

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. [331003]
2. Name of Operator [4323]		9. API Well No. 30-025-49072
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory [97955]
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish 13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

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

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 05/06/2021

SL

(Continued on page 2)



Approval Date: 05/27/2020

KZ
06/22/2021

*(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: SESW / 261 FSL / 1826 FWL / TWSP: 26S / RANGE: 32E / SECTION: 24 / LAT: 32.021632 / LONG: -103.631154 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 100 FSL / 1980 FWL / TWSP: 26S / RANGE: 32E / SECTION: 24 / LAT: 32.021191 / LONG: -103.630658 (TVD: 11874 feet, MD: 14303 feet)

BHL: NENW / 25 FNL / 1980 FWL / TWSP: 26S / RANGE: 32E / SECTION: 13 / LAT: 32.050271 / LONG: -103.630609 (TVD: 11786 feet, MD: 22257 feet)

BLM Point of Contact

Name: Candy Vigil

Title: LIE

Phone: (575) 234-5982

Email: cvigil@blm.gov

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.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-49072	² Pool Code 97955	³ Pool Name WC-025 G-06 S263319P;BONE SPRING
⁴ Property Code 331003	⁵ Property Name SD 24 13 FED P415	⁶ Well Number 13H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3133'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	24	26 SOUTH	32 EAST, N.M.P.M.		261'	SOUTH	1826'	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	13	26 SOUTH	32 EAST, N.M.P.M.		25'	NORTH	1980'	WEST	LEA

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

SD 24 13 FED P415 13H WELL X= 717,768 Y= 372,259 LAT. 32.021506 N LONG. 103.630686 W NAD 27 X= 758,956 Y= 372,316 LAT. 32.021632 N LONG. 103.631154 W NAD83/2011 ELEVATION +3133' NAVD 88 PROPOSED BOTTOM HOLE LOCATION X= 717,870 Y= 382,678 LAT. 32.050146 N LONG. 103.630139 W NAD 27 X= 759,057 Y= 382,735 LAT. 32.050271 N LONG. 103.630609 W NAD83/2011 PROPOSED FIRST TAKE POINT X= 717,923 Y= 372,099 LAT. 32.021066 N LONG. 103.630190 W NAD 27 X= 759,111 Y= 372,156 LAT. 32.021191 N LONG. 103.630658 W NAD83/2011 PROPOSED LAST TAKE POINT X= 717,871 Y= 382,603 LAT. 32.049940 N LONG. 103.630139 W NAD 27 X= 759,058 Y= 382,660 LAT. 32.050065 N LONG. 103.630609 W NAD83/2011	CORNER COORDINATES TABLE (NAD 27) A - Y=382677.22, X=715890.15 B - Y=371978.70, X=715943.63 C - Y=382694.44, X=717221.42 D - Y=371992.49, X=717277.98 E - Y=382711.66, X=718552.69 F - Y=372006.29, X=718612.32 G - Y=382746.10, X=721215.23 H - Y=372033.87, X=721281.01	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. <i>Kayla McConnell</i> 10/23/2019 Signature Date KAYLA MCCONNELL Printed Name KAYLAMCCONNELL@CHEVRON.COM E-mail Address ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 06/25/2019 Date of Survey Signature and Seal of Professional Surveyor ROBERT L. LASTRAPES NEW MEXICO 23006 07/16/2019 23006 Certificate Number
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State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

X Original Operator & OGRID No.: CHEVRON U S A INC (4323)
☐ Amended Date: 9/6/2019
Reason for Amendment: _____

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

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – Salado Draw CTB 24

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SD 24 13 FED P415 13H	<i>Pending</i> 30-025-49072	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,826 FWL	5,000	0	
SD 24 13 FED P415 14H	<i>Pending</i>	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,851 FWL	5,000	0	
SD 24 13 FED P415 15H	<i>Pending</i>	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,876 FWL	5,000	0	
SD 24 13 FED P415 16H	<i>Pending</i>	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,901 FWL	5,000	0	

Gathering System and Pipeline Notification

Wells will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Delaware Basin Midstream, LLC (DBM) and will be connected to DBM's low pressure gathering system located in LEA County, New Mexico. The facility is already connected to a low pressure gathering system. Chevron provides (periodically) to DBM a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Chevron and DBM have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DBM's Ramsey Processing Plant located in Sec.36, Block 57-T1, Reeves County, Texas. The gas produced from the production facility may also be sent to Mark West's low pressure gathering system and will be processed at Mark West's Tornado Processing Plant located in Loving County, Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, wells will be turned to permanent production facilities. Wells will have temporary sand catchers that will be installed at the well location to prevent sand from getting into the flowlines. These sand separators will be blown down periodically which will result in minimal venting of gas. Gas sales will start as soon as the wells start flowing through the production facilities, unless there are operational issues on DBM's system at that time. Based on current information, it is Chevron's belief the system can take this gas upon completion of the well(s).

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

Alternatives to Reduce Flaring

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

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

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Chevron
SD 24 13 FED P415 13H
Lea County, NM

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DRILLING PLAN
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1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler (RSLR)		601	
Castile (CSTL)		2909	
Lamar (LMAR)		4592	
Bell Canyon (BLCN)		4626	
Cherry Canyon (CRCN)		5658	
Brushy Canyon (BCN)		7256	
Bone Spring (BSGL)		8803	
Upper Avalon (AVN)		8857	
Top Bone Spring 1 (FBS)		9703	
Top Bone Spring 2 (SBU)		10321	
Third Bone Spring 1st Carbonate (		10791	
Top Bone Spring 3 (TBS)		11478	
Third Bone Spring Target 1		11825	
Wolfcamp A (WCA)		11902	
Wolfcamp A Target 1 (Y Sand)		12060	
Wolfcamp A Target 2 (WCA SH)		12103	
Wolfcamp B (WCB)		12616	
Lateral TD (TBS Target 1)		11,786	22257

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		700
Water	Rustler	601
Water	Bell Canyon	4626
Water	Cherry Canyon	5658
Oil/Gas	Brushy Canyon	7256
Oil/Gas	Bone Spring (BSGL)	8803
Oil/Gas	Upper Avalon (AVN)	8857
Oil/Gas	Top Bone Spring 1	9703
Oil/Gas	Top Bone Spring 2	10321
Oil/Gas	Top Bone Spring 3	11478
Oil/Gas	Third Bone Spring Target 1	11825
Oil/Gas	Wolfcamp	11902
Oil/Gas	Wolfcamp A Target 1 (Y Sand)	12060
Oil/Gas	Wolfcamp A Target 2 (WCA SH)	12103

All shows of fresh water and minerals will be reported and protected

3. **BOP EQUIPMENT**

Will have a minimum of a 10000 psi rig stack (see proposed schematic) for drill out below surface (Wolfcamp is not exposed until drillout of the intermediate casing). Could possibly utilize the 5000 psi rig stack (see proposed schematic) for drill out below surface casing due to the availability of 10 M annular. (Wolfcamp is not exposed until drillout of the intermediate casing) Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs) BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nipped up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal.

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Chevron

SD 24 13 FED P415 13H

Lea County, NM

CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN

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4. CASING PROGRAM

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	850'	17-1/2"	13-3/8"	54.5 #	J55	BTC	New
Intermediate 1	0'	4600'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Intermediate 2 (Liner)	4,300'	10,820'	8-1/2"	7-5/8"	29.7 #	L-80	W-513	New
Production	0'	10,320'	6-3/4"	5.5"	20#	P-110-ICY	TXP BTC	New
(Taper String)	10,320'	22,257'	6-3/4"	5"	18#	P-110 IC	W-521	New

b. Casing design subject to revision based on geologic conditions encountered.

c. ***A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalculated & sent to the BLM prior to drilling.

d. Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.

SF Calculations based on the following "Worst Case" casing design:

Surface Casing: 1150' TVD

Intermediate Casing: 5132' TVD

Intermediate Liner: 11,650' TVD

Production Casing: 23,000' MD/12,852' TVD (10,300' VS @ 90 deg inc)

4 String Design

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.48	2.10	4.91	1.80
Intermediate	1.52	1.87	2.79	1.83
Liner	1.33	2.59	1.60	1.66
Production	1.10	1.39	1.61	1.32

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int (1)	Int 2 (Liner)	Prod
Burst Design				
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X			
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 16 ppg Frac Gradient		X	X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid				X
Tubing leak- Prod Csg P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid				X
Collapse Design				
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X	X
Tension Design				
100k lb overpull	X	X	X	X

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Chevron

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Lea County, NM

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DRILLING PLAN

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5. CEMENTING PROGRAM

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water	Additives
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk	
Tail	Class C	0'	850'	14.8	1.33	50	650	6.57	Extender Antifoam Retarder
Intermediate									
Lead	Class C	0'	4,300'	11.9	2.20	30	730	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	4,300'	4600'	14.8	1.33	30	113	6.29	Antifoam Retarder Viscosifier
Liner									
Lead	Class C	4,300'	10,320'	11.9	2.17	140	462	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	10,320'	10,820'	14.8	1.33	50	59	6.29	Antifoam Extender Salt Retarder Viscosifier
Production									
Lead	Class H	7,500'	20,757'	15.6	1.19	35	1558	5.18	Antifoam Dispersent Fluid Loss Retarder Viscosifier
Tail	Class H	20,757'	22,257'	16.0	1.78	20	110	7.45	Antifoam Dispersent Fluid Loss Retarder Viscosifier

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

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CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN
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6. MUD PROGRAM

From	To	TVD Top	TVD Btm	Type	Weight	F. Vis	Filtrate
0'	850'	0'	850'	Spud Mud	8.3-8.7	32 - 34	NC - NC
850'	4600'	850'	4,587'	Brine	9.4-10.6	28 - 30	25-30
4600'	10,820'	4,587'	10,808'	Cut Brine	8.8-10.0	70 - 75	25-30
10,820'	22,257'	10,808'	11,786'	Oil Based Mud	12.0-14.8	70 - 75	25-30

A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. TESTING, LOGGING, AND CORING

The anticipated type and amount of testing, logging, and coring are as follows:

- Drill stem tests are not planned.
- The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mudlogs	2 man mudlog	Int Csg to TD	Drillout of Int Csg	TBD
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling	TBD

- Conventional whole core samples are not planned.
- A Directional Survey will be run.

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- No abnormal pressures or temperatures are expected. Estimated BHP at intermediate TD is: 5750 psi
No abnormal pressures or temperatures are expected. Estimated BHP at production TD is: 8650 psi
- Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered



H₂S Preparedness and Contingency Plan Summary

SD 24 13 FED P415

SD 24 13 FED P416

Training

MCBU Drilling and Completions H₂S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H₂S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H₂S, who are not required to perform work in H₂S areas, will be provided with an awareness level of H₂S training prior to entering any H₂S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H₂S
2. Health hazards of H₂S
3. Personal protective equipment
4. Information regarding potential sources of H₂S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

Advanced Level H₂S Training

Employees and contractors required to work in areas that may contain H₂S will be provided with Advanced Level H₂S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H₂S training will include:

1. H₂S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H₂S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H₂S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H₂S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H₂S training;
6. Proficiency examination covering all course material.

Advanced H₂S training courses will be instructed by personnel who have successfully completed an appropriate H₂S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.



H₂S Preparedness and Contingency Plan Summary

H₂S Training Certification

All employees and visitors will be issued an H₂S training certification card (or certificate) upon successful completion of the appropriate H₂S training course. Personnel working in an H₂S environment will carry a current H₂S training certification card as proof of having received the proper training on their person at all times.

Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be upwind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

H₂S Equipment

Respiratory Protection

- a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

Visual Warning System

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

H₂S Detection and Monitoring System

- a) H₂S monitoring system (sensor head, warning light and siren) placed throughout rig.
 - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
 - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



H₂S Preparedness and Contingency Plan Summary

Well Control Equipment

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud / gas separator

Mud Program

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 1. Use of a degasser
- 2. Use of a zinc based mud treatment
- 3. Increasing mud weight

Public Safety - Emergency Assistance

<u>Agency</u>	<u>Telephone Number</u>
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222

H₂S Preparedness and Contingency Plan Summary

Chevron MCBU D&C Emergency Notifications

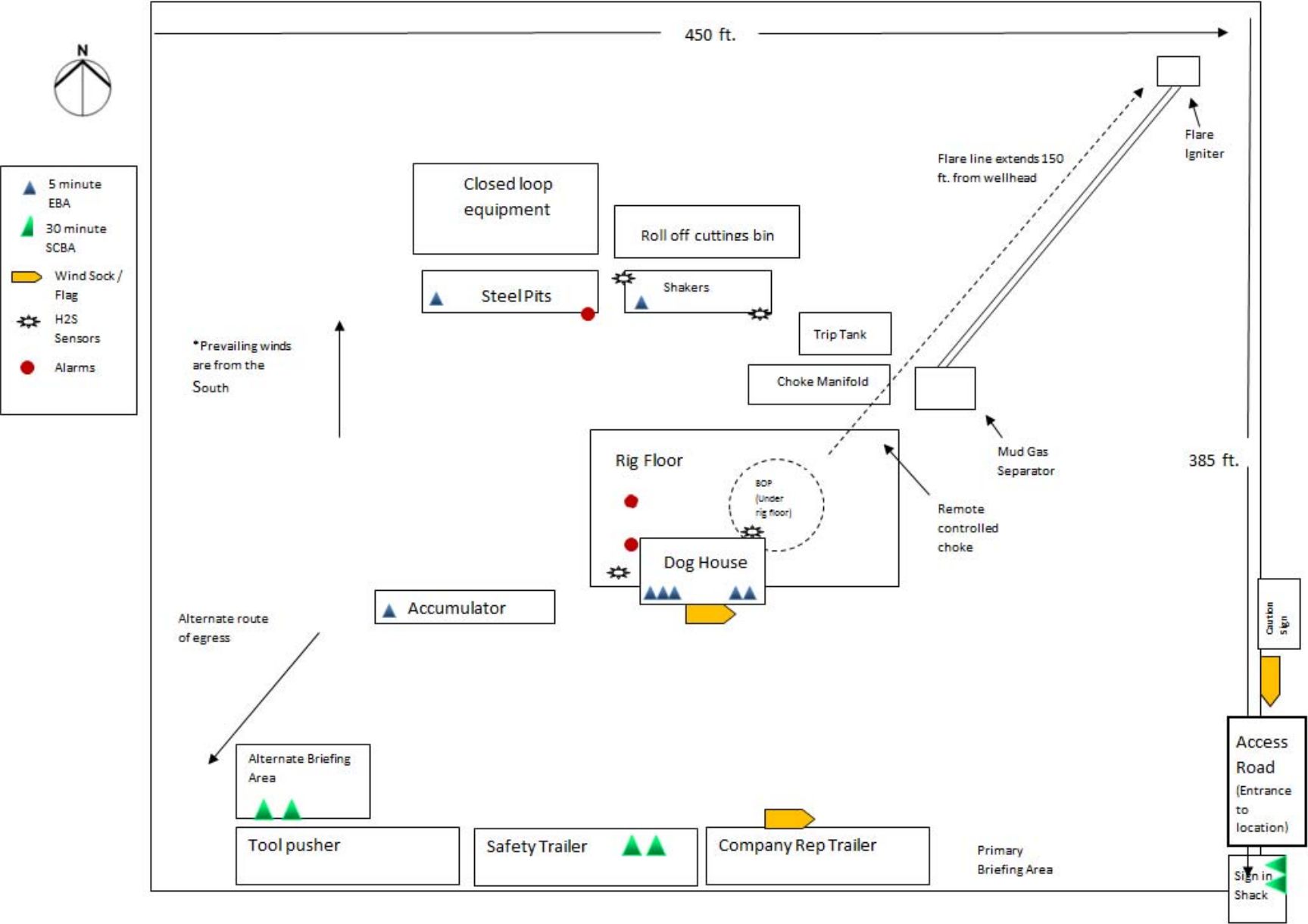
Below are lists of contacts to be used in emergency situations.

	Name	Title	Office Number	Cell Phone
1.	Tony Bacon	Drilling Engineer	(713) 372-4025	(406) 989-0415
2.	Chuck Schaff	Superintendent	(713) 372-4500	(281) 714-9329
5.	Scott Bowman	Drilling Manager	(713) 372-4479	(713) 492-4479
6.	Kyle Eastman	Operations Manager		(281) 755-6554
7.	Scott Simpson	D&C HES	(713) 372-7597	(281) 414 -6675
8.	Cynthia Lynch	Completion Engineer		(281) 254-0483



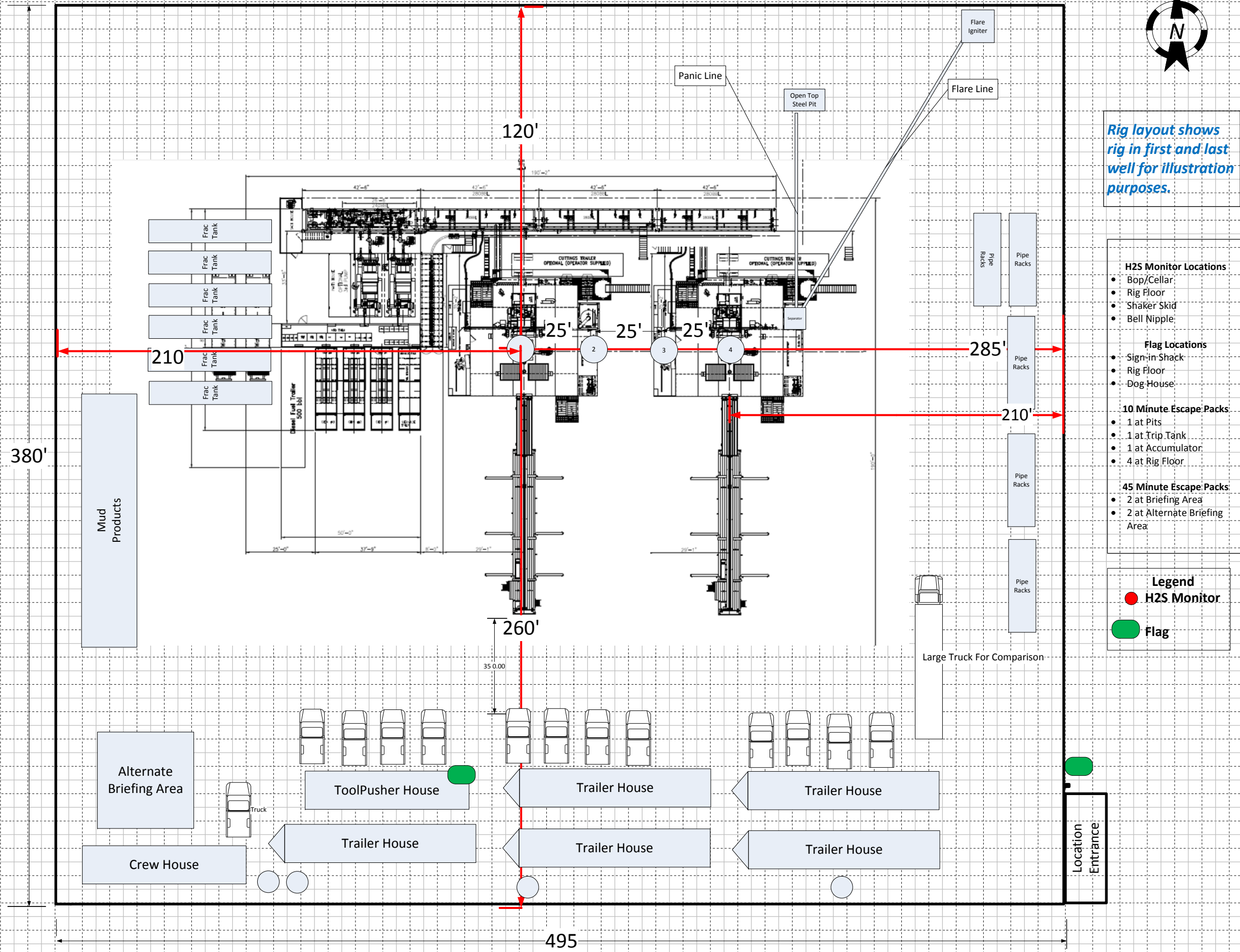
H₂S Preparedness and Contingency Plan Summary

Released to Imaging: 6/22/2021 4:00:27 PM



Received by OCD: 5/6/2021 1:48:12 PM

Nabors Pace X Pad 415



Rig layout shows rig in first and last well for illustration purposes.

H2S Monitor Locations

- Bop/Cellar
- Rig Floor
- Shaker Skid
- Bell Nipple

Flag Locations

- Sign-in Shack
- Rig Floor
- Dog House

10 Minute Escape Packs

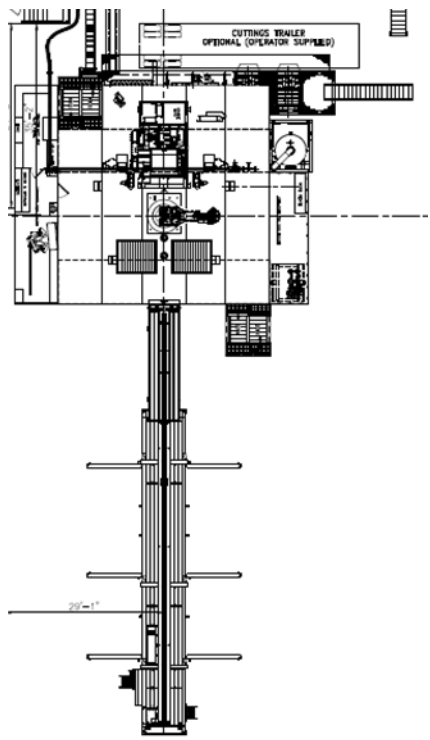
- 1 at Pits
- 1 at Trip Tank
- 1 at Accumulator
- 4 at Rig Floor

45 Minute Escape Packs

- 2 at Briefing Area
- 2 at Alternate Briefing Area

Legend

- H2S Monitor
- Flag





Chevron SD 24 13 Fed P415 13H Rev0 jib 02Aug19 Proposal Geodetic Report (Def Plan)



