	10.3	-115.62	-497.8	689.1	949.0	930.4	18.59	51.055	
9,800.0	9,782.3	9,727.8	9,701.6	8.7	10.4	-115.98	-501.8	696.6	961.3	942.5	18.81	51.115	
9,900.0	9,881.9	9,826.9	9,800.3	8.8	10.5	-116.34	-505.7	704.2	973.7	954.7	19.03	51.172	
10,000.0	9,981.5	9,925.9	9,899.0	8.9	10.7	-116.69	-509.7	711.7	986.1	966.9	19.25	51.227	
10,100.0	10,081.1	10,025.0	9,997.7	9.0	10.8	-117.02	-513.6	719.3	998.6	979.1	19.47	51.281	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	150.36	-219.4	124.8	252.4				
100.0	100.0	99.0	99.0	3.0	3.0	150.36	-219.4	124.8	252.4	246.4	6.00	42.068	
200.0	200.0	199.0	199.0	3.0	3.0	150.36	-219.4	124.8	252.4	246.4	6.01	42.012	
300.0	300.0	299.0	299.0	3.0	3.0	150.36	-219.4	124.8	252.4	246.4	6.03	41.890	
400.0	400.0	399.0	399.0	3.0	3.0	150.36	-219.4	124.8	252.4	246.4	6.05	41.703	
500.0	500.0	499.0	499.0	3.1	3.1	150.36	-219.4	124.8	252.4	246.3	6.09	41.454	
600.0	600.0	599.0	599.0	3.1	3.1	150.36	-219.4	124.8	252.4	246.3	6.13	41.147	
700.0	700.0	699.0	699.0	3.1	3.1	150.36	-219.4	124.8	252.4	246.2	6.19	40.786	
800.0	800.0	799.0	799.0	3.2	3.2	150.36	-219.4	124.8	252.4	246.2	6.25	40.375	
900.0	900.0	899.0	899.0	3.2	3.2	150.36	-219.4	124.8	252.4	246.1	6.32	39.918	
1,000.0	1,000.0	999.0	999.0	3.2	3.2	150.36	-219.4	124.8	252.4	246.0	6.40	39.422	
1,100.0	1,100.0	1,099.0	1,099.0	3.3	3.3	150.36	-219.4	124.8	252.4	245.9	6.49	38.891	
1,200.0	1,200.0	1,199.0	1,199.0	3.4	3.4	150.36	-219.4	124.8	252.4	245.8	6.59	38.330	
1,300.0	1,300.0	1,299.0	1,299.0	3.4	3.4	150.36	-219.4	124.8	252.4	245.7	6.69	37.744	
1,400.0	1,400.0	1,399.0	1,399.0	3.5	3.5	150.36	-219.4	124.8	252.4	245.6	6.80	37.137	
1,500.0	1,500.0	1,499.0	1,499.0	3.5	3.5	150.36	-219.4	124.8	252.4	245.5	6.91	36.516	
1,600.0	1,600.0	1,599.0	1,599.0	3.6	3.6	150.36	-219.4	124.8	252.4	245.4	7.03	35.883	
1,700.0	1,700.0	1,699.0	1,699.0	3.7	3.7	150.36	-219.4	124.8	252.4	245.3	7.16	35.242	
1,800.0	1,800.0	1,799.0	1,799.0	3.8	3.8	150.36	-219.4	124.8	252.4	245.1	7.30	34.597	
1,900.0	1,900.0	1,899.0	1,899.0	3.9	3.9	150.36	-219.4	124.8	252.4	245.0	7.44	33.952	
2,000.0	2,000.0	1,999.0	1,999.0	3.9	3.9	150.36	-219.4	124.8	252.4	244.9	7.58	33.307	
2,100.0	2,100.0	2,099.0	2,099.0	4.0	4.0	150.36	-219.4	124.8	252.4	244.7	7.73	32.667	
2,200.0	2,200.0	2,199.0	2,199.0	4.1	4.1	150.36	-219.4	124.8	252.4	244.6	7.88	32.033	
2,300.0	2,300.0	2,299.0	2,299.0	4.2	4.2	150.36	-219.4	124.8	252.4	244.4	8.04	31.406	
2,400.0	2,400.0	2,399.0	2,399.0	4.3	4.3	150.36	-219.4	124.8	252.4	244.2	8.20	30.788	
2,500.0	2,500.0	2,499.0	2,499.0	4.4	4.4	150.36	-219.4	124.8	252.4	244.1	8.36	30.181	
2,600.0	2,600.0	2,599.0	2,599.0	4.5	4.5	150.36	-219.4	124.8	252.4	243.9	8.53	29.585	
2,700.0	2,700.0	2,699.0	2,699.0	4.6	4.6	150.36	-219.4	124.8	252.4	243.7	8.70	29.001	
2,800.0	2,800.0	2,799.0	2,799.0	4.7	4.7	150.36	-219.4	124.8	252.4	243.6	8.88	28.430	
2,900.0	2,900.0	2,899.0	2,899.0	4.8	4.8	150.36	-219.4	124.8	252.4	243.4	9.06	27.871	
3,000.0	3,000.0	2,999.0	2,999.0	4.9	4.9	150.36	-219.4	124.8	252.4	243.2	9.24	27.326	
3,100.0	3,100.0	3,099.0	3,099.0	5.0	5.0	150.36	-219.4	124.8	252.4	243.0	9.42	26.795	
3,200.0	3,200.0	3,199.0	3,199.0	5.1	5.1	150.36	-219.4	124.8	252.4	242.8	9.61	26.277	
3,300.0	3,300.0	3,299.0	3,299.0	5.2	5.2	150.36	-219.4	124.8	252.4	242.6	9.79	25.772	
3,400.0	3,400.0	3,399.0	3,399.0	5.3	5.3	150.36	-219.4	124.8	252.4	242.4	9.99	25.281	
3,500.0	3,500.0	3,499.0	3,499.0	5.4	5.4	150.36	-219.4	124.8	252.4	242.3	10.18	24.803	
3,600.0	3,600.0	3,599.0	3,599.0	5.5	5.5	150.36	-219.4	124.8	252.4	242.1	10.37	24.339	
3,700.0	3,700.0	3,699.0	3,699.0	5.7	5.7	150.36	-219.4	124.8	252.4	241.9	10.57	23.887	
3,800.0	3,800.0	3,799.0	3,799.0	5.8	5.8	150.36	-219.4	124.8	252.4	241.7	10.77	23.448	
3,900.0	3,900.0	3,899.0	3,899.0	5.9	5.9	150.36	-219.4	124.8	252.4	241.5	10.97	23.021	
4,000.0	4,000.0	3,999.0	3,999.0	6.0	6.0	150.36	-219.4	124.8	252.4	241.3	11.17	22.606	
4,100.0	4,100.0	4,099.0	4,099.0	6.1	6.1	150.36	-219.4	124.8	252.4	241.1	11.37	22.204	
4,200.0	4,200.0	4,199.0	4,199.0	6.2	6.2	150.36	-219.4	124.8	252.4	240.9	11.57	21.812	
4,300.0	4,300.0	4,299.0	4,299.0	6.3	6.3	150.36	-219.4	124.8	252.4	240.7	11.78	21.432	
4,400.0	4,400.0	4,399.0	4,399.0	6.5	6.5	150.36	-219.4	124.8	252.4	240.4	11.99	21.062	
4,500.0	4,500.0	4,499.0	4,499.0	6.6	6.6	150.36	-219.4	124.8	252.4	240.2	12.19	20.703	
4,600.0	4,600.0	4,599.0	4,599.0	6.7	6.7	150.36	-219.4	124.8	252.4	240.0	12.40	20.355	
4,700.0	4,700.0	4,699.0	4,699.0	6.8	6.8	150.36	-219.4	124.8	252.4	239.8	12.61	20.016	
4,800.0	4,800.0	4,799.0	4,799.0	6.9	6.9	150.36	-219.4	124.8	252.4	239.6	12.82	19.686	
4,900.0	4,900.0	4,899.0	4,899.0	7.0	7.0	150.36	-219.4	124.8	252.4	239.4	13.03	19.366	
5,000.0	5,000.0	4,999.0	4,999.0	7.2	7.2	150.36	-219.4	124.8	252.4	239.2	13.25	19.055	
5,100.0	5,100.0	5,099.0	5,099.0	7.3	7.3	150.36	-219.4	124.8	252.4	239.0	13.46	18.752	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,199.0	5,199.0	7.4	7.4	150.36	-219.4	124.8	252.4	238.8	13.68	18.458	
5,300.0	5,300.0	5,299.0	5,299.0	7.5	7.5	150.36	-219.4	124.8	252.4	238.5	13.89	18.171	
5,400.0	5,400.0	5,399.0	5,399.0	7.6	7.6	150.36	-219.4	124.8	252.4	238.3	14.11	17.893	
5,500.0	5,500.0	5,499.0	5,499.0	7.8	7.8	150.36	-219.4	124.8	252.4	238.1	14.33	17.622	
