Form C-101

August 1, 2011 Permit 277364

Lea

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

District II

UL - Lot

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

Section

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

	APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE 1. Operator Name and Address 2. OGRID Number												
1. Operator Name and Address	1. Operator Name and Address												
DEVON ENERGY PRODU		6137											
333 West Sheridan Ave.						3. API N	umber						
Oklahoma City, OK 73102	Oklahoma City, OK 73102												
4. Property Code	5. Prope	erty Name				6. Well N	6. Well No.						
40329		SEA SNAKE 35 ST	ATE				017H						
			7. Surfac	e Location									
UL - Lot Section	UL - Lot Section Township Range Lot Idn Feet From N/S Line Feet From							County					
M 35	23S	33E	М	247	S	561	561 W Lea						

Township Feet From E/W Line County 35 23S 33E 1510

N/S Line

Feet From

9. Pool Information								
TRIPLE X;BONE SPRING	59900							
Additional Well Information								

8. Proposed Bottom Hole Location

Lot Idn

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3658
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	15631	Bone Spring		9/1/2020
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

Range

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	1358	1021	0
Int1	12.25	9.625	40	5258	734	0
Prod	8.75	5.5	17	15631	1524	4758

Casing/Cement Program: Additional Comments

Int 1 Two Stage w/ DV @ TVD of Delaware 934 Surf 9.0 3.3 1st stage Lead: Class C Cement + additives 136 500' above shoe 13.2 1.4 1st stage Tail: Class H / C + additives 412 Surf 9.0 3.3 2nd stage Lead: Class C Cement + additives 136 500' above DV 13.2 1.4 2nd stage Tail: Class H / C + additives Int 1 Intermediate Squeeze As Needed Surf 13.2 1.4 Squeeze Lead: Class C Cement + additives 580 Surf 9.0 3.3 Lead: Class C Cement + additives 154 500' above shoe 13.2 1.4 Tail: Class H / C + additives

22. Proposed Blowout Prevention Program

Туре	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Double Ram	5000	5000	
Annular	5000	5000	
Double Ram	5000	5000	

knowledge and be I further certify I h M, if applicable.	elief.	true and complete to the best of my NMAC ⊠ and/or 19.15.14.9 (B) NMAC		OIL CONSERVATION	ON DIVISION		
Signature:							
Printed Name:	Electronically filed by Jeff Walla		Approved By:	Paul F Kautz			
Title:	Supervisor Land		Title:	Geologist			
Email Address:	Address: Jeff.Walla@dvn.com			1/27/2020 Expiration Date: 1/27/2022			
Date:	1/21/2020	Phone: 575-748-9925	Conditions of Approval Attached				

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

State of New Mexico Energy, Minerals & Natural Resources Department CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

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) 476-3460 Fax: (505) 476-3462

□ AMENDED REPORT

_	WELL	LOCATION	AND	ACREAGE	DEDICATION	PLAT	

API Number		Pool Code	Pool Name					
		59900	TRIPLE X;BONE SPRING					
Property Code	,	Prop	erty Name	Well Number				
		SEA SNAKE 35 STATE						
OGRID No.		Oper	ator Name		Elevation			
6137	DEVON	ENERGY PRO	DUCTION COMPANY,	L.P.	3657.9'			

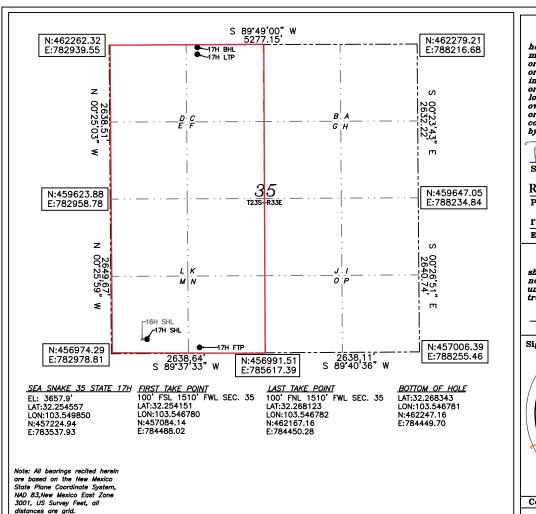
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
М	35	23-S	33-E		247	SOUTH	561	WEST	LEA

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
С	35	23-S	33-E		20	NORTH	1510	WEST	LEA
Dedicated Acre	s Joint o	r Infill Co	nsolidation (Code Or	der No.				
320									

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



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organisation 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

ral 1/6/2020 eselle

Signature

Date

Rebecca Deal, Regulatory Analyst Printed Name

rebecca.deal@dvn.com

E-mail Address

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.