Report Date: August 03, 2019 - 04:43 PM
Client: Chevron
Field: NM Lea County (NAD 27)
Structure / Slot: Chevron SD 24 13 Fed P415 / 13H
Well: SD 24 13 Fed P415 13H
Borehole: SD 24 13 Fed P415 13H
UWI / API#: Unknown / Unknown
Survey Name: Chevron SD 24 13 Fed P415 13H Rev0 jib 02Aug19
Survey Date: August 03, 2019
Tort / AHD / DDI / ERD Ratio: 102.688 " / 10890.340 ft / 6.321 / 0.917
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 1' 17.42779", W 103° 37' 50.47522"
Location Grid N/E Y/X: N 372259.000 ftUS, E 717768.000 ftUS
CRS Grid Convergence Angle: 0.3726 °
Grid Scale Factor: 0.99996341
Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.720 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB = 32.6ft
TVD Reference Elevation: 3165.600 ft above
Seabed / Ground Elevation: 3133.000 ft above
Magnetic Declination: 6.656 °
Total Gravity Field Strength: 998.4359mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47658.523 nT
Magnetic Dip Angle: 59.611 °
Declination Date: August 03, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: 0.3726 °
Total Corr Mag North->Grid North: 6.2830 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	100.00	0.00	143.50	100.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	200.00	0.00	143.50	200.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	300.00	0.00	143.50	300.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	400.00	0.00	143.50	400.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	500.00	0.00	143.50	500.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
Rustler	600.00	0.00	143.50	600.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	601.27	0.00	143.50	601.27	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	700.00	0.00	143.50	700.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
13 3/8" Casing	800.00	0.00	143.50	800.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	850.00	0.00	143.50	850.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	900.00	0.00	143.50	900.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1000.00	0.00	143.50	1000.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1100.00	0.00	143.50	1100.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1200.00	0.00	143.50	1200.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1300.00	0.00	143.50	1300.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1400.00	0.00	143.50	1400.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1500.00	1.50	143.50	1499.99	-1.06	-1.05	0.78	1.50	372257.95	717768.78	N 32 1 17.42 W 103 37 50.47	
	1600.00	3.00	143.50	1599.91	-4.22	-4.21	3.11	1.50	372254.79	717771.11	N 32 1 17.39 W 103 37 50.44	
	1700.00	4.50	143.50	1699.69	-9.50	-9.46	7.00	1.50	372249.54	717775.00	N 32 1 17.33 W 103 37 50.39	
	1800.00	6.00	143.50	1799.27	-16.88	-16.82	12.45	1.50	372242.18	717780.45	N 32 1 17.26 W 103 37 50.33	
	1900.00	6.00	143.50	1898.72	-25.31	-25.22	18.67	0.00	372233.78	717786.67	N 32 1 17.18 W 103 37 50.26	
Hold	2000.00	6.00	143.50	1998.17	-33.74	-33.62	24.88	0.00	372225.38	717792.88	N 32 1 17.09 W 103 37 50.19	
	2100.00	6.00	143.50	2097.63	-42.18	-42.03	31.10	0.00	372216.98	717799.10	N 32 1 17.01 W 103 37 50.12	
	2200.00	6.00	143.50	2197.08	-50.61	-50.43	37.32	0.00	372208.57	717805.32	N 32 1 16.93 W 103 37 50.05	
	2300.00	6.00	143.50	2296.53	-59.04	-58.83	43.54	0.00	372200.17	717811.54	N 32 1 16.84 W 103 37 49.97	
	2400.00	6.00	143.50	2395.98	-67.47	-67.23	49.76	0.00	372191.77	717817.76	N 32 1 16.76 W 103 37 49.90	
	2500.00	6.00	143.50	2495.43	-75.91	-75.63	55.98	0.00	372183.37	717823.97	N 32 1 16.68 W 103 37 49.83	
	2600.00	6.00	143.50	2594.89	-84.34	-84.04	62.19	0.00	372174.97	717830.19	N 32 1 16.59 W 103 37 49.76	
	2700.00	6.00	143.50	2694.34	-92.77	-92.44	68.41	0.00	372166.57	717836.41	N 32 1 16.51 W 103 37 49.69	
	2800.00	6.00	143.50	2793.79	-101.20	-100.84	74.63	0.00	372158.16	717842.63	N 32 1 16.43 W 103 37 49.62	
	2900.00	6.00	143.50	2893.24	-109.64	-109.24	80.85	0.00	372149.76	717848.85	N 32 1 16.34 W 103 37 49.54	
	2916.06	6.00	143.50	2909.22	-110.99	-110.59	81.85	0.00	372148.41	717849.84	N 32 1 16.33 W 103 37 49.53	
	3000.00	6.00	143.50	2992.70	-118.07	-117.64	87.07	0.00	372141.36	717855.06	N 32 1 16.26 W 103 37 49.47	
	3100.00	6.00	143.50	3092.15	-126.50	-126.05	93.28	0.00	372132.96	717861.28	N 32 1 16.17 W 103 37 49.40	
	3200.00	6.00	143.50	3191.60	-134.93	-134.45	99.50	0.00	372124.56	717867.50	N 32 1 16.09 W 103 37 49.33	
	3300.00	6.00	143.50	3291.05	-143.36	-142.85	105.72	0.00	372116.16	717873.72	N 32 1 16.01 W 103 37 49.26	
Drop 1.5"/100ft	3400.00	6.00	143.50	3390.50	-151.80	-151.25	111.94	0.00	372107.75	717879.94	N 32 1 15.92 W 103 37 49.19	
	3500.00	6.00	143.50	3489.96	-160.23	-159.65	118.16	0.00	372099.35	717886.15	N 32 1 15.84 W 103 37 49.11	
	3600.00	6.00	143.50	3589.41	-168.66	-168.06	124.38	0.00	372090.95	717892.37	N 32 1 15.76 W 103 37 49.04	
	3700.00	6.00	143.50	3688.86	-177.09	-176.46	130.59	0.00	372082.55	717898.59	N 32 1 15.67 W 103 37 48.97	
	3800.00	6.00	143.50	3788.31	-185.53	-184.86	136.81	0.00	372074.15	717904.81	N 32 1 15.59 W 103 37 48.90	
	3896.65	6.00	143.50	3884.43	-193.68	-192.98	142.82	0.00	372066.03	717910.82	N 32 1 15.51 W 103 37 48.83	
	3900.00	5.95	143.50	3887.77	-193.96	-193.26	143.03	1.50	372065.75	717911.02	N 32 1 15.51 W 103 37 48.83	
	4000.00	4.45	143.50	3987.35	-201.27	-200.55	148.42	1.50	372058.46	717916.42	N 32 1 15.43 W 103 37 48.77	
	4100.00	2.95	143.50	4087.14	-206.47	-205.73	152.26	1.50	372053.28	717920.25	N 32 1 15.38 W 103 37 48.72	
	4200.00	1.45	143.50	4187.06	-209.57	-208.82	154.54	1.50	372050.19	717922.54	N 32 1 15.35 W 103 37 48.70	
	4296.65	0.00	143.50	4283.70	-210.56	-209.80	155.27	1.50	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4300.00	0.00	143.50	4287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4400.00	0.00	143.50	4387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4500.00	0.00	143.50	4487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4600.00	0.00	143.50	4587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
Lamar	4604.69	0.00	143.50	4591.74	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4619.95	0.00	143.50	4607.00	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4638.54	0.00	143.50	4625.59	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
9 5/8" Casing Bell Canyon	4700.00	0.00	143.50	4687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4800.00	0.00	143.50	4787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4900.00	0.00	143.50	4887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5000.00	0.00	143.50	4987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5100.00	0.00	143.50	5087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5200.00	0.00	143.50	5187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5300.00	0.00	143.50	5287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5400.00	0.00	143.50	5387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5500.00	0.00	143.50	5487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5600.00	0.00	143.50	5587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5671.06	0.00	143.50	5588.11	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5700.00	0.00	143.50	5687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5800.00	0.00	143.50	5787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5900.00	0.00	143.50	5887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6000.00	0.00	143.50	5987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
Cherry Canyon	6100.00	0.00	143.50	6087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6200.00	0.00	143.50	6187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6300.00	0.00	143.50	6287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6400.00	0.00	143.50	6387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6500.00	0.00	143.5									

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Brushy Canyon	7269.34	0.00	143.50	7256.39	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7300.00	0.00	143.50	7287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7400.00	0.00	143.50	7387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7500.00	0.00	143.50	7487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7600.00	0.00	143.50	7587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7700.00	0.00	143.50	7687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7800.00	0.00	143.50	7787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7900.00	0.00	143.50	7887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8000.00	0.00	143.50	7987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8100.00	0.00	143.50	8087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8200.00	0.00	143.50	8187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8300.00	0.00	143.50	8287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8400.00	0.00	143.50	8387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8500.00	0.00	143.50	8487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8600.00	0.00	143.50	8587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8700.00	0.00	143.50	8687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8800.00	0.00	143.50	8787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Bone Spring	8815.56	0.00	143.50	8802.61	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Upper Avalon	8869.97	0.00	143.50	8857.02	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8900.00	0.00	143.50	8887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9000.00	0.00	143.50	8987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9100.00	0.00	143.50	9087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9200.00	0.00	143.50	9187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9300.00	0.00	143.50	9287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9400.00	0.00	143.50	9387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9500.00	0.00	143.50	9487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9600.00	0.00	143.50	9587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9700.00	0.00	143.50	9687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Top Bone Spring 1	9716.12	0.00	143.50	9703.17	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9800.00	0.00	143.50	9787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9900.00	0.00	143.50	9887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10000.00	0.00	143.50	9987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10100.00	0.00	143.50	10087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10200.00	0.00	143.50	10187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10300.00	0.00	143.50	10287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Top Bone Spring 2	10333.47	0.00	143.50	10320.52	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10400.00	0.00	143.50	10387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10500.00	0.00	143.50	10487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10600.00	0.00	143.50	10587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10700.00	0.00	143.50	10687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10800.00	0.00	143.50	10787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Third Bone Spring 1st Carbonate	10804.16	0.00	143.50	10791.21	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
7 5/8" Casing	10829.95	0.00	143.50	10817.00	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10900.00	0.00	143.50	10887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11000.00	0.00	143.50	10987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11100.00	0.00	143.50	11087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11200.00	0.00	143.50	11187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11300.00	0.00	143.50	11287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
KOP, Build 10"/100ft	11300.15	0.00	143.50	11287.20	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11400.00	9.99	359.72	11386.55	-201.88	-201.12	155.23	10.00	372057.89	717923.22	N 32 1 15.43	W 103 37 48.69
Top Bone Spring 3	11494.66	19.45	359.72	11478.00	-177.85	-177.10	155.11	10.00	372081.10	717923.10	N 32 1 15.67	W 103 37 48.69
FTP Cross	11500.00	19.99	359.72	11483.03	-176.05	-175.30	155.10	10.00	372083.71	717923.09	N 32 1 15.68	W 103 37 48.69
	11542.00	24.19	359.72	11521.93	-160.26	-159.51	155.02	10.00	372099.50	717923.01	N 32 1 15.84	W 103 37 48.69
	11600.00	29.99	359.72	11573.55	-133.87	-133.11	154.89	10.00	372125.89	717922.88	N 32 1 16.10	W 103 37 48.69
	11700.00	39.99	359.72	11655.38	-76.60	-75.85	154.61	10.00	372183.15	717922.60	N 32 1 16.67	W 103 37 48.69
	11800.00	49.99	359.72	11726.02	-6.00	-5.25	154.26	10.00	372253.75	717922.25	N 32 1 17.37	W 103 37 48.68
	11900.00	59.99	359.72	11783.32	75.80	76.55	153.85	10.00	372335.55	717921.84	N 32 1 18.18	W 103 37 48.68
Third Bone Spring Target 1	11998.39	69.82	359.72	11825.00	164.79	165.54	153.41	10.00	372424.53	717921.40	N 32 1 19.06	W 103 37 48.68
	12000.00	69.99	359.72	11825.55	166.30	167.05	153.40	10.00	372426.05	717921.40	N 32 1 19.07	W 103 37 48.68
Landing Point	12100.00	79.99	359.72	11851.43	262.76	263.51	152.92	10.00	372522.50	717920.92	N 32 1 20.03	W 103 37 48.68
	12196.22	89.61	359.72	11860.14	358.47	359.22	152.45	10.00	372618.21	717920.44	N 32 1 20.97	W 103 37 48.68
	12200.00	89.61	359.72	11860.17	362.25	363.00	152.43	0.00	372621.99	717920.42	N 32 1 21.01	W 103 37 48.68
	12300.00	89.61	359.72	11860.86	462.25	463.00	151.93	0.00	372721.98	717919.93	N 32 1 22.00	W 103 37 48.68
	12400.00	89.61	359.72	11861.54	562.25	563.00	151.44	0.00	372821.97	717919.43	N 32 1 22.99	W 103 37 48.67
	12500.00	89.61	359.72	11862.23	662.25	662.99	150.94	0.00	372921.97	717918.94	N 32 1 23.98	W 103 37 48.67
	12600.00	89.61	359.72	11862.91	762.25	762.99	150.45	0.00	373021.96	717918.44	N 32 1 24.97	W 103 37 48.67
	12700.00	89.61	359.72	11863.60	862.24	862.99	149.95	0.00	373121.95	717917.95	N 32 1 25.96	W 103 37 48.67
	12800.00	89.61	359.72	11864.29	962.24	962.98	149.46	0.00	373221.95	717917.45	N 32 1 26.95	W 103 37 48.67
	12900.00	89.61	359.72	11864.97	1062.24	1062.98	148.96	0.00	373321.94	717916.96	N 32 1 27.94	W 103 37 48.66
	13000.00	89.61	359.72	11865.66	1162.24	1162.98	148.47	0.00	373421.93	717916.46	N 32 1 28.93	W 103 37 48.66
	13100.00	89.61	359.72	11866.35	1262.23	1262.97	147.97	0.00	373521.92	717915.96	N 32 1 29.92	W 103 37 48.66
	13200.00	89.61	359.72	11867.03	1362.23	1362.97	147.47	0.00	373621.92	717915.47	N 32 1 30.91	W 103 37 48.66
	13300.00	89.61	359.72	11867.72	1462.23	1462.96	146.98	0.00	373721.91	717914.97	N 32 1 31.90	W 103 37 48.66
	13400.00	89.61	359.72	11868.40	1562.23	1562.96	146.48	0.00	373821.90	717914.48	N 32 1 32.88	W 103 37 48.66
	13500.00	89.61	359.72	11869.09	1662.22	1662.96	145.99	0.00	373921.89	717913.98	N 32 1 33.87	W 103 37 48

