

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD

SUNDRY NOTICES AND REPORTS ON WELLS
*Do not use this form for proposals to drill or to re-enter abandoned well. Use form 3160-3 (APD) for such proposals.*FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 20185. Lease Serial No.
NMLC065876A

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

MAR 22 2018

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
CHEVRON U.S.A.Contact: LAURA BECERRA
E-Mail: LBECCERRA@CHEVRON.COM8. Well Name and No.
SD WE 24 FED P24 7H3a. Address
6301 DEAUVILLE BLVD.
MIDLAND, TX 797063b. Phone No. (include area code)
Ph: 432-687-76659. API Well No.
30-025-4367510. Field and Pool or Exploratory Area
JENNINGS;UPR BN SPR SHALE

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 24 T26S R32E Mer NMP SESE 200FSL 1185FEL
32.021488 N Lat, 103.623649 W Lon

11. County or Parish, State

LEA COUNTY 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 Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Drilling Operations
	☐ 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 recompleat 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 recompleat 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.

THIS REPORT IS FOR THE SPUD, DRILLING OPERATIONS AND COMPLETION OF THE SUBJECT NEW WELL

PLEASE FIND ATTACHED:

- Drilling and completion summary
- “As Drilled” C-102
- Wellbore schematic
- Actual wellpath report
- Frac summary

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

Electronic Submission #405307 verified by the BLM Well Information System
For CHEVRON U.S.A., sent to the Hobbs
Committed to AFMSS for processing by JENNIFER SANCHEZ on 02/28/2018 ()

Name (Printed/Typed) LAURA BECERRA

Title PERMITTING SPECIALIST

Signature (Electronic Submission)

Date 02/21/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

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

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)

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

SD WE 24 FED P24 7H

30-025-43675

DRILLED NEW OIL WELL AS FOLLOWS:

08/10/2017: Spud well. Drill 17 1/2" surface hole 152' - 672'.

SURFACE CASING

8/10/2017: Run 13 3/8", 54.5#, J-55 STC casing to 662'. Cement in place.

Cemented w/TAI 844 sx Class C. Density: 14.80, Yield: 1.33, Fluid Mix Ratio: 6.37. Returns to surface: 105 bbls of cement to surface.

Displace cement with 92 bbls of FW. Bump plug, hold 600 psi over. Plug bumped on calculated displacement.

8/21/2017: Install test plug. Fill stack & choke manifold. Test full BOPE to 250 psi low/5000 psi high. (3500 high on annular). Tag @ 587'. Test 13 3/8" surface casing to 1,500 psi for 30 minutes. Good test. Drill out float equip, cement, rathole and 10' of new formation to 682'.

8/21/2017-8/22/2017: Drill 12 1/4" intermediate hole 672'-4,546'

INTERMEDIATE CASING

8/24/2017: Run 9 5/8", 40#, L-80 LTC casing & set @ 4,536'.

Cemented w/LEAD 1,025 sx Class C, Density: 11.90, Yield: 2.43, Fluid mix ratio: 13.97; TAIL 462 sx Class C, Density: 14.80, Yield: 1.33, Fluid Mix Ratio: 6.36.

Displace cement w/334 bbls OBM. Bump plug w/500 psi over final circ pressure. Cement to surface: 227 bbls cement. Full returns throughout job. Plug bumped at calc displacement.

Install pack off. Test to 5000 psi for 15 mins. Good test.

8/25/2017: Full BOPE test. TOC @ 4,449'. Test 9 5/8" casing to 2,800 PSI for 30 minutes, test good. Drill out float equip, cement, rathole and 10' of formation to 4,556'.

8/25/2017 - 9/6/2017: Drill 8 1/2" production hole 4,546'-19,372' TD

PRODUCTION CASING

9/6/2017: Run 5 1/2", 20#, HCP-110 BTC casing to 19,363'.

9/8/2017: Cemented w/LEAD 646 sx, Class H, Density: 11.50, Yield: 2.51, Fluid mix ratio: 15.51.

LEAD 1,853 sx, Class H, Density: 12.50, Yield: 1.62, Fluid mix ratio: 9.64.

TAIL 113 sx, Class H, Density: 15.00, Yield: 2.18, Fluid Mix Ratio: 11.42.

Displace cmt w/425 bbls of FW. Bump plug. Hold 500 psi over.

77 bbls of cement to surface, full returns throughout job. Plug bumped on proper displacement.

Conduct 30 min inflow/negative test witnessed by Cade Jackson. WOC and released rig.

COMPLETED NEW DRILL AS FOLLOWS:

TOC @ 1,050', PBTD @ 19,315'

10/29/2017: MIRU. TIH GR/JB/CBL @ 9,270'. Log well from 9,270' to surface.

10/31/2017: Test Production casing to 9800 psi 30 min. Good. MIRU frac equipment

11/1/17 - 11/2/17: Waiting on WL to perforate

11/3/17 - 11/9/17: Perf & frac 11 stages Upper Bone Spring from 17,067'-19,196'.

11/10/17 - 11/13/17: Wire stuck, RU CTU for fishing job.

11/14/2017: Tagged fish @ 17,264, POOH. RD CTU

11/15/17 - 12/8/17: Perf & frac stages 12-51, Upper Bone Spring from 9,227'-17,054'.

Perforation/Frac/Stimulation Details

Date	Top (FtKB)	Btm (FtKB)	Sand Pumped	Total Sand (Lbs)	Clean Fl./BBLS	Slur Vol/BBLS
12/8/2017	9,227	9,410	Sand 100 & 30/50	313,366	9,966	10,306
12/7/2017	9,423	9,606	Sand 100 & 30/50	320,396	9,355	9,702
12/7/2017	9,619	9,802	Sand 100 & 30/50	318,988	9,640	9,986
12/6/2017	9,817	9,998	Sand 100 & 30/50	318,364	9,513	9,858
12/6/2017	10,011	10,194	Sand 100 & 30/50	318,272	9,529	9,876
12/5/2017	10,207	10,390	Sand 100 & 30/50	318,272	9,310	9,654
12/4/2017	10,405	10,585	Sand 100 & 30/50	321,488	9,957	10,305
12/3/2017	10,599	10,782	Sand 100 & 30/50	320,724	11,358	11,706
12/3/2017	10,795	10,978	Sand 100 & 30/50	321,026	9,559	9,907
12/3/2017	10,991	11,174	Sand 100 & 30/50	322,736	9,638	9,988
12/2/2017	11,187	11,370	Sand 100 & 30/50	321,350	9,562	9,909
12/2/2017	11,383	11,566	Sand 100 & 30/50	319,949	9,585	9,931
12/1/2017	11,579	11,762	Sand 100 & 30/50	320,320	9,286	9,633
11/30/2017	11,775	11,958	Sand 100 & 30/50	318,484	9,784	10,129
11/30/2017	11,971	12,153	Sand 100 & 30/50	325,257	9,665	10,018
11/29/2017	12,167	12,351	Sand 100 & 30/50	319,979	9,504	9,852
11/29/2017	12,363	12,545	Sand 100 & 30/50	323,515	9,850	10,201
11/28/2017	12,560	12,742	Sand 100 & 30/50	320,554	9,417	9,765
11/27/2017	12,755	12,938	Sand 100 & 30/50	320,237	9,351	9,698
11/27/2017	12,951	13,129	Sand 100 & 30/50	321,310	10,203	10,551
11/26/2017	13,147	13,330	Sand 100 & 30/50	320,830	9,568	9,916
11/25/2017	13,343	13,526	Sand 100 & 30/50	321,043	10,268	10,615
11/25/2017	13,539	13,722	Sand 100 & 30/50	320,588	9,459	9,806
11/24/2017	13,735	13,918	Sand 100 & 30/50	317,234	9,355	9,699
11/24/2017	13,931	14,114	Sand 100 & 30/50	321,409	10,716	11,064
11/22/2017	14,130	14,310	Sand 100 & 30/50	321,336	9,597	9,945
11/22/2017	14,323	14,506	Sand 100 & 30/50	321,286	10,125	10,473
11/21/2017	14,519	14,699	Sand 100 & 30/50	321,905	9,674	10,023
11/20/2017	14,715	14,898	Sand 100 & 30/50	321,511	9,930	10,278
11/20/2017	14,911	15,094	Sand 100 & 30/50	326,434	10,014	10,368
11/19/2017	15,107	15,290	Sand 100 & 30/50	320,550	10,132	10,480
11/19/2017	15,303	16,485	Sand 100 & 30/50	324,768	9,949	10,300
11/18/2017	15,499	15,682	Sand 100 & 30/50	320,167	10,628	10,974
11/18/2017	15,695	15,878	Sand 100 & 30/50	319,921	12,513	12,860
11/17/2017	15,891	16,074	Sand 100 & 30/50	323,197	11,387	11,737
11/17/2017	16,087	16,270	Sand 100 & 30/50	322,067	10,296	10,644
11/16/2017	16,283	16,466	Sand 100 & 30/50	321,583	11,186	11,534

11/15/2017	16,507	16,662	Sand 100 & 30/50	175,894	10,118	10,309
11/15/2017	16,675	16,858	Sand 100 & 30/50	322,625	7,699	8,049
11/15/2017	16,871	17,054	Sand 100 & 30/50	321,224	10,522	10,870
11/9/2017	17,067	17,249	Sand 100 & 30/50	310,582	10,948	11,285
11/9/2017	17,263	17,446	Sand 100 & 30/50	319,426	12,435	12,781
11/8/2017	17,459	17,642	Sand 100 & 30/50	320,804	9,745	10,092
11/8/2017	17,655	17,838	Sand 100 & 30/50	318,543	10,207	10,552
11/7/2017	17,851	18,032	Sand 100 & 30/50	293,700	10,681	11,001
11/7/2017	18,046	18,230	Sand 100, PW 40/70 & 30/50	322,480	11,881	12,231
11/6/2017	18,243	18,426	Sand 100, PW 40/70 & 30/50	320,961	9,749	10,098
11/5/2017	18,439	18,622	Sand 100 & PW 40/70	322,032	9,819	10,173
11/5/2017	18,635	18,817	Sand 100 & PW 40/70	321,975	10,449	10,803
11/4/2017	18,829	18,981	Sand 100 & PW 40/70	322,436	9,042	9,396
11/3/2017	19,027	19,196	Sand 100 & PW 40/70	321,610	8,341	8,693

11/3/2017 - 12/8/2017 : Perf and frac 51 stages, Upper Bone Spring, from 9,227' - 19,196'. Frac with **total Proppant 16,184,708 lbs.**

12/8/17: Waiting on CTU

12/22/17-12/30/17: RU CTU, casing cleanout, RD

1/9/2018: Test BOPE before NU. Ran 2 7/8" tubing set @ 8,826'. Packer @ 8,812'

1/11/2018: Release rig

1/18/2018: Place well on production

2/8/2018: On 24 hour OPT flowing:

Oil – 1,513

Gas – 2,276

Water – 1,734

GOR – 1,504

Tubing PSI – 780

Casing PSI – 614

Choke – 64/64

TOC – 1,050'

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) 476-3466 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
"As Drilled"

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-43675	² Pool Code 97838	³ Pool Name JENNINGS; UPPER BONE SPRING SHALE
⁴ Property Code 317518	⁵ Property Name SD WE 24 FED P24	⁶ Well Number 7H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3136'

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
P	24	26 SOUTH	32 EAST, N.M.P.M.		200'	SOUTH	1185'	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
A	13	26 SOUTH	32 EAST, N.M.P.M.		196'	NORTH	459'	EAST	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.

¹⁶ AS-DRILLED BOTTOM HOLE LOCATION <table border="1"> <tr> <td>X= 720,758 NAD 27</td> <td>X= 720,764 NAD 27</td> </tr> <tr> <td>Y= 382,544</td> <td>Y= 382,389</td> </tr> <tr> <td>LAT. 32.049727</td> <td>LAT. 32.049299</td> </tr> <tr> <td>LONG. 103.620823</td> <td>LONG. 103.620805</td> </tr> <tr> <td>X= 761,945 NAD83</td> <td>X= 761,951 NAD83</td> </tr> <tr> <td>Y= 382,602</td> <td>Y= 382,446</td> </tr> <tr> <td>LAT. 32.049852</td> <td>LAT. 32.049424</td> </tr> <tr> <td>LONG. 103.621292</td> <td>LONG. 103.621274</td> </tr> </table> SD WE 24 FED P24 7H WELL <table border="1"> <tr> <td>X= 720,095 NAD 27</td> <td>X= 720,831 NAD 27</td> </tr> <tr> <td>Y= 372,222</td> <td>Y= 372,419</td> </tr> <tr> <td>LAT. 32.021363</td> <td>LAT. 32.021891</td> </tr> <tr> <td>LONG. 103.623181</td> <td>LONG. 103.620801</td> </tr> <tr> <td>X= 761,282 NAD83</td> <td>X= 762,019 NAD83</td> </tr> <tr> <td>Y= 372,279</td> <td>Y= 372,476</td> </tr> <tr> <td>LAT. 32.021488</td> <td>LAT. 32.022017</td> </tr> <tr> <td>LONG. 103.623649</td> <td>LONG. 103.621269</td> </tr> </table> ELEVATION -3136' NAVD 88	X= 720,758 NAD 27	X= 720,764 NAD 27	Y= 382,544	Y= 382,389	LAT. 32.049727	LAT. 32.049299	LONG. 103.620823	LONG. 103.620805	X= 761,945 NAD83	X= 761,951 NAD83	Y= 382,602	Y= 382,446	LAT. 32.049852	LAT. 32.049424	LONG. 103.621292	LONG. 103.621274	X= 720,095 NAD 27	X= 720,831 NAD 27	Y= 372,222	Y= 372,419	LAT. 32.021363	LAT. 32.021891	LONG. 103.623181	LONG. 103.620801	X= 761,282 NAD83	X= 762,019 NAD83	Y= 372,279	Y= 372,476	LAT. 32.021488	LAT. 32.022017	LONG. 103.623649	LONG. 103.621269		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 that 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: <i>[Signature]</i> Date: 1/16/18 Laura Becerra Printed Name LBecerra@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. 6-15-2016 Date of Survey Signature and Seal of Professional Surveyor: <i>[Signature]</i> 23006 Certificate Number
X= 720,758 NAD 27	X= 720,764 NAD 27																																	
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CORNER COORDINATES TABLE (NAD 27)

A - Y=382728.88, X=719883.96
B - Y=382746.10, X=721215.23
C - Y=372020.08, X=719946.66
D - Y=372033.87, X=721281.01



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_awp 167.5' - 19319' Proj: 19371'

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**BAKER
HUGHES**
a GE company



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Tranlam
Scale	0.999965	Report Generated	9/14/2017 at 2:32:56 PM
Convergence at slot	0.38° East	Database/Source file	WA_Midland/SD_WE_24_FED_P24_7H_AWB_awp_167.5 - _19319_Proj_19371_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1.00	50.00	720095.00	372222.00	32°01'16.911"N	103°37'23.450"W
Facility Reference Pt			720045.00	372221.00	32°01'16.904"N	103°37'24.031"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig: Nabors X-30 (KB) to Facility Vertical Datum	3169.00ft
Horizontal Reference Pt	Slot	Rig: Nabors X-30 (KB) to Mean Sea Level	3169.00ft
Vertical Reference Pt	Rig: Nabors X-30 (KB)	Rig: Nabors X-30 (KB) to Ground Level at Slot (SD WE 24 FED P24 7H)	33.00ft
MD Reference Pt	Rig: Nabors X-30 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.65°

We hereby certify that the surveys contained herein, are to the best of our knowledge a true and accurate account of the well.

MWD COORDINATOR



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_awp 167.5' - 19319' Proj: 19371'

Page 2 of 9

**BAKER
HUGHES**
a GE company



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

WELLPATH DATA (173 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	DLS (°/100ft)	Comments
0.00†	0.000	35.000	0.00	0.00	0.00	0.00	720095.00	372222.00	32°01'16.911"N	103°37'23.450"W	0.00	
33.00	0.000	35.000	33.00	0.00	0.00	0.00	720095.00	372222.00	32°01'16.911"N	103°37'23.450"W	0.00	
167.50	0.500	35.000	167.50	0.48	0.48	0.34	720095.34	372222.48	32°01'16.916"N	103°37'23.446"W	0.37	
372.50	0.200	137.000	372.50	0.95	0.95	1.09	720096.09	372222.95	32°01'16.920"N	103°37'23.437"W	0.28	
641.50	0.800	172.000	641.48	-1.26	-1.25	1.68	720096.68	372220.75	32°01'16.899"N	103°37'23.431"W	0.24	
706.00	0.740	165.390	705.98	-2.11	-2.10	1.84	720096.84	372219.90	32°01'16.890"N	103°37'23.429"W	0.17	
888.00	1.000	184.550	887.96	-4.83	-4.82	2.01	720097.01	372217.18	32°01'16.863"N	103°37'23.427"W	0.21	
1065.00	1.260	157.140	1064.92	-8.17	-8.15	2.65	720097.65	372213.85	32°01'16.830"N	103°37'23.420"W	0.33	
1242.00	4.730	96.630	1241.68	-10.86	-10.79	10.66	720105.66	372211.21	32°01'16.804"N	103°37'23.327"W	2.40	
1419.00	5.890	91.740	1417.92	-12.07	-11.91	26.98	720121.98	372210.09	32°01'16.791"N	103°37'23.138"W	0.70	
1597.00	6.270	91.780	1594.92	-12.77	-12.49	45.83	720140.83	372209.51	32°01'16.785"N	103°37'22.919"W	0.21	
1774.00	7.500	89.060	1770.64	-13.01	-12.60	67.04	720162.04	372209.40	32°01'16.782"N	103°37'22.672"W	0.72	
1952.00	8.800	92.270	1946.84	-13.51	-12.95	92.26	720187.26	372209.05	32°01'16.777"N	103°37'22.380"W	0.77	
2129.00	9.370	96.360	2121.62	-15.81	-15.08	120.11	720215.10	372206.92	32°01'16.754"N	103°37'22.056"W	0.49	
2307.00	10.120	101.020	2297.05	-20.59	-19.67	149.86	720244.86	372202.33	32°01'16.707"N	103°37'21.711"W	0.61	
2484.00	10.800	101.920	2471.11	-27.18	-26.07	181.35	720276.34	372195.93	32°01'16.641"N	103°37'21.346"W	0.40	
2661.00	10.120	107.420	2645.17	-35.45	-34.15	212.41	720307.41	372187.85	32°01'16.559"N	103°37'20.986"W	0.68	
2839.00	9.540	106.900	2820.56	-44.60	-43.12	241.45	720336.44	372178.88	32°01'16.469"N	103°37'20.649"W	0.33	
3016.00	6.470	94.050	2995.83	-49.71	-48.09	265.44	720360.43	372173.91	32°01'16.418"N	103°37'20.371"W	2.00	
3193.00	7.060	86.900	3171.60	-49.96	-48.21	286.25	720381.24	372173.79	32°01'16.415"N	103°37'20.129"W	0.58	
3370.00	8.500	87.730	3346.96	-49.00	-47.10	310.18	720405.17	372174.90	32°01'16.425"N	103°37'19.851"W	0.82	
3547.00	9.940	86.470	3521.67	-47.71	-45.64	338.50	720433.49	372176.36	32°01'16.437"N	103°37'19.522"W	0.82	
3724.00	11.000	84.780	3695.72	-45.43	-43.17	370.57	720465.55	372178.83	32°01'16.460"N	103°37'19.149"W	0.62	
3902.00	12.080	91.840	3870.13	-44.70	-42.22	406.10	720501.08	372179.78	32°01'16.467"N	103°37'18.737"W	1.00	
4078.00	13.430	98.400	4041.79	-48.51	-45.80	444.73	720539.71	372176.20	32°01'16.429"N	103°37'18.288"W	1.12	
4256.00	13.560	99.840	4214.88	-55.35	-52.38	485.74	720580.72	372169.62	32°01'16.361"N	103°37'17.813"W	0.20	
4432.00	13.780	105.820	4385.90	-64.84	-61.62	526.24	720621.22	372160.38	32°01'16.267"N	103°37'17.343"W	0.81	12 1/4 BH MWD 706' - 4432'
4612.00	14.360	107.600	4560.50	-77.69	-74.22	568.14	720663.12	372147.79	32°01'16.140"N	103°37'16.857"W	0.40	
4789.00	10.250	97.680	4733.42	-86.66	-82.96	604.69	720699.66	372139.04	32°01'16.051"N	103°37'16.433"W	2.60	
4967.00	10.000	98.300	4908.65	-91.19	-87.31	635.67	720730.65	372134.69	32°01'16.006"N	103°37'16.074"W	0.15	



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_ awp.167.5' - 19319' Proj: 19371'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