11/2019

Date of Survey

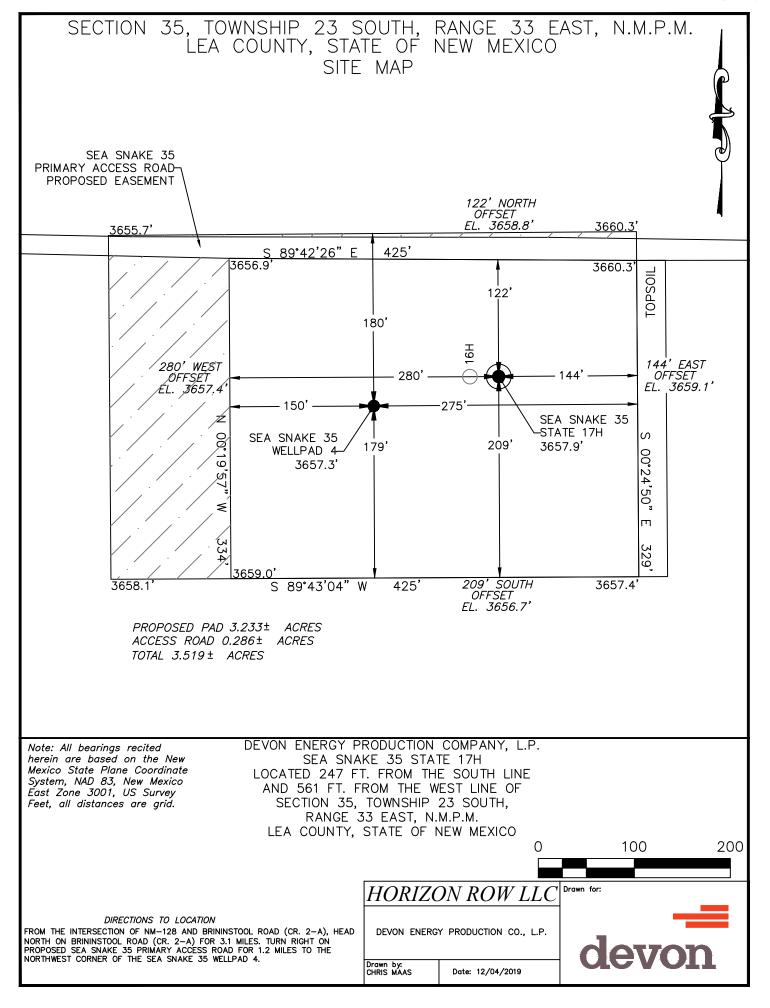


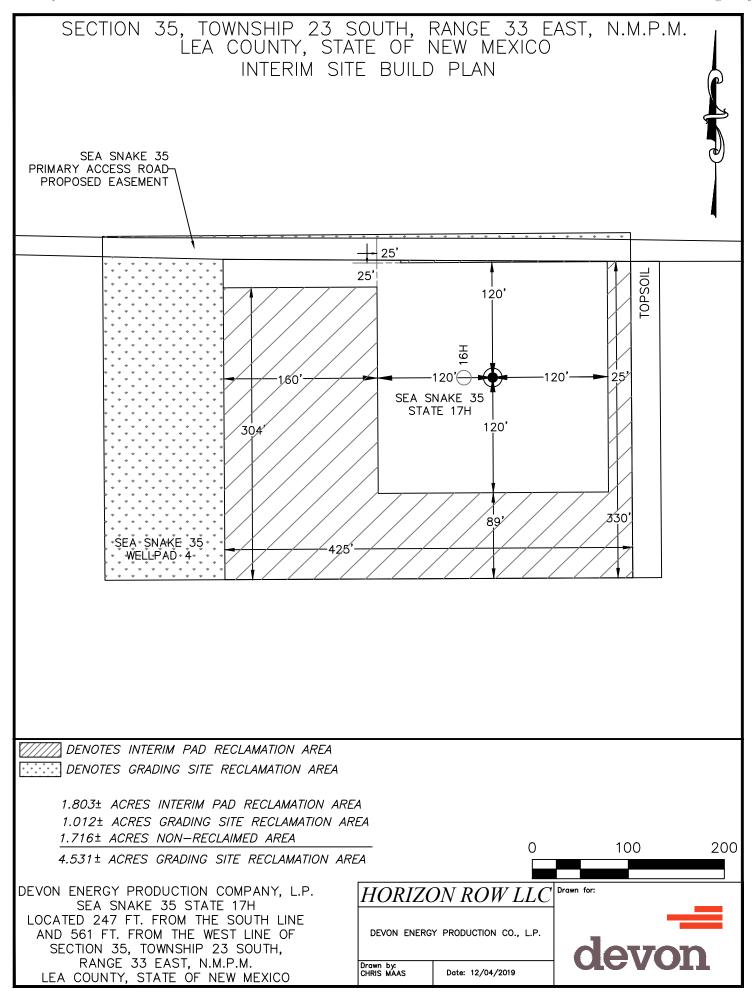
Certificate No. 22404

DRAWN BY: CM

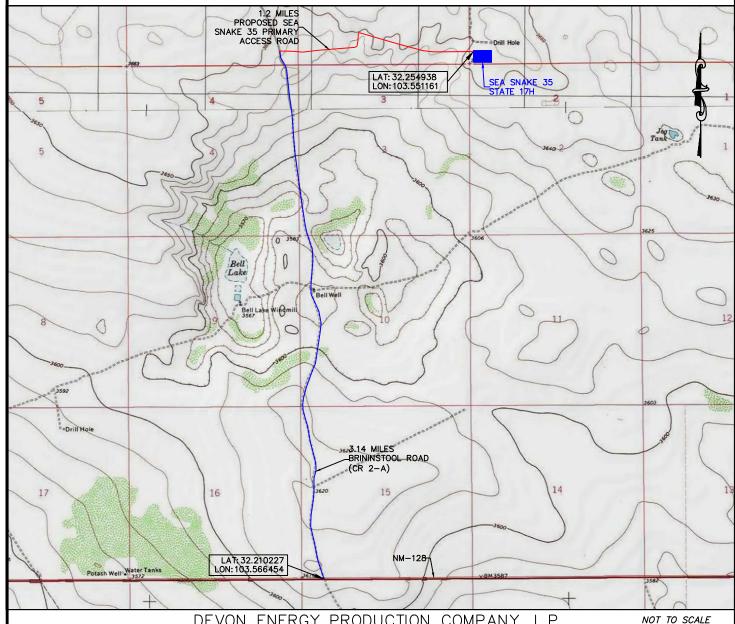
Inten	t	As Dril	led											
API#														
Ope	rator Nai	me:	<u> </u>			Pro	perty N	lame:						Well Number
						I								
Kick C	Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		Fron	n E/W	County	
Latitu	ıde				Longitu	ıde							NAD	
First 7	Γake Poir	nt (FTP)												
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		Fron	n E/W	County	
Latitu	ıde				Longitu	ıde	I		l				NAD	
	ake Poin		Danas	1	F4	T	N/C	Fact		F	E /\A/	l Ca		
UL Latitu	Section	Township	Range	Lot	Feet Longitu		m N/S	Feet		From	E/ VV	Count	.у	
Latitt	ide				Longitt	iue						NAD		
Is this	well the	defining w	vell for th	ne Hori:	zontal S _l	pacin	g Unit?	Г						
										=				
Is this	well an	infill well?												
										ı		- 6		
	I is yes p ng Unit.	lease provi	de API if	availak	oie, Opei	rator	Name	and v	vell ni	umber	tor l	Detinir	ng well fo	r Horizontal
API#														
Ope	rator Nai	me:				Pro	perty N	lame:						Well Number
						1								<u> </u>

KZ 06/29/2018





SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO VICINITY MAP



DEVON ENERGY PRODUCTION COMPANY, L.P.
SEA SNAKE 35 STATE 17H
LOCATED 247 FT. FROM THE SOUTH LINE
AND 561 FT. FROM THE WEST LINE OF
SECTION 35, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF NM-128 AND BRININSTOOL ROAD (CR. 2-A), HEAD NORTH ON BRININSTOOL ROAD (CR. 2-A) FOR 3.1 MILES. TURN RIGHT ON PROPOSED SEA SNAKE 35 PRIMARY ACCESS ROAD FOR 1.2 MILES TO THE NORTHWEST CORNER OF THE SEA SNAKE 35 WELLPAD 4.

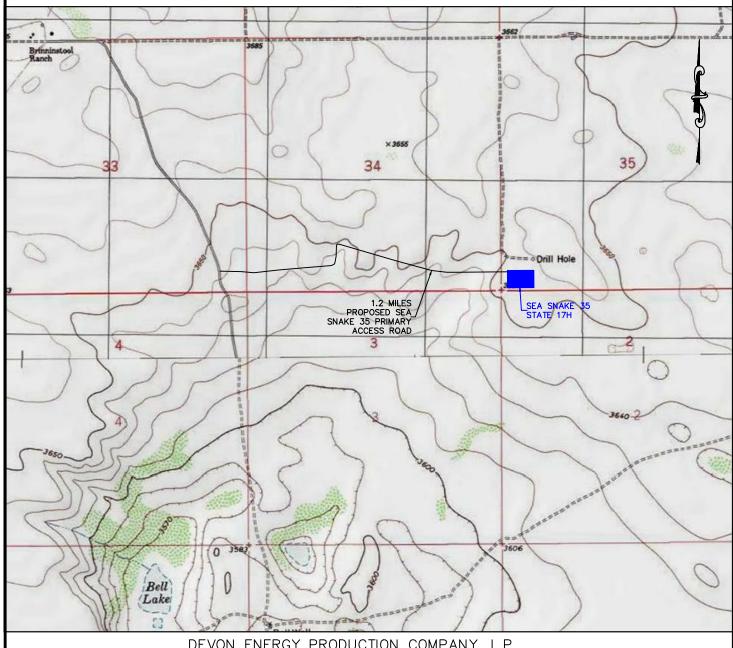
HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS



SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO LOCATION VERIFICATION MAP



DEVON ENERGY PRODUCTION COMPANY, L.P. SEA SNAKE 35 STATE 17H LOCATED 247 FT. FROM THE SOUTH LINE AND 561 FT. FROM THE WEST LINE OF SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

0 2000 4000

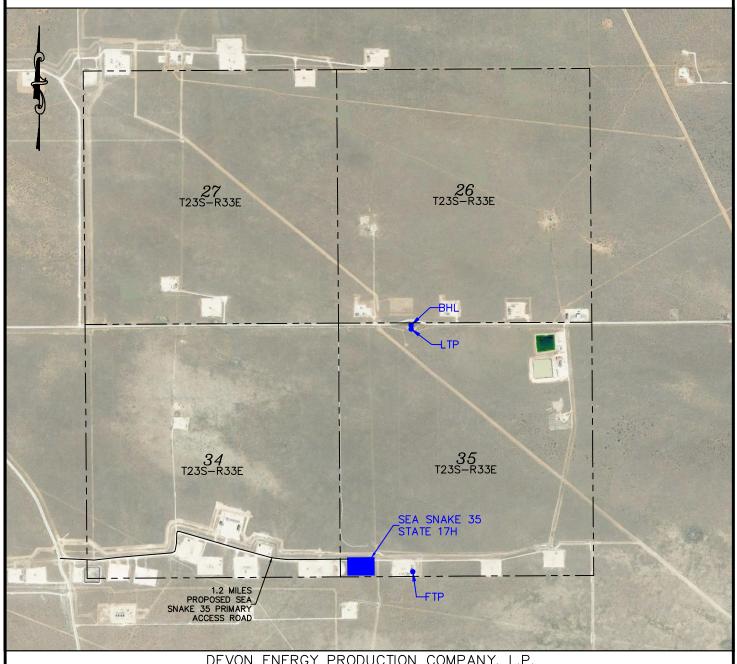
HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS



SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO AERIAL PHOTO



DEVON ENERGY PRODUCTION COMPANY, L.P.
SEA SNAKE 35 STATE 17H
LOCATED 247 FT. FROM THE SOUTH LINE
AND 561 FT. FROM THE WEST LINE OF
SECTION 35, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

0 2000 4000

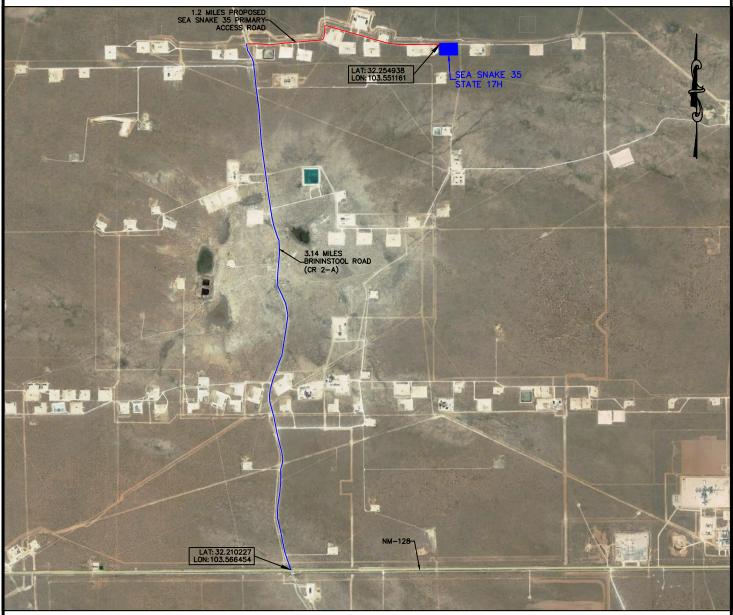
HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS



SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO AERIAL ACCESS ROUTE MAP



DEVON ENERGY PRODUCTION COMPANY, L.P.
SEA SNAKE 35 STATE 17H
LOCATED 247 FT. FROM THE SOUTH LINE
AND 561 FT. FROM THE WEST LINE OF
SECTION 35, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

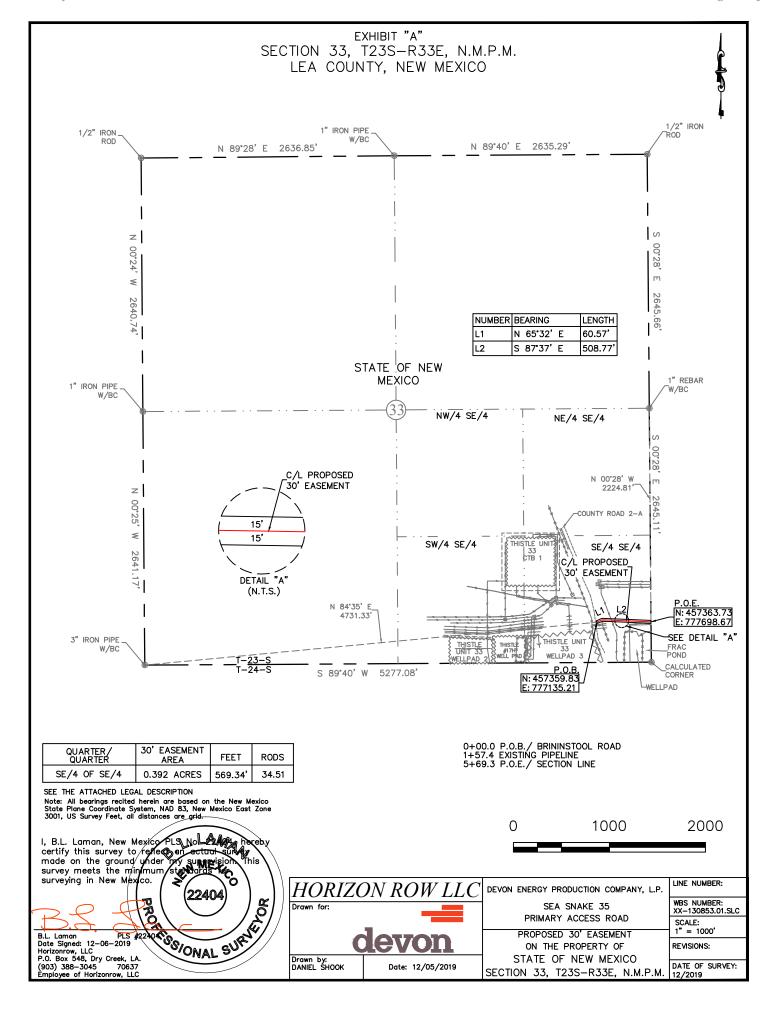
NOT TO SCALE

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS





SECTION 33, T23S-R33E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION FOR DEVON ENERGY PRODUCTION COMPANY, L.P. STATE OF NEW MEXICO

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the southeast quarter of the southeast quarter (SE ½ SE ½) of Section 33, Township 23 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the State of New Mexico. Said centerline of easement being more particularly described as follows:

Commencing from a 3" iron pipe w/BC found for the southwest corner of Section 33, T23S-R33E, N.M.P.M., Lea County, New Mexico;

Thence N 84°35' E, a distance of 4731.33' to the **Point of Beginning** of this easement having coordinates of Northing=457359.83 feet, Easting=777135.21 feet, and continuing the following courses;

Thence N 65°32' E, a distance of 60.57' to an angle point;

Thence S 87°37' E, a distance of 508.77' to the **Point of Ending** having coordinates of Northing=457363.73 feet, Easting=777698.67 feet, being in the east line of Section 33, from said point a 1" rebar w/ BC found for the east quarter corner of Section 33, T23S-R33E, N.M.P.M., Lea County, New Mexico bears N 00°28' W a distance of 2224.81', covering **569.34' or 34.51 rods** and having an area of **0.392 acres**.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman

PLS 22404

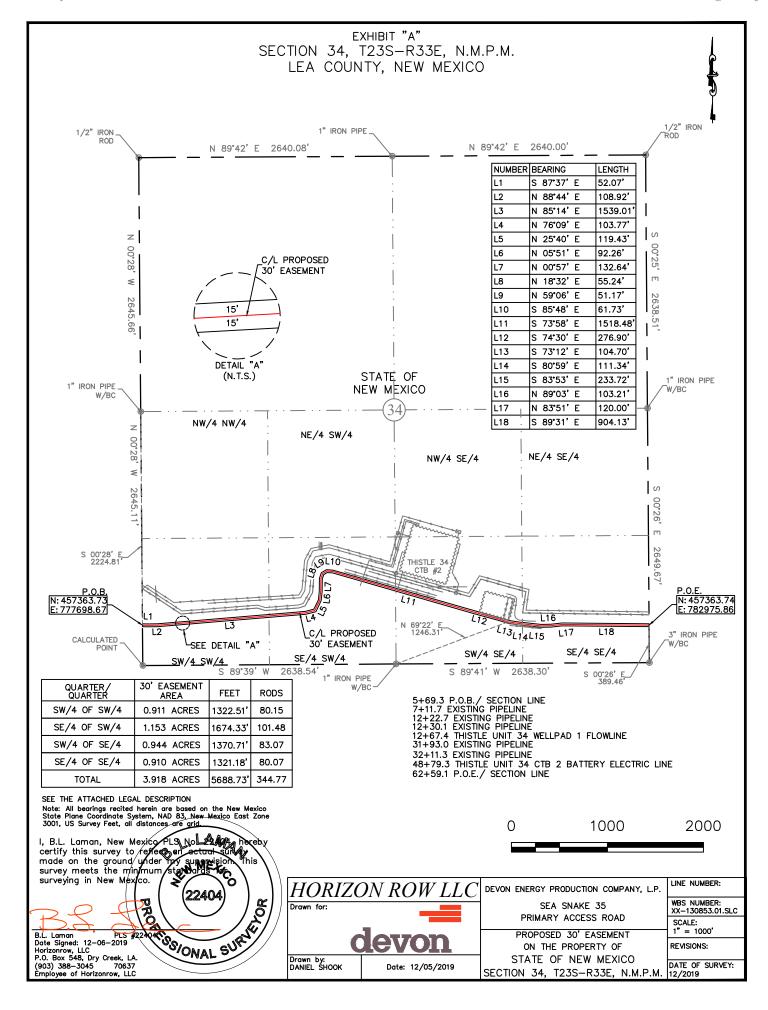
Date Signed: 12/06/2019

Horizon Row, LLC

P.O. Box 548, Dry Creek, LA

(903) 388-3045 70637

Employee of Horizon Row, LLC



SECTION 34, T23S-R33E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION FOR DEVON ENERGY PRODUCTION COMPANY, L.P. STATE OF NEW MEXICO

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the southwest quarter of the southwest quarter (SW ¼, SW¼) and the southeast quarter of the southwest quarter (SE ¼, SW ¼) and the southwest quarter of the southeast quarter (SE ¼, SE ¼) of Section 34, Township 23 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the State of New Mexico. Said centerline of easement being more particularly described as follows:

Commencing from a 1" iron pipe w/BC found for the west quarter corner of Section 34, T23S-R33E, N.M.P.M., Lea County, New Mexico;

Thence S 00°28' E, a distance of 2224.81' to the **Point of Beginning** of this easement being in the west line of Section 34, having coordinates of Northing=457363.73 feet, Easting=777698.67 feet and continuing the following course;

Thence S 87°37' E, a distance of 52.07' to an angle point;

Thence N 88°44' E, a distance of 108.92' to an angle point;

Thence N 85°14' E, a distance of 1539.01' to an angle point;

Thence N 76°09' E, a distance of 103.77' to an angle point;

Thence N 25°40' E, a distance of 119.43' to an angle point;

Thence N 05°51' E, a distance of 92.26' to an angle point;

Thence N 00°57' E, a distance of 132.64' to an angle point;

Thence N 18°32' E, a distance of 55.24' to an angle point;

Thence N 59°06' E, a distance of 51.17' to an angle point;

Thence S 85°48' E, a distance of 61.73' to an angle point;

Thence S 73°58' E, a distance of 1518.48' to an angle point;

Thence S 74°30' E, a distance of 276.90' to an angle point;

Thence S 73°12' E, a distance of 104.70' to an angle point;

Thence S 80°59' E, a distance of 111.34' to an angle point;

Thence S 83°53' E, a distance of 233.72' to an angle point;

Thence N 89°03' E, a distance of 103.21' to an angle point;

Thence N 83°51' E, a distance of 120.00' to an angle point;

Thence S 89°31′ E, a distance of 904.13′ to the **Point of Ending** of this easement being in the east line of Section 34, having coordinates of Northing=457363.74 feet, Easting=782975.86 feet, from said point a 3″ iron pipe w/BC found for the southeast corner of Section 34, T23S-R33E, N.M.P.M., Lea County, New Mexico bears S 00°26′ E a distance of 389.46′, covering **5688.73′ or 344.77 rods** and having an area of **3.918 acres**.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