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
MP, Build 2"/100ft	16929.41	90.53	359.72	11850.60	5091.51	5092.20	129.00	0.00	377351.00	717897.00	N 32 2 7.81 W 103 37 48.59	
Hold	16937.25	90.69	359.72	11850.52	5099.34	5100.03	128.97	2.00	377358.83	717896.96	N 32 2 7.89 W 103 37 48.59	
	17000.00	90.69	359.72	11849.76	5162.09	5162.78	128.66	0.00	377421.58	717896.65	N 32 2 8.51 W 103 37 48.59	
	17100.00	90.69	359.72	11848.56	5262.08	5262.77	128.16	0.00	377521.57	717896.15	N 32 2 9.50 W 103 37 48.59	
	17200.00	90.69	359.72	11847.36	5362.07	5362.76	127.66	0.00	377621.55	717895.66	N 32 2 10.49 W 103 37 48.59	
	17300.00	90.69	359.72	11846.16	5462.07	5462.75	127.17	0.00	377721.54	717895.16	N 32 2 11.48 W 103 37 48.59	
	17400.00	90.69	359.72	11844.96	5562.06	5562.75	126.67	0.00	377821.53	717894.67	N 32 2 12.47 W 103 37 48.58	
	17500.00	90.69	359.72	11843.76	5662.05	5662.74	126.18	0.00	377921.52	717894.17	N 32 2 13.46 W 103 37 48.58	
	17600.00	90.69	359.72	11842.55	5762.05	5762.73	125.68	0.00	378021.51	717893.68	N 32 2 14.45 W 103 37 48.58	
	17700.00	90.69	359.72	11841.35	5862.04	5862.72	125.19	0.00	378121.49	717893.18	N 32 2 15.43 W 103 37 48.58	
	17800.00	90.69	359.72	11840.15	5962.03	5962.71	124.69	0.00	378221.48	717892.69	N 32 2 16.42 W 103 37 48.58	
	17900.00	90.69	359.72	11838.95	6062.02	6062.70	124.19	0.00	378321.47	717892.19	N 32 2 17.41 W 103 37 48.57	
	18000.00	90.69	359.72	11837.75	6162.02	6162.69	123.70	0.00	378421.46	717891.69	N 32 2 18.40 W 103 37 48.57	
	18100.00	90.69	359.72	11836.55	6262.01	6262.69	123.20	0.00	378521.44	717891.20	N 32 2 19.39 W 103 37 48.57	
	18200.00	90.69	359.72	11835.34	6362.00	6362.68	122.71	0.00	378621.43	717890.70	N 32 2 20.38 W 103 37 48.57	
	18300.00	90.69	359.72	11834.14	6461.99	6462.67	122.21	0.00	378721.42	717890.21	N 32 2 21.37 W 103 37 48.57	
	18400.00	90.69	359.72	11832.94	6561.99	6562.66	121.72	0.00	378821.41	717889.71	N 32 2 22.36 W 103 37 48.57	
	18500.00	90.69	359.72	11831.74	6661.98	6662.65	121.22	0.00	378921.40	717889.22	N 32 2 23.35 W 103 37 48.56	
	18600.00	90.69	359.72	11830.54	6761.97	6762.64	120.73	0.00	379021.38	717888.72	N 32 2 24.34 W 103 37 48.56	
	18700.00	90.69	359.72	11829.34	6861.97	6862.64	120.23	0.00	379121.37	717888.22	N 32 2 25.33 W 103 37 48.56	
	18800.00	90.69	359.72	11828.14	6961.96	6962.63	119.73	0.00	379221.36	717887.73	N 32 2 26.32 W 103 37 48.56	
	18900.00	90.69	359.72	11826.93	7061.95	7062.62	119.24	0.00	379321.35	717887.23	N 32 2 27.31 W 103 37 48.56	
	19000.00	90.69	359.72	11825.73	7161.94	7162.61	118.74	0.00	379421.33	717886.74	N 32 2 28.30 W 103 37 48.55	
Third Bone Spring Target 1	19061.01	90.69	359.72	11825.00	7222.95	7223.61	118.44	0.00	379482.33	717886.44	N 32 2 28.90 W 103 37 48.55	
	19100.00	90.69	359.72	11824.53	7261.94	7262.60	118.25	0.00	379521.32	717886.24	N 32 2 29.29 W 103 37 48.55	
	19200.00	90.69	359.72	11823.33	7361.93	7362.59	117.75	0.00	379621.31	717885.75	N 32 2 30.28 W 103 37 48.55	
	19300.00	90.69	359.72	11822.13	7461.92	7462.58	117.26	0.00	379721.30	717885.25	N 32 2 31.27 W 103 37 48.55	
	19400.00	90.69	359.72	11820.93	7561.92	7562.58	116.76	0.00	379821.28	717884.76	N 32 2 32.26 W 103 37 48.55	
	19500.00	90.69	359.72	11819.73	7661.91	7662.57	116.26	0.00	379921.27	717884.26	N 32 2 33.25 W 103 37 48.55	
	19600.00	90.69	359.72	11818.52	7761.90	7762.56	115.77	0.00	380021.26	717883.76	N 32 2 34.24 W 103 37 48.54	
	19700.00	90.69	359.72	11817.32	7861.89	7862.55	115.27	0.00	380121.25	717883.27	N 32 2 35.22 W 103 37 48.54	
	19800.00	90.69	359.72	11816.12	7961.89	7962.54	114.78	0.00	380221.24	717882.77	N 32 2 36.21 W 103 37 48.54	
	19900.00	90.69	359.72	11814.92	8061.88	8062.53	114.28	0.00	380321.22	717882.28	N 32 2 37.20 W 103 37 48.54	
	20000.00	90.69	359.72	11813.72	8161.87	8162.53	113.79	0.00	380421.21	717881.78	N 32 2 38.19 W 103 37 48.54	
	20100.00	90.69	359.72	11812.52	8261.86	8262.52	113.29	0.00	380521.20	717881.29	N 32 2 39.18 W 103 37 48.53	
	20200.00	90.69	359.72	11811.32	8361.86	8362.51	112.80	0.00	380621.19	717880.79	N 32 2 40.17 W 103 37 48.53	
	20300.00	90.69	359.72	11810.11	8461.85	8462.50	112.30	0.00	380721.17	717880.30	N 32 2 41.16 W 103 37 48.53	
	20400.00	90.69	359.72	11808.91	8561.84	8562.49	111.80	0.00	380821.16	717879.80	N 32 2 42.15 W 103 37 48.53	
	20500.00	90.69	359.72	11807.71	8661.84	8662.48	111.31	0.00	380921.15	717879.30	N 32 2 43.14 W 103 37 48.53	
	20600.00	90.69	359.72	11806.51	8761.83	8762.47	110.81	0.00	381021.14	717878.81	N 32 2 44.13 W 103 37 48.53	
	20700.00	90.69	359.72	11805.31	8861.82	8862.47	110.32	0.00	381121.12	717878.31	N 32 2 45.12 W 103 37 48.52	
	20800.00	90.69	359.72	11804.11	8961.81	8962.46	109.82	0.00	381221.11	717877.82	N 32 2 46.11 W 103 37 48.52	
	20900.00	90.69	359.72	11802.90	9061.81	9062.45	109.33	0.00	381321.10	717877.32	N 32 2 47.10 W 103 37 48.52	
	21000.00	90.69	359.72	11801.70	9161.80	9162.44	108.83	0.00	381421.09	717876.83	N 32 2 48.09 W 103 37 48.52	
	21100.00	90.69	359.72	11800.50	9261.79	9262.43	108.33	0.00	381521.08	717876.33	N 32 2 49.08 W 103 37 48.52	
	21200.00	90.69	359.72	11799.30	9361.79	9362.42	107.84	0.00	381621.06	717875.83	N 32 2 50.07 W 103 37 48.51	
	21300.00	90.69	359.72	11798.10	9461.78	9462.42	107.34	0.00	381721.05	717875.34	N 32 2 51.06 W 103 37 48.51	
	21400.00	90.69	359.72	11796.90	9561.77	9562.41	106.85	0.00	381821.04	717874.84	N 32 2 52.05 W 103 37 48.51	
	21500.00	90.69	359.72	11795.70	9661.76	9662.40	106.35	0.00	381921.03	717874.35	N 32 2 53.04 W 103 37 48.51	
	21600.00	90.69	359.72	11794.49	9761.76	9762.39	105.86	0.00	382021.01	717873.85	N 32 2 54.03 W 103 37 48.51	
	21700.00	90.69	359.72	11793.29	9861.75	9862.38	105.36	0.00	382121.00	717873.36	N 32 2 55.01 W 103 37 48.51	
	21800.00	90.69	359.72	11792.09	9961.74	9962.37	104.87	0.00	382220.99	717872.86	N 32 2 56.00 W 103 37 48.50	
	21900.00	90.69	359.72	11790.89	10061.73	10062.36	104.37	0.00	382320.98	717872.37	N 32 2 56.99 W 103 37 48.50	
	22000.00	90.69	359.72	11789.69	10161.73	10162.36	103.87	0.00	382420.96	717871.87	N 32 2 57.98 W 103 37 48.50	
	22100.00	90.69	359.72	11788.49	10261.72	10262.35	103.38	0.00	382520.95	717871.37	N 32 2 58.97 W 103 37 48.50	
LTP Cross	22181.86	90.69	359.72	11787.50	10343.57	10344.20	102.97	0.00	382602.80	717870.97	N 32 2 59.78 W 103 37 48.50	
	22200.00	90.69	359.72	11787.29	10361.71	10362.34	102.88	0.00	382620.94	717870.88	N 32 2 59.96 W 103 37 48.50	
SD 24 13 Fed P415 13H - PBHL	22257.07	90.69	359.72	11786.60	10418.78	10419.40	102.60	0.00	382678.00	717870.60	N 32 3 0.53 W 103 37 48.50	

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	32.600	1/100.000	30.000	30.000		B001Mb_MWD+HRGM-Depth Only	SD 24 13 Fed P415 13H / Chevron SD 24 13 Fed P415 13H Rev0 jib 02Aug19
	1	32.600	22257.067	1/100.000	30.000	30.000		B001Mb_MWD+HRGM	SD 24 13 Fed P415 13H / Chevron SD 24 13 Fed P415 13H

Chevron U.S.A. Inc. (CUSA)
SUNDRY ATTACHMENT: SPUDDER RIG

DATA OPERATOR NAME: Chevron U.S.A. Inc.

1. SUMMARY OF REQUEST:

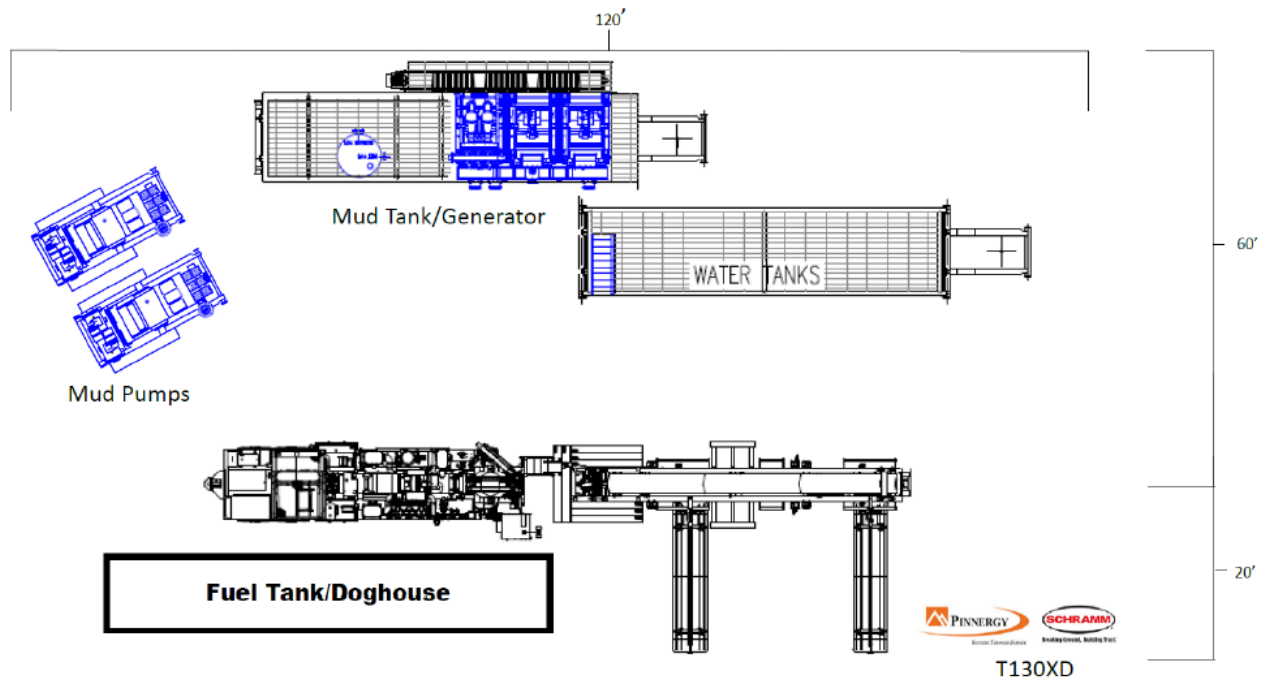
CUSA respectfully requests approval for the following operations for the surface hole in the drill plan:

1. Utilize a spudder rig to pre-set surface casing for time and cost savings.

2. Description of Operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
 - a. After drilling the surface hole section, the spudder rig will run casing and cement following all the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and then tested offline after the WOC time has been reached.
3. An abandonment cap at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on one wing-valve.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
 - b. The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.
7. CUSA will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, CUSA will secure the wellhead area by placing a guard rail around the cellar area.

Surface Rig Layout



Delaware Basin Changes to APD / COA for Federal Well



Well Names:

Well Name		API #
SD 24 13 Fed P415	13H	
SD 24 13 Fed P415	14H	
SD 24 13 Fed P415	15H	
SD 24 13 Fed P415	16H	

Rig: Nabors X30

CVX CONTACT:

CODY LEATHERS
CHEVRON D&C ENGINEER
1400 SMITH ST, HOUSTON, TX
MOBILE: 832.523.6837
OFFICE: 713.372.8263
CODYLEATHERS@CHEVRON.COM

Summary of Changes to APD Submission

Chevron respectfully request to vary from the Onshore Order 2 where it states:

“(A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken.”

We propose to perform a “break test” on the BOP when able to finish the next hole section within 21 days of the previous full BOP test. Upon the first nipple up of the pad a full BOP test will be performed. The break test will consist of a 250 psi low / $\geq 5,000$ psi high (10 min ea.) test against the connection that was broken when skidding the rig (between the BOP and the wellhead). Time between full BOP tests will never surpass 21 days. A break test will not be performed on our last production hole section. A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized.

See figure below where skid sequence shows all possible skids between wells where break test may occur.