WELLPATH DATA (173 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5144.00	9.270	100.790	5083.15	-96.26	-92.20	664.89	720759.86	372129.81	32°01'15.955"N	103°37'15.735"W	0.47	
5321.00	8.490	100.420	5258.03	-101.45	-97.23	691.74	720786.71	372124.77	32°01'15.904"N	103°37'15.423"W	0.44	
5499.00	8.010	101.420	5434.18	-106.44	-102.06	716.82	720811.79	372119.94	32°01'15.854"N	103°37'15.132"W	0.28	
5676.00	6.690	99.940	5609.73	-110.80	-106.28	739.06	720834.04	372115.72	32°01'15.811"N	103°37'14.874"W	0.75	
5853.00	4.060	94.730	5785.93	-113.19	-108.58	755.47	720850.44	372113.42	32°01'15.787"N	103°37'14.684"W	1.51	
6030.00	1.720	82.550	5962.70	-113.42	-108.75	764.35	720859.32	372113.25	32°01'15.785"N	103°37'14.581"W	1.36	
6207.00	1.770	86.210	6139.61	-112.93	-108.23	769.71	720864.68	372113.78	32°01'15.790"N	103°37'14.519"W	0.07	
6384.00	1.580	87.900	6316.54	-112.69	-107.96	774.87	720869.85	372114.05	32°01'15.792"N	103°37'14.459"W	0.11	
6561.00	1.510	62.160	6493.48	-111.54	-106.78	779.38	720874.35	372115.22	32°01'15.804"N	103°37'14.406"W	0.39	
6738.00	1.090	65.570	6670.43	-109.77	-104.99	782.97	720877.94	372117.01	32°01'15.821"N	103°37'14.364"W	0.24	
6915.00	0.760	69.670	6847.41	-108.69	-103.89	785.60	720880.57	372118.11	32°01'15.832"N	103°37'14.334"W	0.19	
7092.00	0.750	43.160	7024.39	-107.45	-102.64	787.50	720882.47	372119.37	32°01'15.844"N	103°37'14.312"W	0.20	
7269.00	0.670	210.630	7201.39	-107.49	-102.68	787.76	720882.73	372119.32	32°01'15.844"N	103°37'14.309"W	0.80	
7446.00	0.500	212.630	7378.38	-109.03	-104.22	786.82	720881.79	372117.78	32°01'15.828"N	103°37'14.320"W	0.10	
7623.00	0.560	245.120	7555.37	-110.03	-105.24	785.62	720880.59	372116.77	32°01'15.819"N	103°37'14.334"W	0.17	
7801.00	0.320	200.660	7733.37	-110.86	-106.07	784.65	720879.62	372115.94	32°01'15.810"N	103°37'14.345"W	0.22	
7978.00	0.090	191.400	7910.36	-111.46	-106.67	784.45	720879.42	372115.34	32°01'15.804"N	103°37'14.347"W	0.13	
8155.00	0.210	171.460	8087.36	-111.91	-107.12	784.47	720879.44	372114.88	32°01'15.800"N	103°37'14.347"W	0.07	
8332.00	0.540	163.220	8264.36	-113.04	-108.24	784.76	720879.73	372113.76	32°01'15.789"N	103°37'14.344"W	0.19	
8491.00	0.390	205.930	8423.36	-114.24	-109.45	784.74	720879.71	372112.56	32°01'15.777"N	103°37'14.344"W	0.23	3/4 BH MWD 4612' - 8491'
8580.00	0.580	180.190	8512.35	-114.96	-110.17	784.61	720879.58	372111.83	32°01'15.770"N	103°37'14.346"W	0.32	
8669.00	6.120	343.850	8601.20	-110.84	-106.06	783.28	720878.25	372115.94	32°01'15.811"N	103°37'14.361"W	7.50	
8757.00	21.230	352.000	8686.46	-90.42	-85.66	779.74	720874.71	372136.35	32°01'16.013"N	103°37'14.400"W	17.27	
8845.00	23.050	351.940	8767.97	-57.55	-52.82	775.11	720870.08	372169.18	32°01'16.338"N	103°37'14.452"W	2.07	
8934.00	30.010	349.040	8847.55	-18.36	-13.67	768.42	720863.40	372208.33	32°01'16.726"N	103°37'14.526"W	7.95	
9022.00	40.890	347.250	8919.13	31.55	36.18	757.85	720852.82	372258.18	32°01'17.220"N	103°37'14.645"W	12.42	
9111.00	51.860	348.990	8980.45	94.59	99.14	744.70	720839.67	372321.14	32°01'17.844"N	103°37'14.793"W	12.41	
9199.00	60.630	358.120	9029.37	167.18	171.69	736.80	720831.78	372393.68	32°01'18.562"N	103°37'14.879"W	13.17	
9288.00	70.140	0.160	9066.40	247.99	252.49	735.65	720830.62	372474.48	32°01'19.362"N	103°37'14.887"W	10.89	
9377.00	82.400	0.150	9087.48	334.28	338.78	735.88	720830.85	372560.77	32°01'20.216"N	103°37'14.877"W	13.78	



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_ awp 167.5' - 19319' Proj: 19371'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

WELLPATH DATA (173 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9469.00	90.000	1.110	9093.57	426.00	430.51	736.89	720831.86	372652.49	32°01'21.123"N	103°37'14.859"W	8.33	
9557.00	88.800	1.100	9094.49	513.96	518.48	738.59	720833.56	372740.46	32°01'21.994"N	103°37'14.832"W	1.36	
9645.00	89.170	1.230	9096.05	601.92	606.45	740.38	720835.35	372828.43	32°01'22.864"N	103°37'14.805"W	0.45	
9734.00	90.860	2.110	9096.03	690.86	695.41	742.97	720837.94	372917.38	32°01'23.744"N	103°37'14.768"W	2.14	
9822.00	91.600	1.580	9094.14	778.77	783.34	745.80	720840.78	373005.31	32°01'24.614"N	103°37'14.728"W	1.03	
9910.00	92.710	1.450	9090.83	866.66	871.25	748.13	720843.10	373093.22	32°01'25.484"N	103°37'14.694"W	1.27	
9999.00	89.750	0.030	9088.92	955.61	960.21	749.28	720844.25	373182.17	32°01'26.364"N	103°37'14.674"W	3.69	
10087.00	91.110	0.340	9088.26	1043.60	1048.20	749.56	720844.53	373270.16	32°01'27.235"N	103°37'14.664"W	1.59	
10176.00	91.790	359.520	9088.01	1132.57	1137.17	749.45	720844.42	373359.13	32°01'28.115"N	103°37'14.659"W	1.20	
10264.00	92.090	358.770	9083.03	1220.52	1225.11	748.14	720843.11	373447.07	32°01'28.986"N	103°37'14.667"W	0.92	
10353.00	92.650	358.620	9079.35	1309.43	1314.01	746.11	720841.09	373535.96	32°01'29.865"N	103°37'14.684"W	0.65	
10442.00	90.860	357.860	9076.62	1398.36	1402.92	743.38	720838.35	373624.87	32°01'30.745"N	103°37'14.709"W	2.18	
10530.00	91.730	358.220	9074.64	1486.30	1490.85	740.37	720835.35	373712.79	32°01'31.616"N	103°37'14.737"W	1.07	
10618.00	90.280	358.850	9073.09	1574.27	1578.80	738.12	720833.10	373800.75	32°01'32.486"N	103°37'14.756"W	1.80	
10706.00	91.230	357.920	9071.93	1662.23	1666.76	735.64	720830.62	373888.70	32°01'33.357"N	103°37'14.778"W	1.51	
10795.00	87.630	357.620	9072.82	1751.17	1755.67	732.18	720827.15	373977.61	32°01'34.237"N	103°37'14.812"W	4.06	
10883.00	87.600	356.890	9076.48	1839.01	1843.50	727.97	720822.94	374065.43	32°01'35.106"N	103°37'14.854"W	0.83	
10972.00	90.180	357.490	9078.20	1927.91	1932.36	723.61	720818.58	374154.29	32°01'35.986"N	103°37'14.898"W	2.98	
11061.00	88.430	358.220	9079.28	2016.85	2021.29	720.28	720815.25	374243.22	32°01'36.866"N	103°37'14.930"W	2.13	
11149.00	91.280	359.050	9079.52	2104.83	2109.26	718.18	720813.16	374331.18	32°01'37.737"N	103°37'14.947"W	3.35	
11240.00	92.250	358.970	9076.73	2195.78	2200.20	716.61	720811.58	374422.12	32°01'38.637"N	103°37'14.959"W	1.09	
11331.00	89.720	0.920	9075.17	2286.75	2291.17	716.52	720811.50	374513.09	32°01'39.537"N	103°37'14.953"W	3.51	
11422.00	89.600	0.000	9075.71	2377.74	2382.17	717.25	720812.23	374604.08	32°01'40.437"N	103°37'14.937"W	1.02	
11512.00	90.180	358.380	9075.88	2467.74	2472.16	715.98	720810.96	374694.06	32°01'41.328"N	103°37'14.945"W	1.91	
11603.00	89.940	357.870	9075.79	2558.70	2563.11	713.00	720807.98	374785.01	32°01'42.228"N	103°37'14.973"W	0.62	
11694.00	91.080	0.580	9074.98	2649.69	2654.08	711.77	720806.75	374875.98	32°01'43.128"N	103°37'14.980"W	3.23	
11785.00	92.190	1.010	9072.38	2740.63	2745.04	713.04	720808.01	374966.93	32°01'44.028"N	103°37'14.958"W	1.31	
11876.00	91.910	0.860	9069.13	2831.55	2835.97	714.52	720809.49	375057.86	32°01'44.928"N	103°37'14.934"W	0.35	
11967.00	90.060	1.740	9067.56	2922.49	2926.92	716.58	720811.56	375148.82	32°01'45.828"N	103°37'14.903"W	2.25	
12058.00	90.990	1.650	9066.75	3011.43	3015.88	719.22	720814.19	375237.77	32°01'46.708"N	103°37'14.866"W	1.05	



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_ awp 167.5' - 19319' Proj: 19371'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

WELLPATH DATA (173 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12144.00	85.990	0.970	9069.06	3099.34	3103.80	721.23	720816.20	375325.68	32°01'47.578"N	103°37'14.836"W	5.73	
12233.00	84.780	0.070	9076.22	3188.03	3192.50	722.03	720817.01	375414.38	32°01'48.456"N	103°37'14.820"W	1.69	
12322.00	85.220	359.330	9083.98	3276.69	3281.16	721.57	720816.54	375503.04	32°01'49.333"N	103°37'14.818"W	0.96	
12410.00	85.500	359.180	9091.10	3364.40	3368.87	720.43	720815.40	375590.74	32°01'50.201"N	103°37'14.825"W	0.36	
12499.00	90.770	1.330	9094.00	3453.32	3457.78	720.83	720815.80	375679.65	32°01'51.081"N	103°37'14.813"W	6.39	
12587.00	92.280	1.680	9091.65	3541.24	3545.72	723.14	720818.11	375767.59	32°01'51.951"N	103°37'14.780"W	1.76	
12676.00	87.870	359.850	9091.54	3630.19	3634.68	724.33	720819.30	375856.55	32°01'52.831"N	103°37'14.759"W	5.36	
12765.00	89.910	0.330	9093.26	3719.17	3723.66	724.46	720819.44	375945.52	32°01'53.712"N	103°37'14.751"W	2.35	
12853.00	89.350	0.110	9093.83	3807.16	3811.66	724.80	720819.78	376033.52	32°01'54.582"N	103°37'14.740"W	0.68	
12941.00	89.110	359.510	9095.01	3895.15	3899.65	724.51	720819.48	376121.51	32°01'55.453"N	103°37'14.737"W	0.73	
13030.00	88.400	358.790	9096.95	3984.13	3988.62	723.19	720818.16	376210.47	32°01'56.334"N	103°37'14.745"W	1.14	
13118.00	90.220	359.330	9098.01	4072.11	4076.60	721.75	720816.72	376298.44	32°01'57.204"N	103°37'14.755"W	2.16	
13207.00	91.230	359.020	9096.88	4161.10	4165.58	720.47	720815.44	376387.42	32°01'58.085"N	103°37'14.763"W	1.19	
13295.00	90.860	358.260	9095.28	4249.07	4253.54	718.38	720813.35	376475.38	32°01'58.955"N	103°37'14.781"W	0.96	
13384.00	89.600	357.950	9094.92	4338.04	4342.49	715.44	720810.41	376564.33	32°01'59.836"N	103°37'14.808"W	1.46	
13472.00	90.430	357.600	9094.89	4425.99	4430.42	712.02	720806.99	376652.25	32°02'00.706"N	103°37'14.841"W	1.02	
13561.00	89.600	359.340	9094.87	4514.97	4519.38	709.64	720804.62	376741.22	32°02'01.587"N	103°37'14.862"W	2.17	
13650.00	90.220	359.730	9095.01	4603.96	4608.38	708.92	720803.89	376830.21	32°02'02.467"N	103°37'14.863"W	0.82	
13738.00	90.800	358.380	9094.23	4691.95	4696.36	707.47	720802.44	376918.19	32°02'03.338"N	103°37'14.873"W	1.67	
13827.00	89.480	357.310	9094.01	4780.91	4785.30	704.12	720799.10	377007.12	32°02'04.218"N	103°37'14.906"W	1.91	
13915.00	90.220	358.130	9094.24	4868.85	4873.23	700.62	720795.60	377095.04	32°02'05.089"N	103°37'14.939"W	1.26	
14004.00	88.740	357.870	9095.05	4957.81	4962.17	697.52	720792.49	377183.98	32°02'05.969"N	103°37'14.969"W	1.69	
14092.00	87.540	357.130	9097.90	5045.70	5050.03	693.68	720788.65	377271.84	32°02'06.839"N	103°37'15.007"W	1.60	
14181.00	85.900	357.760	9103.00	5134.49	5138.80	689.72	720784.69	377360.60	32°02'07.717"N	103°37'15.046"W	1.97	
14270.00	86.150	359.430	9109.17	5223.25	5227.55	687.54	720782.52	377449.38	32°02'08.596"N	103°37'15.084"W	1.89	
14358.00	87.040	1.620	9114.39	5311.08	5315.39	688.35	720783.32	377537.19	32°02'09.465"N	103°37'15.048"W	2.68	
14446.00	87.840	1.140	9118.32	5398.95	5403.27	690.46	720785.44	377625.07	32°02'10.334"N	103°37'15.017"W	1.06	
14536.00	88.610	0.920	9121.11	5488.88	5493.21	692.08	720787.06	377715.01	32°02'11.224"N	103°37'14.991"W	0.89	
14625.00	90.280	0.160	9121.97	5577.86	5582.20	692.92	720787.89	377803.99	32°02'12.105"N	103°37'14.975"W	2.06	
14714.00	89.010	1.760	9122.53	5666.83	5671.18	694.41	720789.38	377892.97	32°02'12.985"N	103°37'14.950"W	2.30	



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_ awp 167.5' - 19319' Proj: 19371'
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**BAKER
HUGHES**
a GE company



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

WELLPATH DATA (173 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14802.00	89.630	2.120	9123.57	5754.76	5759.13	697.39	720792.36	377980.91	32°02'13.855"N	103°37'14.909"W	0.81	
14891.00	92.500	2.900	9121.92	5843.62	5848.01	701.29	720796.26	378069.80	32°02'14.735"N	103°37'14.857"W	3.34	
14979.00	93.420	2.150	9117.37	5931.39	5935.81	705.16	720800.13	378157.59	32°02'15.603"N	103°37'14.805"W	1.35	
15068.00	90.490	1.610	9114.34	6020.26	6024.70	708.08	720803.05	378246.47	32°02'16.483"N	103°37'14.765"W	3.35	
15157.00	89.540	0.690	9114.31	6109.23	6113.68	709.88	720804.83	378335.45	32°02'17.363"N	103°37'14.737"W	1.49	
15245.00	90.430	1.280	9114.34	6197.20	6201.67	711.37	720806.35	378423.43	32°02'18.234"N	103°37'14.713"W	1.21	
15334.00	90.620	1.580	9113.52	6286.16	6290.63	713.60	720808.57	378512.40	32°02'19.114"N	103°37'14.680"W	0.40	
15422.00	86.890	359.090	9115.43	6374.11	6378.59	714.11	720809.08	378600.35	32°02'19.984"N	103°37'14.667"W	5.10	
15510.00	87.840	359.960	9119.48	6462.01	6466.49	713.38	720808.36	378688.25	32°02'20.854"N	103°37'14.669"W	1.46	
15599.00	87.690	359.710	9122.95	6550.95	6555.42	713.13	720808.10	378777.18	32°02'21.734"N	103°37'14.665"W	0.33	
15687.00	87.380	359.280	9126.73	6638.86	6643.34	712.35	720807.32	378865.09	32°02'22.604"N	103°37'14.668"W	0.60	
15776.00	87.100	358.230	9131.02	6727.75	6732.21	710.42	720805.39	378953.96	32°02'23.484"N	103°37'14.683"W	1.22	
15864.00	91.630	359.490	9131.99	6815.71	6820.17	708.67	720803.64	379041.91	32°02'24.354"N	103°37'14.697"W	5.34	
15953.00	93.610	359.750	9127.93	6904.61	6909.07	708.08	720803.05	379130.81	32°02'25.234"N	103°37'14.697"W	2.24	
16042.00	92.440	0.520	9123.23	6993.48	6997.94	708.29	720803.26	379219.68	32°02'26.113"N	103°37'14.688"W	1.57	
16130.00	92.340	0.520	9119.56	7081.40	7085.86	709.09	720804.06	379307.59	32°02'26.983"N	103°37'14.672"W	0.11	
16219.00	91.390	359.790	9116.66	7170.34	7174.81	709.33	720804.30	379396.54	32°02'27.864"N	103°37'14.662"W	1.35	
16307.00	92.800	0.090	9113.45	7258.28	7262.75	709.24	720804.21	379484.48	32°02'28.734"N	103°37'14.656"W	1.64	
16396.00	93.360	0.180	9108.66	7347.15	7351.62	709.45	720804.42	379573.34	32°02'29.613"N	103°37'14.647"W	0.64	
16484.00	91.290	359.030	9105.09	7435.07	7439.54	708.84	720803.81	379661.26	32°02'30.483"N	103°37'14.647"W	2.69	
16573.00	90.180	358.510	9103.95	7524.05	7528.51	706.93	720801.90	379750.23	32°02'31.364"N	103°37'14.663"W	1.38	
16661.00	94.260	359.220	9100.54	7611.96	7616.41	705.19	720800.16	379838.12	32°02'32.234"N	103°37'14.676"W	4.71	
16750.00	90.650	357.640	9096.73	7700.84	7705.27	702.75	720797.72	379926.99	32°02'33.113"N	103°37'14.698"W	4.43	
16838.00	90.460	357.620	9095.88	7788.78	7793.19	699.11	720794.08	380014.90	32°02'33.983"N	103°37'14.733"W	0.22	
16927.00	89.070	358.510	9098.25	7877.74	7882.14	696.11	720791.08	380103.85	32°02'34.864"N	103°37'14.761"W	1.85	
17015.00	88.120	357.820	9098.40	7965.68	7970.07	693.29	720788.26	380191.77	32°02'35.734"N	103°37'14.787"W	1.33	
17103.00	88.920	357.200	9100.68	8053.59	8057.95	689.47	720784.44	380279.65	32°02'36.604"N	103°37'14.825"W	1.15	
17192.00	89.260	358.210	9102.09	8142.53	8146.87	685.90	720780.88	380368.57	32°02'37.484"N	103°37'14.860"W	1.20	
17280.00	90.000	358.630	9102.66	8230.51	8234.83	683.48	720778.45	380456.53	32°02'38.355"N	103°37'14.881"W	0.97	
17369.00	90.590	358.070	9102.20	8319.48	8323.79	680.91	720775.89	380545.48	32°02'39.235"N	103°37'14.904"W	0.91	



Actual Wellpath Report

SD WE 24 FED P24 7H AWP 167.5' - 19319' Proj: 19371'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWP
Facility	SD WE 24 Fed P24		