5,600.0	5,600.0	5,596.9	5,596.9	7.8	7.8	-68.20	-220.5	123.7	252.2	237.8	14.44	17.460	
5,700.0	5,699.8	5,694.7	5,694.6	7.8	7.8	-68.20	-224.0	120.1	251.5	237.0	14.47	17.381	
5,765.2	5,764.8	5,758.7	5,758.4	7.8	7.8	-68.20	-227.5	116.4	250.8	236.3	14.49	17.311	
5,800.0	5,799.5	5,793.5	5,793.1	7.8	7.8	-68.21	-229.6	114.3	250.4	235.9	14.50	17.270	
5,900.0	5,899.0	5,893.5	5,892.7	7.7	7.8	-68.24	-235.7	108.0	249.1	234.6	14.53	17.148	
6,000.0	5,998.6	5,993.5	5,992.3	7.7	7.7	-68.27	-241.7	101.7	247.8	233.3	14.56	17.025	
6,100.0	6,098.2	6,093.5	6,091.9	7.7	7.7	-68.31	-247.8	95.5	246.6	232.0	14.59	16.899	
6,200.0	6,197.8	6,193.5	6,191.5	7.7	7.7	-68.34	-253.8	89.2	245.3	230.7	14.63	16.771	
6,300.0	6,297.3	6,293.5	6,291.1	7.7	7.7	-68.38	-259.9	82.9	244.0	229.4	14.66	16.642	
6,400.0	6,396.9	6,393.5	6,390.7	7.6	7.7	-68.41	-265.9	76.6	242.8	228.1	14.70	16.510	
6,500.0	6,496.5	6,493.5	6,490.3	7.6	7.7	-68.44	-272.0	70.4	241.5	226.7	14.75	16.377	
6,600.0	6,596.0	6,593.5	6,589.9	7.6	7.7	-68.48	-278.0	64.1	240.2	225.4	14.79	16.242	
6,700.0	6,695.6	6,693.5	6,689.6	7.6	7.7	-68.51	-284.1	57.8	238.9	224.1	14.84	16.105	
6,800.0	6,795.2	6,793.5	6,789.2	7.6	7.7	-68.55	-290.2	51.6	237.7	222.8	14.89	15.967	
6,900.0	6,894.8	6,893.4	6,888.8	7.6	7.7	-68.59	-296.2	45.3	236.4	221.5	14.94	15.827	
7,000.0	6,994.3	6,993.4	6,988.4	7.6	7.7	-68.62	-302.3	39.0	235.1	220.1	14.99	15.685	
7,100.0	7,093.9	7,093.4	7,088.0	7.6	7.7	-68.66	-308.3	32.8	233.9	218.8	15.05	15.542	
7,200.0	7,193.5	7,193.4	7,187.6	7.6	7.7	-68.70	-314.4	26.5	232.6	217.5	15.11	15.397	
7,300.0	7,293.1	7,293.4	7,287.2	7.6	7.8	-68.73	-320.4	20.2	231.3	216.2	15.17	15.251	
7,400.0	7,392.6	7,393.4	7,386.8	7.6	7.8	-68.77	-326.5	14.0	230.1	214.8	15.23	15.104	
7,500.0	7,492.2	7,493.4	7,486.4	7.7	7.8	-68.81	-332.5	7.7	228.8	213.5	15.30	14.955	
7,600.0	7,591.8	7,593.4	7,586.1	7.7	7.8	-68.85	-338.6	1.4	227.5	212.1	15.37	14.806	
7,700.0	7,691.3	7,693.4	7,685.7	7.7	7.8	-68.89	-344.6	-4.9	226.2	210.8	15.44	14.655	
7,800.0	7,790.9	7,793.4	7,785.3	7.7	7.9	-68.93	-350.7	-11.1	225.0	209.5	15.51	14.504	
7,900.0	7,890.5	7,893.4	7,884.9	7.7	7.9	-68.97	-356.7	-17.4	223.7	208.1	15.59	14.351	
8,000.0	7,990.1	7,993.4	7,984.5	7.8	7.9	-69.01	-362.8	-23.7	222.4	206.8	15.67	14.198	
8,100.0	8,089.6	8,093.3	8,084.1	7.8	8.0	-69.05	-368.9	-29.9	221.2	205.4	15.75	14.044	
8,200.0	8,189.2	8,193.3	8,183.7	7.8	8.0	-69.09	-374.9	-36.2	219.9	204.1	15.83	13.890	
8,300.0	8,288.8	8,293.3	8,283.3	7.9	8.1	-69.14	-381.0	-42.5	218.6	202.7	15.92	13.735	
8,400.0	8,388.3	8,393.3	8,382.9	7.9	8.1	-69.18	-387.0	-48.7	217.4	201.4	16.01	13.579	
8,500.0	8,487.9	8,493.3	8,482.6	8.0	8.2	-69.22	-393.1	-55.0	216.1	200.0	16.10	13.423	
8,600.0	8,587.5	8,593.3	8,582.2	8.0	8.2	-69.27	-399.1	-61.3	214.8	198.6	16.19	13.267	
8,700.0	8,687.1	8,693.3	8,681.8	8.0	8.3	-69.31	-405.2	-67.5	213.6	197.3	16.29	13.110	
8,800.0	8,786.6	8,793.3	8,781.4	8.1	8.3	-69.35	-411.2	-73.8	212.3	195.9	16.39	12.953	
8,900.0	8,886.2	8,893.3	8,881.0	8.2	8.4	-69.40	-417.3	-80.1	211.0	194.5	16.49	12.796	
9,000.0	8,985.8	8,993.3	8,980.6	8.2	8.4	-69.44	-423.3	-86.3	209.8	193.2	16.59	12.640	
9,100.0	9,085.3	9,093.3	9,080.2	8.3	8.5	-69.49	-429.4	-92.6	208.5	191.8	16.70	12.483	
9,200.0	9,184.9	9,193.3	9,179.8	8.3	8.5	-69.54	-435.4	-98.9	207.2	190.4	16.81	12.326	
9,300.0	9,284.5	9,293.2	9,279.4	8.4	8.6	-69.59	-441.5	-105.2	205.9	189.0	16.92	12.170	
9,400.0	9,384.1	9,393.2	9,379.1	8.5	8.7	-69.63	-447.6	-111.4	204.7	187.6	17.04	12.014	
9,500.0	9,483.6	9,493.2	9,478.7	8.5	8.8	-69.68	-453.6	-117.7	203.4	186.3	17.15	11.858	
9,600.0	9,583.2	9,593.2	9,578.3	8.6	8.8	-69.73	-459.7	-124.0	202.1	184.9	17.27	11.703	
9,700.0	9,682.8	9,693.2	9,677.9	8.7	8.9	-69.78	-465.7	-130.2	200.9	183.5	17.39	11.548	
9,800.0	9,782.3	9,793.2	9,777.5	8.7	9.0	-69.83	-471.8	-136.5	199.6	182.1	17.52	11.394	
9,900.0	9,881.9	9,893.2	9,877.1	8.8	9.1	-69.88	-477.8	-142.8	198.3	180.7	17.65	11.240	
10,000.0	9,981.5	9,993.2	9,976.7	8.9	9.1	-69.94	-483.9	-149.0	197.1	179.3	17.78	11.087	
10,100.0	10,081.1	10,093.2	10,076.3	9.0	9.2	-69.99	-489.9	-155.3	195.8	177.9	17.91	10.935	
10,200.0	10,180.6	10,193.2	10,175.9	9.1	9.3	-70.04	-496.0	-161.6	194.5	176.5	18.04	10.783	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.0	10,280.2	10,293.2	10,275.6	9.1	9.4	-70.10	-502.0	-167.8	193.3	175.1	18.18	10.633	
10,400.0	10,379.8	10,393.2	10,375.2	9.2	9.5	-70.15	-508.1	-174.1	192.0	173.7	18.32	10.483	
10,500.0	10,479.3	10,493.1	10,474.8	9.3	9.5	-70.21	-514.1	-180.4	190.7	172.3	18.46	10.334	
10,600.0	10,578.9	10,593.1	10,574.4	9.4	9.6	-70.26	-520.2	-186.7	189.5	170.9	18.57	10.201	
10,613.2	10,592.1	10,606.4	10,673.6	9.4	9.6	-70.27	-521.0	-187.5	189.3	170.7	18.59	10.186	
10,620.3	10,599.1	10,613.4	10,594.6	9.4	9.7	-76.81	-521.4	-187.9	189.3	170.7	18.59	10.181 CC, ES	
10,625.0	10,603.8	10,618.1	10,599.3	9.4	9.7	-82.18	-521.7	-188.2	189.3	170.7	18.59	10.180 SF	
10,650.0	10,628.8	10,643.1	10,624.2	9.4	9.7	-125.98	-523.2	-189.8	190.1	171.4	18.61	10.213	
10,675.0	10,653.7	10,668.0	10,649.0	9.4	9.7	-165.21	-524.7	-191.3	192.0	173.3	18.62	10.310	
10,700.0	10,678.6	10,692.7	10,673.6	9.4	9.7	-177.75	-526.2	-192.9	195.0	176.4	18.62	10.470	
