District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number 4323
CHEVRON U.S.A. INC. 6301 DEAUVILLE BLVD MIDLAND, TX 79706	[3] Reason for Filing Code/ Effective Date NEW WELL 11/2017

[4] API Number	[5] Pool Name	[6] Pool Code
30 – 025-43642	JENNINGS; UPPER BONE SPRING, SHALE	97838
[7] Property Code	**[8] Property Name**	**[9] Well Number**
317456	SD WE 15 FED P9	7H

II. [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
O	15	26S	32E		12	SOUTH	1421	EAST	LEA

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	15	26S	32E		235	NORTH	444	EAST	LEA

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
F	FLOWING	11/01/2017			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
	WESTERN REFINING	O
	DBM	G
	OIL/MESQUITE/RECYCLE	W

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
04/20/2017	10/14/2017	13968	13912	9308 – 13,789'	-

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
17.5	13 3/8	651	827
12.25	9 5/8	4512	1494
8.75	5 1/2	13958	2612
	2 7/8	8727 ✓	

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
11/01/2017	11/01/2017	12/14/2017	24 HRS	850	36
[37] Choke Size	**[38] Oil**	**[39] Water**	**[40] Gas**		**[41] Test Method**
51/64	1019	1195	3637		FLOWING

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Denise Pinkerton

Printed name: DENISE PINKERTON

Title: PERMITTING SPECIALIST

E-mail Address: leakejd@chevron.com

Date: 12/20/2017

Phone: 432-687-7375

OIL CONSERVATION DIVISION

Approved by:

Title: Petroleum Engineer

Approval Date: 1-19-18

GCP 1-19-18

Pending BLM approvals will subsequently be reviewed and scanned

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. NMNM118723

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator CHEVRON U.S.A. INC.
Contact: DENISE PINKERTON
E-Mail: leakejd@chevron.com

8. Lease Name and Well No. SD WE 15 FED P9 7H

3. Address 6301 DEAUVILLE BLVD MIDLAND, TX 79706

3a. Phone No. (include area code) Ph: 432-687-7375

9. API Well No. 30-025-43642

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface 12FSL 1421FEL

At top prod interval reported below 235FNL 444FEL

At total depth 235FNL 444FEL

10. Field and Pool, or Exploratory JENNINGS;UPR BN SPR SH

11. Sec., T., R., M., or Block and Survey or Area Sec 15 T26S R32E Mer NMP

12. County or Parish LEA

13. State NM

14. Date Spudded 04/20/2017

15. Date T.D. Reached 05/13/2017

16. Date Completed ☐ D & A ☒ Ready to Prod. 10/14/2017

17. Elevations (DF, KB, RT, GL)* 3158 GL

18. Total Depth: MD 13968 TVD 9060

19. Plug Back T.D.: MD 13912 TVD

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J55	54.5	0	651		827		0	
12.250	9.625 L80	40.0	0	4512		1494		0	
8.750	5.500 HCP110	20.0	0	13958		2612		904	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8727	8727						

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) UPR BONE SPRING, SHALE	9308	13798	9308 TO 13789			PRODUCING *SEE DETAILED PE
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9308 TO 13798	FRAC WITH TOTAL PROPPANT - 7,227,593.00 LBS *SEE DETAILED FRAC SUMMARY

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/01/2017	12/14/2017	13	→						FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
51/64	850 SI	36.0	→	1019	3637	1195	3573	POW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #398626 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

Pending BLM approvals will subsequently be reviewed and scanned

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
CASTILE	2717	4548	ANHYDRITE	CASTILE	2717
LAMAR	4549	4577	LIMESTONE	LAMAR	4549
BELL CANYON	4578	5571	SANDSTONE	BELL CANYON	4578
CHERRY CANYON	5572	7196	SANDSTONE	CHERRY CANYON	5572
BRUSHY CANYON	7197	8808	SANDSTONE	BRUSHY CANYON	7197
BONE SPRING LIME	8809	8856	SHALE/LIMESTONE	BONE SPRING LIME	8809
UPPER AVALON	8857	13968	SHALE/LIMESTONE	UPPER AVALON	8857

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #398626 Verified by the BLM Well Information System.
For CHEVRON U.S.A. INC., sent to the Hobbs

Name *(please print)* DENISE PINKERTON Title PERMITTING SPECIALIST

Signature (Electronic Submission) Date 12/20/2017

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 fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM118723

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.
SD WE 15 FED P9 7H

2. Name of Operator
CHEVRON U.S.A. INC.
Contact: DENISE PINKERTON
E-Mail: leakejd@chevron.com

9. API Well No.
30-025-43642

3a. Address
6301 DEAUVILLE BLVD
MIDLAND, TX 79706

3b. Phone No. (include area code)
Ph: 432-687-7375

10. Field and Pool or Exploratory Area
JENNINGS;UPR BN SPR SH

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 15 T26S R32E Mer NMP 12FSL 1421FEL

11. County or Parish, State
LEA COUNTY, NM

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

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

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

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

PLEASE FIND ATTACHED:
*Daily drilling operations and completion info
*"As Drilled" C-102
*Wellbore Schematic
*Actual Wellpath Report
*Perforation Summary
*Frac Summary

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

Electronic Submission #398602 verified by the BLM Well Information System
For CHEVRON U.S.A. INC., sent to the Hobbs

Name *(Printed/Typed)* DENISE PINKERTON — Title PERMITTING SPECIALIST

Signature (Electronic Submission) — Date 12/20/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____

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 _____

Pending BLM approvals will subsequently be reviewed and scanned

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and ... 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 ****

Actual Wellpath Report

SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

Provide signature page for directional survey

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 15 Fed P9 No. 7H
Area	Lea County, NM	Well	SD WE 15 Federal P9 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 15 Fed P9 No.7H AWB
Facility	SD WE 15 Fed P9		

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	0.999959	Report Generated	5/18/2017 at 10:15:00 AM
Convergence at slot	0.36° East	Database/Source file	WA_Midland/SD_WE_15_Federal_P9_No._7H_awp_233__-_13902__Proj__13968_.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	709174.00	377297.00	32°02'07.826"N	103°39'29.929"W
Facility Reference Pt			709124.00	377296.00	32°02'07.819"N	103°39'30.510"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 X30 (KB) to Facility Vertical Datum	3190.60ft
Horizontal Reference Pt	Slot	Rig: Nabors X30 (KB) to Mean Sea Level	3190.60ft
Vertical Reference Pt	Rig: Nabors X30 (KB)	Rig: Nabors X30 (KB) to Ground Level at Slot (SD WE 15 Fed P9 No. 7H)	32.60ft
MD Reference Pt	Rig: Nabors X30 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.84°

