

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM120901

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. SND 12 01 FED 002 2H
2. Name of Operator CHEVRON USA INCORPORATED		9. API Well No. 30-015-45511-00-X1
3a. Address 6301 DEAUVILLE BLVD MIDLAND, TX 79706		10. Field and Pool or Exploratory Area WILDCAT
3b. Phone No. (include area code) Ph: 432-687-7665		11. County or Parish, State EDDY COUNTY, NM
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 12 T24S R31E SESW 983FSL 1665FWL 32.227341 N Lat, 103.734680 W Lon		

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Change to Original APD
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Chevron respectfully requests the intermediate casing cement job as indicated in the revised 9 Pt. Drilling Plan attached to this sundry.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #507823 verified by the BLM Well Information System For CHEVRON USA INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 03/21/2020 (20PP1723SE)	
Name (Printed/Typed) LAURA BECERRA	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 03/20/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>NDUNGU KAMAU</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>05/03/2020</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <u>Carlsbad</u>

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

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Accepted RWP 5/8/2020

Revisions to Operator-Submitted EC Data for Sundry Notice #507823

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM104684	NMNM120901
Agreement:		
Operator:	CHEVRON USA INC 6301 DEAUVILLE BLVD MIDLAND, TX 79706 Ph: 432-687-7665	CHEVRON USA INCORPORATED 6301 DEAUVILLE BLVD MIDLAND, TX 79706 Ph: 432 687 7100
Admin Contact:	LAURA BECERRA REGULATORY SPECIALIST E-Mail: LBECERRA@CHEVRON.COM Ph: 432-687-7665	LAURA BECERRA REGULATORY SPECIALIST E-Mail: LBECERRA@CHEVRON.COM Ph: 432-687-7665
Tech Contact:	LAURA BECERRA REGULATORY SPECIALIST E-Mail: LBECERRA@CHEVRON.COM Ph: 432-687-7665	LAURA BECERRA REGULATORY SPECIALIST E-Mail: LBECERRA@CHEVRON.COM Ph: 432-687-7665
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	COTTON DRAW;BONE SPRING	WILDCAT
Well/Facility:	SND 12 01 FED 002 2H Sec 12 T24S R31E Mer NMP SESW 983FSL 1665FWL	SND 12 01 FED 002 2H Sec 12 T24S R31E SESW 983FSL 1665FWL 32.227341 N Lat, 103.734680 W Lon

Pad Summary

The table below lists all the wells for the given pad and their respective name and TVD's (ft) for their production target intervals:

Well Name(s)	Target TVD	Formation Desc.
SND 12 01 FED 002 1H	AVALON	
SND 12 01 FED 002 2H	AVALON	9036
SND 12 01 FED 002 3H	AVALON	9036

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

Elevation: 3552 ft

FORMATION	SUB-SEA TVD	TVD	MD	LITHOLOGIES	MIN. RESOURCES	PROD. FORMATION
Rustler	2786	766	766	ANHYD	N/A	
Castile	562	2,990	2,990	SALT	N/A	
Lamar	-1023	4,575	4,575	LIMESTONE	N/A	
Bell Canyon	-1074	4,626	4,626	SAND STONE	N/A	
Cherry Canyon	-1928	5,480	5,480	SAND STONE	N/A	
Brushy Canyon	-3208	6,760	6,760	SAND STONE	N/A	
Bone Spring Lime	-4871	8,423	8,475	SHALE/LIMESTONE	N/A	
Avalon	-4891	8,443	8,545	SHALE	Oil	
Lateral TD (Lower Avalon)	-5484	9,036	18,807	SHALE	Oil	Yes

WELLBORE LOCATIONS	SUB-SEA TVD	RKB TVD	MD
SHL	3552	-	-
KOP	-4911	8,463	8,515
FTP	-5484	9,036	9,415
LTP	-5484	9,036	18,757

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		500
Water	Cherry Canyon	5,480
Oil/Gas	Avalon	8,443
Oil/Gas	Lateral TD (Lower Avalon)	9,036

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

3. BOP EQUIPMENT

Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. The 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 per hole section, unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC Technologies 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 Technologies 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. All tests performed by third party.