10,725.0	10,703.3	10,717.3	10,698.0	9.4	9.7	-170.06	-527.7	-194.4	199.2	180.5	18.62	10.695	
10,750.0	10,727.8	10,741.5	10,722.2	9.4	9.8	-166.07	-529.2	-196.0	204.5	185.9	18.62	10.984	
10,775.0	10,752.1	10,765.4	10,746.0	9.4	9.8	-163.84	-530.6	-197.4	211.0	192.4	18.61	11.339	
10,800.0	10,775.9	10,788.8	10,769.3	9.4	9.8	-162.54	-532.1	-198.9	218.6	200.1	18.60	11.758	
10,825.0	10,799.4	10,811.8	10,792.2	9.4	9.8	-161.79	-533.4	-200.4	227.5	208.9	18.58	12.243	
10,850.0	10,822.4	10,834.2	10,814.6	9.5	9.9	-161.38	-534.8	-201.8	237.5	218.9	18.57	12.792	
10,875.0	10,844.9	10,856.0	10,836.3	9.5	9.9	-161.16	-536.1	-203.1	248.6	230.1	18.55	13.404	
10,900.0	10,866.8	10,877.2	10,857.3	9.5	9.9	-161.06	-537.4	-204.5	260.9	242.4	18.54	14.078	
10,925.0	10,888.0	10,897.6	10,877.7	9.5	9.9	-161.01	-538.6	-205.7	274.4	255.8	18.52	14.812	
10,950.0	10,908.5	10,917.2	10,897.2	9.5	9.9	-160.98	-539.8	-207.0	288.9	270.3	18.51	15.605	
10,975.0	10,928.2	10,936.0	10,916.0	9.6	9.9	-160.91	-541.0	-208.1	304.4	285.9	18.50	16.453	
11,000.0	10,947.1	10,953.9	10,933.8	9.6	10.0	-160.79	-542.0	-209.3	321.0	302.5	18.50	17.354	
11,025.0	10,965.1	10,970.9	10,950.7	9.6	10.0	-160.58	-543.1	-210.3	338.5	320.0	18.49	18.305	
11,050.0	10,982.2	10,986.9	10,966.6	9.6	10.0	-160.25	-544.0	-211.3	357.0	338.5	18.49	19.304	
11,075.0	10,998.3	11,001.9	10,981.6	9.7	10.0	-159.79	-544.9	-212.3	376.3	357.8	18.49	20.347	
11,100.0	11,013.4	11,015.7	10,995.4	9.7	10.0	-159.14	-545.8	-213.1	396.4	377.9	18.50	21.431	
11,125.0	11,027.4	11,028.5	11,008.1	9.7	10.0	-158.27	-546.6	-213.9	417.2	398.7	18.50	22.554	
11,150.0	11,040.3	11,040.2	11,019.7	9.8	10.0	-157.11	-547.3	-214.7	438.8	420.3	18.50	23.712	
11,175.0	11,052.1	11,050.6	11,030.2	9.8	10.1	-155.57	-547.9	-215.3	460.9	442.4	18.51	24.903	
11,200.0	11,062.8	11,059.9	11,039.4	9.8	10.1	-153.51	-548.5	-215.9	483.7	465.2	18.52	26.123	
11,225.0	11,072.2	11,068.0	11,047.4	9.9	10.1	-150.76	-549.0	-216.4	506.9	488.4	18.52	27.371	
11,250.0	11,080.4	11,074.7	11,054.2	9.9	10.1	-147.00	-549.4	-216.8	530.5	512.0	18.52	28.642	
11,275.0	11,087.4	11,080.3	11,059.7	10.0	10.1	-141.75	-549.7	-217.2	554.5	536.0	18.52	29.935	
11,300.0	11,093.1	11,084.5	11,063.9	10.0	10.1	-134.25	-550.0	-217.5	578.8	560.3	18.52	31.247	
11,325.0	11,097.5	11,087.5	11,066.8	10.1	10.1	-123.39	-550.1	-217.6	603.3	584.8	18.52	32.574	
11,350.0	11,100.6	11,089.1	11,068.5	10.1	10.1	-108.03	-550.2	-217.7	627.9	609.4	18.52	33.914	
11,375.0	11,102.4	11,089.4	11,068.8	10.2	10.1	-88.67	-550.3	-217.8	652.6	634.1	18.51	35.265	
11,399.9	11,103.0	11,088.5	11,067.8	10.2	10.1	-69.05	-550.2	-217.7	677.3	658.8	18.50	36.618	
11,500.0	11,102.5	11,082.0	11,061.4	10.5	10.1	-65.91	-549.8	-217.3	776.3	757.8	18.46	42.056	
11,600.0	11,102.0	11,075.5	11,054.9	10.9	10.1	-62.94	-549.4	-216.9	875.4	857.0	18.44	47.478	
11,700.0	11,101.5	11,069.0	11,048.4	11.3	10.1	-60.14	-549.0	-216.5	974.7	956.2	18.43	52.884	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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 - TEXACO-STATE #1 - OWB - AWP-INC ONLY												Offset Site Error:	3.0 usft
Survey Program: 330-INC-ONLY												Offset Well Error:	5.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toelface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	3.0	5.0	-11.41	12.0	-2.4	17.1				
100.0	100.0	88.0	88.0	3.0	5.1	-11.41	12.0	-2.4	12.2	4.2	8.06	1.516 Advise and Monitor	
200.0	200.0	188.0	188.0	3.0	5.3	-11.41	12.0	-2.4	12.2	4.0	8.26	1.480 Shut in Producers	
300.0	300.0	288.0	288.0	3.0	5.6	-11.41	12.0	-2.4	12.2	3.6	8.59	1.423 Shut in Producers	
400.0	400.0	388.0	388.0	3.0	6.3	-11.41	12.0	-2.4	12.2	2.9	9.34	1.308 Shut in Producers	
500.0	500.0	488.0	488.0	3.1	7.5	-11.41	12.0	-2.4	12.2	1.6	10.57	1.156 Shut in Producers	
600.0	600.0	588.0	588.0	3.1	8.9	-11.22	12.2	-2.4	12.4	0.4	12.00	1.036 Shut in Producers	
700.0	700.0	688.0	688.0	3.1	10.4	-11.31	12.1	-2.4	12.3	-1.2	13.55	0.910 Stop Drilling Now	
800.0	800.0	788.0	788.0	3.2	12.0	-11.41	12.0	-2.4	12.2	-3.0	15.18	0.805 Stop Drilling Now	
900.0	900.0	888.0	888.0	3.2	13.7	-11.41	12.0	-2.4	12.2	-4.7	16.88	0.724 Stop Drilling Now	
1,000.0	1,000.0	988.0	988.0	3.2	15.4	-11.20	12.2	-2.4	12.4	-6.2	18.62	0.669 Stop Drilling Now	
1,100.0	1,100.0	1,088.0	1,088.0	3.3	17.1	-11.27	12.1	-2.4	12.4	-8.0	20.38	0.607 Stop Drilling Now	
1,200.0	1,200.0	1,188.0	1,188.0	3.4	18.8	-11.41	12.0	-2.4	12.2	-9.9	22.17	0.551 Stop Drilling Now	
1,300.0	1,300.0	1,288.0	1,288.0	3.4	20.6	-11.41	12.0	-2.4	12.2	-11.8	24.00	0.509 Stop Drilling Now	
1,400.0	1,400.0	1,388.0	1,388.0	3.5	22.4	-11.16	12.3	-2.4	12.5	-13.4	25.85	0.483 Stop Drilling Now	
1,500.0	1,500.0	1,488.0	1,488.0	3.5	24.2	-11.41	12.0	-2.4	12.2	-15.5	27.73	0.441 Stop Drilling Now	
1,600.0	1,600.0	1,588.0	1,588.0	3.6	26.2	-11.41	12.0	-2.4	12.2	-17.6	29.79	0.410 Stop Drilling Now	
1,700.0	1,700.0	1,688.0	1,688.0	3.7	28.2	-11.41	12.0	-2.4	12.2	-19.7	31.87	0.383 Stop Drilling Now	
1,800.0	1,800.0	1,788.0	1,788.0	3.8	30.2	-11.41	12.0	-2.4	12.2	-21.7	33.95	0.360 Stop Drilling Now	
1,900.0	1,900.0	1,888.0	1,888.0	3.9	32.2	-10.87	12.6	-2.4	12.8	-23.2	36.04	0.356 Stop Drilling Now	
2,000.0	2,000.0	1,988.1	1,988.0	3.9	34.2	-11.04	12.4	-2.4	12.6	-25.5	38.13	0.331 Stop Drilling Now	