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 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 15 Fed P9 No. 7H
Area	Lea County, NM	Well	SD WE 15 Federal P9 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 15 Fed P9 No.7H AWB
Facility	SD WE 15 Fed P9		

WELLPATH DATA (136 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	192.000	0.00	0.00	0.00	0.00	709174.00	377297.00	32°02'07.826"N	103°39'29.929"W	0.00	
32.60	0.000	192.000	32.60	0.00	0.00	0.00	709174.00	377297.00	32°02'07.826"N	103°39'29.929"W	0.00	
233.00	0.700	192.000	233.00	-1.20	-1.20	-0.25	709173.75	377295.80	32°02'07.814"N	103°39'29.932"W	0.35	
286.00	0.700	203.000	285.99	-1.81	-1.81	-0.45	709173.55	377295.19	32°02'07.808"N	103°39'29.934"W	0.25	
449.00	0.400	264.000	448.98	-2.78	-2.79	-1.40	709172.60	377294.21	32°02'07.798"N	103°39'29.945"W	0.38	
661.00	0.570	266.580	660.98	-2.92	-2.93	-3.19	709170.81	377294.07	32°02'07.797"N	103°39'29.966"W	0.08	
709.00	0.570	254.000	708.97	-3.00	-3.01	-3.66	709170.34	377293.99	32°02'07.796"N	103°39'29.971"W	0.26	
800.00	1.240	98.220	799.97	-3.27	-3.27	-3.12	709170.88	377293.73	32°02'07.794"N	103°39'29.965"W	1.95	
891.00	1.300	86.840	890.95	-3.35	-3.36	-1.11	709172.89	377293.64	32°02'07.793"N	103°39'29.942"W	0.28	
980.00	1.540	88.770	979.92	-3.28	-3.28	1.09	709175.09	377293.72	32°02'07.793"N	103°39'29.916"W	0.27	
1069.00	1.660	92.550	1068.88	-3.32	-3.31	3.57	709177.57	377293.69	32°02'07.793"N	103°39'29.887"W	0.18	
1157.00	1.720	87.930	1156.85	-3.33	-3.32	6.17	709180.17	377293.68	32°02'07.793"N	103°39'29.857"W	0.17	
1246.00	1.880	90.990	1245.80	-3.32	-3.29	8.96	709182.96	377293.71	32°02'07.793"N	103°39'29.825"W	0.21	
1334.00	1.820	93.420	1333.76	-3.44	-3.40	11.80	709185.80	377293.60	32°02'07.792"N	103°39'29.792"W	0.11	
1423.00	1.940	90.830	1422.71	-3.55	-3.51	14.72	709188.71	377293.49	32°02'07.790"N	103°39'29.758"W	0.17	
1512.00	2.070	94.230	1511.65	-3.70	-3.65	17.82	709191.82	377293.35	32°02'07.789"N	103°39'29.722"W	0.20	
1600.00	2.220	92.870	1599.59	-3.91	-3.85	21.11	709195.11	377293.15	32°02'07.787"N	103°39'29.684"W	0.18	
1689.00	2.270	91.040	1688.52	-4.04	-3.97	24.60	709198.59	377293.03	32°02'07.785"N	103°39'29.643"W	0.10	
1778.00	2.400	93.970	1777.45	-4.21	-4.13	28.22	709202.22	377292.87	32°02'07.783"N	103°39'29.601"W	0.20	
1866.00	2.540	92.820	1865.37	-4.44	-4.35	32.00	709206.00	377292.65	32°02'07.781"N	103°39'29.557"W	0.17	
1954.00	1.120	96.800	1953.32	-4.65	-4.55	34.80	709208.80	377292.45	32°02'07.779"N	103°39'29.525"W	1.62	
2043.00	0.510	134.440	2042.31	-5.03	-4.93	35.95	709209.95	377292.07	32°02'07.775"N	103°39'29.511"W	0.88	
2132.00	0.420	148.400	2131.31	-5.59	-5.49	36.40	709210.40	377291.51	32°02'07.769"N	103°39'29.506"W	0.16	
2221.00	0.730	177.810	2220.31	-6.43	-6.33	36.60	709210.60	377290.67	32°02'07.761"N	103°39'29.504"W	0.47	
2309.00	0.730	179.480	2308.30	-7.56	-7.45	36.62	709210.62	377289.55	32°02'07.750"N	103°39'29.504"W	0.02	
2399.00	1.120	88.390	2398.29	-8.11	-8.00	37.51	709211.51	377289.00	32°02'07.744"N	103°39'29.494"W	1.50	
2488.00	2.900	66.850	2487.23	-7.20	-7.09	40.45	709214.45	377289.91	32°02'07.753"N	103°39'29.459"W	2.14	
2577.00	3.930	67.830	2576.07	-5.18	-5.06	45.34	709219.34	377291.94	32°02'07.773"N	103°39'29.402"W	1.16	
2665.00	5.060	70.440	2663.80	-2.76	-2.62	51.79	709225.79	377294.38	32°02'07.797"N	103°39'29.327"W	1.30	
2754.00	6.140	70.660	2752.38	0.10	0.27	59.98	709233.98	377297.27	32°02'07.825"N	103°39'29.232"W	1.21	

Actual Wellpath Report

SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 15 Fed P9 No. 7H
Area	Lea County, NM	Well	SD WE 15 Federal P9 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 15 Fed P9 No.7H AWB
Facility	SD WE 15 Fed P9		