WELLPATH DATA (173 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17458.00	90.180	357.750	9101.60	8408.44	8412.73	677.67	720772.64	380634.42	32°02'40.116"N	103°37'14.935"W	0.58	
17546.00	90.030	358.060	9101.44	8496.40	8500.67	674.45	720769.43	380722.36	32°02'40.986"N	103°37'14.965"W	0.39	
17635.00	88.890	359.550	9102.28	8585.38	8589.65	672.60	720767.57	380811.33	32°02'41.867"N	103°37'14.980"W	2.11	
17723.00	89.750	0.170	9103.32	8673.37	8677.64	672.38	720767.36	380899.31	32°02'42.737"N	103°37'14.976"W	1.20	
17811.00	89.410	2.560	9103.97	8761.32	8765.61	674.48	720769.45	380987.28	32°02'43.808"N	103°37'14.945"W	2.74	
17900.00	90.180	3.630	9104.29	8850.16	8854.47	679.28	720774.26	381076.14	32°02'44.487"N	103°37'14.882"W	1.48	
17990.00	94.350	4.320	9100.73	8939.81	8944.17	685.51	720780.49	381165.83	32°02'45.374"N	103°37'14.803"W	4.70	
18078.00	91.910	2.410	9095.93	9027.49	9031.87	690.67	720785.64	381253.53	32°02'46.241"N	103°37'14.736"W	3.52	
18167.00	90.370	0.970	9094.16	9116.41	9120.81	693.29	720788.27	381342.47	32°02'47.121"N	103°37'14.699"W	2.37	
18255.00	90.680	1.120	9093.35	9204.38	9208.79	694.90	720789.87	381430.45	32°02'47.992"N	103°37'14.674"W	0.39	
18344.00	90.950	359.820	9092.08	9293.36	9297.78	695.63	720790.60	381519.43	32°02'48.872"N	103°37'14.658"W	1.49	
18433.00	89.720	359.390	9091.56	9382.35	9386.77	695.01	720789.99	381608.42	32°02'49.753"N	103°37'14.659"W	1.46	
18521.00	91.230	359.170	9090.83	9470.35	9474.76	693.91	720788.88	381696.41	32°02'50.624"N	103°37'14.665"W	1.73	
18609.00	92.870	359.850	9087.69	9558.29	9562.70	693.16	720788.13	381784.34	32°02'51.494"N	103°37'14.667"W	2.02	
18698.00	89.780	358.800	9085.63	9647.25	9651.66	692.11	720787.08	381873.29	32°02'52.374"N	103°37'14.672"W	3.67	
18787.00	86.800	358.180	9088.28	9736.18	9740.57	689.76	720784.74	381962.21	32°02'53.254"N	103°37'14.693"W	3.42	
18875.00	86.730	358.290	9093.25	9824.01	9828.39	687.06	720782.03	382050.03	32°02'54.124"N	103°37'14.717"W	0.15	
18963.00	85.160	356.500	9099.47	9911.72	9916.08	683.07	720778.04	382137.70	32°02'54.992"N	103°37'14.757"W	2.70	
19052.00	85.920	356.600	9106.39	10000.32	10004.64	677.73	720772.70	382226.27	32°02'55.868"N	103°37'14.812"W	0.86	
19141.00	86.880	357.080	9111.98	10089.03	10093.33	672.83	720767.81	382314.96	32°02'56.746"N	103°37'14.862"W	1.21	
19230.00	87.690	357.660	9116.20	10177.86	10182.14	668.75	720763.73	382403.76	32°02'57.625"N	103°37'14.903"W	1.12	
19319.00	88.060	357.570	9119.50	10266.75	10271.00	665.05	720760.03	382492.62	32°02'58.505"N	103°37'14.939"W	0.43	8 1/2 BH MWD 8580' - 19319'
19371.00	88.060	357.570	9121.26	10318.68	10322.92	662.85	720757.83	382544.54	32°02'59.019"N	103°37'14.961"W	0.00	Projection to TD: 19371'



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_ awp 167.5' - 19319' Proj: 19371'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SD WE 24 FED P24 7H Ip1	9083.00	2881.82	726.84	720821.81	375103.71	32°01'45.381"N	103°37'14.788"W	point
SD WE 24 FED P24 7H Ip4	9089.00	9411.69	686.72	720781.69	381633.34	32°02'50.000"N	103°37'14.753"W	point
SD WE 24 FED P24 7H FTP	9110.00	0.00	0.00	720095.00	372222.00	32°01'16.911"N	103°37'23.450"W	point
SD WE 24 FED P24 7H PBHL rev 3	9115.00	10338.39	681.03	720776.00	382560.00	32°02'59.171"N	103°37'14.748"W	rectangle
SD WE 24 FED P24 7H Ip3	9115.00	7896.72	696.03	720791.00	380118.42	32°02'35.008"N	103°37'14.761"W	point
SD WE 24 FED P24 7H PBHL rev 2	9120.00	10338.39	681.03	720776.00	382560.00	32°02'59.171"N	103°37'14.748"W	rectangle
SD WE 24 FED P24 7H Ip2	9135.00	6403.75	705.20	720800.17	378625.51	32°02'20.234"N	103°37'14.769"W	point

WELLPATH COMPOSITION - Ref Wellbore: SD WE 24 FED P24 7H AWB						Ref Wellpath: SD WE 24 FED P24 7H AWB_ awp 167.5' - 19319' Proj: 19371'	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore	
33.00	641.50	ISCWSA MWD, Rev. 4 (Standard)		Imported Surface 167.5' - 641.5		SD WE 24 FED P24 7H AWB	
641.50	4432.00	BHI NaviTrak (Standard)		12 1/4 BH MWD 706' - 4432'		SD WE 24 FED P24 7H AWB	
4432.00	8491.00	BHI NaviTrak (Standard)		8 3/4 BH MWD 4612' - 8491'		SD WE 24 FED P24 7H AWB	
8491.00	19319.00	BHI NaviTrak (Standard)		8 1/2 BH MWD 8580' - 19319'		SD WE 24 FED P24 7H AWB	
19319.00	19371.00	Blind Drilling (std)		Projection to bit		SD WE 24 FED P24 7H AWB	



Actual Wellpath Report

SD WE 24 FED P24 7H AWB_awp 167.5' - 19319' Proj: 19371'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 24 FED P24 7H
Area	Lea County, NM	Well	SD WE 24 Federal P24 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 24 FED P24 7H AWB
Facility	SD WE 24 Fed P24		

COMMENTS

Wellpath general comments

Well: SD WE 24 Federal P24 No. 7H
Field: Jennings/Upper BN SPRN, Shale
Rig: Nabors X30
Location: Lea Co., NM
API: 30-025-43675-00
Latitude: 32° 01' 16.911" N
Longitude: 103° 37' 23.450" W
DF Elevation: 3169 feet
Elev. GL: 3136 feet
Proposed Direction: 359.65°
PBHL: 19371 feet
Duration: 08/21/2017-09/06/2017
FSE's: D. Hardeman
SO#: 8708449
12 1/4 BH MWD 706' - 4432'
8 3/4 BH MWD 4612' - 8491'
8 1/2 BH MWD 8580' - 19319'
Projection to TD: 19371'



Wellbore Schematic

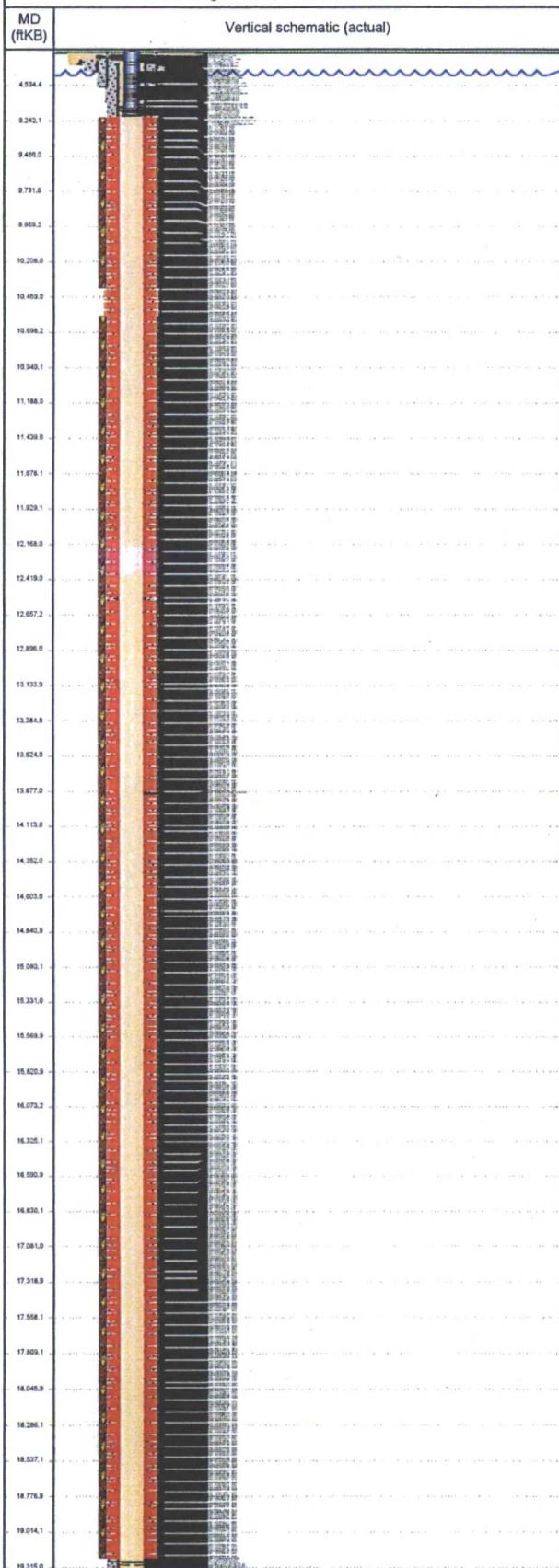
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:48:59 AM



Job Details

Job Category	Start Date	Rig/Unit End Date
Completion	10/31/2017	
Completion	1/9/2018	1/11/2018

Casing Strings

Csg Des	OD (in)	Wt/Len (lb/ft)	Grade	Top Thread	Set Depth (MD) (ftKB)
Conductor	20	106.50	N-80	8RD	152
Surface	13 3/8	54.50	J-55	ST&C	662
Intermediate Casing 1	9 5/8	40.00	L-80	LT&C	4,536
Production Casing	5 1/2	20.00	HCP110	TXPBTC	19,363

Tubing Strings

Tubing - Production set at 8,826.0ftKB on 1/10/2018 08:30

Tubing Description	Run Date	String Length (ft)	Set Depth (MD) (ftKB)
Tubing - Production	1/10/2018	8,794.12	8,826.0

Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Btm (ftKB)
Tubing Hanger	1	2 7/8			0.50	32.3
Tubing	1	2 7/8	6.50	L-80	31.00	63.3
10' & 4' Pup Jts	1	2 7/8	6.50		14.00	77.3
Tubing	64	2 7/8	6.50	L-80	2,027.22	2,104.6
Gas Lift Mandrel #13	1	2 7/8	6.50	L-80	4.10	2,108.7
Tubing	20	2 7/8	6.50	L-80	628.12	2,736.8
Gas Lift Mandrel #12	1	2 7/8	6.50	L-80	4.10	2,740.9
Tubing	19	2 7/8	6.50	L-80	600.10	3,341.0
Gas Lift Mandrel #11	1	2 7/8	6.50	L-80	4.10	3,345.1
Tubing	20	2 7/8	6.50	L-80	632.09	3,977.2
Gas Lift Mandrel #10	1	2 7/8	6.50	L-80	4.10	3,981.3
Tubing	17	2 7/8	6.50	L-80	538.18	4,519.5
Gas Lift Mandrel #09	1	2 7/8	6.50	L-80	4.10	4,523.6
Tubing	18	2 7/8	6.50	L-80	569.28	5,092.8
Gas Lift Mandrel #08	1	2 7/8	6.50	L-80	4.10	5,096.9
Tubing	18	2 7/8	6.50	L-80	570.23	5,667.2
Gas Lift Mandrel #07	1	2 7/8	6.50	L-80	4.10	5,671.3
Tubing	17	2 7/8	6.50	L-80	538.49	6,209.8
Gas Lift Mandrel #06	1	2 7/8	6.50	L-80	4.10	6,213.9
Tubing	17	2 7/8	6.50	L-80	538.46	6,752.3
Gas Lift Mandrel #05	1	2 7/8	6.50	L-80	4.10	6,756.4
Tubing	17	2 7/8	6.50	L-80	538.30	7,294.7
Gas Lift Mandrel #04	1	2 7/8	6.50	L-80	4.10	7,298.8
Tubing	18	2 7/8	6.50	L-80	568.95	7,867.8
Gas Lift Mandrel #03	1	2 7/8	6.50	L-80	4.10	7,871.9
Tubing	17	2 7/8	6.50	L-80	538.45	8,410.3
Gas Lift Mandrel #02	1	2 7/8	6.50	L-80	4.10	8,414.4
Tubing	11	2 7/8	6.50	L-80	348.27	8,762.7
Gas Lift Mandrel #01 SMOR	1	3 1/4			7.10	8,769.8
Tubing	1	2 7/8	6.50	L-80	31.57	8,801.4
On-Off Tool	1	4 1/2			1.50	8,802.9
450-193 Baker Homet Packer	1	4 1/2			7.65	8,810.5
6' Pup Jt	1	2 7/8	4.70	L-80	6.18	8,816.7
2.312" XN Profile NPL w/ 2.210 NG	1	3.667	6.50		1.15	8,817.8
6' Pup Jt	1	2 7/8	4.70	L-80	6.20	8,824.0
2 3/8" pump out plug w/ 7 pins	1	3.667			1.93	8,826.0

Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/17/2017			2.0	0	Avalon, Original Hole
11/18/2017			2.0	0	Avalon, Original Hole
12/8/2017	9,227.0	9,228.0	2.0	2	Avalon, Original Hole
12/8/2017	9,241.0	9,242.0	2.0	2	Avalon, Original Hole
12/8/2017	9,255.0	9,256.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

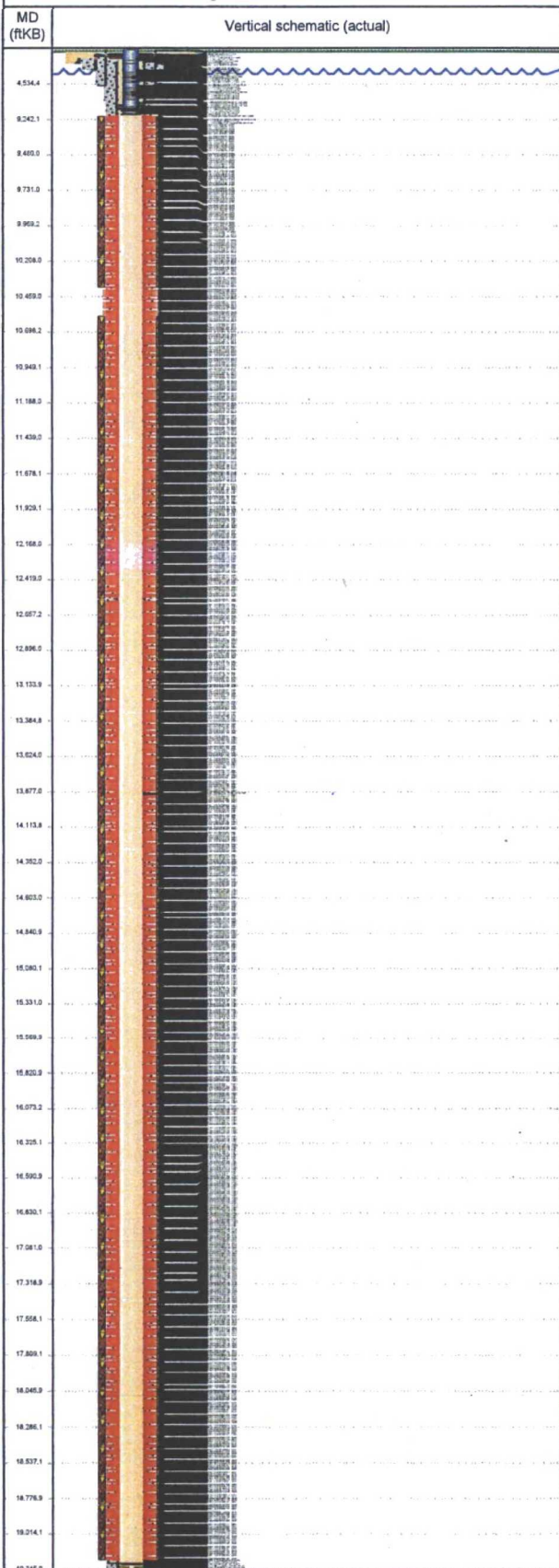
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:03 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/8/2017	9,269.0	9,270.0	2.0	2	Avalon, Original Hole
12/8/2017	9,283.0	9,284.0	2.0	2	Avalon, Original Hole
12/8/2017	9,297.0	9,298.0	2.0	2	Avalon, Original Hole
12/8/2017	9,311.0	9,312.0	2.0	2	Avalon, Original Hole
12/8/2017	9,325.0	9,326.0	3.0	3	Avalon, Original Hole
12/8/2017	9,339.0	9,340.0	3.0	3	Avalon, Original Hole
12/8/2017	9,350.0	9,351.0	3.0	3	Avalon, Original Hole
12/8/2017	9,367.0	9,368.0	3.0	3	Avalon, Original Hole
12/8/2017	9,381.0	9,382.0	3.0	3	Avalon, Original Hole
12/8/2017	9,395.0	9,396.0	4.0	4	Avalon, Original Hole
12/8/2017	9,409.0	9,410.0	6.0	6	Avalon, Original Hole
12/7/2017	9,423.0	9,424.0	2.0	2	Avalon, Original Hole
12/7/2017	9,437.0	9,438.0	2.0	2	Avalon, Original Hole
12/7/2017	9,451.0	9,452.0	2.0	2	Avalon, Original Hole
12/7/2017	9,465.0	9,466.0	2.0	2	Avalon, Original Hole
12/7/2017	9,479.0	9,480.0	2.0	2	Avalon, Original Hole
12/7/2017	9,493.0	9,494.0	2.0	2	Avalon, Original Hole
12/7/2017	9,507.0	9,508.0	2.0	2	Avalon, Original Hole
12/7/2017	9,521.0	9,522.0	3.0	3	Avalon, Original Hole
12/7/2017	9,535.0	9,536.0	3.0	3	Avalon, Original Hole
12/7/2017	9,549.0	9,550.0	3.0	3	Avalon, Original Hole
12/7/2017	9,563.0	9,564.0	3.0	3	Avalon, Original Hole
12/7/2017	9,577.0	9,578.0	3.0	3	Avalon, Original Hole
12/7/2017	9,591.0	9,592.0	4.0	4	Avalon, Original Hole
12/7/2017	9,605.0	9,606.0	6.0	6	Avalon, Original Hole
12/7/2017	9,619.0	9,620.0	2.0	2	Avalon, Original Hole
12/7/2017	9,633.0	9,634.0	2.0	2	Avalon, Original Hole
12/7/2017	9,647.0	9,648.0	2.0	2	Avalon, Original Hole
12/7/2017	9,661.0	9,662.0	2.0	2	Avalon, Original Hole
12/7/2017	9,675.0	9,676.0	2.0	2	Avalon, Original Hole
12/7/2017	9,689.0	9,690.0	2.0	2	Avalon, Original Hole
12/7/2017	9,703.0	9,704.0	2.0	2	Avalon, Original Hole
12/7/2017	9,717.0	9,718.0	3.0	3	Avalon, Original Hole
12/7/2017	9,731.0	9,732.0	3.0	3	Avalon, Original Hole
12/7/2017	9,745.0	9,746.0	3.0	3	Avalon, Original Hole
12/7/2017	9,759.0	9,760.0	3.0	3	Avalon, Original Hole
12/7/2017	9,773.0	9,774.0	3.0	3	Avalon, Original Hole
12/7/2017	9,787.0	9,788.0	4.0	4	Avalon, Original Hole
12/7/2017	9,801.0	9,802.0	6.0	6	Avalon, Original Hole
12/6/2017	9,817.0	9,818.0	2.0	2	Avalon, Original Hole
12/6/2017	9,829.0	9,830.0	2.0	2	Avalon, Original Hole
12/6/2017	9,843.0	9,844.0	2.0	2	Avalon, Original Hole
12/6/2017	9,859.0	9,860.0	2.0	2	Avalon, Original Hole
12/6/2017	9,871.0	9,872.0	2.0	2	Avalon, Original Hole
12/6/2017	9,885.0	9,886.0	2.0	2	Avalon, Original Hole
12/6/2017	9,899.0	9,900.0	2.0	2	Avalon, Original Hole
12/6/2017	9,913.0	9,914.0	3.0	3	Avalon, Original Hole
12/6/2017	9,927.0	9,928.0	3.0	3	Avalon, Original Hole
12/6/2017	9,941.0	9,942.0	3.0	3	Avalon, Original Hole
12/6/2017	9,955.0	9,956.0	3.0	3	Avalon, Original Hole
12/6/2017	9,969.0	9,970.0	3.0	3	Avalon, Original Hole
12/6/2017	9,983.0	9,984.0	4.0	4	Avalon, Original Hole
12/6/2017	9,997.0	9,998.0	6.0	6	Avalon, Original Hole
12/6/2017	10,011.0	10,012.0	2.0	2	Avalon, Original Hole
12/6/2017	10,025.0	10,026.0	2.0	2	Avalon, Original Hole
12/6/2017	10,039.0	10,040.0	2.0	2	Avalon, Original Hole
12/6/2017	10,053.0	10,054.0	2.0	2	Avalon, Original Hole
12/6/2017	10,067.0	10,068.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