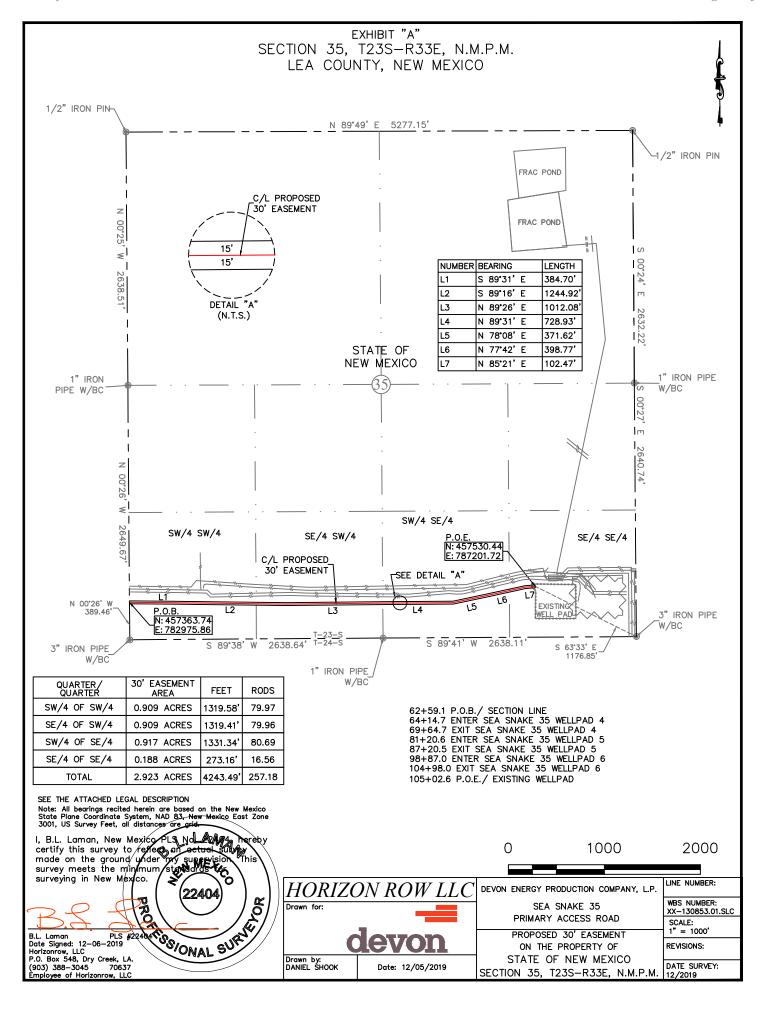
I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman PLS 22404

Date Signed: 12/06/2019 Horizon Row, LLC

P.O. Box 548, Dry Creek, LA (903) 388-3045 70637

Employee of Horizon Row, LLC



SECTION 35, T23S-R33E, N.M.P.M., LEA COUNTY, NEW MEXICO

LEGAL DESCRIPTION FOR DEVON ENERGY PRODUCTION COMPANY, L.P. STATE OF NEW MEXICO

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out the southwest quarter of the southwest quarter (SW¼, SW¼) and the southeast quarter of the southwest quarter (SE¼, SW¼) and the southwest quarter of the southeast quarter (SE¼, SE¼) of Section 35, Township 23 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land conveyed to the State of New Mexico. Said centerline of easement being more particularly described as follows:

Commencing from a 3" iron pipe w/BC for the southwest corner of Section 35, T23S-R33E, N.M.P.M., Lea County, New Mexico;

Thence N 00°26' W a distance of 389.46' to the **Point of Beginning** of this easement, being in the west line of Section 35, having coordinates of Northing=457363.74, Easting=782975.86 feet and continuing the following courses;

Thence S 89°31' E, a distance of 384.70' to an angle point;

Thence S 89°16' E, a distance of 1244.92' to an angle point;

Thence N 89°26' E, a distance of 1012.08' to an angle point;

Thence N 89°31' E, a distance of 728.93' to an angle point;

Thence N 78°08' E, a distance of 371.62' to an angle point;

Thence N 77°42' E, a distance of 398.77' to an angle point;

Thence N 85°21′E, a distance of 102.47′ to the **Point of Ending**, having coordinates of Northing=457530.44, Easting=787201.72 feet from said point a 3" iron pipe w/BC for the southeast corner of Section 35, T23S-R33E bears S 63°33′E a distance of 1176.85′, covering **4243.49′ or 257.18 rods** and having an area of **2.923 acres**.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman

PLS 22404

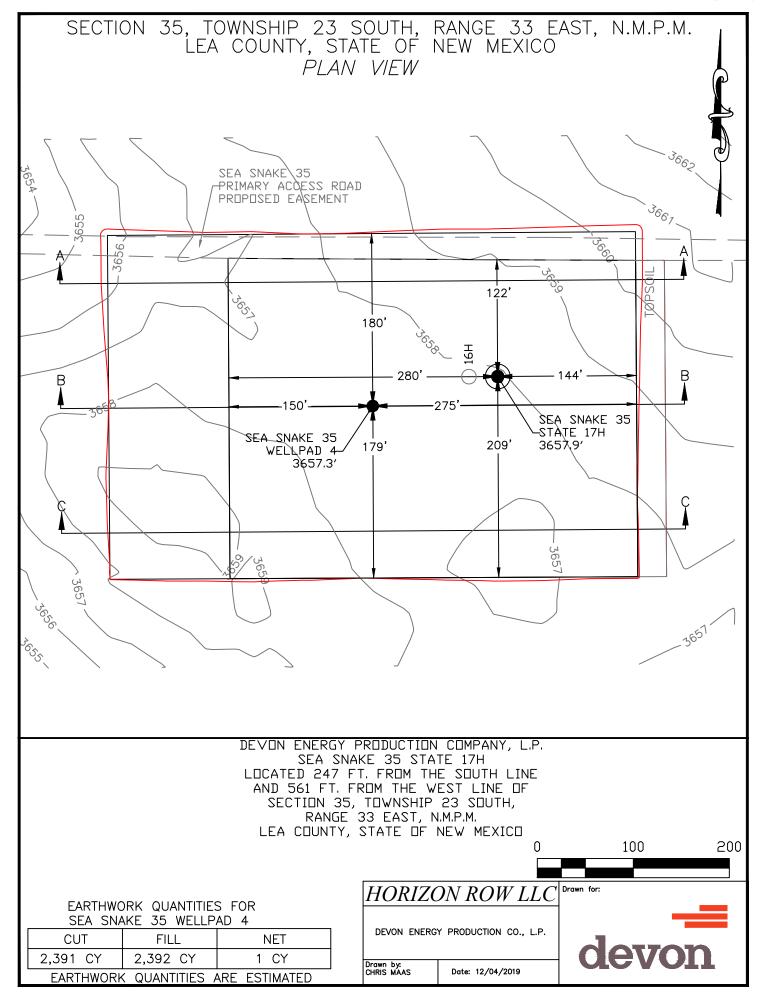
Date Signed: 12/06/2019

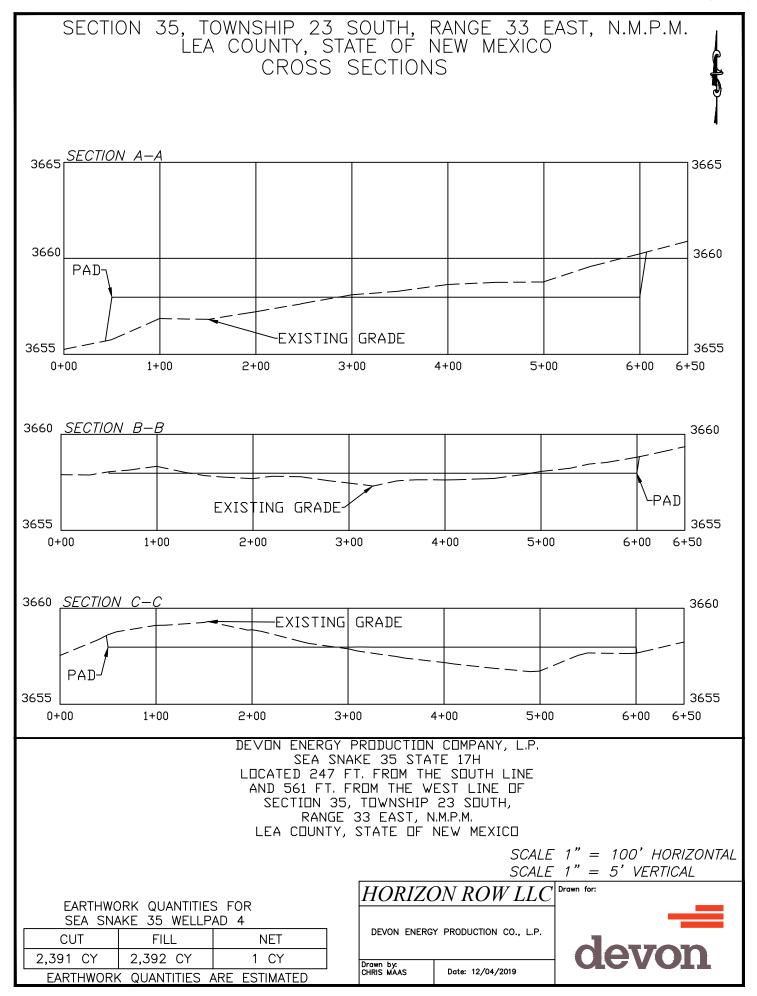
Horizon Row, LLC

P.O. Box 548, Dry Creek, LA (903) 388-3045 7063

Employee of Horizon Row, LLC

PROTITIONAL SURVIV





<u>District I</u> 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

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**

			GAS CAPTURE	PLAN			
Date: <u>1/27/2020</u>							
☑ Original	Operator & O	OGRID No.: [6137]	DEVON ENERGY PRODU	CTION COMPANY, LP			
☐ Amended - Reason for Amendment:							
This Gas Capture Plan outlines ac	tions to be taken by t	the Operator to reduc	ce well/production facility fl	aring/venting for new comp	letion (new drill, rec	complete to new z	zone, re-frac) activit
Note: Form C-129 must be submit	ted and approved pr	ior to exceeding 60 o	days allowed by Rule (Sub	section A of 19.15.18.12 N	IMAC).		
Well(s)/Production Facility - Nam	e of facility						
The well(s) that will be located at t	he production facility	are shown in the tab	ble below.				
Well Name	4	NPI	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SEA SNAKE 35 STATE #017H	3	30-025-46792	M-35-23S-33E	0247S 0561W	2200	None	
Gathering System and Pipeline N Well(s) will be connected to a proc LUCID ENERGY DELAWARE, LL Mexico. It will require 535' o LUCID ENERGY DELAWARE, LL DEVON ENERGY PRODUCTION of schedules. Gas from these wells of County, New Mexico. The actual from	duction facility after fl C and will be co f pipeline to connect C a drilling, com COMPANY, LP a will be processed at	nnected to LUCID E the facility to Low P npletion and estimate and LUCID ENERG LUCID ENERGY DI	ENERGY DELAWARE, LLC Pressure gathering systemed first production date for Y DELAWARE, LLC has ELAWARE, LLC Proces	Low Pressure gath DEVON ENERGY PROD Wells that are scheduled to ave periodic conference ca essing Plant located in Sec	nering system locate DUCTION COMPAN be drilled in the following to discuss change. 13, Twn. 24S,	ed in <u>Lea</u> Y, LP providence reseeable future. ges to drilling and	County, New les (periodically) to . In addition, d completion
Flowback Strategy							
After the fracture treatment/comple will be monitored. When the produ- production facilities, unless there DEVON ENERGY PRODUCTION	uced fluids contain m are operational issu	ninimal sand, the well es on LUCID ENER	lls will be turned to produc	tion facilities. Gas sales sh system at that time. Based	ould start as soon	as the wells start	
Safety requirements during cleanor rather than sold on a temporary ba		he use of underbala	inced air cleanout systems	may necessitate that sand	d and non-pipeline	quality gas be ver	nted and/or flared
Altamaticas to Deduce Floring							

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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Phone:(505) 334-6178 Fax:(505) 334-6170

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**

Form APD Comments

Permit 277364

PERMIT COMMENTS

Operator Name and Address:	API Number:
DEVON ENERGY PRODUCTION COMPANY, LP [6137]	30-025-46792
333 West Sheridan Ave.	Well:
Oklahoma City, OK 73102	SEA SNAKE 35 STATE #017H

Created By	Comment	Comment Date
drebecca	Drilling Plan, Directional Survey, AC Plan, C-102 & GCP will be sent overnight via FedEx	1/16/2020

Form APD Conditions

Permit 277364

<u>District I</u> 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

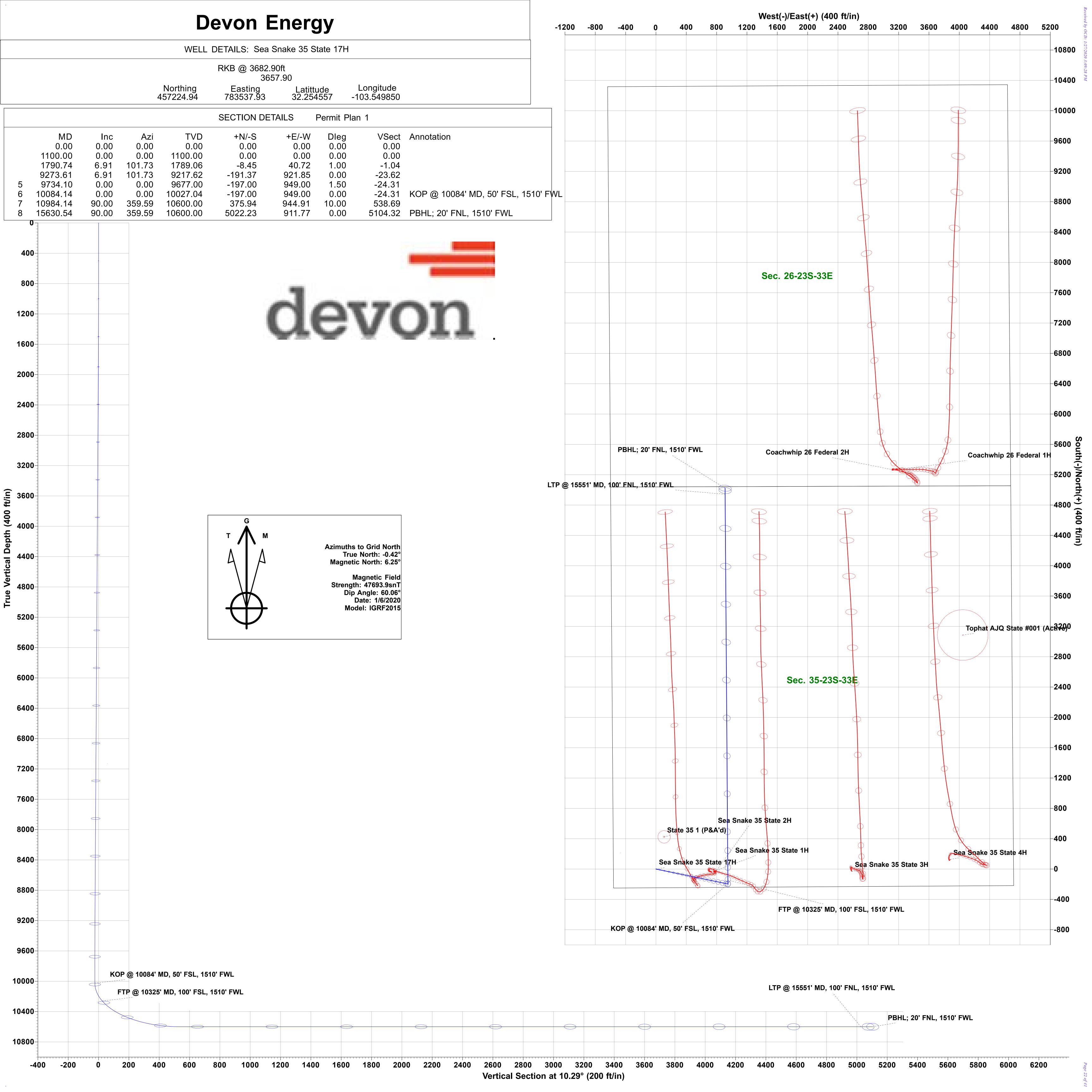
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