WELLPATH DATA (136 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
2843.00	7.680	79.000	2840.73	2.79	2.98	70.31	709244.31	377299.98	32°02'07.851"N	103°39'29.112"W	2.06	
2932.00	9.240	85.270	2928.76	4.47	4.71	83.27	709257.27	377301.71	32°02'07.867"N	103°39'28.961"W	2.03	
3021.00	9.290	87.170	3016.60	5.38	5.65	97.57	709271.56	377302.65	32°02'07.876"N	103°39'28.795"W	0.35	
3110.00	9.650	89.100	3104.39	5.81	6.12	112.20	709286.20	377303.12	32°02'07.880"N	103°39'28.625"W	0.54	
3198.00	11.230	87.530	3190.93	6.25	6.61	128.14	709302.13	377303.61	32°02'07.883"N	103°39'28.440"W	1.82	
3287.00	11.860	87.400	3278.13	6.99	7.40	145.93	709319.93	377304.40	32°02'07.890"N	103°39'28.233"W	0.71	
3376.00	12.310	86.610	3365.15	7.91	8.37	164.54	709338.53	377305.37	32°02'07.899"N	103°39'28.017"W	0.54	
3465.00	12.680	87.080	3452.04	8.92	9.43	183.77	709357.76	377306.43	32°02'07.908"N	103°39'27.793"W	0.43	
3553.00	13.140	87.720	3537.82	9.75	10.32	203.41	709377.40	377307.32	32°02'07.916"N	103°39'27.565"W	0.55	
3642.00	12.620	85.980	3624.58	10.78	11.41	223.21	709397.20	377308.40	32°02'07.925"N	103°39'27.335"W	0.73	
3730.00	11.800	85.280	3710.59	12.14	12.82	241.77	709415.76	377309.82	32°02'07.938"N	103°39'27.119"W	0.95	
3819.00	11.920	84.450	3797.69	13.73	14.46	259.99	709433.98	377311.46	32°02'07.953"N	103°39'26.908"W	0.23	
3908.00	12.000	87.230	3884.76	15.02	15.79	278.38	709452.37	377312.79	32°02'07.965"N	103°39'26.694"W	0.65	
3996.00	12.030	89.010	3970.83	15.57	16.39	296.68	709470.67	377313.39	32°02'07.970"N	103°39'26.481"W	0.42	
4085.00	11.950	90.540	4057.89	15.59	16.47	315.17	709489.16	377313.47	32°02'07.969"N	103°39'26.266"W	0.37	
4174.00	12.410	93.210	4144.89	14.91	15.84	333.93	709507.92	377312.84	32°02'07.962"N	103°39'26.049"W	0.82	
4262.00	13.340	97.410	4230.67	13.02	14.01	353.44	709527.43	377311.01	32°02'07.943"N	103°39'25.822"W	1.50	
4350.00	13.160	97.510	4316.33	10.34	11.39	373.44	709547.43	377308.39	32°02'07.916"N	103°39'25.590"W	0.21	
4439.00	11.180	92.840	4403.33	8.54	9.64	392.11	709566.09	377306.64	32°02'07.897"N	103°39'25.373"W	2.48	12 1/4 BHI MWD 661' - 4439'
4527.00	10.690	90.610	4489.73	7.98	9.13	408.79	709582.77	377306.13	32°02'07.891"N	103°39'25.179"W	0.74	
4703.00	10.800	85.140	4662.65	9.12	10.35	441.54	709615.52	377307.35	32°02'07.901"N	103°39'24.799"W	0.58	
4880.00	11.900	80.350	4836.19	13.48	14.81	476.06	709650.04	377311.81	32°02'07.943"N	103°39'24.398"W	0.82	
5057.00	12.150	78.490	5009.31	20.16	21.59	512.30	709686.28	377318.59	32°02'08.008"N	103°39'23.976"W	0.26	
5234.00	12.680	78.720	5182.17	27.57	29.11	549.61	709723.58	377326.10	32°02'08.080"N	103°39'23.542"W	0.30	
5411.00	12.030	79.810	5355.07	34.53	36.17	586.81	709760.79	377333.17	32°02'08.148"N	103°39'23.110"W	0.39	
5588.00	11.180	79.080	5528.45	40.95	42.68	621.82	709795.79	377339.68	32°02'08.210"N	103°39'22.702"W	0.49	
5767.00	11.760	77.500	5703.87	48.08	49.92	656.66	709830.64	377346.92	32°02'08.279"N	103°39'22.297"W	0.37	
5944.00	11.970	78.000	5877.09	55.71	57.64	692.23	709866.20	377354.64	32°02'08.353"N	103°39'21.883"W	0.13	
6120.00	12.320	78.190	6049.15	63.24	65.28	728.46	709902.43	377362.27	32°02'08.427"N	103°39'21.462"W	0.20	
6297.00	10.250	86.420	6222.73	68.00	70.13	762.67	709936.63	377367.12	32°02'08.473"N	103°39'21.064"W	1.48	

Actual Wellpath Report

SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 15 Fed P9 No. 7H
Area	Lea County, NM	Well	SD WE 15 Federal P9 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 15 Fed P9 No.7H AWB
Facility	SD WE 15 Fed P9		