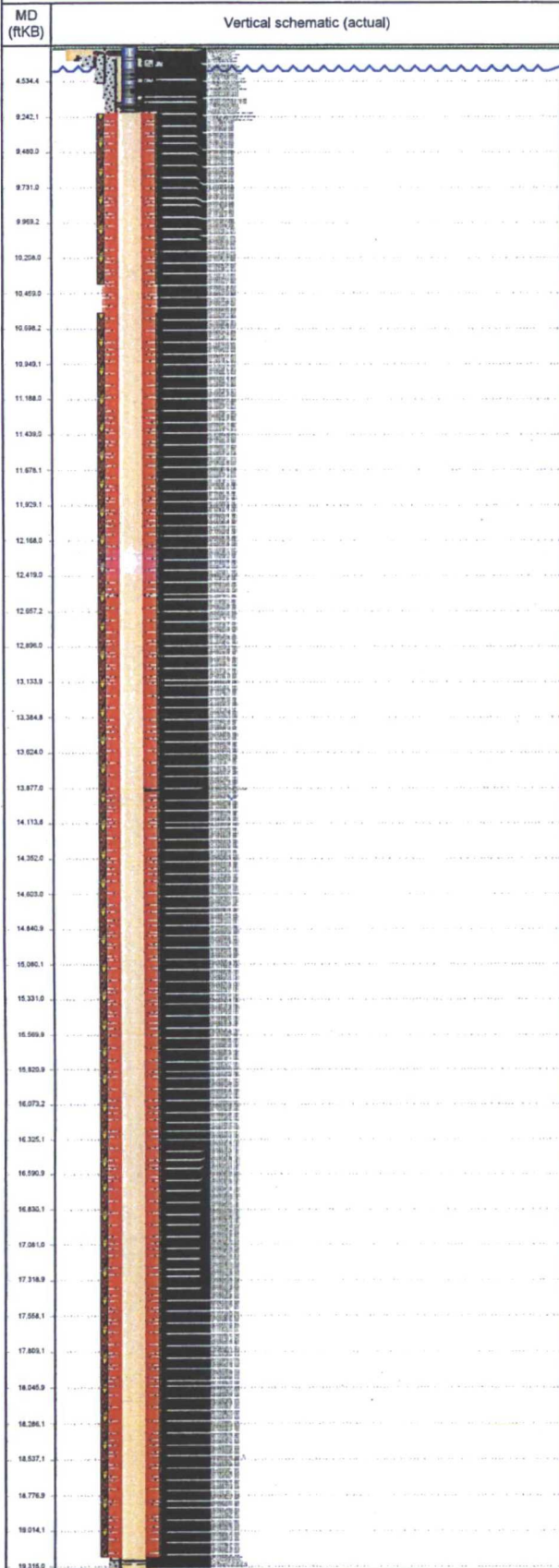
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:06 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/6/2017	10,081.0	10,082.0	2.0	2	Avalon, Original Hole
12/6/2017	10,095.0	10,096.0	2.0	2	Avalon, Original Hole
12/6/2017	10,109.0	10,110.0	3.0	3	Avalon, Original Hole
12/6/2017	10,123.0	10,124.0	3.0	3	Avalon, Original Hole
12/6/2017	10,137.0	10,138.0	3.0	3	Avalon, Original Hole
12/6/2017	10,151.0	10,152.0	3.0	3	Avalon, Original Hole
12/6/2017	10,165.0	10,166.0	3.0	3	Avalon, Original Hole
12/6/2017	10,179.0	10,180.0	4.0	4	Avalon, Original Hole
12/6/2017	10,193.0	10,194.0	6.0	6	Avalon, Original Hole
12/5/2017	10,207.0	10,208.0	2.0	2	Avalon, Original Hole
12/5/2017	10,221.0	10,222.0	2.0	2	Avalon, Original Hole
12/5/2017	10,235.0	10,236.0	2.0	2	Avalon, Original Hole
12/5/2017	10,249.0	10,250.0	2.0	2	Avalon, Original Hole
12/5/2017	10,263.0	10,264.0	2.0	2	Avalon, Original Hole
12/5/2017	10,277.0	10,278.0	2.0	2	Avalon, Original Hole
12/5/2017	10,291.0	10,292.0	2.0	2	Avalon, Original Hole
12/5/2017	10,305.0	10,306.0	3.0	3	Avalon, Original Hole
12/5/2017	10,317.0	10,318.0	3.0	3	Avalon, Original Hole
12/5/2017	10,333.0	10,334.0	3.0	3	Avalon, Original Hole
12/5/2017	10,347.0	10,348.0	3.0	3	Avalon, Original Hole
12/5/2017	10,363.0	10,364.0	3.0	3	Avalon, Original Hole
12/5/2017	10,375.0	10,376.0	4.0	4	Avalon, Original Hole
12/5/2017	10,389.0	10,390.0	6.0	6	Avalon, Original Hole
12/5/2017	10,405.0	10,406.0	2.0	2	Avalon, Original Hole
12/5/2017	10,417.0	10,418.0	2.0	2	Avalon, Original Hole
12/5/2017	10,431.0	10,432.0	2.0	2	Avalon, Original Hole
12/5/2017	10,446.0	10,447.0	2.0	2	Avalon, Original Hole
12/5/2017	10,459.0	10,460.0	2.0	2	Avalon, Original Hole
12/5/2017	10,473.0	10,474.0	2.0	2	Avalon, Original Hole
12/5/2017	10,485.0	10,486.0	2.0	2	Avalon, Original Hole
12/5/2017	10,501.0	10,502.0	3.0	3	Avalon, Original Hole
12/5/2017	10,515.0	10,516.0	3.0	3	Avalon, Original Hole
12/5/2017	10,529.0	10,530.0	3.0	3	Avalon, Original Hole
12/5/2017	10,543.0	10,544.0	3.0	3	Avalon, Original Hole
12/5/2017	10,557.0	10,558.0	3.0	3	Avalon, Original Hole
12/5/2017	10,571.0	10,572.0	4.0	4	Avalon, Original Hole
12/5/2017	10,585.0	10,586.0	5.0	5	Avalon, Original Hole
12/3/2017	10,599.0	10,600.0	2.0	2	Avalon, Original Hole
12/3/2017	10,613.0	10,614.0	2.0	2	Avalon, Original Hole
12/3/2017	10,627.0	10,628.0	2.0	2	Avalon, Original Hole
12/3/2017	10,641.0	10,642.0	2.0	2	Avalon, Original Hole
12/3/2017	10,655.0	10,656.0	2.0	2	Avalon, Original Hole
12/3/2017	10,669.0	10,670.0	2.0	2	Avalon, Original Hole
12/3/2017	10,683.0	10,684.0	2.0	2	Avalon, Original Hole
12/3/2017	10,697.0	10,698.0	3.0	3	Avalon, Original Hole
12/3/2017	10,711.0	10,712.0	3.0	3	Avalon, Original Hole
12/3/2017	10,725.0	10,726.0	3.0	3	Avalon, Original Hole
12/3/2017	10,739.0	10,740.0	3.0	3	Avalon, Original Hole
12/3/2017	10,753.0	10,754.0	3.0	3	Avalon, Original Hole
12/3/2017	10,767.0	10,768.0	4.0	4	Avalon, Original Hole
12/3/2017	10,781.0	10,782.0	5.0	5	Avalon, Original Hole
12/3/2017	10,795.0	10,796.0	2.0	2	Avalon, Original Hole
12/3/2017	10,809.0	10,810.0	2.0	2	Avalon, Original Hole
12/3/2017	10,823.0	10,824.0	2.0	2	Avalon, Original Hole
12/3/2017	10,837.0	10,838.0	2.0	2	Avalon, Original Hole
12/3/2017	10,851.0	10,852.0	2.0	2	Avalon, Original Hole
12/3/2017	10,865.0	10,866.0	2.0	2	Avalon, Original Hole
12/3/2017	10,879.0	10,880.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

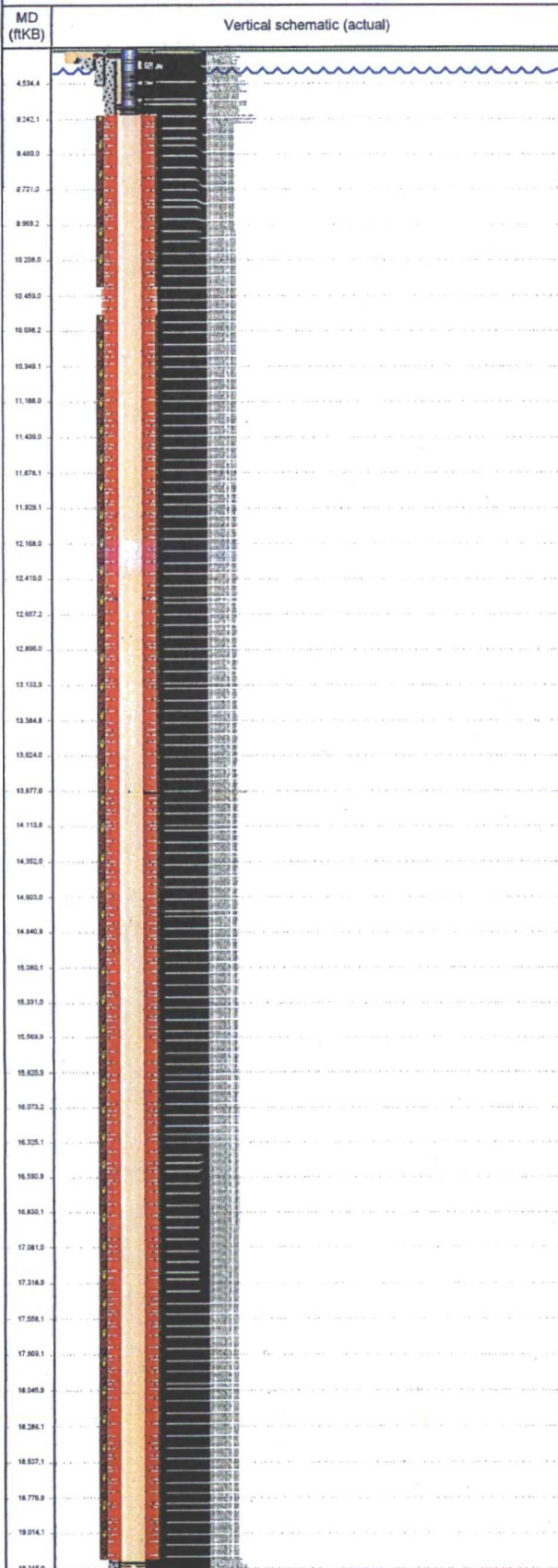
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:09 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/3/2017	10,893.0	10,894.0	3.0	3	Avalon, Original Hole
12/3/2017	10,907.0	10,908.0	3.0	3	Avalon, Original Hole
12/3/2017	10,921.0	10,922.0	3.0	3	Avalon, Original Hole
12/3/2017	10,935.0	10,936.0	3.0	3	Avalon, Original Hole
12/3/2017	10,949.0	10,950.0	3.0	3	Avalon, Original Hole
12/3/2017	10,963.0	10,964.0	4.0	4	Avalon, Original Hole
12/3/2017	10,977.0	10,978.0	5.0	5	Avalon, Original Hole
12/3/2017	10,991.0	10,992.0	2.0	2	Avalon, Original Hole
12/3/2017	11,005.0	11,006.0	2.0	2	Avalon, Original Hole
12/3/2017	11,019.0	11,020.0	2.0	2	Avalon, Original Hole
12/3/2017	11,033.0	11,034.0	2.0	2	Avalon, Original Hole
12/3/2017	11,047.0	11,048.0	2.0	2	Avalon, Original Hole
12/3/2017	11,061.0	11,062.0	2.0	2	Avalon, Original Hole
12/3/2017	11,075.0	11,076.0	2.0	2	Avalon, Original Hole
12/3/2017	11,089.0	11,090.0	3.0	3	Avalon, Original Hole
12/3/2017	11,103.0	11,104.0	3.0	3	Avalon, Original Hole
12/3/2017	11,117.0	11,118.0	3.0	3	Avalon, Original Hole
12/3/2017	11,131.0	11,132.0	3.0	3	Avalon, Original Hole
12/3/2017	11,145.0	11,146.0	3.0	3	Avalon, Original Hole
12/3/2017	11,159.0	11,160.0	4.0	4	Avalon, Original Hole
12/3/2017	11,173.0	11,174.0	5.0	5	Avalon, Original Hole
12/2/2017	11,187.0	11,188.0	2.0	2	Avalon, Original Hole
12/2/2017	11,201.0	11,202.0	2.0	2	Avalon, Original Hole
12/2/2017	11,215.0	11,216.0	2.0	2	Avalon, Original Hole
12/2/2017	11,229.0	11,230.0	2.0	2	Avalon, Original Hole
12/2/2017	11,243.0	11,244.0	2.0	2	Avalon, Original Hole
12/2/2017	11,257.0	11,258.0	2.0	2	Avalon, Original Hole
12/2/2017	11,273.0	11,274.0	2.0	2	Avalon, Original Hole
12/2/2017	11,285.0	11,286.0	3.0	3	Avalon, Original Hole
12/2/2017	11,299.0	11,300.0	3.0	3	Avalon, Original Hole
12/2/2017	11,313.0	11,314.0	3.0	3	Avalon, Original Hole
12/2/2017	11,327.0	11,328.0	3.0	3	Avalon, Original Hole
12/2/2017	11,341.0	11,342.0	3.0	3	Avalon, Original Hole
12/2/2017	11,355.0	11,356.0	4.0	4	Avalon, Original Hole
12/2/2017	11,369.0	11,370.0	5.0	5	Avalon, Original Hole
12/2/2017	11,383.0	11,384.0	2.0	2	Avalon, Original Hole
12/2/2017	11,397.0	11,398.0	2.0	2	Avalon, Original Hole
12/2/2017	11,411.0	11,412.0	2.0	2	Avalon, Original Hole
12/2/2017	11,425.0	11,426.0	2.0	2	Avalon, Original Hole
12/2/2017	11,439.0	11,440.0	2.0	2	Avalon, Original Hole
12/2/2017	11,453.0	11,454.0	2.0	2	Avalon, Original Hole
12/2/2017	11,467.0	11,468.0	2.0	2	Avalon, Original Hole
12/2/2017	11,481.0	11,482.0	3.0	3	Avalon, Original Hole
12/2/2017	11,495.0	11,496.0	3.0	3	Avalon, Original Hole
12/2/2017	11,509.0	11,510.0	3.0	3	Avalon, Original Hole
12/2/2017	11,523.0	11,524.0	3.0	3	Avalon, Original Hole
12/2/2017	11,537.0	11,538.0	3.0	3	Avalon, Original Hole
12/2/2017	11,551.0	11,552.0	4.0	4	Avalon, Original Hole
12/2/2017	11,565.0	11,566.0	5.0	5	Avalon, Original Hole
12/1/2017	11,579.0	11,580.0	2.0	2	Avalon, Original Hole
12/1/2017	11,593.0	11,594.0	2.0	2	Avalon, Original Hole
12/1/2017	11,607.0	11,608.0	2.0	2	Avalon, Original Hole
12/1/2017	11,621.0	11,622.0	2.0	2	Avalon, Original Hole
12/1/2017	11,635.0	11,636.0	2.0	2	Avalon, Original Hole
12/1/2017	11,649.0	11,650.0	2.0	2	Avalon, Original Hole
12/1/2017	11,663.0	11,664.0	2.0	2	Avalon, Original Hole
12/1/2017	11,677.0	11,678.0	3.0	3	Avalon, Original Hole
12/1/2017	11,691.0	11,692.0	3.0	3	Avalon, Original Hole



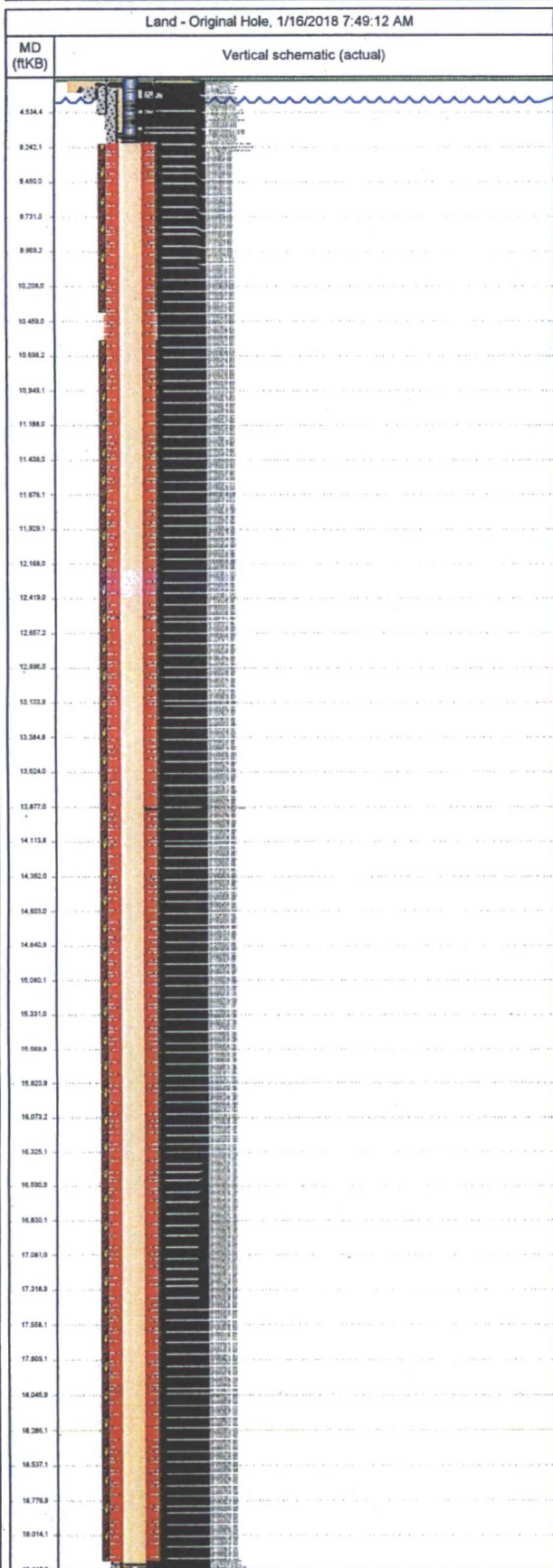
Wellbore Schematic

Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent



Perforations					
Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
12/1/2017	11,705.0	11,706.0	3.0	3	Avalon, Original Hole
12/1/2017	11,719.0	11,720.0	3.0	3	Avalon, Original Hole
12/1/2017	11,733.0	11,734.0	3.0	3	Avalon, Original Hole
12/1/2017	11,747.0	11,748.0	4.0	4	Avalon, Original Hole
12/1/2017	11,761.0	11,762.0	5.0	5	Avalon, Original Hole
11/30/2017	11,775.0	11,776.0	2.0	2	Avalon, Original Hole
11/30/2017	11,789.0	11,790.0	2.0	2	Avalon, Original Hole
11/30/2017	11,803.0	11,804.0	2.0	2	Avalon, Original Hole
11/30/2017	11,817.0	11,818.0	2.0	2	Avalon, Original Hole
11/30/2017	11,831.0	11,832.0	2.0	2	Avalon, Original Hole
11/30/2017	11,845.0	11,846.0	2.0	2	Avalon, Original Hole
11/30/2017	11,859.0	11,860.0	2.0	2	Avalon, Original Hole
11/30/2017	11,873.0	11,874.0	3.0	3	Avalon, Original Hole
11/30/2017	11,887.0	11,888.0	3.0	3	Avalon, Original Hole
11/30/2017	11,901.0	11,902.0	3.0	3	Avalon, Original Hole
11/30/2017	11,915.0	11,916.0	3.0	3	Avalon, Original Hole
11/30/2017	11,929.0	11,930.0	3.0	3	Avalon, Original Hole
11/30/2017	11,943.0	11,944.0	4.0	4	Avalon, Original Hole
11/30/2017	11,957.0	11,958.0	5.0	5	Avalon, Original Hole
11/30/2017	11,971.0	11,972.0	2.0	2	Avalon, Original Hole
11/30/2017	11,985.0	11,986.0	2.0	2	Avalon, Original Hole
11/30/2017	11,999.0	12,000.0	2.0	2	Avalon, Original Hole
11/30/2017	12,013.0	12,014.0	2.0	2	Avalon, Original Hole
11/30/2017	12,027.0	12,028.0	2.0	2	Avalon, Original Hole
11/30/2017	12,041.0	12,042.0	2.0	2	Avalon, Original Hole
11/30/2017	12,055.0	12,056.0	2.0	2	Avalon, Original Hole
11/30/2017	12,069.0	12,070.0	3.0	3	Avalon, Original Hole
11/30/2017	12,083.0	12,084.0	3.0	3	Avalon, Original Hole
11/30/2017	12,097.0	12,098.0	3.0	3	Avalon, Original Hole
11/30/2017	12,111.0	12,112.0	3.0	3	Avalon, Original Hole
11/30/2017	12,125.0	12,126.0	3.0	3	Avalon, Original Hole
11/30/2017	12,141.0	12,142.0	4.0	4	Avalon, Original Hole
11/30/2017	12,153.0	12,154.0	5.0	5	Avalon, Original Hole
11/29/2017	12,167.0	12,168.0	2.0	2	Avalon, Original Hole
11/29/2017	12,181.0	12,182.0	2.0	2	Avalon, Original Hole
11/29/2017	12,195.0	12,196.0	2.0	2	Avalon, Original Hole
11/29/2017	12,209.0	12,210.0	2.0	2	Avalon, Original Hole
11/29/2017	12,224.0	12,225.0	2.0	2	Avalon, Original Hole
11/29/2017	12,237.0	12,238.0	2.0	2	Avalon, Original Hole
11/29/2017	12,251.0	12,252.0	2.0	2	Avalon, Original Hole
11/29/2017	12,265.0	12,266.0	3.0	3	Avalon, Original Hole
11/29/2017	12,279.0	12,280.0	3.0	3	Avalon, Original Hole
11/29/2017	12,293.0	12,294.0	3.0	3	Avalon, Original Hole
11/29/2017	12,308.0	12,309.0	3.0	3	Avalon, Original Hole
11/29/2017	12,321.0	12,322.0	3.0	3	Avalon, Original Hole
11/29/2017	12,335.0	12,336.0	4.0	4	Avalon, Original Hole
11/29/2017	12,350.0	12,351.0	5.0	5	Avalon, Original Hole
11/29/2017	12,363.0	12,364.0	2.0	2	Avalon, Original Hole
11/29/2017	12,377.0	12,378.0	2.0	2	Avalon, Original Hole
11/29/2017	12,391.0	12,392.0	2.0	2	Avalon, Original Hole
11/29/2017	12,405.0	12,406.0	2.0	2	Avalon, Original Hole
11/29/2017	12,419.0	12,420.0	2.0	2	Avalon, Original Hole
11/29/2017	12,434.0	12,435.0	2.0	2	Avalon, Original Hole
11/29/2017	12,447.0	12,448.0	2.0	2	Avalon, Original Hole
11/29/2017	12,461.0	12,462.0	3.0	3	Avalon, Original Hole
11/29/2017	12,476.0	12,477.0	3.0	3	Avalon, Original Hole
11/29/2017	12,489.0	12,490.0	3.0	3	Avalon, Original Hole
11/29/2017	12,503.0	12,504.0	3.0	3	Avalon, Original Hole