Drilling Sequence & Slot Designation (West to East)

	SD 23 14 Fed P415			
	13H	14H	15H	16H
Surface	Drilled by surface rig			
Intermediate 1	1	3	5	7
Intermediate 2 Liner	2	4	6	8
Pilot Hole				
Production	12	11	10	9



H₂S Preparedness and Contingency Plan Summary

SD 24 13 FED P415

SD 24 13 FED P416

Training

MCBU Drilling and Completions H₂S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H₂S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H₂S, who are not required to perform work in H₂S areas, will be provided with an awareness level of H₂S training prior to entering any H₂S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H₂S
2. Health hazards of H₂S
3. Personal protective equipment
4. Information regarding potential sources of H₂S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

Advanced Level H₂S Training

Employees and contractors required to work in areas that may contain H₂S will be provided with Advanced Level H₂S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H₂S training will include:

1. H₂S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H₂S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H₂S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H₂S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H₂S training;
6. Proficiency examination covering all course material.

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H₂S Preparedness and Contingency Plan Summary

H₂S Training Certification

All employees and visitors will be issued an H₂S training certification card (or certificate) upon successful completion of the appropriate H₂S training course. Personnel working in an H₂S environment will carry a current H₂S training certification card as proof of having received the proper training on their person at all times.

Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be upwind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

H₂S Equipment

Respiratory Protection

- a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

Visual Warning System

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

H₂S Detection and Monitoring System

- a) H₂S monitoring system (sensor head, warning light and siren) placed throughout rig.
 - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
 - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



H₂S Preparedness and Contingency Plan Summary

Well Control Equipment

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud / gas separator

Mud Program

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 1. Use of a degasser
- 2. Use of a zinc based mud treatment
- 3. Increasing mud weight

Public Safety - Emergency Assistance

<u>Agency</u>	<u>Telephone Number</u>
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
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H₂S Preparedness and Contingency Plan Summary

Chevron MCBU D&C Emergency Notifications

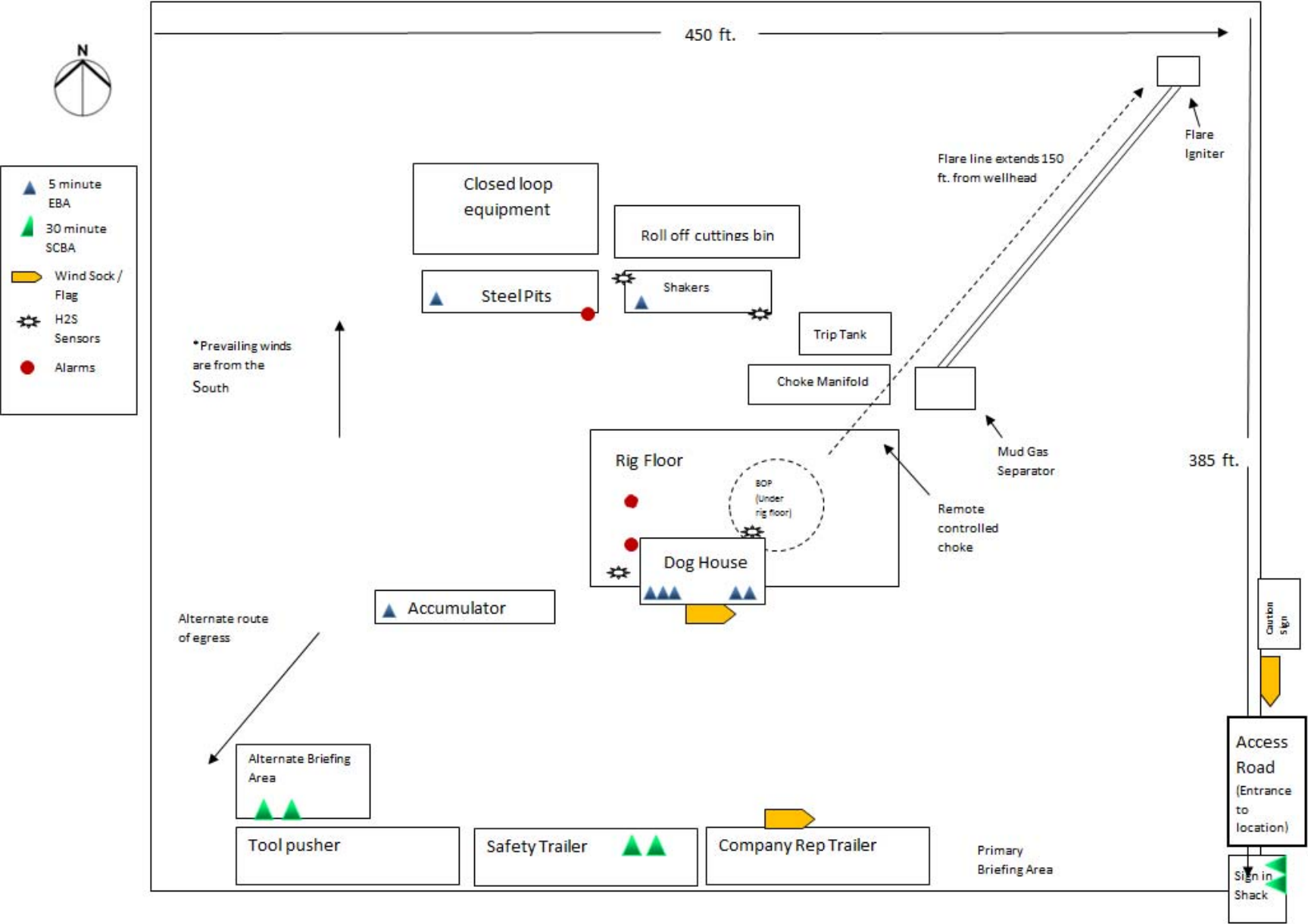
Below are lists of contacts to be used in emergency situations.

	Name	Title	Office Number	Cell Phone
1.	Tony Bacon	Drilling Engineer	(713) 372-4025	(406) 989-0415
2.	Chuck Schaff	Superintendent	(713) 372-4500	(281) 714-9329
5.	Scott Bowman	Drilling Manager	(713) 372-4479	(713) 492-4479
6.	Kyle Eastman	Operations Manager		(281) 755-6554
7.	Scott Simpson	D&C HES	(713) 372-7597	(281) 414 -6675
8.	Cynthia Lynch	Completion Engineer		(281) 254-0483



H₂S Preparedness and Contingency Plan Summary

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Chevron
SD 24 13 FED P415 13H
Lea County, NM

CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN
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6. MUD PROGRAM

From	To	TVD Top	TVD Btm	Type	Weight	F. Vis	Filtrate
0'	850'	0'	850'	Spud Mud	8.3-8.7	32 - 34	NC - NC
850'	4600'	850'	4,587'	Brine	9.4-10.6	28 - 30	25-30
4600'	10,820'	4,587'	10,808'	Cut Brine	8.8-10.0	70 - 75	25-30
10,820'	22,257'	10,808'	11,786'	Oil Based Mud	12.0-14.8	70 - 75	25-30

A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. TESTING, LOGGING, AND CORING

The anticipated type and amount of testing, logging, and coring are as follows:

- Drill stem tests are not planned.
- The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mudlogs	2 man mudlog	Int Csg to TD	Drillout of Int Csg	TBD
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling	TBD

- Conventional whole core samples are not planned.
- A Directional Survey will be run.

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- No abnormal pressures or temperatures are expected. Estimated BHP at intermediate TD is: 5750 psi
No abnormal pressures or temperatures are expected. Estimated BHP at production TD is: 8650 psi
- Hydrogen sulfide gas is not anticipated. An H₂S Contingency plan is attached with this APD in the event that H₂S is encountered

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DRILLING PLAN
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1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler (RSLR)		601	
Castile (CSTL)		2909	
Lamar (LMAR)		4592	
Bell Canyon (BLCN)		4626	
Cherry Canyon (CRCN)		5658	
Brushy Canyon (BCN)		7256	
Bone Spring (BSGL)		8803	
Upper Avalon (AVN)		8857	
Top Bone Spring 1 (FBS)		9703	
Top Bone Spring 2 (SBU)		10321	
Third Bone Spring 1st Carbonate (		10791	
Top Bone Spring 3 (TBS)		11478	
Third Bone Spring Target 1		11825	
Wolfcamp A (WCA)		11902	
Wolfcamp A Target 1 (Y Sand)		12060	
Wolfcamp A Target 2 (WCA SH)		12103	
Wolfcamp B (WCB)		12616	
Lateral TD (TBS Target 1)		11,786	22257

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		700
Water	Rustler	601
Water	Bell Canyon	4626
Water	Cherry Canyon	5658
Oil/Gas	Brushy Canyon	7256
Oil/Gas	Bone Spring (BSGL)	8803
Oil/Gas	Upper Avalon (AVN)	8857
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Oil/Gas	Wolfcamp	11902
Oil/Gas	Wolfcamp A Target 1 (Y Sand)	12060
Oil/Gas	Wolfcamp A Target 2 (WCA SH)	12103

All shows of fresh water and minerals will be reported and protected

3. **BOP EQUIPMENT**

Will have a minimum of a 10000 psi rig stack (see proposed schematic) for drill out below surface (Wolfcamp is not exposed until drillout of the intermediate casing). Could possibly utilize the 5000 psi rig stack (see proposed schematic) for drill out below surface casing due to the availability of 10 M annular. (Wolfcamp is not exposed until drillout of the intermediate casing) Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs) BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nipped up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal.

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CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN

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1. FORMATION TOPS

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Lea County, NM

CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN

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4. CASING PROGRAM

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	850'	17-1/2"	13-3/8"	54.5 #	J55	BTC	New
Intermediate 1	0'	4600'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Intermediate 2 (Liner)	4,300'	10,820'	8-1/2"	7-5/8"	29.7 #	L-80	W-513	New
Production	0'	10,320'	6-3/4"	5.5"	20#	P-110-ICY	TXP BTC	New
(Taper String)	10,320'	22,257'	6-3/4"	5"	18#	P-110 IC	W-521	New

b. Casing design subject to revision based on geologic conditions encountered.

c. ***A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalculated & sent to the BLM prior to drilling.

d. Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.

SF Calculations based on the following "Worst Case" casing design:

Surface Casing: 1150' TVD

Intermediate Casing: 5132' TVD

Intermediate Liner: 11,650' TVD

Production Casing: 23,000' MD/12,852' TVD (10,300' VS @ 90 deg inc)

4 String Design

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.48	2.10	4.91	1.80
Intermediate	1.52	1.87	2.79	1.83
Liner	1.33	2.59	1.60	1.66
Production	1.10	1.39	1.61	1.32

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int (1)	Int 2 (Liner)	Prod
Burst Design				
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X			
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 16 ppg Frac Gradient		X	X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid				X
Tubing leak- Prod Csg P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid				X
Collapse Design				
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X	X
Tension Design				
100k lb overpull	X	X	X	X

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5. CEMENTING PROGRAM

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water	Additives
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk	
Tail	Class C	0'	850'	14.8	1.33	50	650	6.57	Extender Antifoam Retarder
Intermediate									
Lead	Class C	0'	4,300'	11.9	2.20	30	730	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	4,300'	4600'	14.8	1.33	30	113	6.29	Antifoam Retarder Viscosifier
Liner									
Lead	Class C	4,300'	10,320'	11.9	2.17	140	462	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	10,320'	10,820'	14.8	1.33	50	59	6.29	Antifoam Extender Salt Retarder Viscosifier
Production									
Lead	Class H	7,500'	20,757'	15.6	1.19	35	1558	5.18	Antifoam Dispersent Fluid Loss Retarder Viscosifier
Tail	Class H	20,757'	22,257'	16.0	1.78	20	110	7.45	Antifoam Dispersent Fluid Loss Retarder Viscosifier

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

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Chevron
SD 24 13 FED P415 13H
Lea County, NM

CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN
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6. MUD PROGRAM

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H₂S Preparedness and Contingency Plan Summary

SD 24 13 FED P415

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H₂S Preparedness and Contingency Plan Summary

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H₂S Preparedness and Contingency Plan Summary

Well Control Equipment

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Mud Program

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Public Safety - Emergency Assistance

<u>Agency</u>	<u>Telephone Number</u>
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H₂S Preparedness and Contingency Plan Summary