WELLPATH DATA (136 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
6474.00	9.740	88.860	6397.05	69.19	71.41	793.35	709967.32	377368.40	32°02'08.483"N	103°39'20.708"W	0.37	
6651.00	9.290	89.790	6571.61	69.46	71.76	822.61	709996.57	377368.75	32°02'08.485"N	103°39'20.368"W	0.27	
6828.00	8.790	92.070	6746.41	68.95	71.32	850.41	710024.37	377368.32	32°02'08.479"N	103°39'20.045"W	0.35	
7006.00	8.430	93.320	6922.40	67.62	70.07	877.03	710050.99	377367.07	32°02'08.465"N	103°39'19.736"W	0.23	
7183.00	7.710	90.530	7097.65	66.69	69.21	901.85	710075.81	377366.21	32°02'08.455"N	103°39'19.448"W	0.46	
7360.00	6.590	91.240	7273.27	66.30	68.88	923.88	710097.84	377365.88	32°02'08.450"N	103°39'19.192"W	0.63	
7537.00	5.600	94.910	7449.27	65.29	67.92	942.64	710116.60	377364.92	32°02'08.440"N	103°39'18.974"W	0.60	
7714.00	4.720	98.910	7625.55	63.38	66.06	958.44	710132.40	377363.05	32°02'08.420"N	103°39'18.790"W	0.54	
7891.00	3.450	100.320	7802.10	61.26	63.98	970.87	710144.83	377360.97	32°02'08.399"N	103°39'18.646"W	0.72	
8068.00	2.650	104.950	7978.85	59.23	61.97	980.07	710154.02	377358.96	32°02'08.378"N	103°39'18.540"W	0.47	
8244.00	2.300	110.860	8154.68	56.90	59.66	987.30	710161.26	377356.66	32°02'08.355"N	103°39'18.456"W	0.25	
8421.00	1.570	114.790	8331.58	54.60	57.38	992.82	710166.78	377354.37	32°02'08.332"N	103°39'18.392"W	0.42	
8510.00	1.550	115.050	8420.55	53.58	56.36	995.02	710168.97	377353.35	32°02'08.322"N	103°39'18.366"W	0.02	
8578.00	1.180	119.550	8488.53	52.84	55.62	996.46	710170.42	377352.62	32°02'08.315"N	103°39'18.350"W	0.57	
8667.00	9.440	355.890	8577.15	59.68	62.47	996.73	710170.69	377359.46	32°02'08.382"N	103°39'18.346"W	11.39	
8755.00	20.000	356.260	8662.14	81.97	84.75	995.23	710169.19	377381.74	32°02'08.603"N	103°39'18.362"W	12.00	
8844.00	26.360	0.060	8743.92	116.95	119.73	994.26	710168.21	377416.72	32°02'08.949"N	103°39'18.370"W	7.34	
8933.00	32.340	0.100	8821.46	160.55	163.33	994.32	710168.28	377460.32	32°02'09.381"N	103°39'18.367"W	6.72	
9021.00	42.030	357.890	8891.49	213.66	216.44	993.27	710167.23	377513.43	32°02'09.906"N	103°39'18.375"W	11.11	
9110.00	52.870	356.010	8951.58	279.04	281.80	989.70	710163.65	377578.79	32°02'10.553"N	103°39'18.412"W	12.28	
9198.00	60.320	355.890	9000.00	352.28	355.03	984.51	710158.47	377652.01	32°02'11.278"N	103°39'18.467"W	8.47	
9287.00	70.750	356.000	9036.81	432.99	435.72	978.79	710152.75	377732.70	32°02'12.077"N	103°39'18.527"W	11.72	
9376.00	79.590	359.020	9059.57	518.86	521.58	975.10	710149.06	377818.56	32°02'12.927"N	103°39'18.564"W	10.46	
9469.00	86.830	0.600	9070.56	611.14	613.87	974.81	710148.77	377910.84	32°02'13.840"N	103°39'18.560"W	7.97	
9558.00	86.140	359.300	9076.01	699.97	702.70	974.73	710148.69	377999.67	32°02'14.719"N	103°39'18.555"W	1.65	
9646.00	87.900	359.290	9080.59	787.84	790.57	973.65	710147.61	378087.53	32°02'15.589"N	103°39'18.561"W	2.00	
9734.00	90.190	358.870	9082.05	875.82	878.54	972.24	710146.19	378175.50	32°02'16.459"N	103°39'18.571"W	2.65	
9823.00	91.880	358.200	9080.45	964.78	967.49	969.96	710143.92	378264.45	32°02'17.340"N	103°39'18.591"W	2.04	
9912.00	93.980	357.470	9075.90	1053.60	1056.30	966.60	710140.56	378353.26	32°02'18.219"N	103°39'18.623"W	2.50	
9995.00	93.270	359.310	9070.65	1136.40	1139.10	964.28	710138.24	378436.05	32°02'19.038"N	103°39'18.644"W	2.37	

Actual Wellpath Report

SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 15 Fed P9 No. 7H
Area	Lea County, NM	Well	SD WE 15 Federal P9 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 15 Fed P9 No.7H AWB
Facility	SD WE 15 Fed P9		

WELLPATH DATA (136 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
10084.00	92.160	359.490	9066.43	1225.30	1228.00	963.35	710137.31	378524.94	32°02'19.918"N	103°39'18.649"W	1.26	
10172.00	91.080	1.600	9063.95	1313.25	1315.95	964.18	710138.14	378612.89	32°02'20.788"N	103°39'18.633"W	2.69	
10261.00	88.400	0.920	9064.35	1402.22	1404.92	966.14	710140.10	378701.86	32°02'21.669"N	103°39'18.603"W	3.11	
10349.00	87.500	1.180	9067.50	1490.14	1492.85	967.75	710141.71	378789.78	32°02'22.539"N	103°39'18.578"W	1.06	
10438.00	88.430	2.280	9070.66	1579.03	1581.75	970.44	710144.40	378878.68	32°02'23.418"N	103°39'18.541"W	1.62	
10526.00	87.780	2.310	9073.57	1666.90	1669.63	973.96	710147.92	378966.56	32°02'24.288"N	103°39'18.493"W	0.74	
10614.00	88.640	2.750	9076.32	1754.76	1757.50	977.84	710151.80	379054.42	32°02'25.157"N	103°39'18.442"W	1.10	
10703.00	89.570	2.780	9077.71	1843.63	1846.38	982.13	710156.09	379143.30	32°02'26.036"N	103°39'18.385"W	1.05	
10791.00	91.940	1.080	9076.55	1931.56	1934.32	985.10	710159.06	379231.23	32°02'26.906"N	103°39'18.344"W	3.31	
10880.00	92.650	1.000	9072.98	2020.47	2023.23	986.71	710160.67	379320.14	32°02'27.786"N	103°39'18.319"W	0.80	
10968.00	92.900	0.080	9068.72	2108.36	2111.12	987.54	710161.50	379408.03	32°02'28.655"N	103°39'18.303"W	1.08	
11057.00	89.720	358.040	9066.69	2197.31	2200.07	986.08	710160.04	379496.98	32°02'29.536"N	103°39'18.314"W	4.24	
11146.00	87.380	356.240	9068.94	2286.17	2288.92	981.64	710155.60	379585.82	32°02'30.415"N	103°39'18.359"W	3.32	
11234.00	89.690	356.920	9071.19	2373.99	2376.73	976.39	710150.35	379673.63	32°02'31.285"N	103°39'18.413"W	2.74	
11323.00	92.070	357.120	9069.82	2462.87	2465.59	971.77	710145.73	379762.49	32°02'32.164"N	103°39'18.461"W	2.68	
11411.00	92.830	357.740	9066.06	2550.71	2553.42	967.83	710141.79	379850.31	32°02'33.034"N	103°39'18.500"W	1.11	
11499.00	86.850	358.060	9066.31	2638.62	2641.32	964.60	710138.56	379938.21	32°02'33.904"N	103°39'18.531"W	6.81	
11588.00	89.080	359.030	9069.47	2727.53	2730.23	962.35	710136.30	380027.11	32°02'34.783"N	103°39'18.551"W	2.73	
11676.00	89.290	358.890	9070.72	2815.51	2818.21	960.75	710134.71	380115.09	32°02'35.654"N	103°39'18.563"W	0.29	
11765.00	89.660	357.630	9071.54	2904.47	2907.16	958.05	710132.01	380204.04	32°02'36.535"N	103°39'18.588"W	1.48	
11853.00	90.990	359.960	9071.04	2992.45	2995.13	956.20	710130.15	380292.00	32°02'37.405"N	103°39'18.603"W	3.05	
11942.00	92.620	1.130	9068.23	3081.39	3084.08	957.04	710131.00	380380.95	32°02'38.285"N	103°39'18.587"W	2.25	
12030.00	94.440	0.300	9062.81	3169.21	3171.90	958.14	710132.10	380468.77	32°02'39.154"N	103°39'18.567"W	2.27	
12118.00	92.340	0.830	9057.61	3257.05	3259.74	959.00	710132.96	380556.60	32°02'40.023"N	103°39'18.551"W	2.46	
12207.00	91.700	1.400	9054.47	3345.97	3348.66	960.74	710134.69	380645.52	32°02'40.903"N	103°39'18.524"W	0.96	
12295.00	89.450	0.540	9053.59	3433.94	3436.64	962.22	710136.18	380733.49	32°02'41.774"N	103°39'18.501"W	2.74	
12383.00	90.370	0.000	9053.73	3521.94	3524.64	962.64	710136.60	380821.49	32°02'42.645"N	103°39'18.489"W	1.21	
12472.00	89.080	357.430	9054.16	3610.91	3613.61	960.64	710134.60	380910.45	32°02'43.525"N	103°39'18.506"W	3.23	
12561.00	87.960	358.850	9056.46	3699.84	3702.53	957.76	710131.72	380999.37	32°02'44.405"N	103°39'18.533"W	2.03	
12649.00	87.810	359.560	9059.70	3787.77	3790.46	956.54	710130.50	381087.29	32°02'45.275"N	103°39'18.541"W	0.82	