Wellbore Schematic

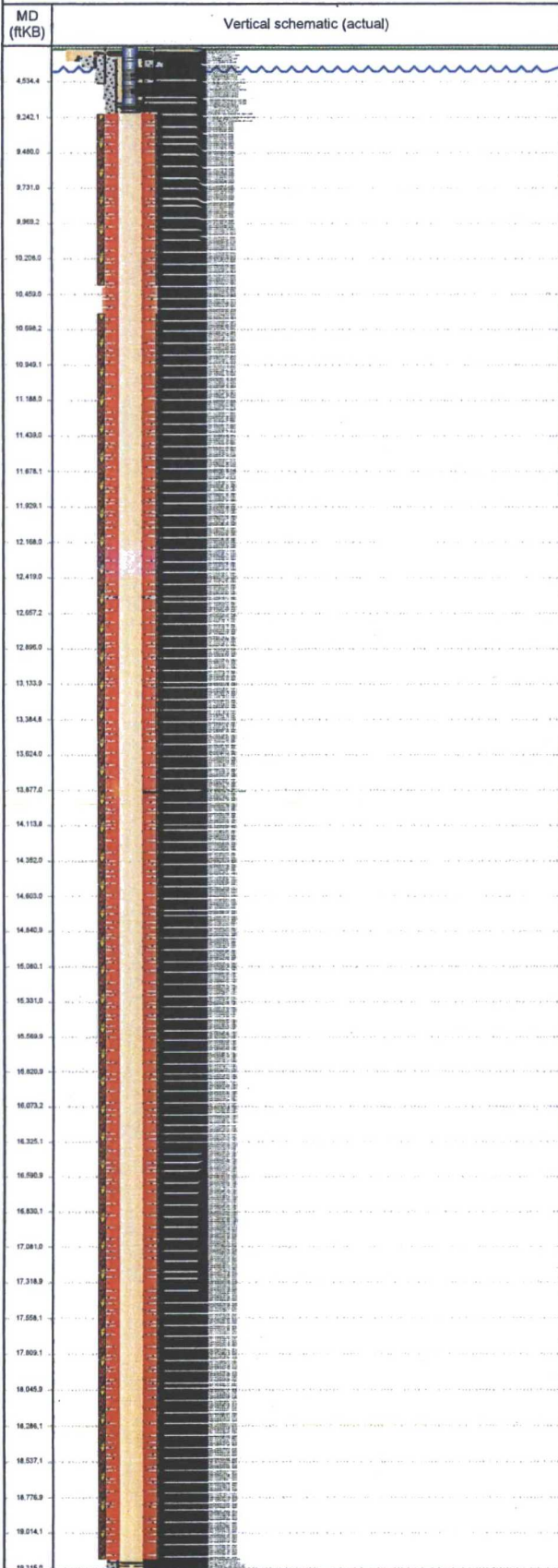
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:17 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/29/2017	12,517.0	12,518.0	3.0	3	Avalon, Original Hole
11/29/2017	12,531.0	12,532.0	4.0	4	Avalon, Original Hole
11/29/2017	12,545.0	12,546.0	5.0	5	Avalon, Original Hole
11/27/2017	12,560.0	12,561.0	2.0	2	Avalon, Original Hole
11/27/2017	12,573.0	12,574.0	2.0	2	Avalon, Original Hole
11/27/2017	12,587.0	12,588.0	2.0	2	Avalon, Original Hole
11/27/2017	12,602.0	12,603.0	2.0	2	Avalon, Original Hole
11/27/2017	12,615.0	12,616.0	2.0	2	Avalon, Original Hole
11/27/2017	12,629.0	12,630.0	2.0	2	Avalon, Original Hole
11/27/2017	12,643.0	12,644.0	2.0	2	Avalon, Original Hole
11/27/2017	12,657.0	12,658.0	3.0	3	Avalon, Original Hole
11/27/2017	12,671.0	12,672.0	3.0	3	Avalon, Original Hole
11/27/2017	12,686.0	12,687.0	3.0	3	Avalon, Original Hole
11/27/2017	12,699.0	12,700.0	3.0	3	Avalon, Original Hole
11/27/2017	12,713.0	12,714.0	3.0	3	Avalon, Original Hole
11/27/2017	12,727.0	12,728.0	4.0	4	Avalon, Original Hole
11/27/2017	12,741.0	12,742.0	5.0	5	Avalon, Original Hole
11/27/2017	12,755.0	12,756.0	2.0	2	Avalon, Original Hole
11/27/2017	12,769.0	12,770.0	2.0	2	Avalon, Original Hole
11/27/2017	12,783.0	12,784.0	2.0	2	Avalon, Original Hole
11/27/2017	12,797.0	12,798.0	2.0	2	Avalon, Original Hole
11/27/2017	12,812.0	12,813.0	2.0	2	Avalon, Original Hole
11/27/2017	12,825.0	12,826.0	2.0	2	Avalon, Original Hole
11/27/2017	12,839.0	12,840.0	2.0	2	Avalon, Original Hole
11/27/2017	12,853.0	12,854.0	3.0	3	Avalon, Original Hole
11/27/2017	12,867.0	12,868.0	3.0	3	Avalon, Original Hole
11/27/2017	12,881.0	12,882.0	3.0	3	Avalon, Original Hole
11/27/2017	12,895.0	12,896.0	3.0	3	Avalon, Original Hole
11/27/2017	12,909.0	12,910.0	3.0	3	Avalon, Original Hole
11/27/2017	12,923.0	12,924.0	4.0	4	Avalon, Original Hole
11/27/2017	12,937.0	12,938.0	5.0	5	Avalon, Original Hole
11/27/2017	12,951.0	12,952.0	2.0	2	Avalon, Original Hole
11/27/2017	12,965.0	12,966.0	2.0	2	Avalon, Original Hole
11/27/2017	12,979.0	12,980.0	2.0	2	Avalon, Original Hole
11/27/2017	12,993.0	12,994.0	2.0	2	Avalon, Original Hole
11/27/2017	13,007.0	13,008.0	2.0	2	Avalon, Original Hole
11/27/2017	13,021.0	13,022.0	2.0	2	Avalon, Original Hole
11/27/2017	13,035.0	13,036.0	2.0	2	Avalon, Original Hole
11/27/2017	13,049.0	13,050.0	3.0	3	Avalon, Original Hole
11/27/2017	13,063.0	13,064.0	3.0	3	Avalon, Original Hole
11/27/2017	13,077.0	13,078.0	3.0	3	Avalon, Original Hole
11/27/2017	13,091.0	13,092.0	3.0	3	Avalon, Original Hole
11/27/2017	13,105.0	13,106.0	3.0	3	Avalon, Original Hole
11/27/2017	13,119.0	13,120.0	4.0	4	Avalon, Original Hole
11/27/2017	13,129.0	13,130.0	5.0	5	Avalon, Original Hole
11/26/2017	13,147.0	13,148.0	2.0	2	Avalon, Original Hole
11/26/2017	13,161.0	13,162.0	2.0	2	Avalon, Original Hole
11/26/2017	13,175.0	13,176.0	2.0	2	Avalon, Original Hole
11/26/2017	13,189.0	13,190.0	2.0	2	Avalon, Original Hole
11/26/2017	13,203.0	13,204.0	2.0	2	Avalon, Original Hole
11/26/2017	13,217.0	13,218.0	2.0	2	Avalon, Original Hole
11/26/2017	13,231.0	13,232.0	2.0	2	Avalon, Original Hole
11/26/2017	13,245.0	13,246.0	3.0	3	Avalon, Original Hole
11/26/2017	13,259.0	13,260.0	3.0	3	Avalon, Original Hole
11/26/2017	13,273.0	13,274.0	3.0	3	Avalon, Original Hole
11/26/2017	13,287.0	13,288.0	3.0	3	Avalon, Original Hole
11/26/2017	13,301.0	13,302.0	3.0	3	Avalon, Original Hole
11/26/2017	13,315.0	13,316.0	4.0	4	Avalon, Original Hole



Wellbore Schematic

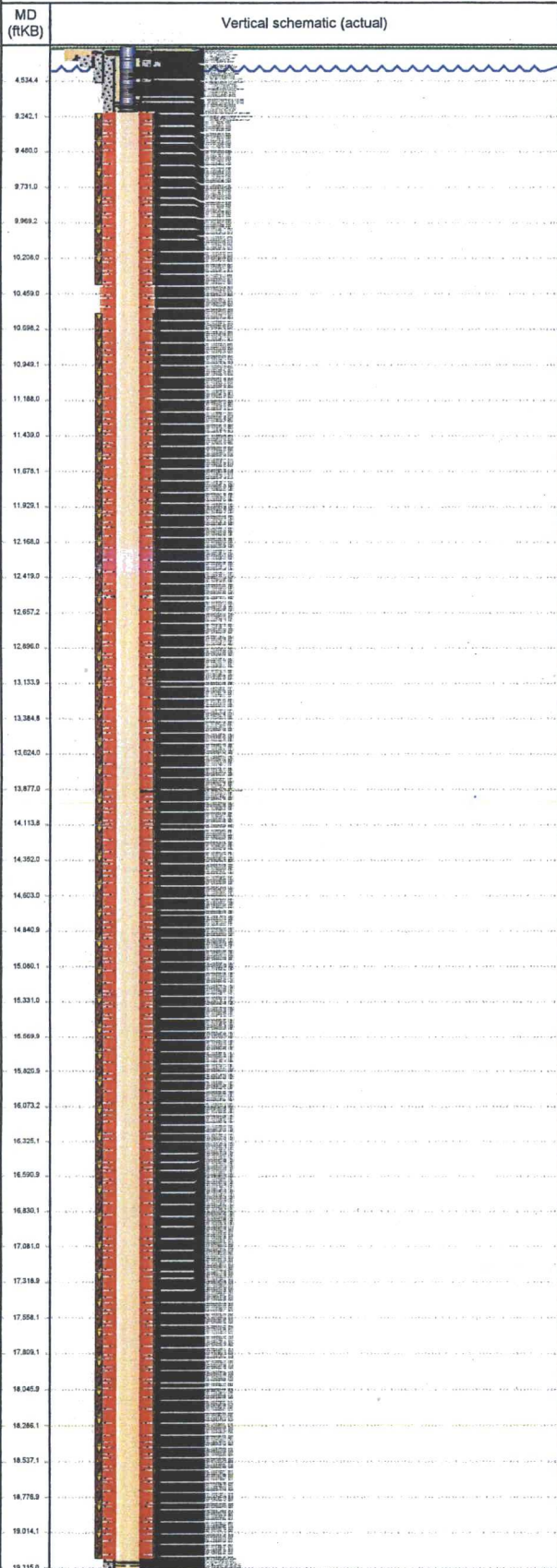
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:20 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/26/2017	13,329.0	13,330.0	5.0	5	Avalon, Original Hole
11/26/2017	13,343.0	13,344.0	2.0	2	Avalon, Original Hole
11/26/2017	13,357.0	13,358.0	2.0	2	Avalon, Original Hole
11/26/2017	13,371.0	13,372.0	2.0	2	Avalon, Original Hole
11/26/2017	13,385.0	13,386.0	2.0	2	Avalon, Original Hole
11/26/2017	13,399.0	13,400.0	2.0	2	Avalon, Original Hole
11/26/2017	13,413.0	13,414.0	2.0	2	Avalon, Original Hole
11/26/2017	13,427.0	13,428.0	2.0	2	Avalon, Original Hole
11/26/2017	13,441.0	13,442.0	3.0	3	Avalon, Original Hole
11/26/2017	13,455.0	13,456.0	3.0	3	Avalon, Original Hole
11/26/2017	13,468.0	13,469.0	3.0	3	Avalon, Original Hole
11/26/2017	13,483.0	13,484.0	3.0	3	Avalon, Original Hole
11/26/2017	13,497.0	13,498.0	3.0	3	Avalon, Original Hole
11/26/2017	13,511.0	13,512.0	4.0	4	Avalon, Original Hole
11/26/2017	13,525.0	13,526.0	5.0	5	Avalon, Original Hole
11/25/2017	13,539.0	13,540.0	2.0	2	Avalon, Original Hole
11/25/2017	13,553.0	13,554.0	2.0	2	Avalon, Original Hole
11/25/2017	13,567.0	13,568.0	2.0	2	Avalon, Original Hole
11/25/2017	13,581.0	13,582.0	2.0	2	Avalon, Original Hole
11/25/2017	13,595.0	13,596.0	2.0	2	Avalon, Original Hole
11/25/2017	13,609.0	13,610.0	2.0	2	Avalon, Original Hole
11/25/2017	13,623.0	13,624.0	2.0	2	Avalon, Original Hole
11/25/2017	13,637.0	13,638.0	3.0	3	Avalon, Original Hole
11/25/2017	13,651.0	13,652.0	3.0	3	Avalon, Original Hole
11/25/2017	13,665.0	13,666.0	3.0	3	Avalon, Original Hole
11/25/2017	13,679.0	13,680.0	3.0	3	Avalon, Original Hole
11/25/2017	13,693.0	13,694.0	3.0	3	Avalon, Original Hole
11/25/2017	13,707.0	13,708.0	4.0	4	Avalon, Original Hole
11/25/2017	13,721.0	13,722.0	5.0	5	Avalon, Original Hole
11/24/2017	13,735.0	13,736.0	2.0	2	Avalon, Original Hole
11/24/2017	13,751.0	13,752.0	2.0	2	Avalon, Original Hole
11/24/2017	13,763.0	13,764.0	2.0	2	Avalon, Original Hole
11/24/2017	13,777.0	13,778.0	2.0	2	Avalon, Original Hole
11/24/2017	13,790.0	13,791.0	2.0	2	Avalon, Original Hole
11/24/2017	13,805.0	13,806.0	2.0	2	Avalon, Original Hole
11/24/2017	13,819.0	13,820.0	2.0	2	Avalon, Original Hole
11/24/2017	13,834.0	13,835.0	3.0	3	Avalon, Original Hole
11/24/2017	13,847.0	13,848.0	3.0	3	Avalon, Original Hole
11/24/2017	13,861.0	13,862.0	3.0	3	Avalon, Original Hole
11/24/2017	13,877.0	13,878.0	3.0	3	Avalon, Original Hole
11/24/2017	13,889.0	13,890.0	3.0	3	Avalon, Original Hole
11/24/2017	13,903.0	13,904.0	4.0	4	Avalon, Original Hole
11/24/2017	13,917.0	13,918.0	5.0	5	Avalon, Original Hole
11/24/2017	13,931.0	13,932.0	2.0	2	Avalon, Original Hole
11/24/2017	13,945.0	13,946.0	2.0	2	Avalon, Original Hole
11/24/2017	13,959.0	13,960.0	2.0	2	Avalon, Original Hole
11/24/2017	13,973.0	13,974.0	2.0	2	Avalon, Original Hole
11/24/2017	13,987.0	13,988.0	2.0	2	Avalon, Original Hole
11/24/2017	14,001.0	14,002.0	2.0	2	Avalon, Original Hole
11/24/2017	14,015.0	14,016.0	2.0	2	Avalon, Original Hole
11/24/2017	14,029.0	14,030.0	3.0	3	Avalon, Original Hole
11/24/2017	14,041.0	14,042.0	3.0	3	Avalon, Original Hole
11/24/2017	14,057.0	14,058.0	3.0	3	Avalon, Original Hole
11/24/2017	14,071.0	14,072.0	3.0	3	Avalon, Original Hole
11/24/2017	14,085.0	14,086.0	3.0	3	Avalon, Original Hole
11/24/2017	14,099.0	14,100.0	4.0	4	Avalon, Original Hole
11/24/2017	14,113.0	14,114.0	5.0	5	Avalon, Original Hole
11/22/2017	14,130.0	14,131.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

Well Name
SD WE 24 FED P24 7H

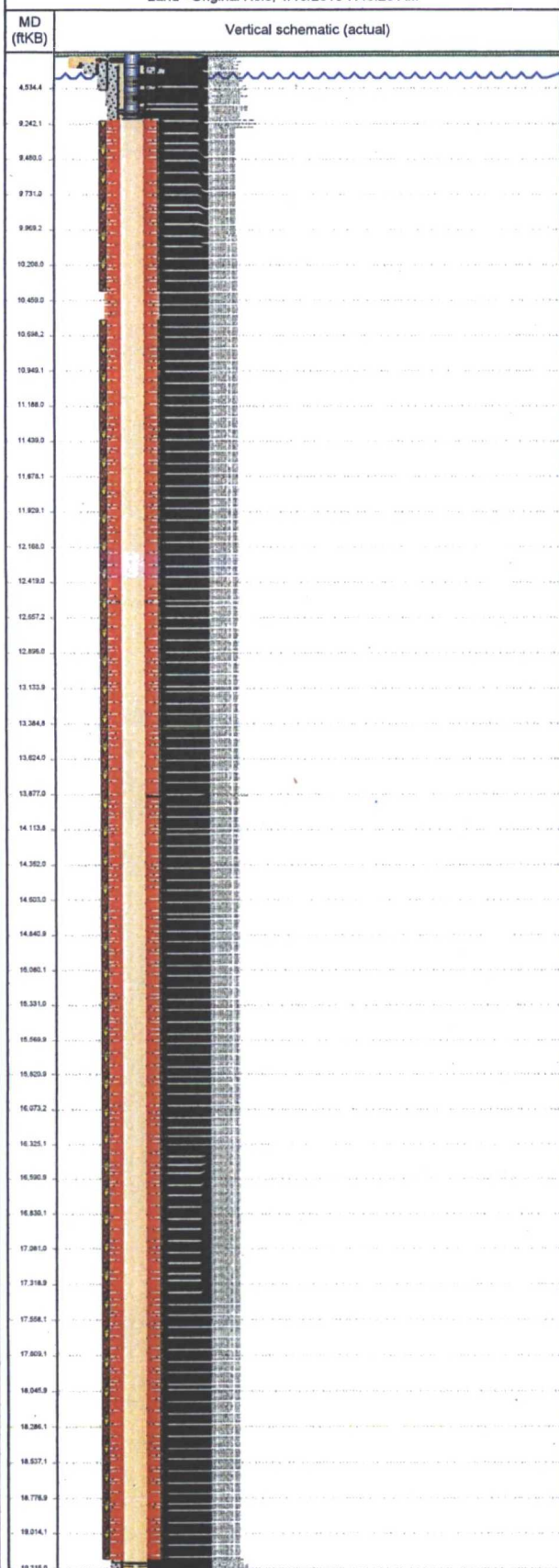
Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:23 AM

Perforations



Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/22/2017	14,141.0	14,142.0	2.0	2	Avalon, Original Hole
11/22/2017	14,155.0	14,156.0	2.0	2	Avalon, Original Hole
11/22/2017	14,169.0	14,170.0	2.0	2	Avalon, Original Hole
11/22/2017	14,183.0	14,184.0	2.0	2	Avalon, Original Hole
11/22/2017	14,197.0	14,198.0	2.0	2	Avalon, Original Hole
11/22/2017	14,213.0	14,214.0	2.0	2	Avalon, Original Hole
11/22/2017	14,225.0	14,226.0	3.0	3	Avalon, Original Hole
11/22/2017	14,239.0	14,240.0	3.0	3	Avalon, Original Hole
11/22/2017	14,253.0	14,254.0	3.0	3	Avalon, Original Hole
11/22/2017	14,267.0	14,268.0	3.0	3	Avalon, Original Hole
11/22/2017	14,281.0	14,282.0	3.0	3	Avalon, Original Hole
11/22/2017	14,295.0	14,296.0	4.0	4	Avalon, Original Hole
11/22/2017	14,309.0	14,310.0	5.0	5	Avalon, Original Hole
11/22/2017	14,323.0	14,324.0	2.0	2	Avalon, Original Hole
11/22/2017	14,336.0	14,337.0	2.0	2	Avalon, Original Hole
11/22/2017	14,351.0	14,352.0	2.0	2	Avalon, Original Hole
11/22/2017	14,365.0	14,366.0	2.0	2	Avalon, Original Hole
11/22/2017	14,379.0	14,380.0	2.0	2	Avalon, Original Hole
11/22/2017	14,393.0	14,394.0	2.0	2	Avalon, Original Hole
11/22/2017	14,407.0	14,408.0	2.0	2	Avalon, Original Hole
11/22/2017	14,421.0	14,422.0	3.0	3	Avalon, Original Hole
11/22/2017	14,435.0	14,436.0	3.0	3	Avalon, Original Hole
11/22/2017	14,449.0	14,450.0	3.0	3	Avalon, Original Hole
11/22/2017	14,463.0	14,464.0	3.0	3	Avalon, Original Hole
11/22/2017	14,477.0	14,478.0	3.0	3	Avalon, Original Hole
11/22/2017	14,491.0	14,492.0	4.0	4	Avalon, Original Hole
11/22/2017	14,505.0	14,506.0	5.0	5	Avalon, Original Hole
11/21/2017	14,519.0	14,520.0	2.0	2	Avalon, Original Hole
11/21/2017	14,532.0	14,533.0	2.0	2	Avalon, Original Hole
11/21/2017	14,547.0	14,548.0	2.0	2	Avalon, Original Hole
11/21/2017	14,561.0	14,562.0	2.0	2	Avalon, Original Hole
11/21/2017	14,576.0	14,577.0	2.0	2	Avalon, Original Hole
11/21/2017	14,589.0	14,590.0	2.0	2	Avalon, Original Hole
11/21/2017	14,603.0	14,604.0	2.0	2	Avalon, Original Hole
11/21/2017	14,619.0	14,620.0	3.0	3	Avalon, Original Hole
11/21/2017	14,631.0	14,632.0	3.0	3	Avalon, Original Hole
11/21/2017	14,645.0	14,646.0	3.0	3	Avalon, Original Hole
11/21/2017	14,660.0	14,661.0	3.0	3	Avalon, Original Hole
11/21/2017	14,673.0	14,674.0	3.0	3	Avalon, Original Hole
11/21/2017	14,687.0	14,688.0	4.0	4	Avalon, Original Hole
11/21/2017	14,699.0	14,700.0	5.0	5	Avalon, Original Hole
11/20/2017	14,715.0	14,716.0	2.0	2	Avalon, Original Hole
11/20/2017	14,729.0	14,730.0	2.0	2	Avalon, Original Hole
11/20/2017	14,742.0	14,743.0	2.0	2	Avalon, Original Hole
11/20/2017	14,757.0	14,758.0	2.0	2	Avalon, Original Hole
11/20/2017	14,771.0	14,772.0	2.0	2	Avalon, Original Hole
11/20/2017	14,785.0	14,786.0	2.0	2	Avalon, Original Hole
11/20/2017	14,799.0	14,800.0	2.0	2	Avalon, Original Hole
11/20/2017	14,813.0	14,814.0	3.0	3	Avalon, Original Hole
11/20/2017	14,827.0	14,828.0	3.0	3	Avalon, Original Hole
11/20/2017	14,841.0	14,842.0	3.0	3	Avalon, Original Hole
11/20/2017	14,855.0	14,856.0	3.0	3	Avalon, Original Hole
11/20/2017	14,869.0	14,870.0	3.0	3	Avalon, Original Hole
11/20/2017	14,883.0	14,884.0	4.0	4	Avalon, Original Hole
11/20/2017	14,897.0	14,898.0	6.0	6	Avalon, Original Hole
11/20/2017	14,911.0	14,912.0	2.0	2	Avalon, Original Hole
11/20/2017	14,925.0	14,926.0	2.0	2	Avalon, Original Hole
11/20/2017	14,939.0	14,940.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

Well Name
SD WE 24 FED P24 7H

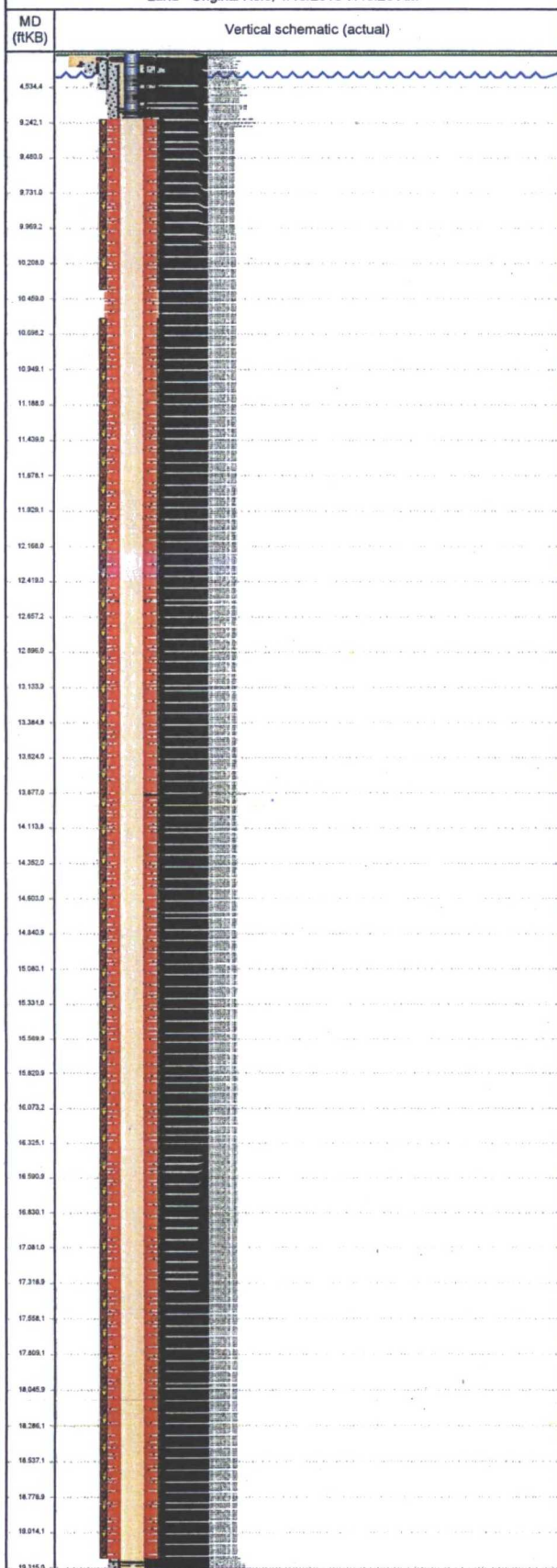
Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:26 AM

Perforations



Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/20/2017	14,953.0	14,954.0	2.0	2	Avalon, Original Hole
11/20/2017	14,967.0	14,968.0	2.0	2	Avalon, Original Hole
11/20/2017	14,981.0	14,982.0	2.0	2	Avalon, Original Hole
11/20/2017	14,995.0	14,996.0	2.0	2	Avalon, Original Hole
11/20/2017	15,009.0	15,010.0	3.0	3	Avalon, Original Hole
11/20/2017	15,023.0	15,024.0	3.0	3	Avalon, Original Hole
11/20/2017	15,037.0	15,038.0	3.0	3	Avalon, Original Hole
11/20/2017	15,051.0	15,052.0	3.0	3	Avalon, Original Hole
11/20/2017	15,065.0	15,066.0	3.0	3	Avalon, Original Hole
11/20/2017	15,079.0	15,080.0	4.0	4	Avalon, Original Hole
11/20/2017	15,093.0	15,094.0	6.0	6	Avalon, Original Hole
11/19/2017	15,107.0	15,108.0	2.0	2	Avalon, Original Hole
11/19/2017	15,121.0	15,122.0	2.0	2	Avalon, Original Hole
11/19/2017	15,135.0	15,136.0	2.0	2	Avalon, Original Hole
11/19/2017	15,149.0	15,150.0	2.0	2	Avalon, Original Hole
11/19/2017	15,163.0	15,164.0	2.0	2	Avalon, Original Hole
11/19/2017	15,177.0	15,178.0	2.0	2	Avalon, Original Hole
11/19/2017	15,191.0	15,192.0	2.0	2	Avalon, Original Hole
11/19/2017	15,205.0	15,206.0	3.0	3	Avalon, Original Hole
11/19/2017	15,219.0	15,220.0	3.0	3	Avalon, Original Hole
11/19/2017	15,233.0	15,234.0	3.0	3	Avalon, Original Hole
11/19/2017	15,247.0	15,248.0	3.0	3	Avalon, Original Hole
11/19/2017	15,261.0	15,262.0	3.0	3	Avalon, Original Hole
11/19/2017	15,275.0	15,276.0	4.0	4	Avalon, Original Hole
11/19/2017	15,289.0	15,290.0	6.0	6	Avalon, Original Hole
11/19/2017	15,303.0	15,304.0	2.0	2	Avalon, Original Hole
11/19/2017	15,317.0	15,318.0	2.0	2	Avalon, Original Hole
11/19/2017	15,331.0	15,332.0	2.0	2	Avalon, Original Hole
11/19/2017	15,345.0	15,346.0	2.0	2	Avalon, Original Hole
11/19/2017	15,359.0	15,360.0	2.0	2	Avalon, Original Hole
11/19/2017	15,373.0	15,374.0	2.0	2	Avalon, Original Hole
11/19/2017	15,387.0	15,388.0	2.0	2	Avalon, Original Hole
11/19/2017	15,401.0	15,402.0	3.0	3	Avalon, Original Hole
11/19/2017	15,415.0	15,416.0	3.0	3	Avalon, Original Hole
11/19/2017	15,429.0	15,430.0	3.0	3	Avalon, Original Hole
11/19/2017	15,443.0	15,444.0	3.0	3	Avalon, Original Hole
11/19/2017	15,457.0	15,458.0	3.0	3	Avalon, Original Hole
11/19/2017	15,471.0	15,472.0	4.0	4	Avalon, Original Hole
11/19/2017	15,485.0	15,486.0	6.0	6	Avalon, Original Hole
11/18/2017	15,499.0	15,500.0	2.0	2	Avalon, Original Hole
11/18/2017	15,513.0	15,514.0	2.0	2	Avalon, Original Hole
11/18/2017	15,527.0	15,528.0	2.0	2	Avalon, Original Hole
11/18/2017	15,541.0	15,542.0	2.0	2	Avalon, Original Hole
11/18/2017	15,555.0	15,556.0	2.0	2	Avalon, Original Hole
11/18/2017	15,569.0	15,570.0	2.0	2	Avalon, Original Hole
11/18/2017	15,583.0	15,584.0	2.0	2	Avalon, Original Hole
11/18/2017	15,597.0	15,598.0	3.0	3	Avalon, Original Hole
11/18/2017	15,611.0	15,612.0	3.0	3	Avalon, Original Hole
11/18/2017	15,625.0	15,626.0	3.0	3	Avalon, Original Hole
11/18/2017	15,639.0	15,640.0	3.0	3	Avalon, Original Hole
11/18/2017	15,653.0	15,654.0	3.0	3	Avalon, Original Hole
11/18/2017	15,667.0	15,668.0	4.0	4	Avalon, Original Hole
11/18/2017	15,681.0	15,682.0	6.0	6	Avalon, Original Hole
11/18/2017	15,695.0	15,696.0	2.0	2	Avalon, Original Hole
11/18/2017	15,709.0	15,710.0	2.0	2	Avalon, Original Hole
11/18/2017	15,723.0	15,724.0	2.0	2	Avalon, Original Hole
11/18/2017	15,737.0	15,738.0	2.0	2	Avalon, Original Hole
11/18/2017	15,751.0	15,752.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

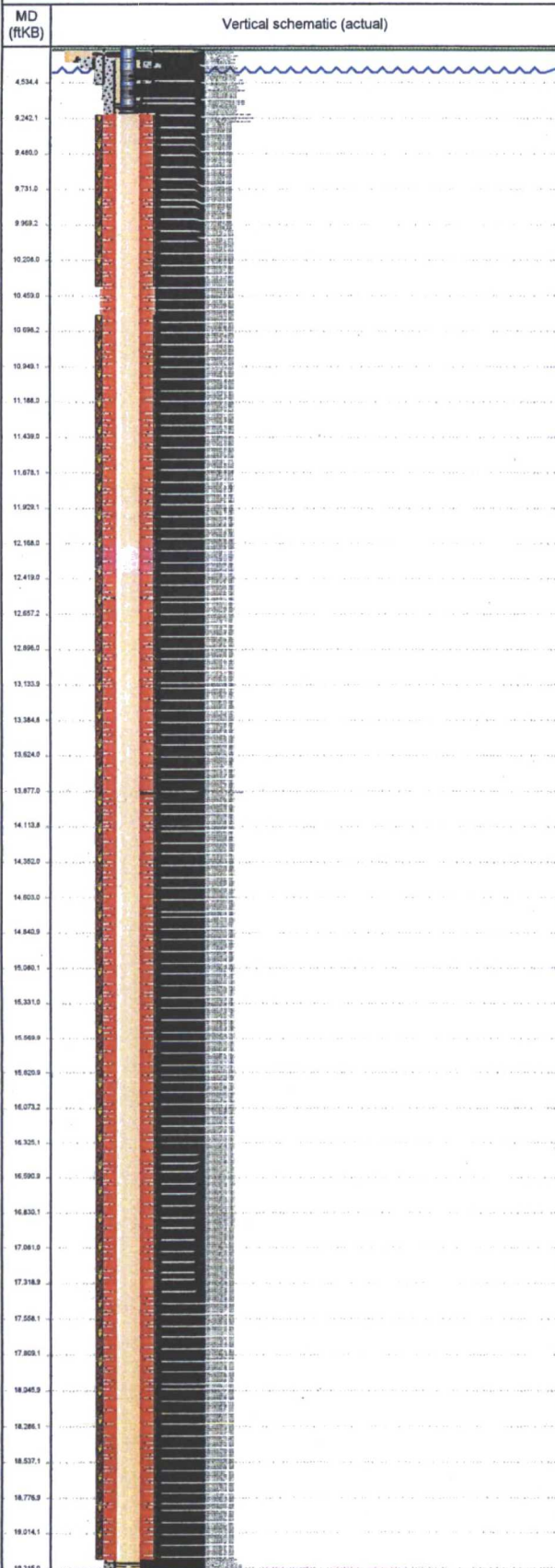
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:29 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/18/2017	15,765.0	15,766.0	2.0	2	Avalon, Original Hole
11/18/2017	15,779.0	15,780.0	3.0	3	Avalon, Original Hole
11/18/2017	15,793.0	15,794.0	3.0	3	Avalon, Original Hole
11/18/2017	15,807.0	15,808.0	3.0	3	Avalon, Original Hole
11/18/2017	15,821.0	15,822.0	3.0	3	Avalon, Original Hole
11/18/2017	15,835.0	15,836.0	3.0	3	Avalon, Original Hole
11/18/2017	15,849.0	15,850.0	4.0	4	Avalon, Original Hole
11/18/2017	15,863.0	15,864.0	6.0	6	Avalon, Original Hole
11/17/2017	15,891.0	15,892.0	2.0	2	Avalon, Original Hole
11/17/2017	15,905.0	15,906.0	2.0	2	Avalon, Original Hole
11/17/2017	15,919.0	15,920.0	2.0	2	Avalon, Original Hole
11/17/2017	15,933.0	15,934.0	2.0	2	Avalon, Original Hole
11/17/2017	15,947.0	15,948.0	2.0	2	Avalon, Original Hole
11/17/2017	15,961.0	15,962.0	2.0	2	Avalon, Original Hole
11/17/2017	15,975.0	15,976.0	2.0	2	Avalon, Original Hole
11/17/2017	15,989.0	15,990.0	3.0	3	Avalon, Original Hole
11/17/2017	16,003.0	16,004.0	3.0	3	Avalon, Original Hole
11/17/2017	16,017.0	16,018.0	3.0	3	Avalon, Original Hole
11/17/2017	16,031.0	16,032.0	3.0	3	Avalon, Original Hole
11/17/2017	16,045.0	16,046.0	3.0	3	Avalon, Original Hole
11/17/2017	16,059.0	16,060.0	4.0	4	Avalon, Original Hole
11/17/2017	16,073.0	16,074.0	6.0	6	Avalon, Original Hole
11/17/2017	16,087.0	16,088.0	2.0	2	Avalon, Original Hole
11/17/2017	16,101.0	16,102.0	2.0	2	Avalon, Original Hole
11/17/2017	16,115.0	16,116.0	2.0	2	Avalon, Original Hole
11/17/2017	16,129.0	16,130.0	2.0	2	Avalon, Original Hole
11/17/2017	16,143.0	16,144.0	2.0	2	Avalon, Original Hole
11/17/2017	16,157.0	16,158.0	2.0	2	Avalon, Original Hole
11/17/2017	16,171.0	16,172.0	3.0	3	Avalon, Original Hole
11/17/2017	16,185.0	16,186.0	3.0	3	Avalon, Original Hole
11/17/2017	16,199.0	16,200.0	3.0	3	Avalon, Original Hole
11/17/2017	16,213.0	16,214.0	3.0	3	Avalon, Original Hole
11/17/2017	16,227.0	16,228.0	3.0	3	Avalon, Original Hole
11/17/2017	16,241.0	16,242.0	4.0	4	Avalon, Original Hole
11/17/2017	16,255.0	16,256.0	6.0	6	Avalon, Original Hole
11/16/2017	16,283.0	16,284.0	2.0	2	Avalon, Original Hole
11/16/2017	16,297.0	16,298.0	2.0	2	Avalon, Original Hole
11/16/2017	16,311.0	16,312.0	2.0	2	Avalon, Original Hole
11/16/2017	16,325.0	16,326.0	2.0	2	Avalon, Original Hole
11/16/2017	16,339.0	16,340.0	2.0	2	Avalon, Original Hole
11/16/2017	16,353.0	16,354.0	2.0	2	Avalon, Original Hole
11/16/2017	16,367.0	16,368.0	2.0	2	Avalon, Original Hole
11/16/2017	16,381.0	16,382.0	3.0	3	Avalon, Original Hole
11/16/2017	16,395.0	16,396.0	3.0	3	Avalon, Original Hole
11/16/2017	16,409.0	16,410.0	3.0	3	Avalon, Original Hole
11/16/2017	16,423.0	16,424.0	3.0	3	Avalon, Original Hole
11/16/2017	16,437.0	16,438.0	3.0	3	Avalon, Original Hole
11/16/2017	16,451.0	16,452.0	4.0	4	Avalon, Original Hole
11/16/2017	16,465.0	16,466.0	6.0	6	Avalon, Original Hole
11/15/2017	16,507.0	16,508.0	2.0	2	Avalon, Original Hole
11/15/2017	16,521.0	16,522.0	2.0	2	Avalon, Original Hole
11/15/2017	16,535.0	16,536.0	2.0	2	Avalon, Original Hole
11/15/2017	16,549.0	16,550.0	2.0	2	Avalon, Original Hole
11/15/2017	16,563.0	16,564.0	2.0	2	Avalon, Original Hole
11/15/2017	16,577.0	16,578.0	3.0	3	Avalon, Original Hole
11/15/2017	16,591.0	16,592.0	3.0	3	Avalon, Original Hole
11/15/2017	16,605.0	16,606.0	3.0	3	Avalon, Original Hole
11/15/2017	16,619.0	16,620.0	3.0	3	Avalon, Original Hole