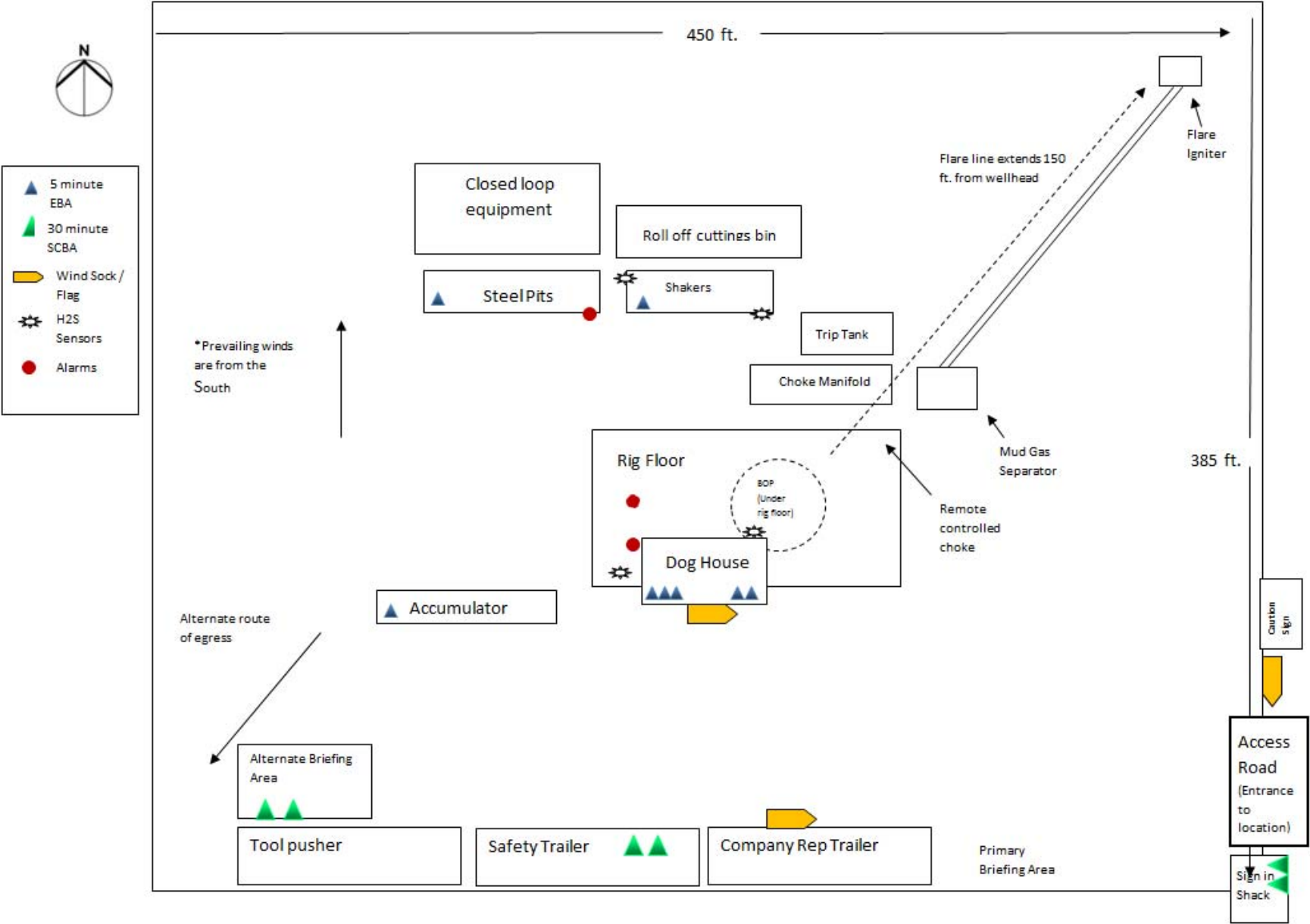
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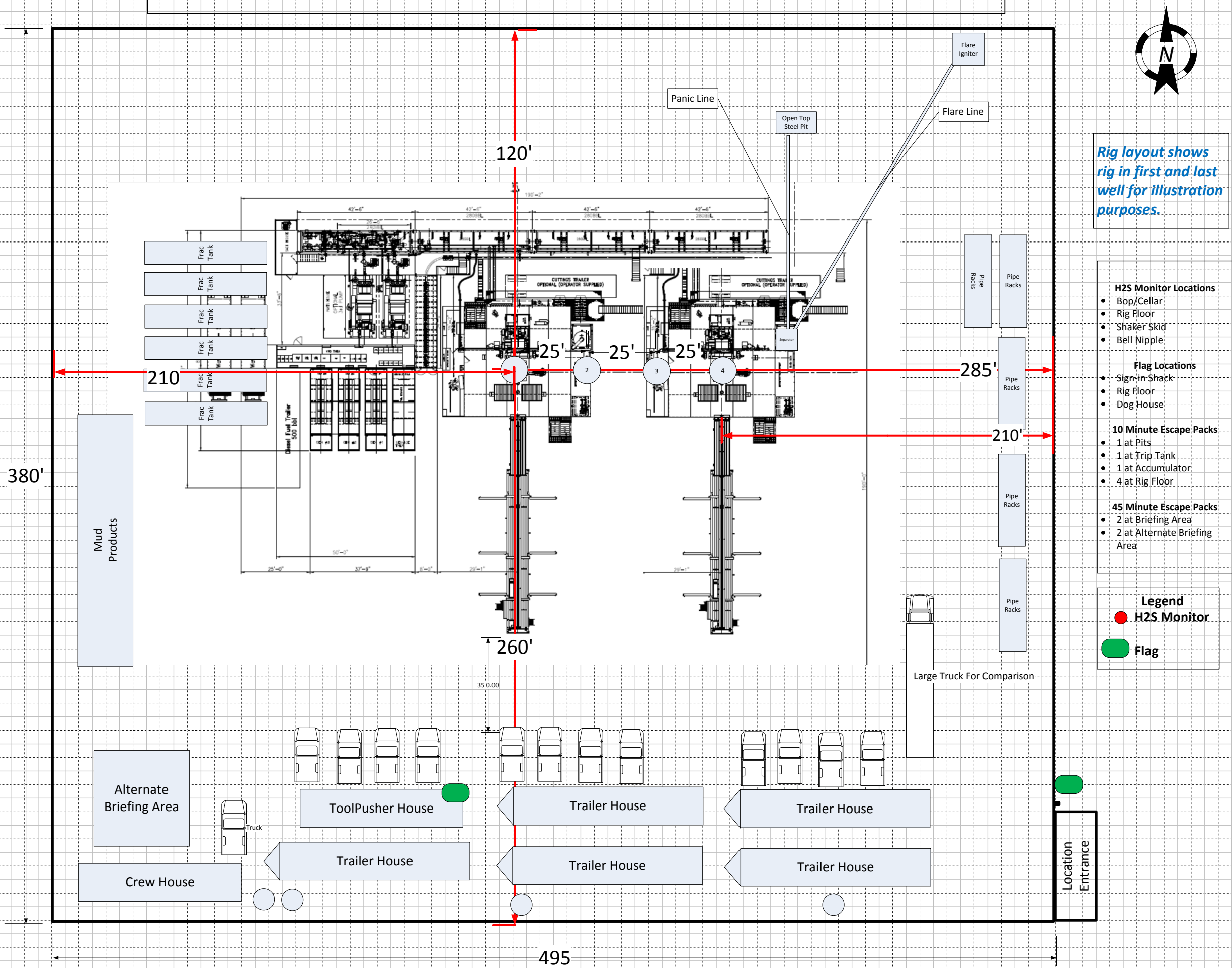
	Name	Title	Office Number	Cell Phone
1.	Tony Bacon	Drilling Engineer	(713) 372-4025	(406) 989-0415
2.	Chuck Schaff	Superintendent	(713) 372-4500	(281) 714-9329
5.	Scott Bowman	Drilling Manager	(713) 372-4479	(713) 492-4479
6.	Kyle Eastman	Operations Manager		(281) 755-6554
7.	Scott Simpson	D&C HES	(713) 372-7597	(281) 414 -6675
8.	Cynthia Lynch	Completion Engineer		(281) 254-0483

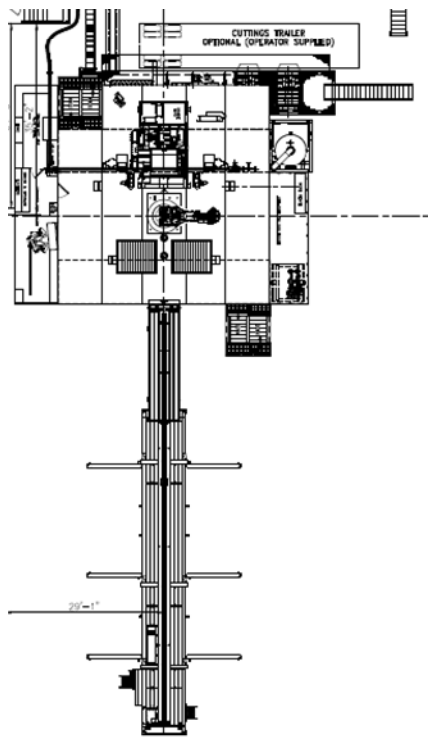


H₂S Preparedness and Contingency Plan Summary



Nabors Pace X Pad 415







Chevron SD 24 13 Fed P415 13H Rev0 jjb 02Aug19 Proposal Geodetic Report (Def Plan)



Report Date: August 03, 2019 - 04:43 PM
Client: Chevron
Field: NM Lea County (NAD 27)
Structure / Slot: Chevron SD 24 13 Fed P415 / 13H
Well: SD 24 13 Fed P415 13H
Borehole: SD 24 13 Fed P415 13H
UWI / API#: Unknown / Unknown
Survey Name: Chevron SD 24 13 Fed P415 13H Rev0 jjb 02Aug19
Survey Date: August 03, 2019
Tort / AHD / DDI / ERD Ratio: 102.688 " / 10890.340 ft / 6.321 / 0.917
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 1' 17.42779", W 103° 37' 50.47522"
Location Grid N/E Y/X: N 372259.000 ftUS, E 717768.000 ftUS
CRS Grid Convergence Angle: 0.3726 °
Grid Scale Factor: 0.99996341
Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.720 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB = 32.6ft
TVD Reference Elevation: 3165.600 ft above
Seabed / Ground Elevation: 3133.000 ft above
Magnetic Declination: 6.656 °
Total Gravity Field Strength: 998.4359mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47658.523 nT
Magnetic Dip Angle: 59.611 °
Declination Date: August 03, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: 0.3726 °
Total Corr Mag North->Grid North: 6.2830 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	100.00	0.00	143.50	100.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	200.00	0.00	143.50	200.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	300.00	0.00	143.50	300.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	400.00	0.00	143.50	400.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	500.00	0.00	143.50	500.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
Rustler	600.00	0.00	143.50	600.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	601.27	0.00	143.50	601.27	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	700.00	0.00	143.50	700.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
13 3/8" Casing	800.00	0.00	143.50	800.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	850.00	0.00	143.50	850.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	900.00	0.00	143.50	900.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1000.00	0.00	143.50	1000.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1100.00	0.00	143.50	1100.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1200.00	0.00	143.50	1200.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1300.00	0.00	143.50	1300.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1400.00	0.00	143.50	1400.00	0.00	0.00	0.00	0.00	372259.00	717768.00	N 32 1 17.43 W 103 37 50.48	
	1500.00	1.50	143.50	1499.99	-1.06	-1.05	0.78	1.50	372257.95	717768.78	N 32 1 17.42 W 103 37 50.47	
	1600.00	3.00	143.50	1599.91	-4.22	-4.21	3.11	1.50	372254.79	717771.11	N 32 1 17.39 W 103 37 50.44	
	1700.00	4.50	143.50	1699.69	-9.50	-9.46	7.00	1.50	372249.54	717775.00	N 32 1 17.33 W 103 37 50.39	
	1800.00	6.00	143.50	1799.27	-16.88	-16.82	12.45	1.50	372242.18	717780.45	N 32 1 17.26 W 103 37 50.33	
	1900.00	6.00	143.50	1898.72	-25.31	-25.22	18.67	0.00	372233.78	717786.67	N 32 1 17.18 W 103 37 50.26	
Hold	2000.00	6.00	143.50	1998.17	-33.74	-33.62	24.88	0.00	372225.38	717792.88	N 32 1 17.09 W 103 37 50.19	
	2100.00	6.00	143.50	2097.63	-42.18	-42.03	31.10	0.00	372216.98	717799.10	N 32 1 17.01 W 103 37 50.12	
	2200.00	6.00	143.50	2197.08	-50.61	-50.43	37.32	0.00	372208.57	717805.32	N 32 1 16.93 W 103 37 50.05	
	2300.00	6.00	143.50	2296.53	-59.04	-58.83	43.54	0.00	372200.17	717811.54	N 32 1 16.84 W 103 37 49.97	
	2400.00	6.00	143.50	2395.98	-67.47	-67.23	49.76	0.00	372191.77	717817.76	N 32 1 16.76 W 103 37 49.90	
	2500.00	6.00	143.50	2495.43	-75.91	-75.63	55.98	0.00	372183.37	717823.97	N 32 1 16.68 W 103 37 49.83	
	2600.00	6.00	143.50	2594.89	-84.34	-84.04	62.19	0.00	372174.97	717830.19	N 32 1 16.59 W 103 37 49.76	
	2700.00	6.00	143.50	2694.34	-92.77	-92.44	68.41	0.00	372166.57	717836.41	N 32 1 16.51 W 103 37 49.69	
	2800.00	6.00	143.50	2793.79	-101.20	-100.84	74.63	0.00	372158.16	717842.63	N 32 1 16.43 W 103 37 49.62	
	2900.00	6.00	143.50	2893.24	-109.64	-109.24	80.85	0.00	372149.76	717848.85	N 32 1 16.34 W 103 37 49.54	
	2916.06	6.00	143.50	2909.22	-110.99	-110.59	81.85	0.00	372148.41	717849.84	N 32 1 16.33 W 103 37 49.53	
	3000.00	6.00	143.50	2992.70	-118.07	-117.64	87.07	0.00	372141.36	717855.06	N 32 1 16.26 W 103 37 49.47	
	3100.00	6.00	143.50	3092.15	-126.50	-126.05	93.28	0.00	372132.96	717861.28	N 32 1 16.17 W 103 37 49.40	
	3200.00	6.00	143.50	3191.60	-134.93	-134.45	99.50	0.00	372124.56	717867.50	N 32 1 16.09 W 103 37 49.33	
	3300.00	6.00	143.50	3291.05	-143.36	-142.85	105.72	0.00	372116.16	717873.72	N 32 1 16.01 W 103 37 49.26	
Drop 1.5"/100ft	3400.00	6.00	143.50	3390.50	-151.80	-151.25	111.94	0.00	372107.75	717879.94	N 32 1 15.92 W 103 37 49.19	
	3500.00	6.00	143.50	3489.96	-160.23	-159.65	118.16	0.00	372099.35	717886.15	N 32 1 15.84 W 103 37 49.11	
	3600.00	6.00	143.50	3589.41	-168.66	-168.06	124.38	0.00	372090.95	717892.37	N 32 1 15.76 W 103 37 49.04	
	3700.00	6.00	143.50	3688.86	-177.09	-176.46	130.59	0.00	372082.55	717898.59	N 32 1 15.67 W 103 37 48.97	
	3800.00	6.00	143.50	3788.31	-185.53	-184.86	136.81	0.00	372074.15	717904.81	N 32 1 15.59 W 103 37 48.90	
	3896.65	6.00	143.50	3884.43	-193.68	-192.98	142.82	0.00	372066.03	717910.82	N 32 1 15.51 W 103 37 48.83	
	3900.00	5.95	143.50	3887.77	-193.96	-193.26	143.03	1.50	372065.75	717911.02	N 32 1 15.51 W 103 37 48.83	
	4000.00	4.45	143.50	3987.35	-201.27	-200.55	148.42	1.50	372058.46	717916.42	N 32 1 15.43 W 103 37 48.77	
	4100.00	2.95	143.50	4087.14	-206.47	-205.73	152.26	1.50	372053.28	717920.25	N 32 1 15.38 W 103 37 48.72	
	4200.00	1.45	143.50	4187.06	-209.57	-208.82	154.54	1.50	372050.19	717922.54	N 32 1 15.35 W 103 37 48.70	
	4296.65	0.00	143.50	4283.70	-210.56	-209.80	155.27	1.50	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4300.00	0.00	143.50	4287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4400.00	0.00	143.50	4387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4500.00	0.00	143.50	4487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4600.00	0.00	143.50	4587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
Lamar 9 5/8" Casing Bell Canyon	4604.69	0.00	143.50	4591.74	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4619.95	0.00	143.50	4607.00	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4638.54	0.00	143.50	4625.59	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4700.00	0.00	143.50	4687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4800.00	0.00	143.50	4787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	4900.00	0.00	143.50	4887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5000.00	0.00	143.50	4987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5100.00	0.00	143.50	5087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5200.00	0.00	143.50	5187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5300.00	0.00	143.50	5287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5400.00	0.00	143.50	5387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5500.00	0.00	143.50	5487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5600.00	0.00	143.50	5587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5671.06	0.00	143.50	5568.11	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5700.00	0.00	143.50	5687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
Cherry Canyon	5800.00	0.00	143.50	5787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	5900.00	0.00	143.50	5887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6000.00	0.00	143.50	5987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6100.00	0.00	143.50	6087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6200.00	0.00	143.50	6187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6300.00	0.00	143.50	6287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6400.00	0.00	143.50	6387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34 W 103 37 48.69	
	6500.00	0.00	143.50									

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Brushy Canyon	7269.34	0.00	143.50	7256.39	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7300.00	0.00	143.50	7287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7400.00	0.00	143.50	7387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7500.00	0.00	143.50	7487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7600.00	0.00	143.50	7587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7700.00	0.00	143.50	7687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7800.00	0.00	143.50	7787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	7900.00	0.00	143.50	7887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8000.00	0.00	143.50	7987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8100.00	0.00	143.50	8087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8200.00	0.00	143.50	8187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8300.00	0.00	143.50	8287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8400.00	0.00	143.50	8387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8500.00	0.00	143.50	8487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8600.00	0.00	143.50	8587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8700.00	0.00	143.50	8687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8800.00	0.00	143.50	8787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Bone Spring	8815.56	0.00	143.50	8802.61	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Upper Avalon	8869.97	0.00	143.50	8857.02	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	8900.00	0.00	143.50	8887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9000.00	0.00	143.50	8987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9100.00	0.00	143.50	9087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9200.00	0.00	143.50	9187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9300.00	0.00	143.50	9287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9400.00	0.00	143.50	9387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9500.00	0.00	143.50	9487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9600.00	0.00	143.50	9587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9700.00	0.00	143.50	9687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Top Bone Spring 1	9716.12	0.00	143.50	9703.17	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9800.00	0.00	143.50	9787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	9900.00	0.00	143.50	9887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10000.00	0.00	143.50	9987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10100.00	0.00	143.50	10087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10200.00	0.00	143.50	10187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10300.00	0.00	143.50	10287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Top Bone Spring 2	10333.47	0.00	143.50	10320.52	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10400.00	0.00	143.50	10387.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10500.00	0.00	143.50	10487.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10600.00	0.00	143.50	10587.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10700.00	0.00	143.50	10687.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10800.00	0.00	143.50	10787.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
Third Bone Spring 1st Carbonate	10804.16	0.00	143.50	10791.21	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
7 5/8" Casing	10829.95	0.00	143.50	10817.00	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	10900.00	0.00	143.50	10887.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11000.00	0.00	143.50	10987.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11100.00	0.00	143.50	11087.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11200.00	0.00	143.50	11187.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11300.00	0.00	143.50	11287.05	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
KOP, Build 10"/100ft	11300.15	0.00	143.50	11287.20	-210.56	-209.80	155.27	0.00	372049.21	717923.26	N 32 1 15.34	W 103 37 48.69
	11400.00	9.99	359.72	11386.55	-201.88	-201.12	155.23	10.00	372057.89	717923.22	N 32 1 15.43	W 103 37 48.69
Top Bone Spring 3	11494.66	19.45	359.72	11478.00	-177.85	-177.10	155.11	10.00	372081.90	717923.10	N 32 1 15.67	W 103 37 48.69
FTP Cross	11500.00	19.99	359.72	11483.03	-176.05	-175.30	155.10	10.00	372083.71	717923.09	N 32 1 15.68	W 103 37 48.69
	11542.00	24.19	359.72	11521.93	-160.26	-159.51	155.02	10.00	372099.50	717923.01	N 32 1 15.84	W 103 37 48.69
	11600.00	29.99	359.72	11573.55	-133.87	-133.11	154.89	10.00	372125.89	717922.88	N 32 1 16.10	W 103 37 48.69
	11700.00	39.99	359.72	11655.38	-76.60	-75.85	154.61	10.00	372183.15	717922.60	N 32 1 16.67	W 103 37 48.69
	11800.00	49.99	359.72	11726.02	-6.00	-5.25	154.26	10.00	372253.75	717922.25	N 32 1 17.37	W 103 37 48.68
	11900.00	59.99	359.72	11783.32	75.80	76.55	153.85	10.00	372335.55	717921.84	N 32 1 18.18	W 103 37 48.68
Third Bone Spring Target 1	11998.39	69.82	359.72	11825.00	164.79	165.54	153.41	10.00	372424.53	717921.40	N 32 1 19.06	W 103 37 48.68
	12000.00	69.99	359.72	11825.55	166.30	167.05	153.40	10.00	372426.05	717921.40	N 32 1 19.07	W 103 37 48.68
Landing Point	12100.00	79.99	359.72	11851.43	262.76	263.51	152.92	10.00	372522.50	717920.92	N 32 1 20.03	W 103 37 48.68
	12196.22	89.61	359.72	11860.14	358.47	359.22	152.45	10.00	372618.21	717920.44	N 32 1 20.97	W 103 37 48.68
	12200.00	89.61	359.72	11860.17	362.25	363.00	152.43	0.00	372621.99	717920.42	N 32 1 21.01	W 103 37 48.68
	12300.00	89.61	359.72	11860.86	462.25	463.00	151.93	0.00	372721.98	717919.93	N 32 1 22.00	W 103 37 48.68
	12400.00	89.61	359.72	11861.54	562.25	563.00	151.44	0.00	372821.97	717919.43	N 32 1 22.99	W 103 37 48.67
	12500.00	89.61	359.72	11862.23	662.25	662.99	150.94	0.00	372921.97	717918.94	N 32 1 23.98	W 103 37 48.67
	12600.00	89.61	359.72	11862.91	762.25	762.99	150.45	0.00	373021.96	717918.44	N 32 1 24.97	W 103 37 48.67
	12700.00	89.61	359.72	11863.60	862.24	862.99	149.95	0.00	373121.95	717917.95	N 32 1 25.96	W 103 37 48.67
	12800.00	89.61	359.72	11864.29	962.24	962.98	149.46	0.00	373221.95	717917.45	N 32 1 26.95	W 103 37 48.67
	12900.00	89.61	359.72	11864.97	1062.24	1062.98	148.96	0.00	373321.94	717916.96	N 32 1 27.94	W 103 37 48.66
	13000.00	89.61	359.72	11865.66	1162.24	1162.98	148.47	0.00	373421.93	717916.46	N 32 1 28.93	W 103 37 48.66
	13100.00	89.61	359.72	11866.35	1262.23	1262.97	147.97	0.00	373521.92	717915.96	N 32 1 29.92	W 103 37 48.66
	13200.00	89.61	359.72	11867.03	1362.23	1362.97	147.47	0.00	373621.92	717915.47	N 32 1 30.91	W 103 37 48.66
	13300.00	89.61	359.72	11867.72	1462.23	1462.96	146.98	0.00	373721.91	717914.97	N 32 1 31.90	W 103 37 48.66
	13400.00	89.61	359.72	11868.40	1562.23	1562.96	146.48	0.00	373821.90	717914.48	N 32 1 32.88	W 103 37 48.66
	13500.00	89.61	359.72	11869.09	1662.22	1662.96	145.99	0.00	373921.89	717913.98	N 32 1 33.87	W 103 37 48