Actual Wellpath Report

SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 15 Fed P9 No. 7H
Area	Lea County, NM	Well	SD WE 15 Federal P9 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 15 Fed P9 No.7H AWB
Facility	SD WE 15 Fed P9		

WELLPATH DATA (136 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
12739.00	88.460	359.540	9062.63	3877.72	3880.41	955.83	710129.79	381177.24	32°02'46.166"N	103°39'18.542"W	0.72	
12827.00	89.010	359.080	9064.57	3965.70	3968.38	954.77	710128.73	381265.21	32°02'47.036"N	103°39'18.548"W	0.81	
12916.00	89.660	358.600	9065.61	4054.68	4057.35	952.97	710126.93	381354.18	32°02'47.917"N	103°39'18.563"W	0.91	
13004.00	91.970	0.000	9064.36	4142.65	4145.33	951.89	710125.85	381442.15	32°02'48.787"N	103°39'18.569"W	3.07	
13093.00	89.940	0.670	9062.87	4231.63	4234.31	952.41	710126.37	381531.13	32°02'49.668"N	103°39'18.556"W	2.40	
13181.00	90.190	0.710	9062.77	4319.62	4322.30	953.47	710127.43	381619.12	32°02'50.538"N	103°39'18.538"W	0.29	
13270.00	89.850	0.770	9062.74	4408.61	4411.30	954.62	710128.58	381708.11	32°02'51.419"N	103°39'18.518"W	0.39	
13358.00	89.780	1.010	9063.03	4496.60	4499.28	955.99	710129.95	381796.09	32°02'52.290"N	103°39'18.495"W	0.28	
13446.00	89.940	1.150	9063.24	4584.58	4587.27	957.65	710131.61	381884.07	32°02'53.160"N	103°39'18.470"W	0.24	
13535.00	90.830	1.050	9062.64	4673.55	4676.25	959.36	710133.32	381973.05	32°02'54.041"N	103°39'18.443"W	1.01	
13623.00	92.710	1.060	9059.92	4761.49	4764.19	960.98	710134.94	382060.98	32°02'54.911"N	103°39'18.418"W	2.14	
13712.00	89.850	0.750	9057.94	4850.44	4853.15	962.38	710136.34	382149.94	32°02'55.791"N	103°39'18.395"W	3.23	
13800.00	89.510	0.150	9058.43	4938.43	4941.14	963.07	710137.03	382237.93	32°02'56.662"N	103°39'18.381"W	0.78	
13889.00	89.820	359.830	9058.95	5027.43	5030.14	963.06	710137.02	382326.92	32°02'57.542"N	103°39'18.375"W	0.50	
13902.00	89.380	359.970	9059.04	5040.43	5043.14	963.03	710136.99	382339.92	32°02'57.671"N	103°39'18.374"W	3.55	8 3/4 BHI MWD 4527' - 13902'
13968.00	89.380	359.970	9059.75	5106.43	5109.14	963.00	710136.96	382405.92	32°02'58.324"N	103°39'18.370"W	0.00	Projection to TD: 13968'

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SD WE 15 Fed P9 No. 7H BHL rev 2	9078.00	5163.22	966.04	710140.00	382460.00	32°02'58.859"N	103°39'18.330"W	rectangle

Actual Wellpath Report

SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD WE 15 Fed P9 No. 7H
Area	Lea County, NM	Well	SD WE 15 Federal P9 No. 7H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD WE 15 Fed P9 No.7H AWB
Facility	SD WE 15 Fed P9		

WELLPATH COMPOSITION - Ref Wellbore: SD WE 15 Fed P9 No.7H AWB Ref Wellpath: SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.60	449.00	ISCWSA MWD, Rev. 4 (Standard)	Imported Survey 233' - 449'	SD WE 15 Fed P9 No.7H AWB
449.00	4439.00	BHI NaviTrak (Standard)	12 1/4 BHI MWD 661' - 4439'	SD WE 15 Fed P9 No.7H AWB
4439.00	13902.00	BHI NaviTrak (Standard)	8 3/4 BHI MWD 4527' - 13902'	SD WE 15 Fed P9 No.7H AWB
13902.00	13968.00	Blind Drilling (std)	Projection to bit	SD WE 15 Fed P9 No.7H AWB

Actual Wellpath Report

SD WE 15 Federal P9 No. 7H awp 233' - 13902' Proj: 13968'

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Chevron U.S.A. Inc.**	Slot	**SD WE 15 Fed P9 No. 7H**
Area	**Lea County, NM**	Well	**SD WE 15 Federal P9 No. 7H**
Field	**Jennings / Upper BN SPRN Shale (Lea County, NM)**	Wellbore	**SD WE 15 Fed P9 No.7H AWB**
Facility	**SD WE 15 Fed P9**		

COMMENTS

Wellpath general comments

Well: SD WE 15 Federal P9 No. 7H
Field: Jennings/Upper BN SPRN, Shale
Rig: Nabors X30
Location: Lea Co., NM
API: 30-025-43642-00
Latitude: 32° 02' 07.826" N
Longitude: 103° 39' 29.929" W
DF Elevation: 3190.6 feet
Elev. GL: 3158 feet
Proposed Direction: 359.84°
PBHL: 13968 feet
Duration: 05/01/2017-05/13/2017
FSE's: D. Hardeman
SO#: 8499559
12 1/4 BHI MWD 661' - 4439'
8 3/4 BHI MWD 4527' - 13902'
Projection to TD: 13968'

SD WE 15 FED P9 #7H 30-025-43642

DRILLED NEW OIL WELL AS FOLLOWS:

04/20/2017: **SPUD WELL.** Drill 150 – 659'. TD SURFACE HOLE.