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'	16" or 17.5	13-3/8"	54.5 #	J-55	BTC	New
Intermediate	0'	8,423'	12-1/4"	9-5/8"	40.0 #	L80IC	LTC	New
Production	0'	18,807'	8-1/2"	5-1/2"	20.0 #	P-110	TXP BTC	New

Proposed	Hole Size	Casing Size	Top (MD)	Btm (MD)	Top (TVD)	Btm (TVD)	Top (SSTVD)	Btm (SSTVD)	Grade	Weight	Joint type
Surface	16" or 17.5	13-3/8"	0'	850'	0'	850'	3,552'	2,702'	J-55	54.5 #	BTC
Intermediate	12-1/4"	9-5/8"	0'	8,423'	0'	8,423'	3,552'	-4,871'	L80IC	40.0 #	LTC
Production	8-1/2"	5-1/2"	0'	18,807'	0'	9,036'	3,552'	-5,484'	P110	20.0 #	TXP-BTC

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

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

c. 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:	1,550'	ftTVD	(maximum depths)
Intermediate Casing:	9,145'	ftTVD	(maximum depths)
Production Casing:	23,551'	ftMD	(maximum depths)

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.65	1.58	1.64	1.88
Intermediate	1.44	2.42	1.79	1.70
Production	1.29	1.75	2.16	1.54

The following worst case load cases were considered for calculation of the above Min. Safety Factors:

Burst Design	Surf	Int	Prod
Pressure Test- Surface, Int, Prod Csg P external: Mud weight above TOC, PP below P internal: Test psi + next section heaviest mud in csg	X	X	X
Displace to Gas- Surf Csg P external: Mud weight above TOC, PP below P internal: Dry Gas from Next Csg Point	X		
Gas over mud (60/40) - Int Csg P external: Mud weight above TOC, PP below P internal: 60% gas over 40% mud from hole TD PP		X	
Stimulation (Frac) Pressures- Prod Csg P external: Mud weight above TOC, PP below P internal: Max inj pressure w/ heaviest injected fluid			X
Tubing leak- Prod Csg (packer at KOP) P external: Mud weight above TOC, PP below P internal: Leak just below surf, 8.45 ppg packer fluid			X
Collapse Design	Surf	Int	Prod
Full Evacuation P external: Mud weight gradient P internal: none	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: displacement fluid - water	X	X	X
Tension Design	Surf	Int	Prod
100k lb overpull	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	Sacks	Yield	Density	%Excess	Water	Volume	Additives
Surface					(cu ft/sk)	(ppg)	Open Hole	gal/sk	cuft	
Tail	Class C	0'	850'	884	1.34	14.8	125	6.40	1184	Extender, Antifoam, Retarder
<u>Intermediate Csg</u>										
Planned Single stage cement										
1st Lead	Class C	0'	7,423'	382	2.56	11.9	0	14.66	978	Extender, Antifoam, Retarder, Viscosifier
1st Tail	Class C	7,423'	8,423'	382	1.33	14.8	50	6.38	507	Extender, Antifoam, Retarder, Viscosifier
Second Stage Intermediate Cement Option 1										
2nd Lead (contingent)	Class C	0'	3,533'	864	2.56	11.9	100	14.66	2213	Extender, Antifoam, Retarder, Viscosifier
2nd Tail (contingent)	Class C	3,533'	4,533'	382	1.33	14.8	50	6.38	507	Extender, Antifoam, Retarder, Viscosifier
Second Stage Intermediate Cement Option 2										
2nd Lead (Contingent top out job)	Class C	0'	6,760'	3184	1.33	14.8	100	14.66	4235	Extender, Antifoam, Retarder, Viscosifier
Production										
Lead 1	Class C	7,000'	8,500'	877	2.46	11.9	50	14.05	2158	Extender, Antifoam, Retarder, Viscosifier
Note: Cement pumped will be aimed to surpass COA requirements, only "minimum" TOC values are denoted here										
Lead 2	Class C	8,500'	17,807'	1556	1.85	13.2	35	9.87	2878	Extender, Antifoam, Retarder, Viscosifier
Tail	Acid Sol Class H	17,807'	18,807'	115	2.19	15	10	9.54	252	Extender, Antifoam, 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 solid body type centralizer on every joint in the lateral, then every other joint in curve. Bowspring type centralizers will be run from KOP to intermediate casing and surface.

6. MUD PROGRAM

From	To	Type	Weight	Viscosity	Filtrate	Notes
0'	850'	Fresh water mud	8.3 - 9.0	28-30	N/C	
850'	8,423'	Brine/OBM	8.3 - 10	28-31	15-25	
8,423'	18,807'	OBM	8.5 - 11	10-15	15-25	Due to wellbore stability, the mud program may exceed the MW window needed to maintain overbalance to pore pressure

A closed system will be used 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. And transporting of E&P waste will follow EPA regulations and accompanying manifests.

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:

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

TYPE	Logs	Interval	Timing
Mudlogs	2 man mudlog	Surface casing shoe through prod hole TD	While drilling or circulating
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling

- c. Conventional whole core samples are not planned.
- d. A directional survey will be run.

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- a. No abnormal pressure or temperatures are expected. Estimated BHP is: psi
- b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered