Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

HOBBS OCD
FEB 01 2017
RECEIVED

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM114991

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
GREEN WAVE 20 FED 8H

2. Name of Operator
DEVON ENERGY PRODUCTION COM LP
Contact: REBECCA DEAL
E-Mail: REBECCA.DEAL@DVN.COM

9. API Well No.
30-025-43208-00-X1

3a. Address
6488 SEVEN RIVERS HIGHWAY
ARTESIA, NM 88211

3b. Phone No. (include area code)
Ph: 405-228-8429

10. Field and Pool or Exploratory Area
GWC-025 G06 S263407P

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 20 T26S R34E SENE 2630FNL 330FEL

11. County or Parish, State
LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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.

Devon Energy Production Co., L.P. respectfully requests approval to change the approved production casing size of a combination of 5-1/2" & 7" casing to only 5-1/2".

See attached updated Drilling Plan. Also attached original C-102.

* All previous COAs still apply

* Per operator: The production casing will not be fully evacuated and enough fluid will be left to adhere to collapse safety factor

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #362440 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION COM LP, sent to the Hobbs
Committed to AFMSS for processing by DEBORAH MCKINNEY on 01/17/2017 (17DLM0352SE)

Name *(Printed/Typed)* REBECCA DEAL — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 01/03/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHARLES NIMMER — Title PETROLEUM ENGINEER — Date 01/20/2017

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 Hobbs

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 ****

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-43208	98210	Stratagraphic

[4] Property Code	[5] Property Name	[6] Well Number
	GREEN WAVE 20 FED	8V

[7] OGRID No.	[8] Operator Name	[9] Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3342.6

[10] Surface Location

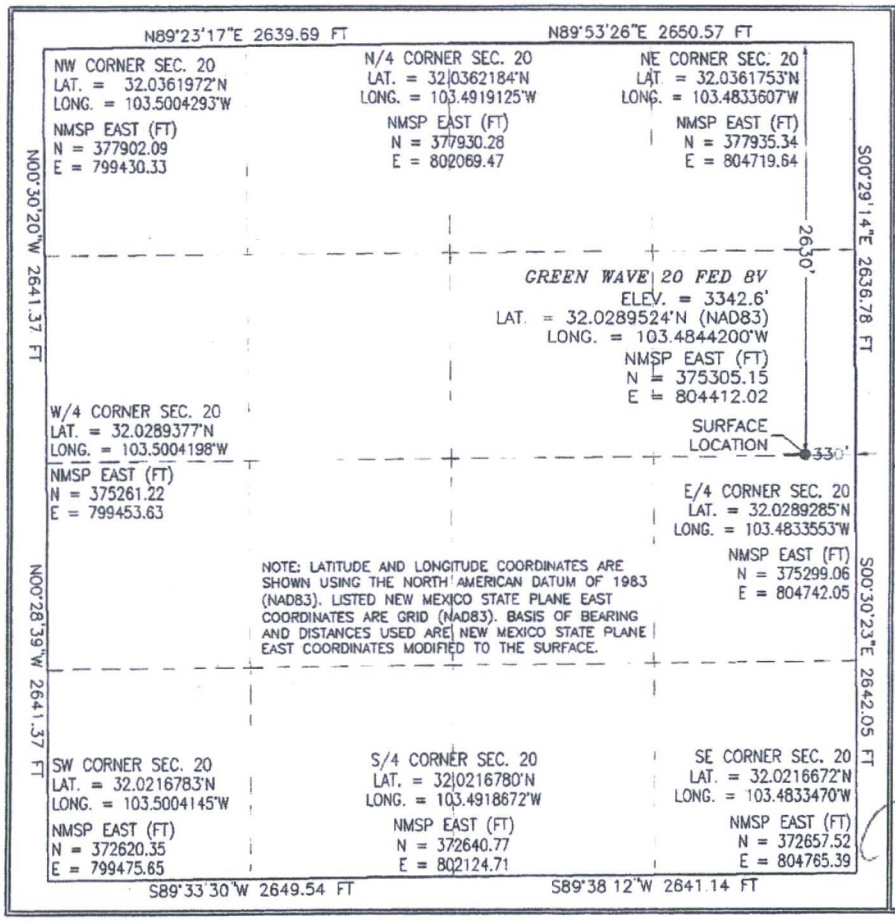
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	20	26 S	34 E		2630	NORTH	330	EAST	LEA

[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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40			

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.