SURFACE CASING

04/20/2017: **Run 13 3/8", 54.5#, J-55 STC surface casing & set @ 651'.**
Schlumberger cemented w/Tail 827 sx Class C cmt. DENSITY:14.80. YIELD:1.33. FLUID MIX RATIO:6.37.
Returns to surface. 118 bbls of cement to surface.

05/01/2017: Install test plug. Fill stack and choke manifold. Test BOPE to 250 psi low/5000 psi high) 3500 high on annular). Test 13 3/8" surface casing to 1500 psi for 30 minutes. Good test.
Drill out float eqpt, cmt, & rathole to 669'. Drill 10' new formation to 669'.

05/01/2017 through 05/02/2017: Drill 669 – 4512'.

INTERMEDIATE CASING

05/03/2017: **Run 9 5/8", 40#, L-80 LTC casing & set @ 4512.**
Schlumberger cemented w/Lead 1032 sx Class C Cmt. DENSITY:11.90. YIELD:2.43. FLUID MIX RATIO:13.98.
TAIL w/462 sx Class C cmt. DENSITY:14.80. YIELD:1.35. FLUID MIX RATIO:6.35.
Displace w/334 bbls of OBM. Bump plug w/500 psi over final circ pressure. Cement to surface. 185 bbls of cement. Full returns throughout job. Plug bumped at calc displacement.
Install packoff. Test to 5000 psi for 15 mins. Good test.

05/05/2017: TIH w/BHA #3. Tih to 4417. Test 9 5/8" intermediate casing to 2840 psi for 30 mins. Good test.
Drill out float eqpt, cmt, rathole & 10' of formation to 4522.

05/05/2017 through 05/13/2017: Drill 4522 – 13,968' TD

PRODUCTION CASING

05/14/2017: **Run 5 ½", 20#, HCP-110 BTC production casing & set @ 13,958'.**
Broke circulation with CRT every 2500'. Marker joint run @ KOP @ 8537.
Schlumberger cemented w/Lead 646 sx Class H cement. DENSITY:11.50. YIELD:2.77. FLUID MIX RATIO:16.19.
Lead 2 w/1853 sx Class H cmt. DENSITY:12.50. YIELD:1.57. FLUID MIX RATIO:8.47.
Tail w/113 sx Class H cmt. DENSITY:15.00. YIELD:2.18. FLUID MIX RATIO:9.55.
Displace cement w/308 bbls of FW. Bump plug. Hold 600 psi over. Cement to surface: 63 bbls of cement. Full returns throughout job. Plug bumped on proper displacement.
Conduct 30 min inflow/negative test.

05/15/2017: RELEASE RIG @ 09:15 hrs.

COMPLETED NEW DRILL AS FOLLOWS:

08/18/2017: MIRU.
08/20/2017: TIH W/CBL logging assembly. Stop @ 9221'. Log CBL 9221 to surface @ 60 ft/min.
TOC @ 904'.
08/24/2017: Test 5 1/2" production casing to 9800 psi for 30 mins. Good test. Estab injection rate. 18 bpm @ 5775 psi.

09/28/2017 through 10/14/2017: Perf & frac 23 stages Upper Bone Spring from 9308 – 13,789'.
Frac w/Total Proppant 7,227,593.00 lbs

**SEE ATTACHED DETAILED PERF & FRAC REPORT

11/01/2017: Place well on production

11/04/2017: Ran 2 7/8" tubing set @ 8727'. Packer @ 8727'.
Circulate hole with 200 bbls packer fluid.
Pressure test wellhead 250-4000# 15/15 on chart. Good test.

11/04/2017: RELEASE RIG

12/14/2017: On 24 hour OPT flowing:

- Oil – 1019
- Gas – 3637
- Water – 1195
- GOR – 3573
- Tubing psi – 850
- Casing psi – 36
- Choke – 51/64
- TOC - 904