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
MP, Build 2"/100ft	16929.41	90.53	359.72	11850.60	5091.51	5092.20	129.00	0.00	377351.00	717897.00	N 32 2 7.81 W 103 37 48.59	
Hold	16937.25	90.69	359.72	11850.52	5099.34	5100.03	128.97	2.00	377358.83	717896.96	N 32 2 7.89 W 103 37 48.59	
	17000.00	90.69	359.72	11849.76	5162.09	5162.78	128.66	0.00	377421.58	717896.65	N 32 2 8.51 W 103 37 48.59	
	17100.00	90.69	359.72	11848.56	5262.08	5262.77	128.16	0.00	377521.57	717896.15	N 32 2 9.50 W 103 37 48.59	
	17200.00	90.69	359.72	11847.36	5362.07	5362.76	127.66	0.00	377621.55	717895.66	N 32 2 10.49 W 103 37 48.59	
	17300.00	90.69	359.72	11846.16	5462.07	5462.75	127.17	0.00	377721.54	717895.16	N 32 2 11.48 W 103 37 48.59	
	17400.00	90.69	359.72	11844.96	5562.06	5562.75	126.67	0.00	377821.53	717894.67	N 32 2 12.47 W 103 37 48.58	
	17500.00	90.69	359.72	11843.76	5662.05	5662.74	126.18	0.00	377921.52	717894.17	N 32 2 13.46 W 103 37 48.58	
	17600.00	90.69	359.72	11842.55	5762.05	5762.73	125.68	0.00	378021.51	717893.68	N 32 2 14.45 W 103 37 48.58	
	17700.00	90.69	359.72	11841.35	5862.04	5862.72	125.19	0.00	378121.49	717893.18	N 32 2 15.43 W 103 37 48.58	
	17800.00	90.69	359.72	11840.15	5962.03	5962.71	124.69	0.00	378221.48	717892.69	N 32 2 16.42 W 103 37 48.58	
	17900.00	90.69	359.72	11838.95	6062.02	6062.70	124.19	0.00	378321.47	717892.19	N 32 2 17.41 W 103 37 48.57	
	18000.00	90.69	359.72	11837.75	6162.02	6162.69	123.70	0.00	378421.46	717891.69	N 32 2 18.40 W 103 37 48.57	
	18100.00	90.69	359.72	11836.55	6262.01	6262.69	123.20	0.00	378521.44	717891.20	N 32 2 19.39 W 103 37 48.57	
	18200.00	90.69	359.72	11835.34	6362.00	6362.68	122.71	0.00	378621.43	717890.70	N 32 2 20.38 W 103 37 48.57	
	18300.00	90.69	359.72	11834.14	6461.99	6462.67	122.21	0.00	378721.42	717890.21	N 32 2 21.37 W 103 37 48.57	
	18400.00	90.69	359.72	11832.94	6561.99	6562.66	121.72	0.00	378821.41	717889.71	N 32 2 22.36 W 103 37 48.57	
	18500.00	90.69	359.72	11831.74	6661.98	6662.65	121.22	0.00	378921.40	717889.22	N 32 2 23.35 W 103 37 48.56	
	18600.00	90.69	359.72	11830.54	6761.97	6762.64	120.73	0.00	379021.38	717888.72	N 32 2 24.34 W 103 37 48.56	
	18700.00	90.69	359.72	11829.34	6861.97	6862.64	120.23	0.00	379121.37	717888.22	N 32 2 25.33 W 103 37 48.56	
	18800.00	90.69	359.72	11828.14	6961.96	6962.63	119.73	0.00	379221.36	717887.73	N 32 2 26.32 W 103 37 48.56	
	18900.00	90.69	359.72	11826.93	7061.95	7062.62	119.24	0.00	379321.35	717887.23	N 32 2 27.31 W 103 37 48.56	
	19000.00	90.69	359.72	11825.73	7161.94	7162.61	118.74	0.00	379421.33	717886.74	N 32 2 28.30 W 103 37 48.55	
Third Bone Spring Target 1	19061.01	90.69	359.72	11825.00	7222.95	7223.61	118.44	0.00	379482.33	717886.44	N 32 2 28.90 W 103 37 48.55	
	19100.00	90.69	359.72	11824.53	7261.94	7262.60	118.25	0.00	379521.32	717886.24	N 32 2 29.29 W 103 37 48.55	
	19200.00	90.69	359.72	11823.33	7361.93	7362.59	117.75	0.00	379621.31	717885.75	N 32 2 30.28 W 103 37 48.55	
	19300.00	90.69	359.72	11822.13	7461.92	7462.58	117.26	0.00	379721.30	717885.25	N 32 2 31.27 W 103 37 48.55	
	19400.00	90.69	359.72	11820.93	7561.92	7562.58	116.76	0.00	379821.28	717884.76	N 32 2 32.26 W 103 37 48.55	
	19500.00	90.69	359.72	11819.73	7661.91	7662.57	116.26	0.00	379921.27	717884.26	N 32 2 33.25 W 103 37 48.55	
	19600.00	90.69	359.72	11818.52	7761.90	7762.56	115.77	0.00	380021.26	717883.76	N 32 2 34.24 W 103 37 48.54	
	19700.00	90.69	359.72	11817.32	7861.89	7862.55	115.27	0.00	380121.25	717883.27	N 32 2 35.22 W 103 37 48.54	
	19800.00	90.69	359.72	11816.12	7961.89	7962.54	114.78	0.00	380221.24	717882.77	N 32 2 36.21 W 103 37 48.54	
	19900.00	90.69	359.72	11814.92	8061.88	8062.53	114.28	0.00	380321.22	717882.28	N 32 2 37.20 W 103 37 48.54	
	20000.00	90.69	359.72	11813.72	8161.87	8162.53	113.79	0.00	380421.21	717881.78	N 32 2 38.19 W 103 37 48.54	
	20100.00	90.69	359.72	11812.52	8261.86	8262.52	113.29	0.00	380521.20	717881.29	N 32 2 39.18 W 103 37 48.53	
	20200.00	90.69	359.72	11811.32	8361.86	8362.51	112.80	0.00	380621.19	717880.79	N 32 2 40.17 W 103 37 48.53	
	20300.00	90.69	359.72	11810.11	8461.85	8462.50	112.30	0.00	380721.17	717880.30	N 32 2 41.16 W 103 37 48.53	
	20400.00	90.69	359.72	11808.91	8561.84	8562.49	111.80	0.00	380821.16	717879.80	N 32 2 42.15 W 103 37 48.53	
	20500.00	90.69	359.72	11807.71	8661.84	8662.48	111.31	0.00	380921.15	717879.30	N 32 2 43.14 W 103 37 48.53	
	20600.00	90.69	359.72	11806.51	8761.83	8762.47	110.81	0.00	381021.14	717878.81	N 32 2 44.13 W 103 37 48.53	
	20700.00	90.69	359.72	11805.31	8861.82	8862.47	110.32	0.00	381121.12	717878.31	N 32 2 45.12 W 103 37 48.52	
	20800.00	90.69	359.72	11804.11	8961.81	8962.46	109.82	0.00	381221.11	717877.82	N 32 2 46.11 W 103 37 48.52	
	20900.00	90.69	359.72	11802.90	9061.81	9062.45	109.33	0.00	381321.10	717877.32	N 32 2 47.10 W 103 37 48.52	
	21000.00	90.69	359.72	11801.70	9161.80	9162.44	108.83	0.00	381421.09	717876.83	N 32 2 48.09 W 103 37 48.52	
	21100.00	90.69	359.72	11800.50	9261.79	9262.43	108.33	0.00	381521.08	717876.33	N 32 2 49.08 W 103 37 48.52	
	21200.00	90.69	359.72	11799.30	9361.79	9362.42	107.84	0.00	381621.06	717875.83	N 32 2 50.07 W 103 37 48.51	
	21300.00	90.69	359.72	11798.10	9461.78	9462.42	107.34	0.00	381721.05	717875.34	N 32 2 51.06 W 103 37 48.51	
	21400.00	90.69	359.72	11796.90	9561.77	9562.41	106.85	0.00	381821.04	717874.84	N 32 2 52.05 W 103 37 48.51	
	21500.00	90.69	359.72	11795.70	9661.76	9662.40	106.35	0.00	381921.03	717874.35	N 32 2 53.04 W 103 37 48.51	
	21600.00	90.69	359.72	11794.49	9761.76	9762.39	105.86	0.00	382021.01	717873.85	N 32 2 54.03 W 103 37 48.51	
	21700.00	90.69	359.72	11793.29	9861.75	9862.38	105.36	0.00	382121.00	717873.36	N 32 2 55.01 W 103 37 48.51	
	21800.00	90.69	359.72	11792.09	9961.74	9962.37	104.87	0.00	382220.99	717872.86	N 32 2 56.00 W 103 37 48.50	
	21900.00	90.69	359.72	11790.89	10061.73	10062.36	104.37	0.00	382320.98	717872.37	N 32 2 56.99 W 103 37 48.50	
	22000.00	90.69	359.72	11789.69	10161.73	10162.36	103.87	0.00	382420.96	717871.87	N 32 2 57.98 W 103 37 48.50	
	22100.00	90.69	359.72	11788.49	10261.72	10262.35	103.38	0.00	382520.95	717871.37	N 32 2 58.97 W 103 37 48.50	
LTP Cross	22181.86	90.69	359.72	11787.50	10343.57	10344.20	102.97	0.00	382602.80	717870.97	N 32 2 59.78 W 103 37 48.50	
	22200.00	90.69	359.72	11787.29	10361.71	10362.34	102.88	0.00	382620.94	717870.88	N 32 2 59.96 W 103 37 48.50	
SD 24 13 Fed P415 13H - PBHL	22257.07	90.69	359.72	11786.60	10418.78	10419.40	102.60	0.00	382678.00	717870.60	N 32 3 0.53 W 103 37 48.50	

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	32.600	1/100.000	30.000	30.000		B001Mb_MWD+HRGM-Depth Only	SD 24 13 Fed P415 13H / Chevron SD 24 13 Fed P415 13H Rev0 jib 02Aug19
	1	32.600	22257.067	1/100.000	30.000	30.000		B001Mb_MWD+HRGM	SD 24 13 Fed P415 13H / Chevron SD 24 13 Fed P415 13H

Chevron U.S.A. Inc. (CUSA)
SUNDRY ATTACHMENT: SPUDDER RIG

DATA OPERATOR NAME: Chevron U.S.A. Inc.

1. SUMMARY OF REQUEST:

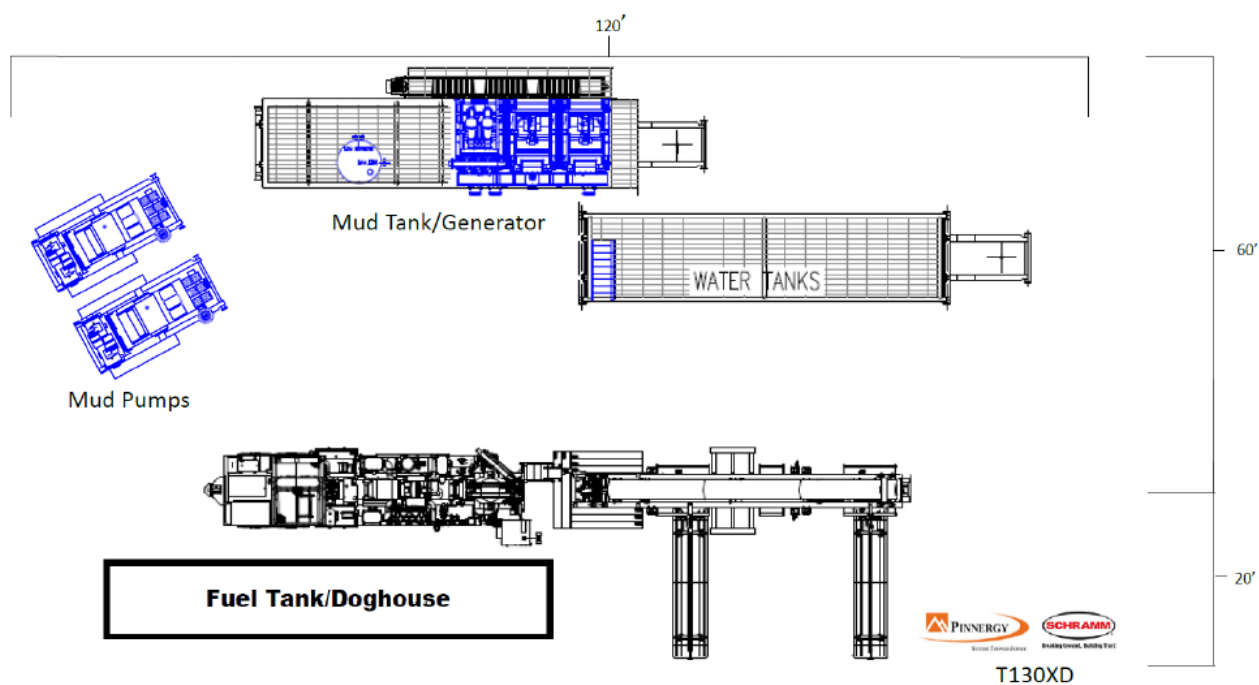
CUSA respectfully requests approval for the following operations for the surface hole in the drill plan:

1. Utilize a spudder rig to pre-set surface casing for time and cost savings.

2. Description of Operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
 - a. After drilling the surface hole section, the spudder rig will run casing and cement following all the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and then tested offline after the WOC time has been reached.
3. An abandonment cap at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on one wing-valve.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
 - b. The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.
7. CUSA will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, CUSA will secure the wellhead area by placing a guard rail around the cellar area.

Surface Rig Layout



Delaware Basin Changes to APD / COA for Federal Well



Well Names:

Well Name		API #
SD 24 13 Fed P415	13H	
SD 24 13 Fed P415	14H	
SD 24 13 Fed P415	15H	
SD 24 13 Fed P415	16H	

Rig: Nabors X30

CVX CONTACT:

CODY LEATHERS
CHEVRON D&C ENGINEER
1400 SMITH ST, HOUSTON, TX
MOBILE: 832.523.6837
OFFICE: 713.372.8263
CODYLEATHERS@CHEVRON.COM

Summary of Changes to APD Submission

Chevron respectfully request to vary from the Onshore Order 2 where it states:

“(A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken.”

We propose to perform a “break test” on the BOP when able to finish the next hole section within 21 days of the previous full BOP test. Upon the first nipple up of the pad a full BOP test will be performed. The break test will consist of a 250 psi low / $\geq 5,000$ psi high (10 min ea.) test against the connection that was broken when skidding the rig (between the BOP and the wellhead). Time between full BOP tests will never surpass 21 days. A break test will not be performed on our last production hole section. A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized.

See figure below where skid sequence shows all possible skids between wells where break test may occur.

Drilling Sequence & Slot Designation (West to East)

	SD 23 14 Fed P415				
	13H	14H	15H	16H	
Surface	Drilled by surface rig				
Intermediate 1	1	3	5	7	
Intermediate 2 Liner	2	4	6	8	
Pilot Hole					
Production	12	11	10	9	

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 27184

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 27184
	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	6/22/2021
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	6/22/2021