Wellbore Schematic

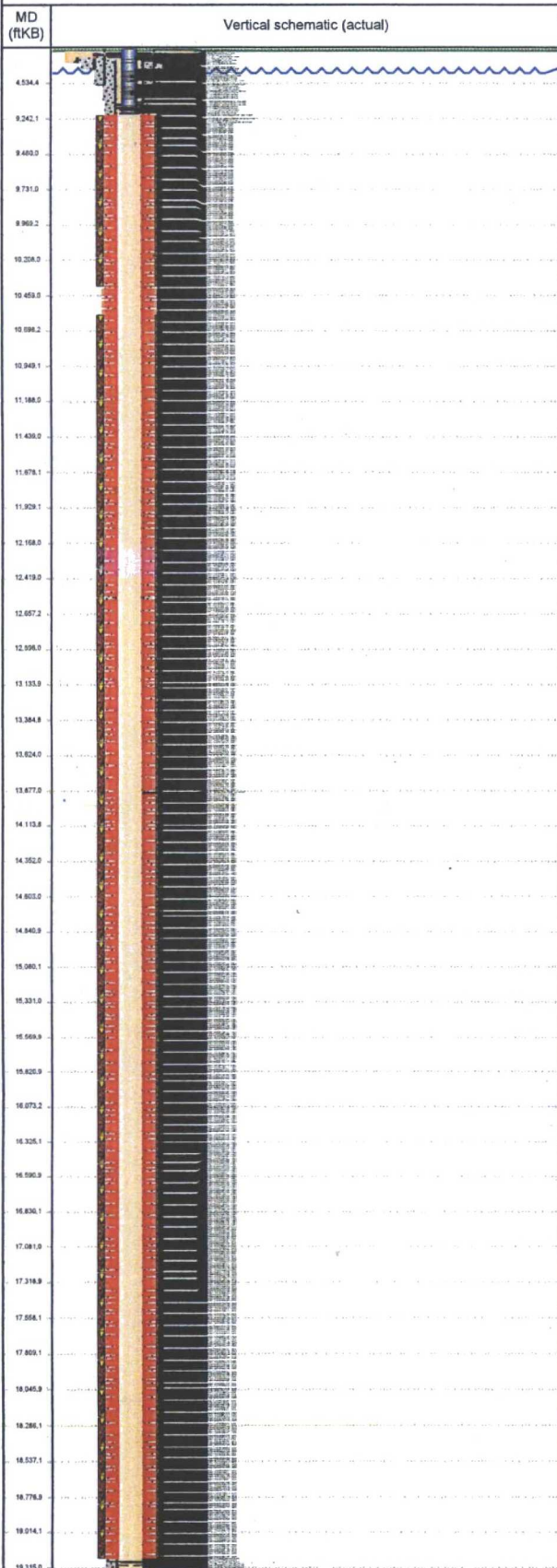
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:32 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/15/2017	16,633.0	16,634.0	3.0	3	Avalon, Original Hole
11/15/2017	16,647.0	16,648.0	4.0	4	Avalon, Original Hole
11/15/2017	16,661.0	16,662.0	6.0	6	Avalon, Original Hole
11/15/2017	16,675.0	16,676.0	2.0	2	Avalon, Original Hole
11/15/2017	16,689.0	16,690.0	2.0	2	Avalon, Original Hole
11/15/2017	16,703.0	16,704.0	2.0	2	Avalon, Original Hole
11/15/2017	16,717.0	16,718.0	2.0	2	Avalon, Original Hole
11/15/2017	16,731.0	16,732.0	2.0	2	Avalon, Original Hole
11/15/2017	16,745.0	16,746.0	2.0	2	Avalon, Original Hole
11/15/2017	16,759.0	16,760.0	2.0	2	Avalon, Original Hole
11/15/2017	16,773.0	16,774.0	3.0	3	Avalon, Original Hole
11/15/2017	16,787.0	16,788.0	3.0	3	Avalon, Original Hole
11/15/2017	16,801.0	16,802.0	3.0	3	Avalon, Original Hole
11/15/2017	16,815.0	16,816.0	3.0	3	Avalon, Original Hole
11/15/2017	16,829.0	16,830.0	3.0	3	Avalon, Original Hole
11/15/2017	16,843.0	16,844.0	4.0	4	Avalon, Original Hole
11/15/2017	16,857.0	16,858.0	6.0	6	Avalon, Original Hole
11/15/2017	16,871.0	16,872.0	2.0	2	Avalon, Original Hole
11/15/2017	16,885.0	16,886.0	2.0	2	Avalon, Original Hole
11/15/2017	16,899.0	16,900.0	2.0	2	Avalon, Original Hole
11/15/2017	16,913.0	16,914.0	2.0	2	Avalon, Original Hole
11/15/2017	16,927.0	16,928.0	2.0	2	Avalon, Original Hole
11/15/2017	16,941.0	16,942.0	2.0	2	Avalon, Original Hole
11/15/2017	16,955.0	16,956.0	2.0	2	Avalon, Original Hole
11/15/2017	16,969.0	16,970.0	3.0	3	Avalon, Original Hole
11/15/2017	16,983.0	16,984.0	3.0	3	Avalon, Original Hole
11/15/2017	16,997.0	16,998.0	3.0	3	Avalon, Original Hole
11/15/2017	17,009.0	17,010.0	3.0	3	Avalon, Original Hole
11/15/2017	17,025.0	17,026.0	3.0	3	Avalon, Original Hole
11/15/2017	17,039.0	17,040.0	4.0	4	Avalon, Original Hole
11/15/2017	17,053.0	17,054.0	6.0	6	Avalon, Original Hole
11/9/2017	17,067.0	17,068.0	2.0	2	Avalon, Original Hole
11/9/2017	17,081.0	17,082.0	2.0	2	Avalon, Original Hole
11/9/2017	17,094.0	17,095.0	2.0	2	Avalon, Original Hole
11/9/2017	17,109.0	17,110.0	2.0	2	Avalon, Original Hole
11/9/2017	17,123.0	17,124.0	2.0	2	Avalon, Original Hole
11/9/2017	17,138.0	17,139.0	2.0	2	Avalon, Original Hole
11/9/2017	17,151.0	17,152.0	2.0	2	Avalon, Original Hole
11/9/2017	17,165.0	17,166.0	3.0	3	Avalon, Original Hole
11/9/2017	17,179.0	17,180.0	3.0	3	Avalon, Original Hole
11/9/2017	17,193.0	17,194.0	3.0	3	Avalon, Original Hole
11/9/2017	17,201.0	17,202.0	3.0	3	Avalon, Original Hole
11/9/2017	17,221.0	17,222.0	3.0	3	Avalon, Original Hole
11/9/2017	17,235.0	17,236.0	4.0	4	Avalon, Original Hole
11/9/2017	17,248.0	17,249.0	6.0	6	Avalon, Original Hole
11/9/2017	17,263.0	17,264.0	2.0	2	Avalon, Original Hole
11/9/2017	17,263.0	17,264.0	2.0	2	Avalon, Original Hole
11/9/2017	17,277.0	17,278.0	2.0	2	Avalon, Original Hole
11/9/2017	17,277.0	17,278.0	2.0	2	Avalon, Original Hole
11/9/2017	17,291.0	17,292.0	2.0	2	Avalon, Original Hole
11/9/2017	17,291.0	17,292.0	2.0	2	Avalon, Original Hole
11/9/2017	17,305.0	17,306.0	2.0	2	Avalon, Original Hole
11/9/2017	17,305.0	17,306.0	2.0	2	Avalon, Original Hole
11/9/2017	17,319.0	17,320.0	2.0	2	Avalon, Original Hole
11/9/2017	17,319.0	17,320.0	2.0	2	Avalon, Original Hole
11/9/2017	17,333.0	17,334.0	2.0	2	Avalon, Original Hole
11/9/2017	17,333.0	17,334.0	2.0	2	Avalon, Original Hole
11/9/2017	17,347.0	17,348.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

Well Name
SD WE 24 FED P24 7H

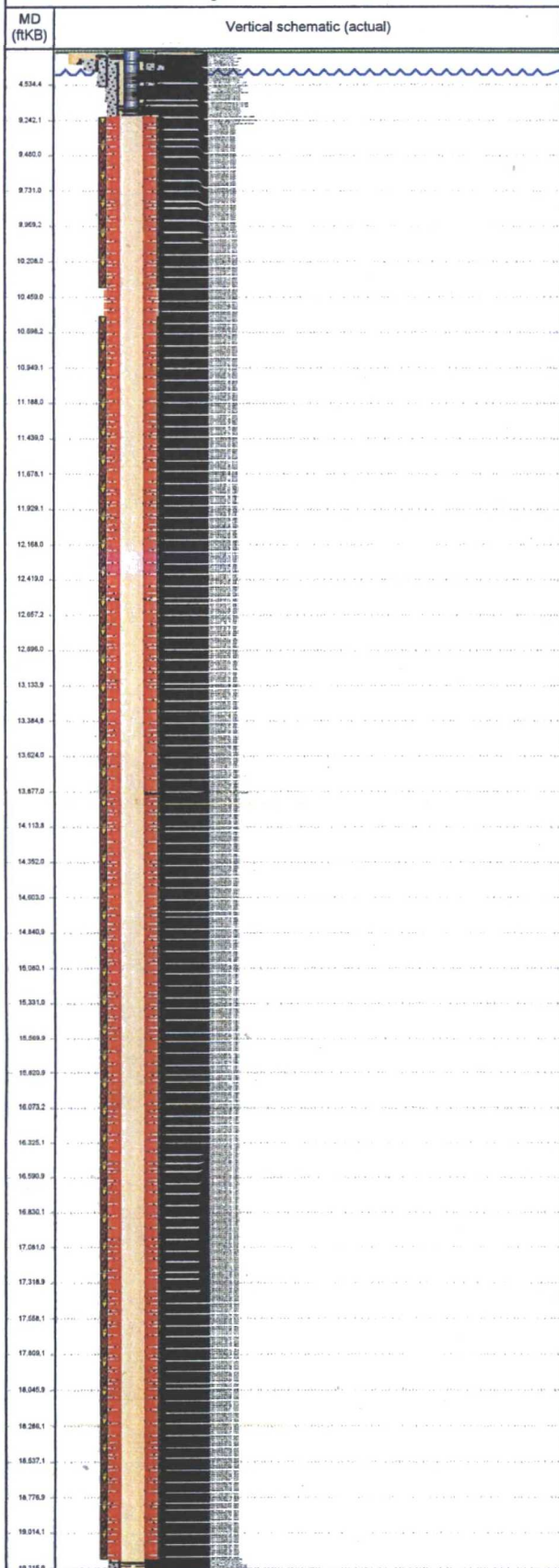
Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:35 AM

Perforations



Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/9/2017	17,347.0	17,348.0	2.0	2	Avalon, Original Hole
11/9/2017	17,361.0	17,362.0	3.0	3	Avalon, Original Hole
11/9/2017	17,361.0	17,362.0	3.0	3	Avalon, Original Hole
11/9/2017	17,375.0	17,376.0	3.0	3	Avalon, Original Hole
11/9/2017	17,375.0	17,376.0	3.0	3	Avalon, Original Hole
11/9/2017	17,389.0	17,390.0	3.0	3	Avalon, Original Hole
11/9/2017	17,389.0	17,390.0	3.0	3	Avalon, Original Hole
11/9/2017	17,403.0	17,404.0	3.0	3	Avalon, Original Hole
11/9/2017	17,403.0	17,404.0	3.0	3	Avalon, Original Hole
11/9/2017	17,417.0	17,418.0	3.0	3	Avalon, Original Hole
11/9/2017	17,417.0	17,418.0	3.0	3	Avalon, Original Hole
11/9/2017	17,431.0	17,432.0	4.0	4	Avalon, Original Hole
11/9/2017	17,431.0	17,432.0	4.0	4	Avalon, Original Hole
11/9/2017	17,445.0	17,446.0	6.0	6	Avalon, Original Hole
11/9/2017	17,445.0	17,446.0	6.0	6	Avalon, Original Hole
11/8/2017	17,459.0	17,460.0	2.0	2	Avalon, Original Hole
11/8/2017	17,473.0	17,474.0	2.0	2	Avalon, Original Hole
11/8/2017	17,487.0	17,488.0	2.0	2	Avalon, Original Hole
11/8/2017	17,501.0	17,502.0	2.0	2	Avalon, Original Hole
11/8/2017	17,515.0	17,516.0	2.0	2	Avalon, Original Hole
11/8/2017	17,529.0	17,530.0	2.0	2	Avalon, Original Hole
11/8/2017	17,543.0	17,544.0	2.0	2	Avalon, Original Hole
11/8/2017	17,557.0	17,558.0	3.0	3	Avalon, Original Hole
11/8/2017	17,571.0	17,572.0	3.0	3	Avalon, Original Hole
11/8/2017	17,585.0	17,586.0	3.0	3	Avalon, Original Hole
11/8/2017	17,599.0	17,600.0	3.0	3	Avalon, Original Hole
11/8/2017	17,613.0	17,614.0	3.0	3	Avalon, Original Hole
11/8/2017	17,627.0	17,628.0	4.0	4	Avalon, Original Hole
11/8/2017	17,641.0	17,642.0	6.0	6	Avalon, Original Hole
11/8/2017	17,655.0	17,656.0	2.0	2	Avalon, Original Hole
11/8/2017	17,669.0	17,670.0	2.0	2	Avalon, Original Hole
11/8/2017	17,683.0	17,684.0	2.0	2	Avalon, Original Hole
11/8/2017	17,697.0	17,698.0	2.0	2	Avalon, Original Hole
11/8/2017	17,711.0	17,712.0	2.0	2	Avalon, Original Hole
11/8/2017	17,725.0	17,726.0	2.0	2	Avalon, Original Hole
11/8/2017	17,739.0	17,740.0	2.0	2	Avalon, Original Hole
11/8/2017	17,753.0	17,754.0	3.0	3	Avalon, Original Hole
11/8/2017	17,767.0	17,768.0	3.0	3	Avalon, Original Hole
11/8/2017	17,781.0	17,782.0	3.0	3	Avalon, Original Hole
11/8/2017	17,795.0	17,796.0	3.0	3	Avalon, Original Hole
11/8/2017	17,809.0	17,810.0	3.0	3	Avalon, Original Hole
11/8/2017	17,823.0	17,824.0	4.0	4	Avalon, Original Hole
11/8/2017	17,837.0	17,838.0	6.0	6	Avalon, Original Hole
11/7/2017	17,851.0	17,852.0	2.0	2	Avalon, Original Hole
11/7/2017	17,865.0	17,866.0	2.0	2	Avalon, Original Hole
11/7/2017	17,877.0	17,878.0	2.0	2	Avalon, Original Hole
11/7/2017	17,893.0	17,894.0	2.0	2	Avalon, Original Hole
11/7/2017	17,907.0	17,908.0	2.0	2	Avalon, Original Hole
11/7/2017	17,921.0	17,922.0	2.0	2	Avalon, Original Hole
11/7/2017	17,935.0	17,936.0	2.0	2	Avalon, Original Hole
11/7/2017	17,949.0	17,950.0	3.0	3	Avalon, Original Hole
11/7/2017	17,963.0	17,964.0	3.0	3	Avalon, Original Hole
11/7/2017	17,977.0	17,978.0	3.0	3	Avalon, Original Hole
11/7/2017	17,991.0	17,992.0	3.0	3	Avalon, Original Hole
11/7/2017	18,005.0	18,006.0	3.0	3	Avalon, Original Hole
11/7/2017	18,019.0	18,020.0	4.0	4	Avalon, Original Hole
11/7/2017	18,031.0	18,032.0	6.0	6	Avalon, Original Hole
11/7/2017	18,046.0	18,047.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

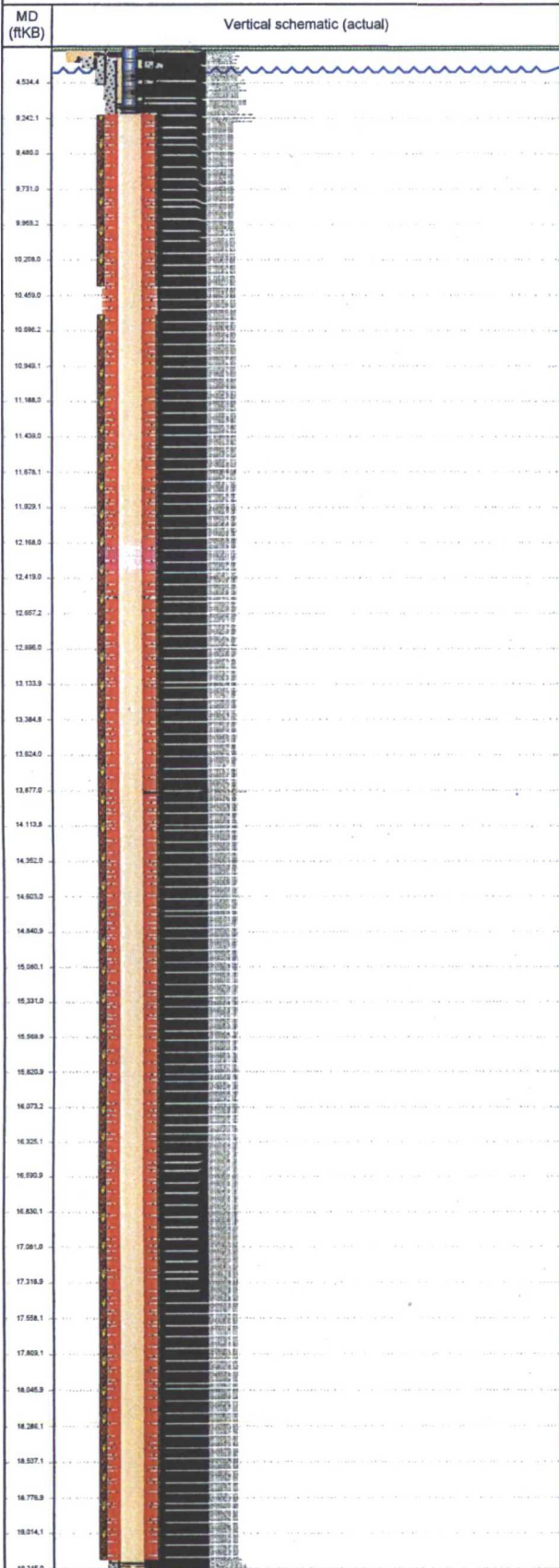
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:38 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/7/2017	18,060.0	18,061.0	2.0	2	Avalon, Original Hole
11/7/2017	18,074.0	18,075.0	2.0	2	Avalon, Original Hole
11/7/2017	18,088.0	18,089.0	2.0	2	Avalon, Original Hole
11/7/2017	18,102.0	18,103.0	2.0	2	Avalon, Original Hole
11/7/2017	18,116.0	18,117.0	2.0	2	Avalon, Original Hole
11/7/2017	18,130.0	18,131.0	2.0	2	Avalon, Original Hole
11/7/2017	18,144.0	18,145.0	3.0	3	Avalon, Original Hole
11/7/2017	18,158.0	18,159.0	3.0	3	Avalon, Original Hole
11/7/2017	18,172.0	18,173.0	3.0	3	Avalon, Original Hole
11/7/2017	18,186.0	18,187.0	3.0	3	Avalon, Original Hole
11/7/2017	18,200.0	18,201.0	3.0	3	Avalon, Original Hole
11/7/2017	18,215.0	18,216.0	4.0	4	Avalon, Original Hole
11/7/2017	18,229.0	18,230.0	6.0	6	Avalon, Original Hole
11/6/2017	18,243.0	18,244.0	2.0	2	Avalon, Original Hole
11/6/2017	18,257.0	18,258.0	2.0	2	Avalon, Original Hole
11/6/2017	18,271.0	18,272.0	2.0	2	Avalon, Original Hole
11/6/2017	18,285.0	18,286.0	2.0	2	Avalon, Original Hole
11/6/2017	18,299.0	18,300.0	2.0	2	Avalon, Original Hole
11/6/2017	18,313.0	18,314.0	2.0	2	Avalon, Original Hole
11/6/2017	18,327.0	18,328.0	2.0	2	Avalon, Original Hole
11/6/2017	18,341.0	18,342.0	3.0	3	Avalon, Original Hole
11/6/2017	18,355.0	18,356.0	3.0	3	Avalon, Original Hole
11/6/2017	18,369.0	18,370.0	3.0	3	Avalon, Original Hole
11/6/2017	18,383.0	18,384.0	3.0	3	Avalon, Original Hole
11/6/2017	18,397.0	18,398.0	3.0	3	Avalon, Original Hole
11/6/2017	18,411.0	18,412.0	4.0	4	Avalon, Original Hole
11/6/2017	18,425.0	18,426.0	5.0	5	Avalon, Original Hole
11/5/2017	18,439.0	18,440.0	2.0	2	Avalon, Original Hole
11/5/2017	18,453.0	18,454.0	2.0	2	Avalon, Original Hole
11/5/2017	18,467.0	18,468.0	2.0	2	Avalon, Original Hole
11/5/2017	18,481.0	18,482.0	2.0	2	Avalon, Original Hole
11/5/2017	18,495.0	18,496.0	2.0	2	Avalon, Original Hole
11/5/2017	18,509.0	18,510.0	2.0	2	Avalon, Original Hole
11/5/2017	18,523.0	18,524.0	2.0	2	Avalon, Original Hole
11/5/2017	18,537.0	18,538.0	3.0	3	Avalon, Original Hole
11/5/2017	18,551.0	18,552.0	3.0	3	Avalon, Original Hole
11/5/2017	18,565.0	18,566.0	3.0	3	Avalon, Original Hole
11/5/2017	18,579.0	18,580.0	3.0	3	Avalon, Original Hole
11/5/2017	18,593.0	18,594.0	3.0	3	Avalon, Original Hole
11/5/2017	18,607.0	18,608.0	4.0	4	Avalon, Original Hole
11/5/2017	18,621.0	18,622.0	5.0	5	Avalon, Original Hole
11/5/2017	18,635.0	18,636.0	2.0	2	Avalon, Original Hole
11/5/2017	18,649.0	18,650.0	2.0	2	Avalon, Original Hole
11/5/2017	18,663.0	18,664.0	2.0	2	Avalon, Original Hole
11/5/2017	18,677.0	18,678.0	2.0	2	Avalon, Original Hole
11/5/2017	18,691.0	18,692.0	2.0	2	Avalon, Original Hole
11/5/2017	18,705.0	18,706.0	2.0	2	Avalon, Original Hole
11/5/2017	18,719.0	18,720.0	2.0	2	Avalon, Original Hole
11/5/2017	18,732.0	18,733.0	3.0	3	Avalon, Original Hole
11/5/2017	18,747.0	18,748.0	3.0	3	Avalon, Original Hole
11/5/2017	18,761.0	18,762.0	3.0	3	Avalon, Original Hole
11/5/2017	18,776.0	18,777.0	3.0	3	Avalon, Original Hole
11/5/2017	18,789.0	18,790.0	3.0	3	Avalon, Original Hole
11/5/2017	18,803.0	18,804.0	4.0	4	Avalon, Original Hole
11/5/2017	18,816.0	18,817.0	5.0	5	Avalon, Original Hole
11/4/2017	18,831.0	18,832.0	2.0	2	Avalon, Original Hole
11/4/2017	18,845.0	18,846.0	2.0	2	Avalon, Original Hole
11/4/2017	18,854.0	18,855.0	2.0	2	Avalon, Original Hole