[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.

Signature 9/27/2016 Date

Rebecca Deal, Regulatory Analyst
Printed Name

rebecca.deal@dvn.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.

SEPTEMBER 7, 2016
Date of Survey

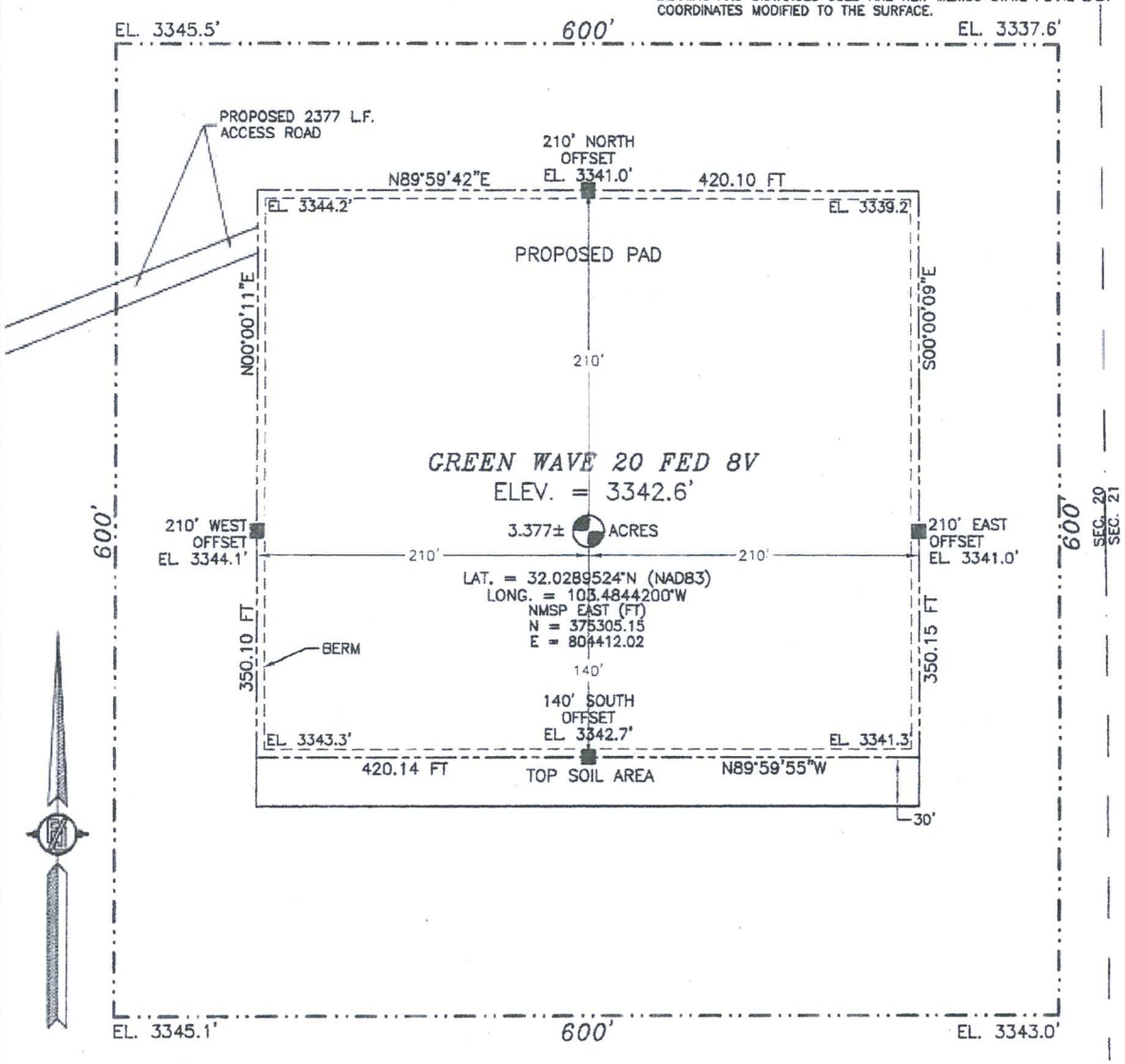
Signature and Seal of Professional Surveyor:

Certificate Number EDMON F. JARAMILLO, PLS 12797

SURVEY NO. 3709A

SECTION 20, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.



010 50 100 200
SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HWY #128 AND COUNTY ROAD #2 (BATTLE AXE ROAD) GO SOUTH AND WEST ON BATTLE AXE ROAD APPROX. 12.2 MILES TO A LEASE ROAD ON LEFT (SOUTH) TURN SOUTH GO APPROX. 0.6 MILE ROAD TURNS LEFT (EAST) TURN EAST GO APPROX. 1.8 MILES TO A LEASE ROAD ON RIGHT (SOUTH) TURN SOUTH GO APPROX 2.5 MILES TO AN EXISTING ROAD ON LEFT (EAST) GO EAST ON EXISTING ROAD APPROX. 0.7 MILE TO A FENCE GATE AND ROAD LATH. FOLLOW ROAD LATHS NORTHEAST APPROX. 0.4 MILE TO LOCATION

DEVON ENERGY PRODUCTION COMPANY, L.P.

GREEN WAVE 20 FED 8V

LOCATED 2630 FT. FROM THE NORTH LINE AND 330 FT. FROM THE EAST LINE OF SECTION 20, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

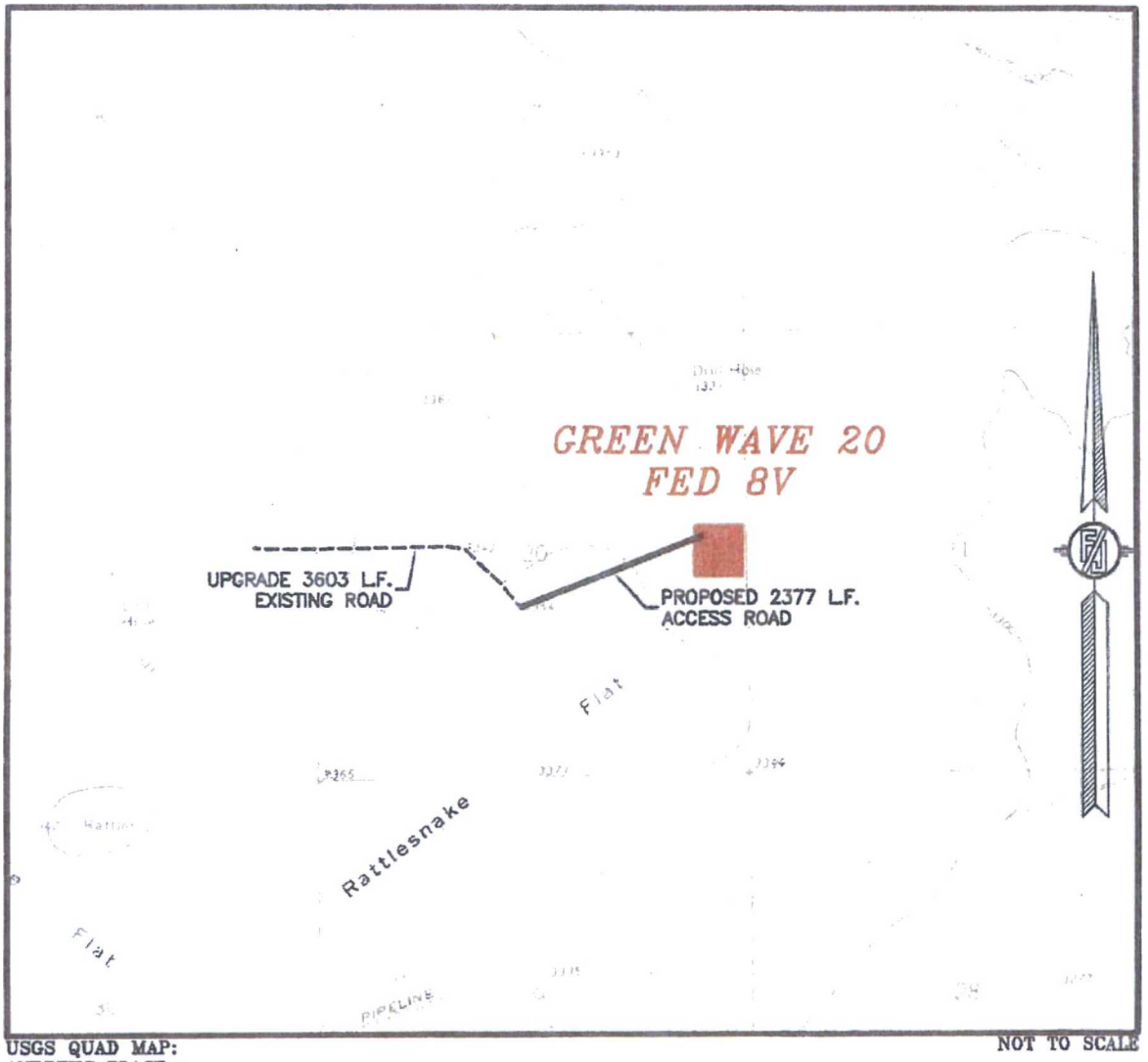
SEPTEMBER 7, 2016

SURVEY NO. 3709A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SECTION 20, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

LOCATION VERIFICATION MAP



USGS QUAD MAP:
ANDREWS PLACE

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
GREEN WAVE 20 FED 8V
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AND 330 FT. FROM THE EAST LINE OF
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RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