SD WE 15 FED P9 #7H 30-025-43642 FRAC SUMMARY

Interval Number	Link to Proppant	Proppant Mass (lb)	Cum Proppant Mass (lb)
1	100 mesh, 100 Mesh, Bulk Sand	7,799.00	7,934.00
1	100 mesh, 100 Mesh, Bulk Sand	16,301.00	24,235.00
1	100 mesh, 100 Mesh, Bulk Sand	17,460.00	41,695.00
1	100 mesh, 100 Mesh, Bulk Sand	22,931.00	64,626.00
1	100 mesh, 100 Mesh, Bulk Sand	27,184.00	91,810.00
1	40/70, PW 40/70, Bulk Sand	17,110.00	109,072.00
1	40/70, PW 40/70, Bulk Sand	35,744.00	144,816.00
1	40/70, PW 40/70, Bulk Sand	61,885.00	206,701.00
1	40/70, PW 40/70, Bulk Sand	67,173.00	273,874.00
1	40/70, PW 40/70, Bulk Sand	48,120.00	321,994.00
2	100 mesh, 100 Mesh, Bulk Sand	7,051.00	7,051.00
2	100 mesh, 100 Mesh, Bulk Sand	19,701.00	26,752.00
2	100 mesh, 100 Mesh, Bulk Sand	19,127.00	45,879.00
2	100 mesh, 100 Mesh, Bulk Sand	32,740.00	78,619.00
2	100 mesh, 100 Mesh, Bulk Sand	29,311.00	107,930.00
2	40/70, PW 40/70, Bulk Sand	17,023.00	125,326.00
2	40/70, PW 40/70, Bulk Sand	34,693.00	160,019.00
2	40/70, PW 40/70, Bulk Sand	50,907.00	210,926.00
2	40/70, PW 40/70, Bulk Sand	64,855.00	275,781.00
2	40/70, PW 40/70, Bulk Sand	46,622.00	322,403.00
2	40/70, PW 40/70, Bulk Sand	1	322,404.00
3	100 mesh, 100 Mesh, Bulk Sand	4,407.00	4,809.00
3	100 mesh, 100 Mesh, Bulk Sand	9,042.00	13,851.00
3	100 mesh, 100 Mesh, Bulk Sand	10,134.00	23,985.00
3	100 mesh, 100 Mesh, Bulk Sand	19,045.00	43,030.00
3	100 mesh, 100 Mesh, Bulk Sand	12,896.00	55,926.00
3	40/70, PW 40/70, Bulk Sand	8,666.00	64,770.00
3	40/70, PW 40/70, Bulk Sand	16,456.00	81,226.00
3	40/70, PW 40/70, Bulk Sand	25,052.00	106,278.00
3	40/70, PW 40/70, Bulk Sand	32,288.00	138,566.00
3	40/70, PW 40/70, Bulk Sand	27,779.00	166,345.00
3	100 mesh, 100 Mesh, Bulk Sand	4,505.00	172,233.00
3	100 mesh, 100 Mesh, Bulk Sand	7,109.00	179,342.00
3	100 mesh, 100 Mesh, Bulk Sand	8,420.00	187,762.00
3	100 mesh, 100 Mesh, Bulk Sand	12,035.00	199,797.00
3	100 mesh, 100 Mesh, Bulk Sand	14,417.00	214,214.00
3	40/70, PW 40/70, Bulk Sand	7,238.00	222,013.00
3	40/70, PW 40/70, Bulk Sand	17,072.00	239,085.00
3	40/70, PW 40/70, Bulk Sand	24,148.00	263,233.00
3	40/70, PW 40/70, Bulk Sand	32,586.00	295,819.00
3	40/70, PW 40/70, Bulk Sand	26,233.00	322,052.00
4	100 mesh, 100 Mesh, Bulk Sand	1,261.00	1,351.00
4	100 mesh, 100 Mesh, Bulk Sand	6,544.00	7,895.00
4	100 mesh, 100 Mesh, Bulk Sand	10,221.00	18,116.00

4	100 mesh, 100 Mesh, Bulk Sand	18,211.00	36,327.00
4	100 mesh, 100 Mesh, Bulk Sand	16,780.00	53,107.00
4	40/70, PW 40/70, Bulk Sand	5,967.00	59,688.00
4	40/70, PW 40/70, Bulk Sand	18,224.00	77,912.00
4	40/70, PW 40/70, Bulk Sand	25,174.00	103,086.00
4	40/70, PW 40/70, Bulk Sand	32,286.00	135,372.00
4	40/70, PW 40/70, Bulk Sand	33,645.00	169,017.00
4	100 mesh, 100 Mesh, Bulk Sand	3,864.00	173,246.00
4	100 mesh, 100 Mesh, Bulk Sand	9,264.00	182,510.00
4	100 mesh, 100 Mesh, Bulk Sand	9,478.00	191,988.00
4	100 mesh, 100 Mesh, Bulk Sand	13,736.00	205,724.00
4	100 mesh, 100 Mesh, Bulk Sand	14,783.00	220,507.00
4	40/70, PW 40/70, Bulk Sand	7,020.00	227,589.00
4	40/70, PW 40/70, Bulk Sand	16,635.00	244,224.00
4	40/70, PW 40/70, Bulk Sand	22,014.00	266,238.00
4	40/70, PW 40/70, Bulk Sand	31,057.00	297,295.00
4	40/70, PW 40/70, Bulk Sand	25,379.00	322,674.00
5	100 mesh, 100 Mesh, Bulk Sand	4,754.00	5,412.00
5	100 mesh, 100 Mesh, Bulk Sand	9,978.00	15,390.00
5	100 mesh, 100 Mesh, Bulk Sand	9,969.00	25,359.00
5	100 mesh, 100 Mesh, Bulk Sand	16,975.00	42,334.00
5	100 mesh, 100 Mesh, Bulk Sand	11,136.00	53,470.00
5	40/70, PW 40/70, Bulk Sand	10,433.00	64,175.00
5	40/70, PW 40/70, Bulk Sand	17,699.00	81,874.00
5	40/70, PW 40/70, Bulk Sand	23,242.00	105,116.00
5	40/70, PW 40/70, Bulk Sand	32,725.00	137,841.00
5	40/70, PW 40/70, Bulk Sand	24,425.00	162,266.00
5	100 mesh, 100 Mesh, Bulk Sand	2,202.00	164,514.00
5	100 mesh, 100 Mesh, Bulk Sand	8,621.00	173,135.00
5	100 mesh, 100 Mesh, Bulk Sand	10,114.00	183,249.00
5	100 mesh, 100 Mesh, Bulk Sand	18,389.00	201,638.00
5	100 mesh, 100 Mesh, Bulk Sand	15,678.00	217,316.00
5	40/70, PW 40/70, Bulk Sand	4,636.00	221,987.00
5	40/70, PW 40/70, Bulk Sand	16,987.00	238,974.00
5	40/70, PW 40/70, Bulk Sand	24,884.00	263,858.00
5	40/70, PW 40/70, Bulk Sand	31,992.00	295,850.00
5	40/70, PW 40/70, Bulk Sand	25,558.00	321,408.00
6	100 mesh, 100 Mesh, Bulk Sand	8,438.00	34,770.00
6	100 mesh, 100 Mesh, Bulk Sand	10,515.00	45,285.00
6	100 mesh, 100 Mesh, Bulk Sand	9,105.00	54,390.00
6	100 mesh, 100 Mesh, Bulk Sand	14,476.00	68,866.00
6	100 mesh, 100 Mesh, Bulk Sand	12,327.00	81,193.00
6	40/70, PW 40/70, Bulk Sand	16,908.00	102,848.00
6	40/70, PW 40/70, Bulk Sand	24,873.00	127,721.00
6	40/70, PW 40/70, Bulk Sand	25,707.00	153,428.00
6	40/70, PW 40/70, Bulk Sand	27,468.00	180,896.00
6	40/70, PW 40/70, Bulk Sand	23,579.00	204,475.00