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

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
DEVON ENERGY PRODUCTION COMPANY, LP [6137]	30-025-46792
333 West Sheridan Ave.	Well:
Oklahoma City, OK 73102	SEA SNAKE 35 STATE #017H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface 2) PRODUCTION CASING - Cement must tie back into intermediate casing
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.





Devon Energy Center 333 West Sheridan Avenue Oklahoma City, Oklahoma 73102-5015

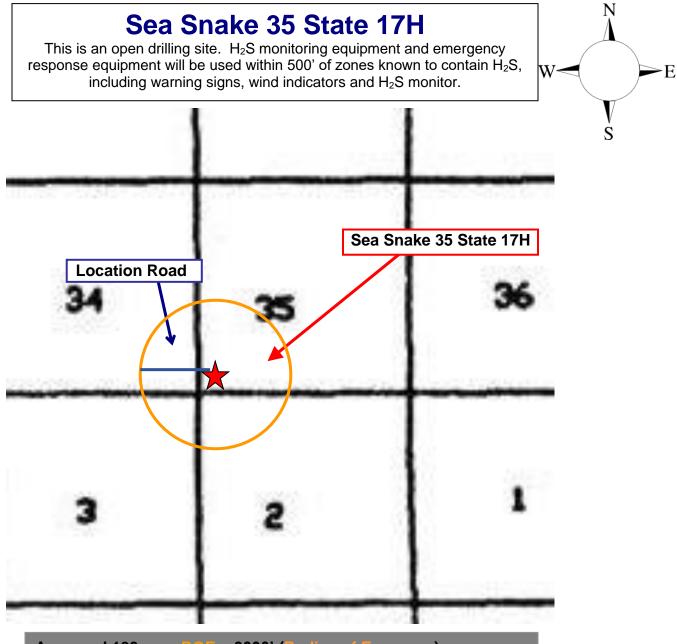
Hydrogen Sulfide (H₂S) Contingency Plan

For

Sea Snake 35 State 17H

Sec-35 T-23S R-33E 247' FSL & 561' FWL LAT. = 32.254557' N (NAD83) LONG = 103.549850' W

Lea County NM



Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

J. 1. 4. 5. 1. 5									
Common	Chemical	Specific	Threshold	Hazardous	Lethal				
Name	Formula	Gravity	Limit	Limit	Concentration				
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm				
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm				

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H2S) TRAINING

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

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

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

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

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

1. Well Control Equipment

- A. Flare line
- B. Choke manifold Remotely Operated
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.
- E. Mud/Gas Separator

2. Protective equipment for essential personnel:

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights which activate when H₂S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- Bell nipple
- Possum Belly/Shale shaker
- Rig floor
- Choke manifold
- Cellar

Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. Mud program:

The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

5. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H₂S trim.
- B. All elastomers used for packing and seals shall be H₂S trim.

6. Communication:

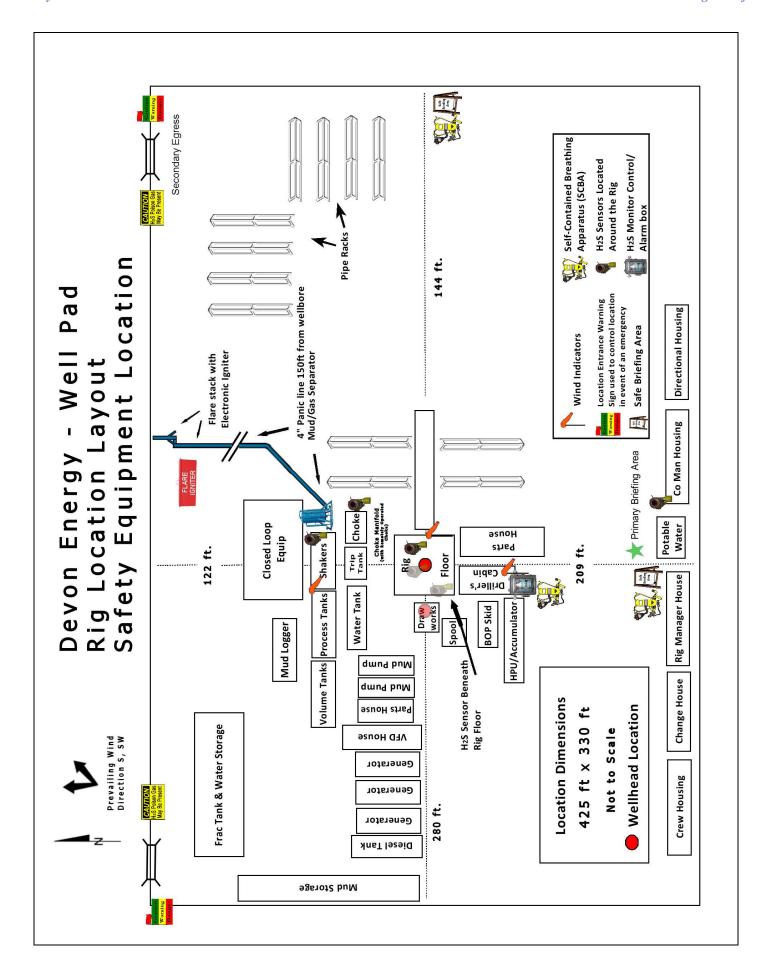
- Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

7. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

Devon Er	ergy Corp. Company Call List		
Drilling Su	pervisor – Basin – Mark Kramer		405-823-4796
EHS Profe	essional – Laura Wright		405-439-8129
Agency	Call List		
<u>Lea</u>	Hobbs		
County	Lea County Communication Authority		393-3981
<u>(575)</u>	State Police		392-5588
	City Police		397-9265
	Sheriff's Office		393-2515
	Ambulance		911
	Fire Department		397-9308
	LEPC (Local Emergency Planning Con	nmittee)	393-2870
	NMOCD		393-6161
	US Bureau of Land Management		393-3612
Eddy	Carlsbad		
County	State Police		885-3137
<u>(575)</u>	City Police	885-2111	
	Sheriff's Office	887-7551	
	Ambulance	911	
	Fire Department		885-3125
	LEPC (Local Emergency Planning Con	nmittee)	887-3798
	US Bureau of Land Management		887-6544
	NM Emergency Response Commission	n (Santa Fe)	(505) 476-9600
	24 HR		(505) 827-9126
	National Emergency Response Center		(800) 424-8802
	National Pollution Control Center: Direct		(703) 872-6000
	For Oil Spills		(800) 280-7118
	Emergency Services		()
	Wild Well Control		(281) 784-4700
	Cudd Pressure Control	(915) 699- 0139	(915) 563-3356
	Halliburton	0.00	(575) 746-2757
	B. J. Services		(575) 746-3569
Give	Native Air – Emergency Helicopter – H	obbs	(575) 392-6429
GPS	Flight For Life - Lubbock, TX	<u> </u>	(806) 743-9911
position:	Aerocare - Lubbock, TX		(806) 747-8923
-	Med Flight Air Amb - Albuquerque, NM		(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, N		(800) 222-1222
	Poison Control (24/7)		(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service		(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	1	, ,

Prepared in conjunction with Dave Small



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1. Geologic Formations

TVD of target	10600	Pilot hole depth	N/A
MD at TD:	15631	Deepest expected fresh water	

Basin

Dasin	D 41	Water/Mineral	
	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	1333		
Salt	1869		
Base of Salt	5033		
Delaware	5283		
Bone Spring 1st	10099		
Bone Spring 2nd	10812		
Bone Spring 3rd	11712		
Wolfcamp	12162		

^{*}H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Casing Interv	Interval Csg. Size		Wt	Grade Co	Conn	Min SF	Min SF	Min SF
Hole Size	From	To	Csg. Size	(PPF)	Grade	Com	Collapse	Burst	Tension
17 1/2	0	1358 TVD	13 3/8	48.0	H40	ВТС	1.125	1.25	1.6
12 1/4	0	5258 TVD	9 5/8	40.0	J-55	ВТС	1.125	1.25	1.6
8 3/4	0	TD	5 1/2	17.0	P110	ВТС	1.125	1.25	1.6
				BLM M	Iinimum Safe	ety Factor	1.125	1	1.6 Dry 1.8 Wet

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for continengcy casing.
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- A variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing.
- Int casing shoe will be selected based on drilling data, gamma, and flows experienced while drilling. Setting depth with be revised accordingly if needed.
- A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.

Casing Program (Alternative Design)

Hole Size	Casing Interval	Interval	val Csg. Size Wt		Grade Conn	Conn	Min SF	Min SF	Min SF
Hole Size	From	То	Csg. Size	(PPF)	Graue	Colli	Collapse	Burst	Tension
17 1/2	0	1358 TVD	13 3/8	48.0	H40	ВТС	1.125	1.25	1.6
12 1/4	0	8,300' TVD	9 5/8	40.0	J-55	ВТС	1.125	1.25	1.6
8 3/4	0	TD	5 1/2	17.0	P110	ВТС	1.125	1.25	1.6
				BLM M	linimum Safe	ety Factor	1.125	1	1.6 Dry 1.8 Wet

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- A variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing.
- Int casing shoe will be selected based on drilling data, gamma, and flows experienced while drilling. Setting depth with be
- A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.

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	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specficition sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating	
	Y
of the casing?	
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	14
if yes, are there strings commence to surface:	

3. Cementing Program (3-String Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	1021	Surf	13.2	1.4	Lead: Class C Cement + additives
Total	580	Surf	9.0	3.3	Lead: Class C Cement + additives
Int	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
	570	Surf	9.0	3.3	1st stage Lead: Class C Cement + additives
Int 1 Two Stage	136	500' above shoe	13.2	1.4	1st stage Tail: Class H / C + additives
w/ DV @ TVD of Delaware	566	Surf	9.0	3.3	2nd stage Lead: Class C Cement + additives
	136	500' above DV	13.2	1.4	2nd stage Tail: Class H / C + additives
Int 1	As Needed	Surf	9.0	3.3	Squeeze Lead: Class C Cement + additives
Intermediate	580	Surf	9.0	3.3	Lead: Class C Cement + additives
Squeeze	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Production	454	500' Tieback	9.0	3.3	Lead: Class H /C + additives
roduction	1070	КОР	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

Cementing Program (3-String Alternative Design)

Casing	# Sks	тос	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	1021	Surf	13.2	1.4	Lead: Class C Cement + additives
Int	958	Surf	9.0	3.3	Lead: Class C Cement + additives
IIIL	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
	934	Surf	9.0	3.3	1st stage Lead: Class C Cement + additives
Int 1 Two Stage	136	500' above shoe	13.2	1.4	1st stage Tail: Class H / C + additives
w/ DV @ TVD of Delaware	412	Surf	9.0	3.3	2nd stage Lead: Class C Cement + additives
	136	500' above DV	13.2	1.4	2nd stage Tail: Class H / C + additives
Int 1	As Needed	Surf	13.2	1.4	Squeeze Lead: Class C Cement + additives
Intermediate	580	Surf	9.0	3.3	Lead: Class C Cement + additives
Squeeze	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Production	238	500' Tieback	9.0	3.3	Lead: Class H /C + additives
Floduction	1070	KOP	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	T	ype	✓	Tested to:																																																					
			Anı	nular	X	50% of rated working pressure																																																					
Int 1	13-58"	5M	Blind	l Ram	X																																																						
IIIt I	13-36	3101	Pipe Ram			5M																																																					
			Doub	le Ram	X	3101																																																					
			Other*																																																								
	13-5/8"		Anı	nular	X	50% of rated working pressure																																																					
Production			13-5/8" 5M	514	5/0" 5M	5M Blind Ram	d Ram	X																																																			
Troduction				13-3/6 31 v 1	13-3/6	13-3/6 3141	13-3/6 31 v 1	13 3/0 3111	13 3/0 3111	13 3/0	13 3/0 3111	13 3/0 3111	13 3/0 3141	13 3/0 3111	13 3/0	15 5/6 5141	13 3/0	JIVI	3111	13-3/6	15 5/6	3141	3141	5111	3111	3111	3111	3111	3111	3111	3141	J1V1	3111	3111	3111	3141	3111	J1V1	3111	3111	3141	3141	3141	5111	3101	3101	J1V1	3101	3101	5101	JIVI	3101	3101	J1 V1	5111		Ram		5M
							Doub	le Ram	X	3101																																																	
			Other*																																																								
			Annul	ar (5M)																																																							
			Blind	l Ram																																																							
				Ram]																																																					
				le Ram]																																																					
			Other*																																																								

5. Mud Program (Three String Design)

Section	Туре	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	Brine	10-10.5
Production	WBM	8.5-9

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

·· - · 888 ··-·· - · · · · · · · · · ·				
Logging, Coring and Testing				
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the			
X	Completion Report and sbumitted to the BLM.			
	No logs are planned based on well control or offset log information.			
	Drill stem test? If yes, explain.			
	Coring? If yes, explain.			

Additional logs planned		Interval	
	Resistivity		
	Density		
X	CBL	Production casing	

	X	Mud log	KOP to TD
I		PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	4961
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

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

N H2S is present
Y H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
 - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will

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be monitored with a pressure gauge installed on the wellhead.

- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments	
X	Directional Plan
	Other, describe