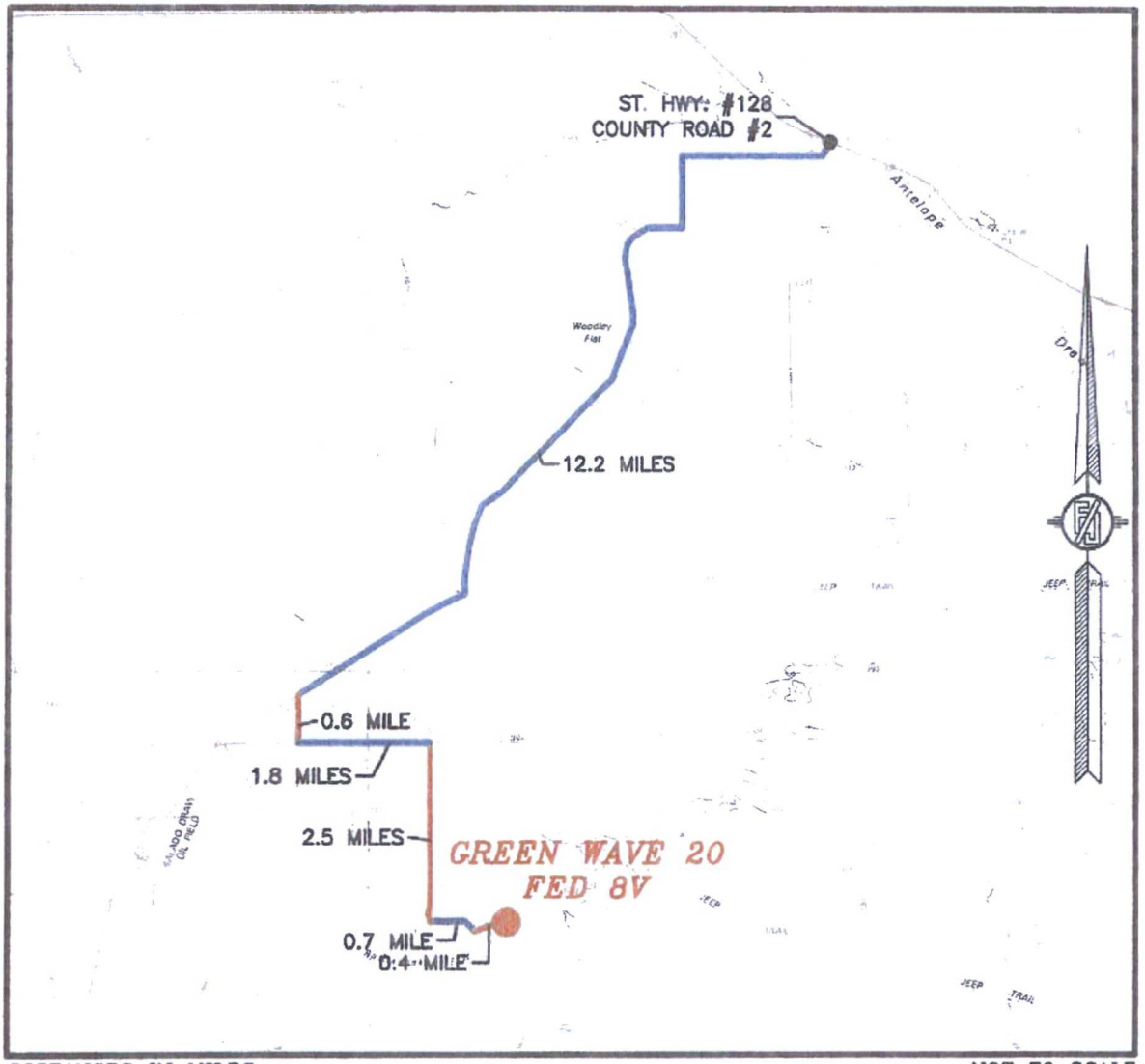
SEPTEMBER 7, 2016

SURVEY NO. 3709A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 20, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION
FROM THE INTERSECTION OF STATE HWY #128 AND COUNTY ROAD #2 (BATTLE AXE ROAD) GO SOUTH AND WEST ON BATTLE AXE ROAD APPROX. 12.2 MILES TO A LEASE ROAD ON LEFT (SOUTH) TURN SOUTH GO APPROX. 0.6 MILE ROAD TURNS LEFT (EAST) TURN EAST GO APPROX. 1.8 MILES TO A LEASE ROAD ON RIGHT (SOUTH) TURN SOUTH GO APPROX 2.5 MILES TO AN EXISTING ROAD ON LEFT (EAST) GO EAST ON EXISTING ROAD APPROX. 0.7 MILE TO A FENCE GATE AND ROAD LATH. FOLLOW ROAD LATHS NORTHEAST APPROX. 0.4 MILE TO LOCATION

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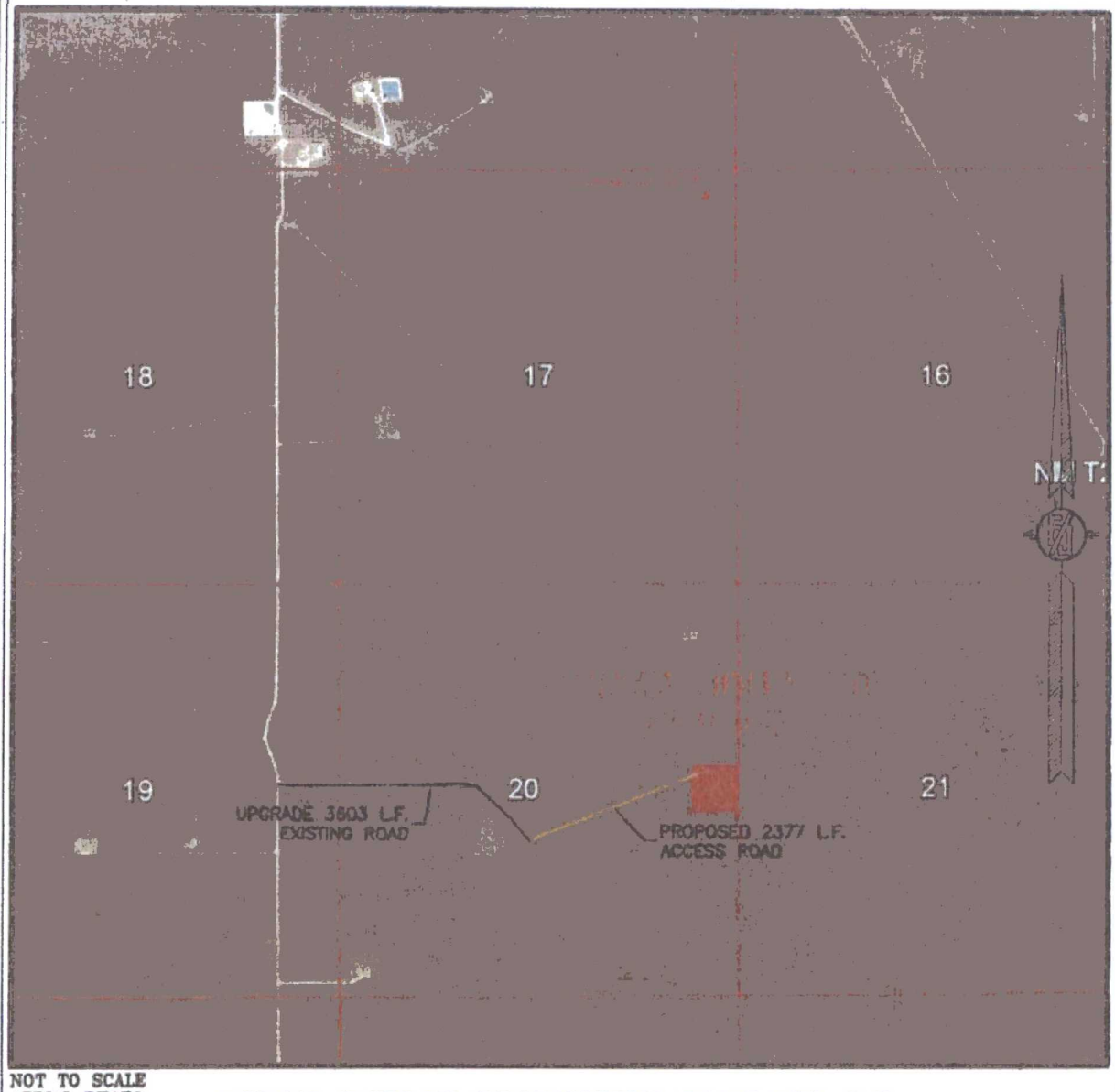
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 20, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
APR. 2013

DEVON ENERGY PRODUCTION COMPANY, L.P.