2,100.0	2,100.0	2,088.1	2,088.1	4.0	36.2	-11.35	12.0	-2.4	12.3	-27.9	40.23	0.305 Stop Drilling Now	
2,146.6	2,146.6	2,134.8	2,134.6	4.1	37.3	-11.41	12.0	-2.4	12.2	-29.1	41.30	0.296 Stop Drilling Now	
2,200.0	2,200.0	2,188.1	2,188.0	4.1	38.5	-11.41	12.0	-2.4	12.2	-30.4	42.58	0.287 Stop Drilling Now	
2,300.0	2,300.0	2,288.2	2,288.0	4.2	40.8	-10.56	13.0	-2.4	13.2	-31.8	44.99	0.293 Stop Drilling Now	
2,400.0	2,400.0	2,388.3	2,388.2	4.3	43.1	-11.09	12.3	-2.4	12.6	-34.8	47.39	0.265 Stop Drilling Now	
2,473.1	2,473.1	2,461.3	2,461.1	4.4	44.9	-11.41	12.0	-2.4	12.2	-37.0	49.21	0.248 Stop Drilling Now	
2,500.0	2,500.0	2,488.2	2,488.0	4.4	45.5	-11.41	12.0	-2.4	12.2	-37.7	49.90	0.245 Stop Drilling Now	
2,600.0	2,600.0	2,588.2	2,588.0	4.5	48.0	-11.41	12.0	-2.4	12.2	-40.2	52.45	0.233 Stop Drilling Now	
2,700.0	2,700.0	2,688.3	2,688.0	4.6	50.5	-10.33	13.3	-2.4	13.5	-41.5	55.01	0.245 Stop Drilling Now	
2,800.0	2,800.0	2,788.4	2,788.2	4.7	52.9	-10.87	12.6	-2.4	12.8	-44.7	57.57	0.223 Stop Drilling Now	
2,900.0	2,900.0	2,888.4	2,888.0	4.8	55.5	-11.41	12.0	-2.4	12.2	-48.0	60.23	0.203 Stop Drilling Now	
3,000.0	3,000.0	2,988.4	2,988.0	4.9	58.2	-11.41	12.0	-2.4	12.2	-50.8	63.02	0.194 Stop Drilling Now	
3,100.0	3,100.0	3,088.5	3,088.1	5.0	60.8	-10.42	13.1	-2.4	13.4	-52.4	65.81	0.203 Stop Drilling Now	
3,200.0	3,200.0	3,188.7	3,188.2	5.1	63.5	-11.26	12.1	-2.4	12.4	-56.2	68.59	0.181 Stop Drilling Now	
3,239.9	3,239.9	3,228.5	3,227.9	5.1	64.6	-11.41	12.0	-2.4	12.2	-57.5	69.75	0.175 Stop Drilling Now	
3,300.0	3,300.0	3,288.6	3,288.0	5.2	66.3	-11.41	12.0	-2.4	12.2	-59.3	71.51	0.171 Stop Drilling Now	
3,400.0	3,400.0	3,388.6	3,388.0	5.3	69.2	-11.41	12.0	-2.4	12.2	-62.2	74.45	0.164 Stop Drilling Now	
3,500.0	3,500.0	3,488.7	3,488.0	5.4	72.0	-9.83	13.9	-2.4	14.2	-63.3	77.41	0.183 Stop Drilling Now	
3,600.0	3,600.0	3,588.9	3,588.2	5.5	74.9	-10.38	13.2	-2.4	13.4	-66.9	80.34	0.167 Stop Drilling Now	
3,700.0	3,700.0	3,688.9	3,688.0	5.7	77.7	-11.41	12.0	-2.4	12.2	-71.0	83.27	0.147 Stop Drilling Now	
3,800.0	3,800.0	3,788.9	3,788.0	5.8	80.4	-10.70	12.8	-2.4	13.0	-73.0	86.07	0.151 Stop Drilling Now	
3,900.0	3,900.0	3,889.0	3,888.0	5.9	83.0	-11.41	12.0	-2.4	12.2	-76.6	88.84	0.138 Stop Drilling Now	
4,000.0	4,000.0	3,989.0	3,988.0	6.0	85.6	-11.41	12.0	-2.4	12.2	-79.3	91.55	0.133 Stop Drilling Now	
4,100.0	4,100.0	4,089.0	4,088.0	6.1	88.2	-10.44	13.1	-2.4	13.3	-80.9	94.27	0.141 Stop Drilling Now	
4,200.0	4,200.0	4,189.2	4,188.2	6.2	90.8	-10.96	12.5	-2.4	12.7	-84.2	96.97	0.131 Stop Drilling Now	
4,300.0	4,300.0	4,289.1	4,288.0	6.3	93.5	-11.41	12.0	-2.4	12.2	-87.6	99.79	0.122 Stop Drilling Now	
4,400.0	4,400.0	4,389.1	4,388.0	6.5	96.3	-11.41	12.0	-2.4	12.2	-90.5	102.71	0.119 Stop Drilling Now	
4,500.0	4,500.0	4,489.2	4,488.0	6.6	99.1	-9.98	13.7	-2.4	13.9	-91.7	105.65	0.132 Stop Drilling Now	
4,600.0	4,600.0	4,589.3	4,588.1	6.7	101.9	-10.33	13.3	-2.4	13.5	-95.1	108.57	0.124 Stop Drilling Now	
4,700.0	4,700.0	4,689.5	4,688.3	6.8	104.8	-11.27	12.1	-2.4	12.4	-99.1	111.46	0.111 Stop Drilling Now	
4,722.2	4,722.2	4,711.6	4,710.2	6.8	105.3	-11.41	12.0	-2.4	12.2	-99.9	112.10	0.109 Stop Drilling Now	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
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 #502H	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 - TEXACO-STATE #1 - OWB - AWP-INC ONLY													Offset Site Error:	3.0 usft
Survey Program: 330-INC-ONLY													Offset Well Error:	5.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,800.0	4,789.4	4,788.0	6.9	107.3	-10.81	12.7	-2.4	12.9	-101.3	114.15	0.113	Stop Drilling Now	
4,900.0	4,900.0	4,889.4	4,888.0	7.0	109.7	-11.41	12.0	-2.4	12.2	-104.4	116.66	0.105	Stop Drilling Now	
5,000.0	5,000.0	4,989.4	4,988.0	7.2	111.8	-11.41	12.0	-2.4	12.2	-106.7	118.89	0.103	Stop Drilling Now	
5,100.0	5,100.0	5,089.4	5,088.0	7.3	113.9	-11.41	12.0	-2.4	12.2	-108.9	121.12	0.101	Stop Drilling Now	
5,200.0	5,200.0	5,189.4	5,188.0	7.4	116.0	-11.41	12.0	-2.4	12.2	-111.1	123.35	0.099	Stop Drilling Now	
5,300.0	5,300.0	5,289.4	5,288.0	7.5	118.2	-11.41	12.0	-2.4	12.2	-113.4	125.59	0.097	Stop Drilling Now	
5,400.0	5,400.0	5,389.4	5,388.0	7.6	120.3	-11.41	12.0	-2.4	12.2	-115.6	127.82	0.096	Stop Drilling Now, CC, ES, SF	
5,500.0	5,500.0	5,410.0	5,408.5	7.8	120.7	-11.41	12.0	-2.4	80.5	47.9	32.51	2.475		
5,600.0	5,600.0	5,410.0	5,408.5	7.8	120.7	109.60	12.0	-2.4	180.0	153.0	27.03	6.658		
5,700.0	5,699.8	5,410.0	5,408.5	7.8	120.7	63.39	12.0	-2.4	279.9	253.3	26.62	10.516		
5,765.2	5,764.8	5,410.0	5,408.5	7.8	120.7	38.43	12.0	-2.4	345.0	318.2	26.83	12.863		
5,800.0	5,799.5	5,410.0	5,408.5	7.8	120.7	38.43	12.0	-2.4	379.8	352.8	26.99	14.074		
5,900.0	5,899.0	5,410.0	5,408.5	7.7	120.7	38.43	12.0	-2.4	479.8	452.3	27.42	17.500		
6,000.0	5,998.6	5,410.0	5,408.5	7.7	120.7	38.43	12.0	-2.4	579.7	551.9	27.79	20.859		
6,100.0	6,098.2	5,410.0	5,408.5	7.7	120.7	38.43	12.0	-2.4	679.7	651.6	28.13	24.161		
6,200.0	6,197.8	5,410.0	5,408.5	7.7	120.7	38.43	12.0	-2.4	779.7	751.2	28.44	27.410		
6,300.0	6,297.3	5,410.0	5,408.5	7.7	120.7	38.43	12.0	-2.4	879.7	850.9	28.74	30.608		
6,400.0	6,396.9	5,410.0	5,408.5	7.6	120.7	38.43	12.0	-2.4	979.6	950.6	29.02	33.756		