Wellbore Schematic

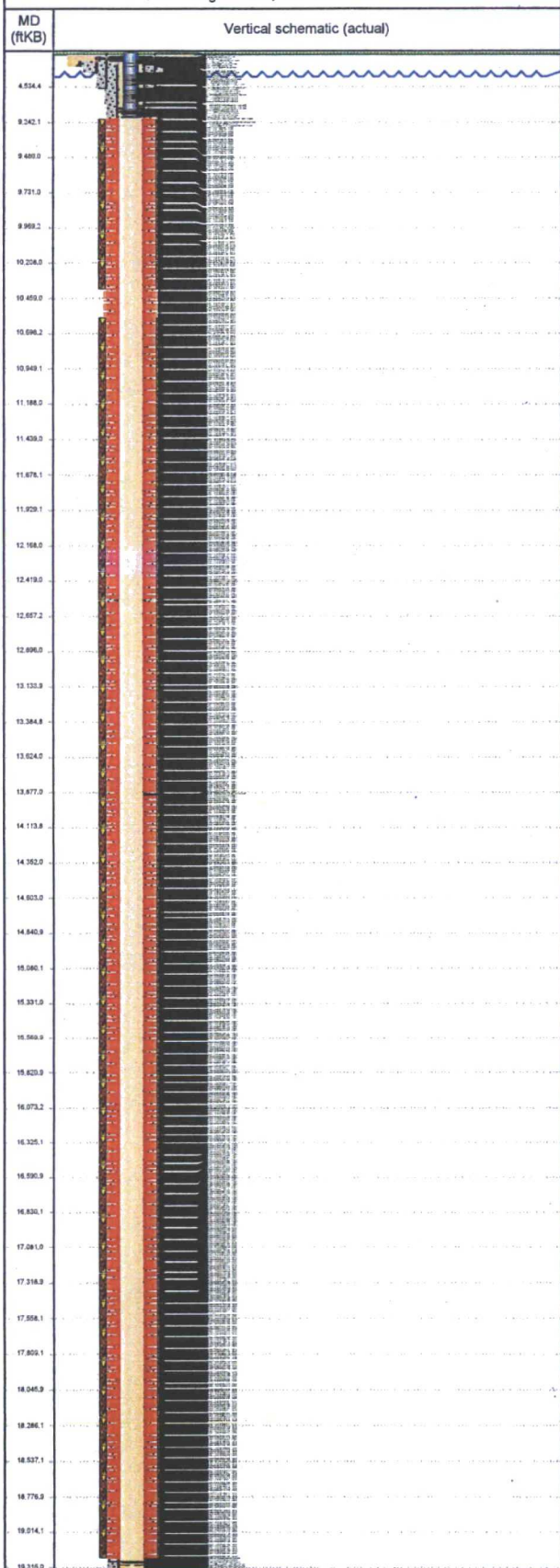
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:41 AM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
11/4/2017	18,873.0	18,874.0	2.0	2	Avalon, Original Hole
11/4/2017	18,887.0	18,888.0	2.0	2	Avalon, Original Hole
11/4/2017	18,901.0	18,902.0	2.0	2	Avalon, Original Hole
11/4/2017	18,915.0	18,916.0	2.0	2	Avalon, Original Hole
11/4/2017	18,929.0	18,930.0	3.0	3	Avalon, Original Hole
11/4/2017	18,943.0	18,944.0	3.0	3	Avalon, Original Hole
11/4/2017	18,957.0	18,958.0	3.0	3	Avalon, Original Hole
11/4/2017	18,971.0	18,972.0	3.0	3	Avalon, Original Hole
11/4/2017	18,985.0	18,986.0	3.0	3	Avalon, Original Hole
11/4/2017	18,999.0	19,000.0	4.0	4	Avalon, Original Hole
11/4/2017	19,013.0	19,014.0	6.0	6	Avalon, Original Hole
11/3/2017	19,027.0	19,028.0	2.0	2	Avalon, Original Hole
11/3/2017	19,041.0	19,042.0	2.0	2	Avalon, Original Hole
11/3/2017	19,055.0	19,056.0	2.0	2	Avalon, Original Hole
11/3/2017	19,069.0	19,070.0	2.0	2	Avalon, Original Hole
11/3/2017	19,083.0	19,084.0	2.0	2	Avalon, Original Hole
11/3/2017	19,097.0	19,098.0	2.0	2	Avalon, Original Hole
11/3/2017	19,111.0	19,112.0	3.0	3	Avalon, Original Hole
11/3/2017	19,125.0	19,126.0	3.0	3	Avalon, Original Hole
11/3/2017	19,139.0	19,140.0	3.0	3	Avalon, Original Hole
11/3/2017	19,153.0	19,154.0	3.0	3	Avalon, Original Hole
11/3/2017	19,167.0	19,168.0	3.0	3	Avalon, Original Hole
11/3/2017	19,181.0	19,182.0	4.0	4	Avalon, Original Hole
11/3/2017	19,195.0	19,196.0	6.0	6	Avalon, Original Hole

Other Strings

Run Date	Pull Date	Set Depth (ftKB)	Com

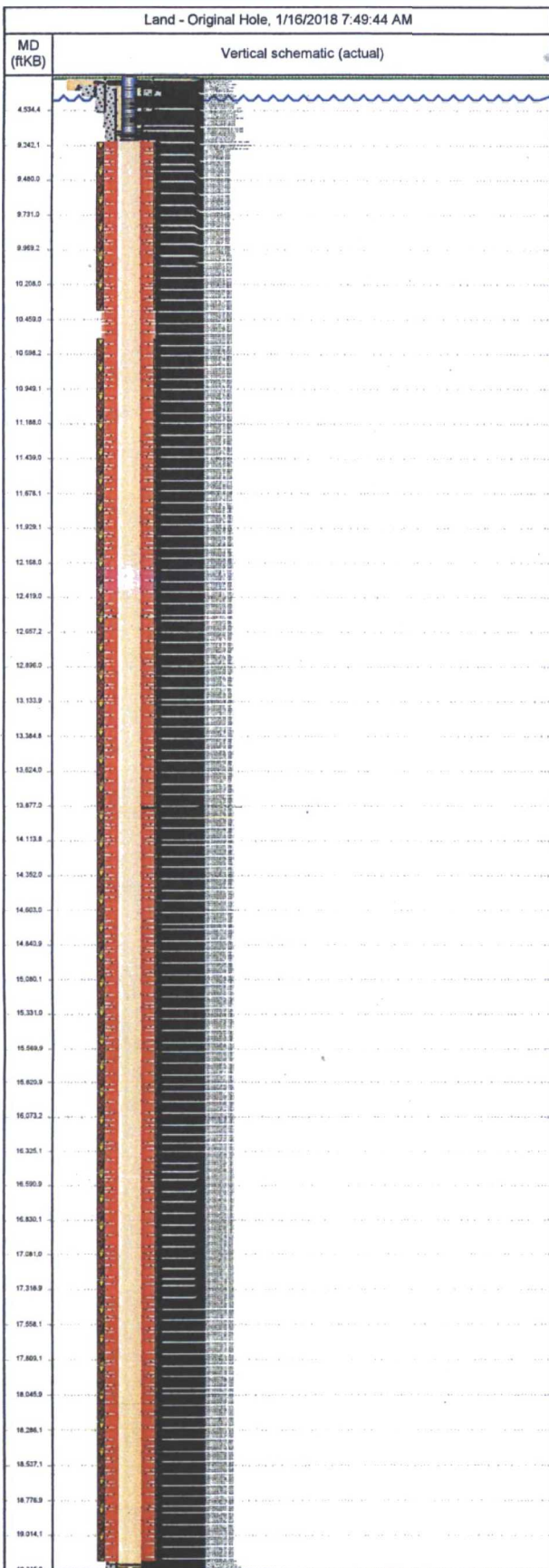
Other In Hole

Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Packer (retrievable)	8,727.0	8,747.5	12/27/2017		CT set packer after drill out. 2 7/8" Profile Nipple 2.312 X Desc. OD ID Leng Profile Nipple 3.15 2.312X 1.24' 450 Hornet Packer 4.5 2.375 7.72' 2 7/8" Sub 3.667 2.441 6.18" Profile XN 2 7/8" ID NO GO 2.210 3.667 2.312XN 1.15' 2 7/8" Sub 3.667 2.441 6.2' Pump Out Plug 7 Pins (2590 psi) 3.667 2.441 0.44' Middle Element at 8730'
Composite Frac Plug (drop ball)	9,418.0	9,420.0	12/8/2017	12/22/2017	Stage 51
Composite Frac Plug (drop ball)	9,614.0	9,616.0	12/7/2017	12/22/2017	Stage 50
Composite Frac Plug (drop ball)	9,810.0	9,812.0	12/7/2017	12/22/2017	Stage 49



Wellbore Schematic

Well Name SD WE 24 FED P24 7H	Lease SD WE 24 FED P24	Field Name JENNINGS	Business Unit Mid-Continent
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Other In Hole					
Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Composite Frac Plug (drop ball)	10,006.0	10,008.0	12/6/2017	12/22/2017	Stage 48
Composite Frac Plug (drop ball)	10,202.0	10,204.0	12/6/2017	12/22/2017	Stage 47
Composite Frac Plug (drop ball)	10,398.0	10,400.0	12/5/2017	12/23/2017	Stage 46
Composite Frac Plug (drop ball)	10,594.0	10,595.0	12/5/2017	12/23/2017	Stage 45
Composite Frac Plug (drop ball)	10,790.0	10,791.0	12/3/2017	12/23/2017	Stage 44
Composite Frac Plug (drop ball)	10,987.0	10,988.0	12/3/2017	12/23/2017	Stage 43
Composite Frac Plug (drop ball)	11,182.0	11,183.0	12/3/2017	12/23/2017	Stage 42
Composite Frac Plug (drop ball)	11,378.0	11,379.0	12/2/2017	12/23/2017	Stage 41
Composite Frac Plug (drop ball)	11,574.0	11,575.0	12/2/2017	12/23/2017	Stage 40
Composite Frac Plug (drop ball)	11,770.0	11,771.0	12/1/2017	12/23/2017	Stage 39
Composite Frac Plug (drop ball)	11,966.0	11,967.0	11/30/2017	12/23/2017	Stage 38
Composite Frac Plug (drop ball)	12,162.0	12,163.0	11/30/2017	12/23/2017	Stage 37
Composite Frac Plug (drop ball)	12,358.0	12,359.0	11/29/2017	12/23/2017	Stage 36
Composite Frac Plug (drop ball)	12,553.0	12,554.0	11/29/2017	12/23/2017	Stage 35
Composite Frac Plug (drop ball)	12,750.0	12,751.0	11/27/2017	12/23/2017	Stage 34
Composite Frac Plug (drop ball)	12,946.0	12,947.0	11/27/2017	12/23/2017	Stage 33
Composite Frac Plug (drop ball)	13,137.0	13,138.0	11/27/2017	12/23/2017	Stage 32
Composite Frac Plug (drop ball)	13,338.0	13,339.0	11/26/2017	12/23/2017	Stage 31
Composite Frac Plug (drop ball)	13,534.0	13,535.0	11/26/2017	12/23/2017	Stage 30
Composite Frac Plug (drop ball)	13,727.0	13,728.0	11/25/2017	12/23/2017	Stage 29
Composite Frac Plug (drop ball)	13,926.0	13,927.0	11/24/2017	12/23/2017	Stage 28
Composite Frac Plug (drop ball)	14,122.0	14,123.0	11/24/2017	12/23/2017	Stage 27
Composite Frac Plug (drop ball)	14,318.0	14,319.0	11/22/2017	12/23/2017	Stage 26
Composite Frac Plug (drop ball)	14,514.0	14,515.0	11/22/2017	12/23/2017	Stage 25
Composite Frac Plug (drop ball)	14,710.0	14,711.0	11/21/2017	12/23/2017	Stage 24
Composite Frac Plug (drop ball)	14,906.0	14,908.0	11/20/2017	12/23/2017	Stage 23
Composite Frac Plug (drop ball)	15,102.0	15,104.0	11/20/2017	12/23/2017	Stage 22
Composite Frac Plug (drop ball)	15,298.0	15,300.0	11/19/2017	12/23/2017	Stage 21
Composite Frac Plug (drop ball)	15,494.0	15,496.0	11/19/2017	12/23/2017	Stage 20
Composite Frac Plug (drop ball)	15,690.0	15,692.0	11/18/2017	12/23/2017	Stage 19
Composite Frac Plug (drop ball)	15,886.0	15,888.0	11/18/2017	12/23/2017	Stage 18
Composite Frac Plug (drop ball)	16,082.0	16,084.0	11/17/2017	12/24/2017	Stage 17



Wellbore Schematic

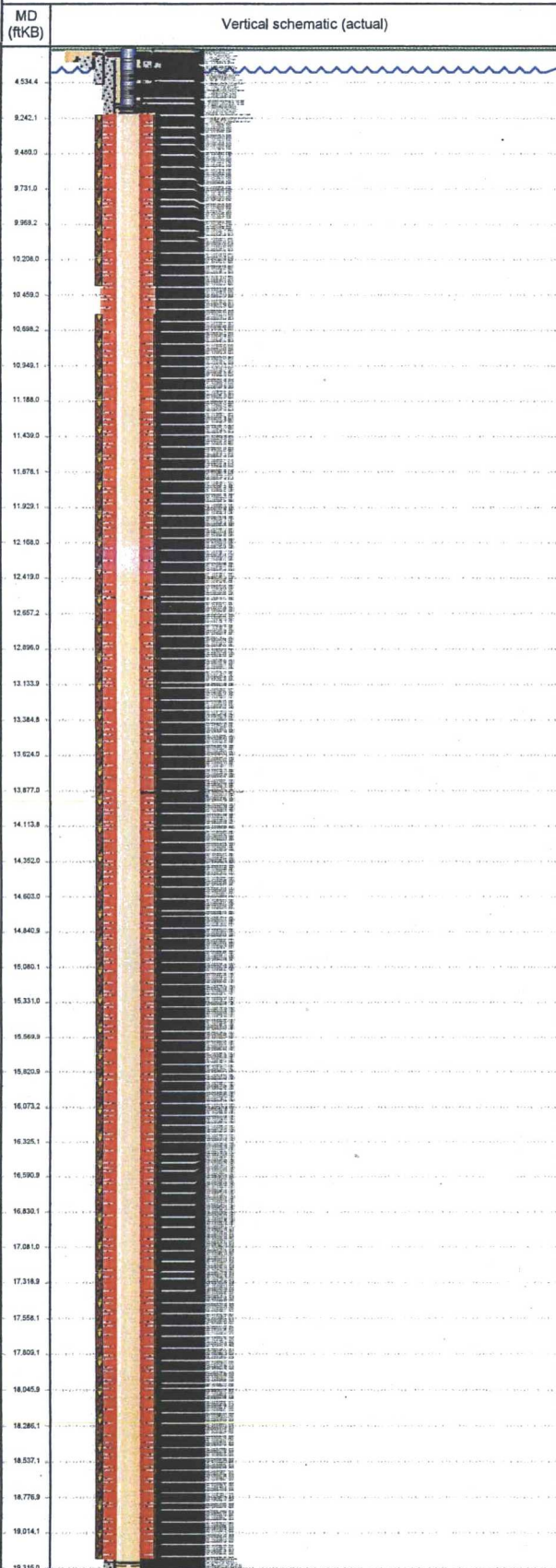
Well Name
SD WE 24 FED P24 7H

Lease
SD WE 24 FED P24

Field Name
JENNINGS

Business Unit
Mid-Continent

Land - Original Hole, 1/16/2018 7:49:47 AM



Other In Hole

Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Composite Frac Plug (drop ball)	16,278.0	16,280.0	11/17/2017	12/24/2017	Stage 16
Composite Frac Plug (drop ball)	16,474.0	16,476.0	11/16/2017	12/24/2017	Stage 15
Composite Frac Plug (drop ball)	16,670.0	16,672.0	11/15/2017	12/24/2017	Stage 14
Composite Frac Plug (drop ball)	16,866.0	16,868.0	11/15/2017	12/24/2017	Stage 13
Composite Frac Plug (drop ball)	17,062.0	17,064.0	11/15/2017	12/25/2017	Stage 12
Composite Frac Plug (drop ball)	17,255.0	17,257.0	11/9/2017	12/25/2017	Stage 11
Composite Frac Plug (drop ball)	17,454.0	17,456.0	11/9/2017	12/25/2017	Stage 10
Composite Frac Plug (drop ball)	17,650.0	17,652.0	11/8/2017	12/25/2017	Stage 9
Composite Frac Plug (drop ball)	17,845.0	17,847.0	11/8/2017	12/25/2017	Stage 8
Composite Frac Plug (drop ball)	18,040.0	18,042.0	11/7/2017	12/25/2017	Stage 7
Composite Frac Plug (drop ball)	18,238.0	18,240.0	11/7/2017	12/25/2017	Stage 6
Composite Frac Plug (drop ball)	18,434.0	18,436.0	11/6/2017	12/25/2017	Stage 5
Composite Frac Plug (drop ball)	18,630.0	18,632.0	11/5/2017	12/26/2017	Stage 4
Composite Frac Plug (drop ball)	18,826.0	18,827.0	11/5/2017	12/26/2017	Stage 3
Composite Frac Plug (drop ball)	19,022.0	19,024.0	11/4/2017	12/26/2017	Stage 2
Dummy Plug	19,207.0	19,209.0	11/3/2017		Dummy plug became stuck in RSI. Released from dummy plug.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	2017-12-08
State:	New Mexico
County:	Lea
API Number:	3002543676
Operator Name:	CHEVRON - PERMIAN BASIN-EBUS
Well Name and Number:	P24 7H
Longitude:	-103.62
Latitude:	32.02
Long/Lat Projection:	
Indian/Federal:	none
Production Type:	
True Vertical Depth (TVD):	0
Total Water Volume (gal)*:	21,451,628

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Ingredient Mass lbs	Comments	Company	First Name	Last Name	Email	Phone
Fresh Water	Operator	Base Fluid	Water	7732-18-5	100.00%	90.94617%	178691468	Density = 8.330					
BA-20 BUFFERING AGENT	Halliburton	Buffer	Listed Below	Listed Below			0	NA					
Cla-Web(TM) II	Halliburton	Clay Stabilizer	Listed Below	Listed Below			0	NA					
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Listed Below	Listed Below			0	NA					
HCL >10%	Halliburton	Solvent	Listed Below	Listed Below			0	NA					
MC B-8626	Halliburton	Biocide	Listed Below	Listed Below			0	NA					
OPTIFLO-III DELAYED RELEASE BREAKER	Halliburton	Breaker	Listed Below	Listed Below			0	NA					
OptiKleen-WF(TM)	Halliburton	Concentrate	Listed Below	Listed Below			0	NA					
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant	Listed Below	Listed Below			0	NA					
SAND-PREMIUM WHITE-30/50, BULK	Halliburton	Proppant	Listed Below	Listed Below			0	NA					
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Listed Below	Listed Below			0	NA					
EXCELERATE LX-1	Halliburton	Friction Reducer	Listed Below	Listed Below			0	NA					
FDP-S1225-15	Halliburton	Surfactant	Listed Below	Listed Below			0	NA					
FDP-S1248-16	Halliburton	Diverting Agent	Listed Below	Listed Below			0	NA					
LEGEND LD-7795	Halliburton	Scale Inhibitor	Listed Below	Listed Below			0	NA					

		Sodium chloride	7647-14-5	1.00%	0.00030%	585							
		Sodium perborate tetrahydrate	10486-00-7	100.00%	0.00512%	10066							
		Water	7732-18-5	100.00%	0.51052%	1003064							

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

v3.3

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.