GREEN WAVE 20 FED 8V

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SEPTEMBER 7, 2016

SURVEY NO. 3709A

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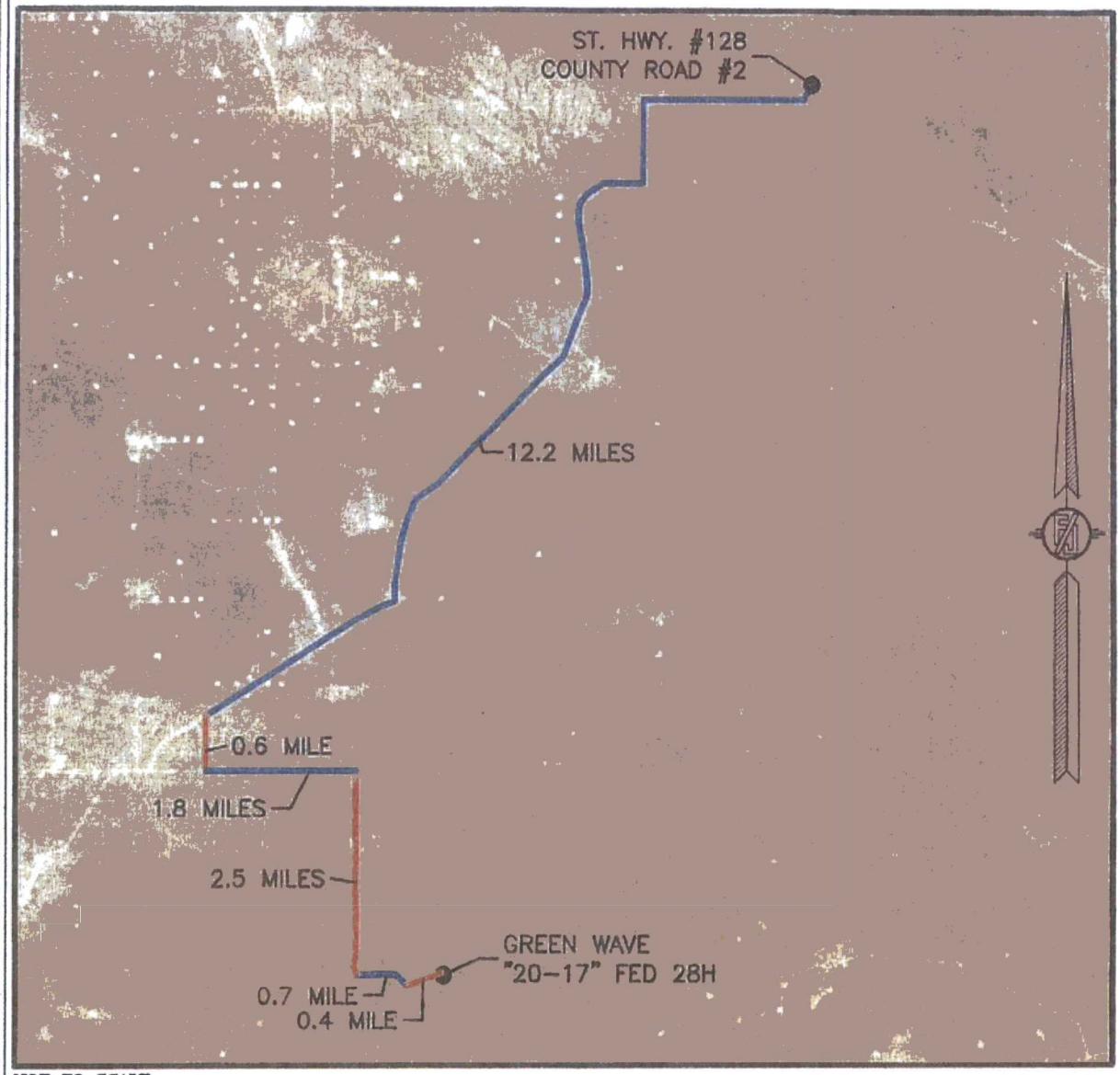
SECTION 20, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
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DEVON ENERGY PRODUCTION COMPANY, L.P.

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LEA COUNTY, STATE OF NEW MEXICO

SEPTEMBER 7, 2016

SURVEY NO. 3709A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

1. Geologic Formations

TVD of target	14,208'	Pilot hole depth	N/A
MD at TD:	14,208'	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	795	Barren	
Salado	1,265	Barren	
Bell Canyon	5,380	Oil	
Cherry Canyon	6,415	Oil	
Lower Brushy Canyon	9,415	Oil	
Bone Spring	9,615	Oil	
Leonard Shale (UPR)	9,640	Oil	
Leonard Shale (UPR Base)	9,925	Oil	
1st Bone Spring Sand	10,580	Oil	
2nd Bone Spring Sand	11,093	Oil	
3rd Bone Spring Sand	12,178	Oil	
Wolfcamp XY	12,643	Oil	
Wolfcamp A	12,828	Oil	
Wolfcamp B	13,858	Oil	
Vertical Well TD	14,208	Oil	

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

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	820'	13.375"	54.5	J-55	BTC	3.74	1.79	6.15
12.25"	0	12,100'	9.625"	40	P-110	BTC	1.31	2.31	2.46
8.75"	0	14,208	5.5"	17	P-110	BTC	1.61	1.25	1.90
				BLM Minimum Safety Factor			1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