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

Concho Resources LLC

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Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	SYLVESTER FED COM #502H	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)

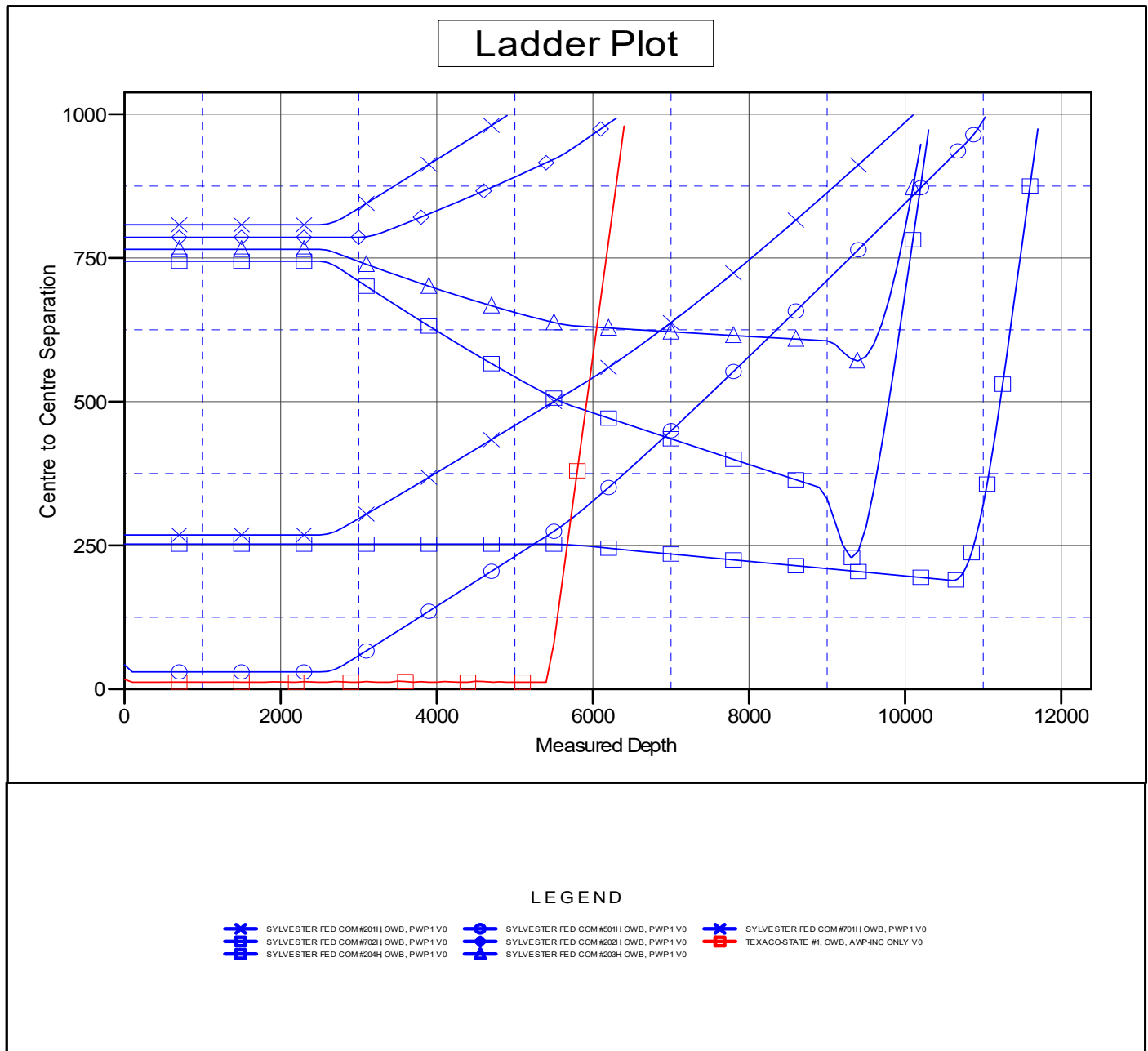
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: SYLVESTER FED COM #502H

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

Grid Convergence at Surface is: 0.39°



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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well SYLVESTER FED COM #502H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3727.0usft (TBD)
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Reference Well:	SYLVESTER FED COM #502H	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

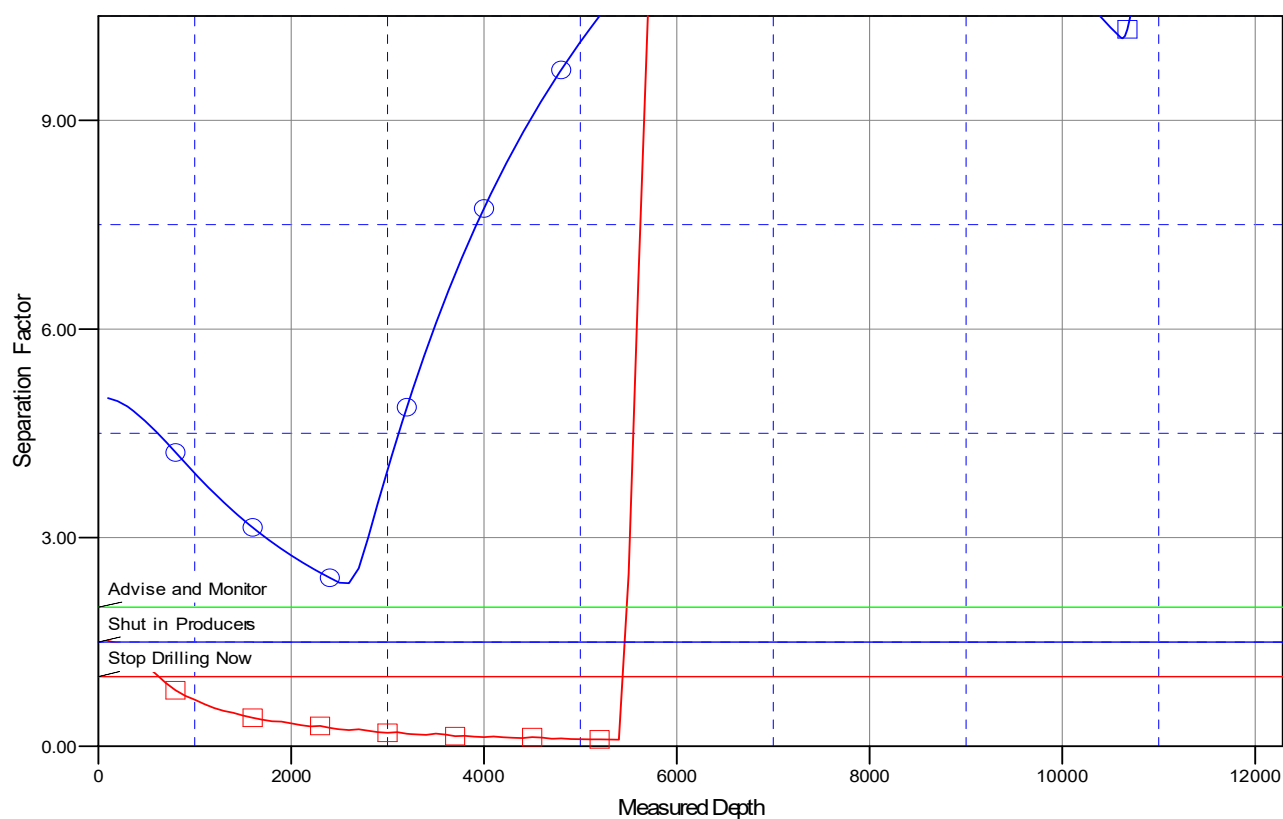
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: SYLVESTER FED COM #502H

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

Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

	SYLVESTER FED COM #201H OWB, PWP1 V0		SYLVESTER FED COM #501H OWB, PWP1 V0		SYLVESTER FED COM #701H OWB, PWP1 V0
	SYLVESTER FED COM #702H OWB, PWP1 V0		SYLVESTER FED COM #202H OWB, PWP1 V0		TEXACO-STATE #1, OWB, AWP-INC ONLY V0
	SYLVESTER FED COM #204H OWB, PWP1 V0		SYLVESTER FED COM #203H OWB, PWP1 V0		

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG Operating LLC
LEASE NO.:	NMNM-126494
WELL NAME & NO.:	Sylvester Federal Com 502H
SURFACE HOLE FOOTAGE:	0650' FSL & 0650' FWL
BOTTOM HOLE FOOTAGE:	2590' FSL & 0330' 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	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input type="radio"/> Multibowl	<input checked="" type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> 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.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1365** 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.

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 integrity 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).

- 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 01192021

COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

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

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

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

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

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

2. H₂S SAFETY EQUIPMENT AND SYSTEMS

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

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

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

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

W A R N I N G

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

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

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

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

EMERGENCY RESPONSE NUMBERS

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

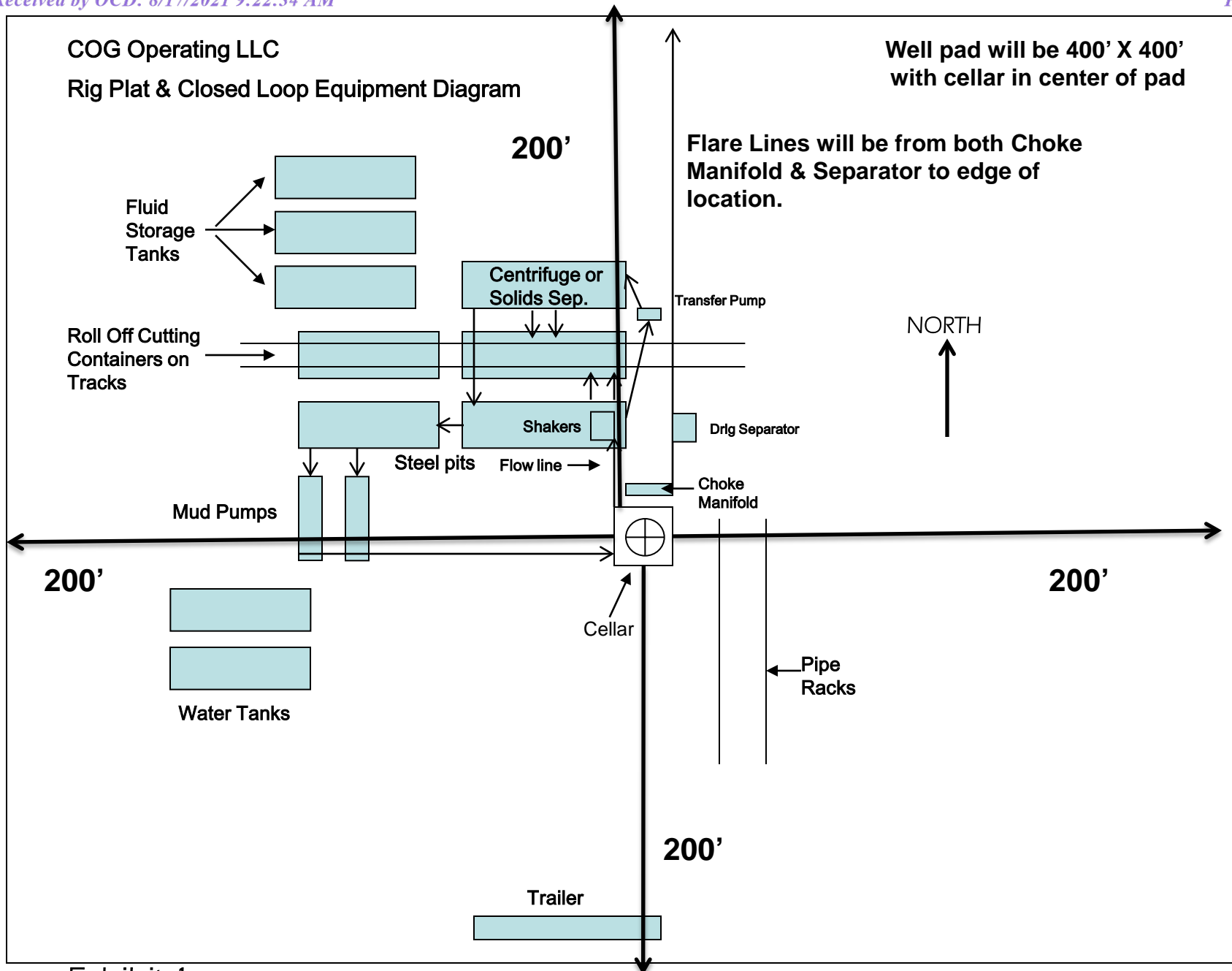


Exhibit 1

1. Geologic Formations

TVD of target	11,103' EOC	Pilot hole depth	NA
MD at TD:	18,497'	Deepest expected fresh water:	345'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1299	Water	
Top of Salt	1805	Salt	
Base of Salt	4828	Salt	
Lamar	5109	Salt Water	
Bell Canyon	5155	Salt Water	
Cherry Canyon	6033	Oil/Gas	
Brushy Canyon	7388	Oil/Gas	
Bone Springs	8894	Oil/Gas	
M. Avalon Shale	9278	Oil/Gas	
L. Avalon Shale	9662	Not Penetrated	
Basal Avalon	X	Not Penetrated	
1st Bone Spring Sand	10047	Not Penetrated	
2nd Bone Spring Sand	10713	Not Penetrated	
3rd Bone Spring Sand	11924	Not Penetrated	

2. Casing Program

Hole Size	Casing		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
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	1.10	4.46
12.25"	4000	5109	9.625"	40	L80	BTC	1.15	1.35	5.73
8.75"	0	18,497	5.5"	17	P110	BTC	1.39	2.50	3.01
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 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	600	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter.	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	840	11.9	2.5	19	72	Lead: 50:50:10 H Blend
	2010	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%
1 st Intermediate	0'	50%
Production	4,609'	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.
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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
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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	5370 psi at 11103' TVD
Abnormal Temperature	NO 165 Deg. F.