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

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	H_2O gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
13-3/8" Surface	860	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9-5/8" Inter.	1460	11	19.82	3.2	45	Lead: NeoCem®
	790	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
9-5/8" Interme diate Two Stage	750	11	19.82	3.2	45	1st Stage Lead: NeoCem®
	790	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
	DV Tool = 5000ft					
	640	11	19.82	3.2	45	2nd Stage Lead: NeoCem®
	180	14.8	6.32	1.33	6	2nd Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
4-1/2" Prod	110	11.9	19.82	2.3	45	2nd Stage Lead: NeoCem®
	560	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
13-3/8" Surface	0'	100%
9-5/8" Intermediate	0'	50%
9-5/8" Intermediate – Two Stage Option	1st Stage = 5000' / 2nd Stage = 0'	50%
4-1/2" Production Casing	11,100'	25%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	5M	Annular	x	50% of working pressure
			Blind Ram		5M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	5M	Annular	x	50% testing pressure
			Blind Ram		5M
			Pipe Ram		
			Double Ram	x	
			Other *		
			Annular		50% testing pressure
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	Y	Are anchors required by manufacturer?
Y	A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. • Wellhead will be installed by wellhead representatives. • If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. • Wellhead representative will install the test plug for the initial BOP test. • Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time. • If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. • Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. • Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2. After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2. After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 5M will already be installed on the wellhead. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP. Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.	

	Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns. See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	820'	FW Gel	8.6-8.8	28-34	N/C
820'	12,100'	Oil Based Mud	8.7-9.0	40-50	10-15
12,100'	14,208'	LSND Mud	10.0-11.0	35-40	10-15

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
x	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
x	Quad Combo is planned on being taken from intermediate shoe to TD
	Drill stem test? If yes, explain
x	Coring? If yes, explain – 600' of whole core will be taken from the Wolfcamp. The coring interval will be approximately from 13,148' to 13,748' MD. Sidewall cores will also be taken from the Upper Wolfcamp. Exact SWC locations and quantity are TBD.

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7388 psi
Abnormal Temperature	No

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

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

8. Other facets of operation

Is this a walking operation? No.
Will be pre-setting casing? No.

Attachments
_x_ Directional Plan
___ Other, describe

Nimmer, Charles <cnimmer@blm.gov>

Green Wave 20 Fed 8V

Dzurisin, Ryan <Ryan.Dzurisin@dvn.com>
To: "Nimmer, Charles" <cnimmer@blm.gov>

Wed, Jan 18, 2017 at 4:18 AM

Charles,

Below is a screenshot of my design factors for the 5-1/2" casing, including the collapse safety factors. Note that the collapse cases that I run were all of the standard load cases. They were as follows. Please let me know if you need anything else from me. Thanks for your help with this.

1) Cementing

2) Above/Below Packer

3) Gas Migration

Minimum Safety Factors

	Depth (MD) (ft)	OD/Weight/Grade	Connection	Minimum Safety Factor (Abs)			
				Burst	Collapse	Axial	Triaxial
1	24	5 1/2", 17.000 ppf, P-110	BTC, P-110	1.12 B8	6.26 C7	1.79 B8 F	1.32 B8
2	81			1.12 B8	6.19 C7	1.79 B8 F	1.32 B8
3	81			1.12 B8	6.19 C7	1.81 B8 F	1.32 B8
4	10535			1.29 B8	1.93 C7	3.67 B8 F	1.60 B8
5	11000			1.30 B8	1.88 C7	(3.46) C7 F	1.62 B8
6	11000			1.30 B8	1.88 C7	(3.14) C7 F	1.59 B8
7	12208			1.28 B8	1.74 C7	3.26 B8 F	1.58 B8
8	12250			1.28 B8	1.74 C7	3.26 B8 F	1.57 B8
9	12250			1.10 B8	1.74 C7	3.25 B8 F	1.37 B8
10	12251			1.10 B8	1.74 C7	2.94 B8 F	1.37 B8
11	13086			1.22 B8	1.65 C7	3.22 B8 F	1.51 B8
12	13086			1.22 B8	1.65 C7	3.24 B8 F	1.51 B8
13	13408			1.28 B8	1.63 C7	3.37 B8 F	1.57 B8
14	13421			1.28 B8	1.62 C7	3.37 B8 F	1.57 B8
15	13560			1.30 B8	1.61 C7	3.43 B8 F	1.60 B8
16	14207			1.43 B8	1.56 C7	3.73 B8 F	1.75 B8
17	14208			1.43 B8	1.56 C7	3.73 B8 F	1.75 B8
18							
19	F	Connection Fracture					
20	B8	Injection Casing					
21	C7	Gas Migration(Collapse)					
22	( )	Compression					

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