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

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

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

N H₂S is present

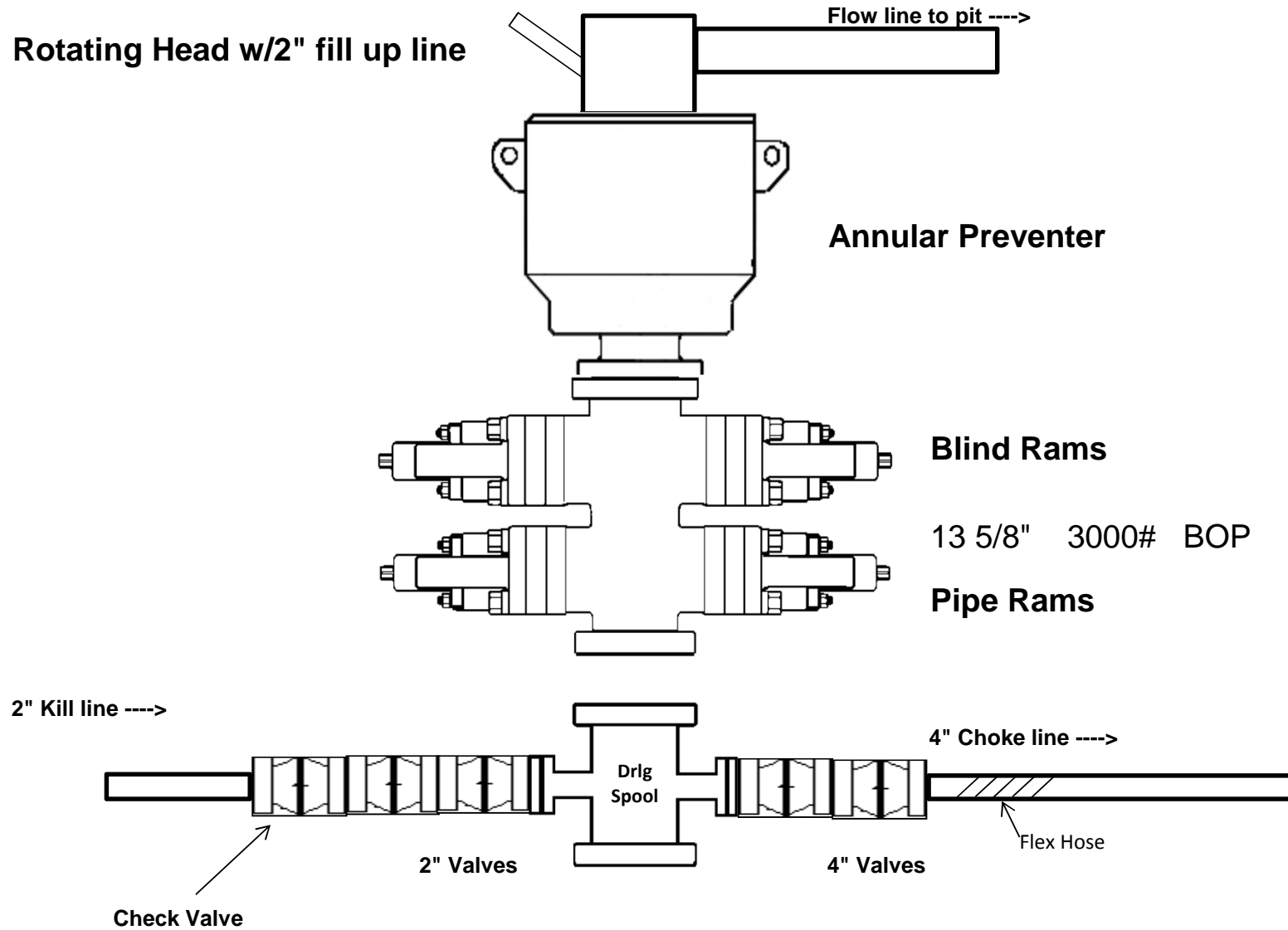
Y H₂S Plan attached

8. Other Facets of Operation

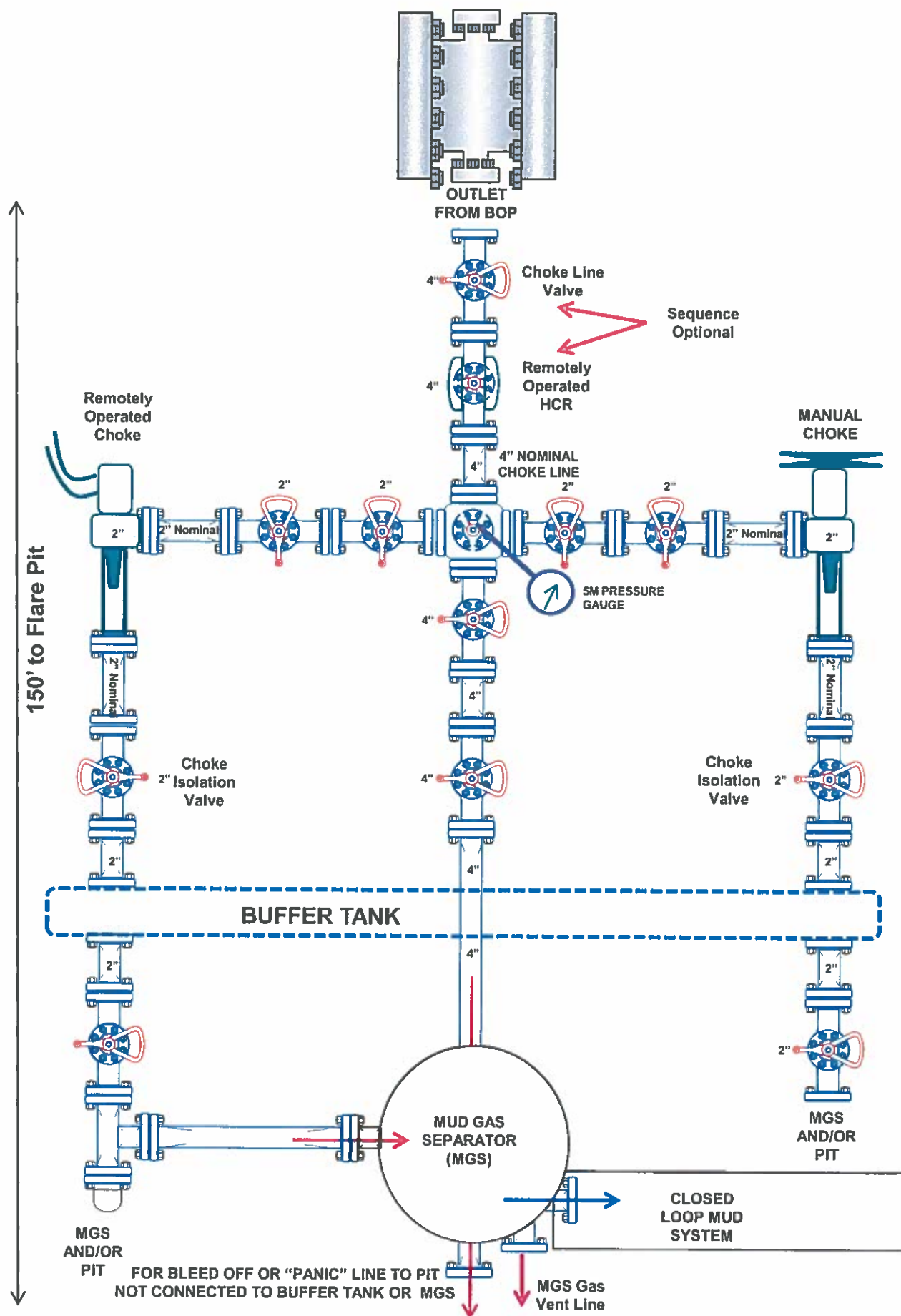
Y	Is it a walking operation?
Y	Is casing pre-set?

x	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

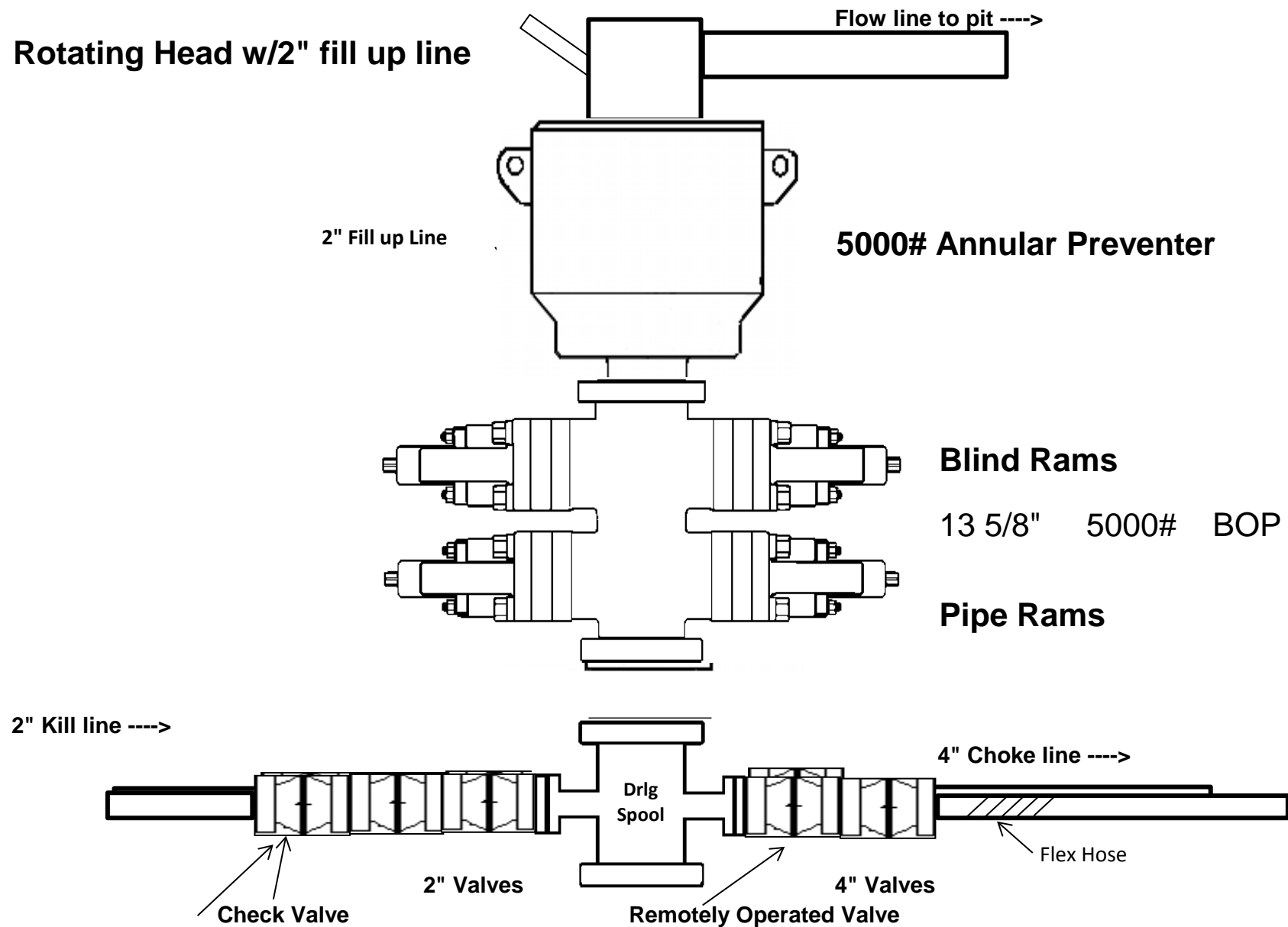
3,000 psi BOP Schematic



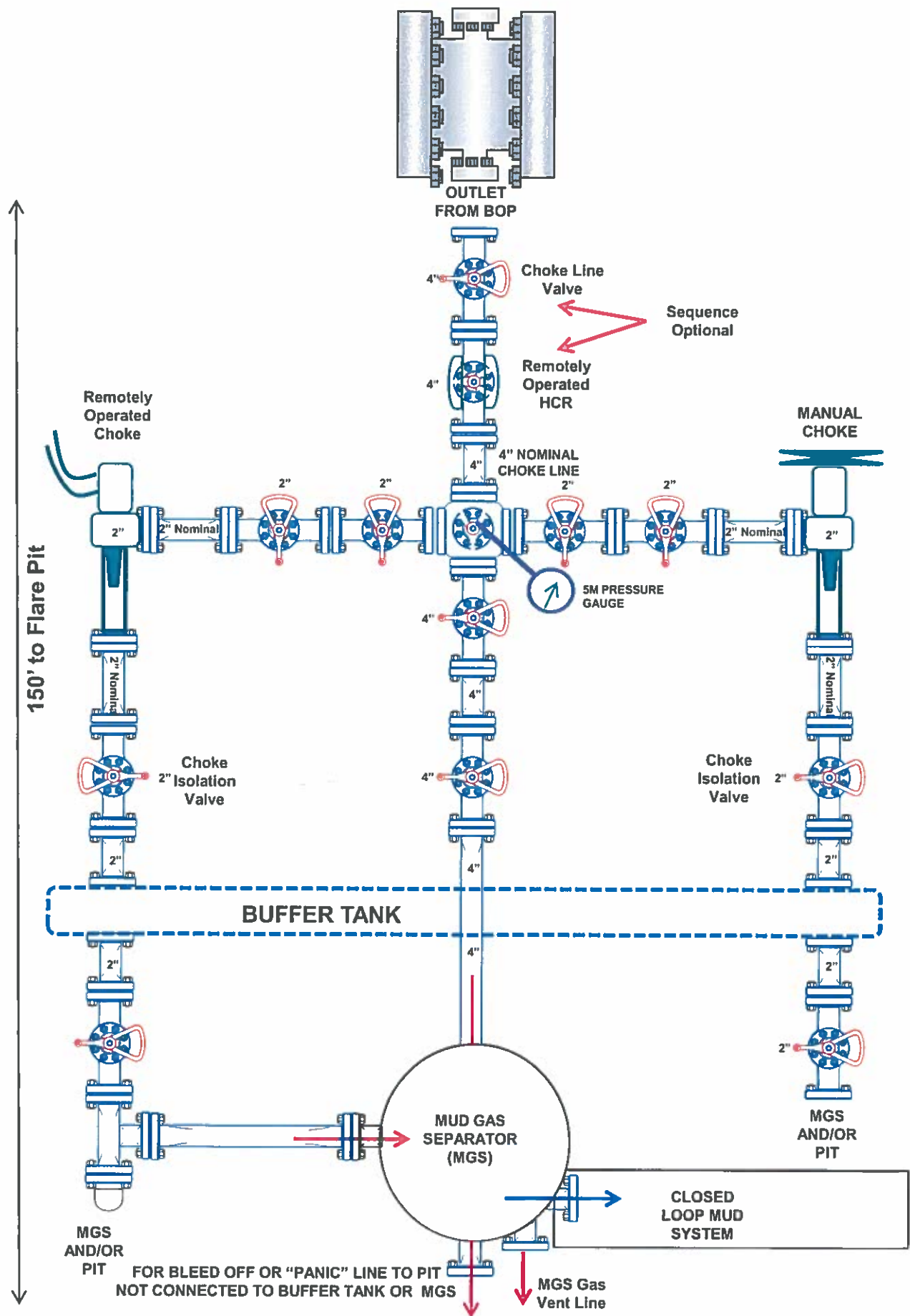
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5,000 psi BOP Schematic



5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)



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 42425

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 42425
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	8/18/2021
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	8/18/2021