6	100 mesh, 100 Mesh, Bulk Sand	9,880.00	250,529.00
6	100 mesh, 100 Mesh, Bulk Sand	10,845.00	261,374.00
6	100 mesh, 100 Mesh, Bulk Sand	8,779.00	270,153.00
6	100 mesh, 100 Mesh, Bulk Sand	12,140.00	282,293.00
6	100 mesh, 100 Mesh, Bulk Sand	12,820.00	295,113.00
6	40/70, PW 40/70, Bulk Sand	16,133.00	316,073.00
6	40/70, PW 40/70, Bulk Sand	23,089.00	339,162.00
6	40/70, PW 40/70, Bulk Sand	25,467.00	364,629.00
6	40/70, PW 40/70, Bulk Sand	26,821.00	391,450.00
6	40/70, PW 40/70, Bulk Sand	24,285.00	415,735.00
7	100 mesh, 100 Mesh, Bulk Sand	3,957.00	4,195.00
7	100 mesh, 100 Mesh, Bulk Sand	8,146.00	12,341.00
7	100 mesh, 100 Mesh, Bulk Sand	9,532.00	21,873.00
7	100 mesh, 100 Mesh, Bulk Sand	16,240.00	38,113.00
7	100 mesh, 100 Mesh, Bulk Sand	15,763.00	53,876.00
7	40/70, PW 40/70, Bulk Sand	7,402.00	61,304.00
7	40/70, PW 40/70, Bulk Sand	17,120.00	78,424.00
7	40/70, PW 40/70, Bulk Sand	24,742.00	103,166.00
7	40/70, PW 40/70, Bulk Sand	32,335.00	135,501.00
7	40/70, PW 40/70, Bulk Sand	24,973.00	160,474.00
7	100 mesh, 100 Mesh, Bulk Sand	1,748.00	164,587.00
7	100 mesh, 100 Mesh, Bulk Sand	8,273.00	172,860.00
7	100 mesh, 100 Mesh, Bulk Sand	9,531.00	182,391.00
7	100 mesh, 100 Mesh, Bulk Sand	16,502.00	198,893.00
7	100 mesh, 100 Mesh, Bulk Sand	15,743.00	214,636.00
7	40/70, PW 40/70, Bulk Sand	6,448.00	221,783.00
7	40/70, PW 40/70, Bulk Sand	17,195.00	238,978.00
7	40/70, PW 40/70, Bulk Sand	24,866.00	263,844.00
7	40/70, PW 40/70, Bulk Sand	32,132.00	295,976.00
7	40/70, PW 40/70, Bulk Sand	25,653.00	321,629.00
8	100 mesh, 100 Mesh, Bulk Sand	5,081.00	5,293.00
8	100 mesh, 100 Mesh, Bulk Sand	8,819.00	14,112.00
8	100 mesh, 100 Mesh, Bulk Sand	10,177.00	24,289.00
8	100 mesh, 100 Mesh, Bulk Sand	16,337.00	40,626.00
8	100 mesh, 100 Mesh, Bulk Sand	21,163.00	61,789.00
8	40/70, PW 40/70, Bulk Sand	8,747.00	70,680.00
8	40/70, PW 40/70, Bulk Sand	17,166.00	87,846.00
8	40/70, PW 40/70, Bulk Sand	17,801.00	105,647.00
8	40/70, PW 40/70, Bulk Sand	29,682.00	135,329.00
8	40/70, PW 40/70, Bulk Sand	41,555.00	176,884.00
8	100 mesh, 100 Mesh, Bulk Sand	5,968.00	182,984.00
8	100 mesh, 100 Mesh, Bulk Sand	7,939.00	190,923.00
8	100 mesh, 100 Mesh, Bulk Sand	9,231.00	200,154.00
8	100 mesh, 100 Mesh, Bulk Sand	16,508.00	216,662.00
8	100 mesh, 100 Mesh, Bulk Sand	14,819.00	231,481.00
8	40/70, PW 40/70, Bulk Sand	6,320.00	237,801.00
8	40/70, PW 40/70, Bulk Sand	17,770.00	255,571.00

8	40/70, PW 40/70, Bulk Sand	19,453.00	275,024.00
8	40/70, PW 40/70, Bulk Sand	28,278.00	303,302.00
8	40/70, PW 40/70, Bulk Sand	29,825.00	333,127.00
9	100 mesh, 100 Mesh, Bulk Sand	4,120.00	4,123.00
9	100 mesh, 100 Mesh, Bulk Sand	8,407.00	12,530.00
9	100 mesh, 100 Mesh, Bulk Sand	9,355.00	21,885.00
9	100 mesh, 100 Mesh, Bulk Sand	16,682.00	38,567.00
9	100 mesh, 100 Mesh, Bulk Sand	15,857.00	54,424.00
9	40/70, PW 40/70, Bulk Sand	6,924.00	61,405.00
9	40/70, PW 40/70, Bulk Sand	17,015.00	78,420.00
9	40/70, PW 40/70, Bulk Sand	25,165.00	103,585.00
9	40/70, PW 40/70, Bulk Sand	31,724.00	135,309.00
9	40/70, PW 40/70, Bulk Sand	28,536.00	163,845.00
9	100 mesh, 100 Mesh, Bulk Sand	4,484.00	169,736.00
9	100 mesh, 100 Mesh, Bulk Sand	4,513.00	174,249.00
9	100 mesh, 100 Mesh, Bulk Sand	8,484.00	182,733.00
9	100 mesh, 100 Mesh, Bulk Sand	15,954.00	198,687.00
9	100 mesh, 100 Mesh, Bulk Sand	15,589.00	214,276.00
9	40/70, PW 40/70, Bulk Sand	7,110.00	221,770.00
9	40/70, PW 40/70, Bulk Sand	17,098.00	238,868.00
9	40/70, PW 40/70, Bulk Sand	24,761.00	263,629.00
9	40/70, PW 40/70, Bulk Sand	32,280.00	295,909.00
9	40/70, PW 40/70, Bulk Sand	25,834.00	321,743.00
10	100 mesh, 100 Mesh, Bulk Sand	6,889.00	7,061.00
10	100 mesh, 100 Mesh, Bulk Sand	9,310.00	16,371.00
10	100 mesh, 100 Mesh, Bulk Sand	10,683.00	27,054.00
10	100 mesh, 100 Mesh, Bulk Sand	17,284.00	44,338.00
10	100 mesh, 100 Mesh, Bulk Sand	10,334.00	54,672.00
10	40/70, PW 40/70, Bulk Sand	8,330.00	63,002.00
10	40/70, PW 40/70, Bulk Sand	15,439.00	78,441.00
10	40/70, PW 40/70, Bulk Sand	24,671.00	103,112.00
10	40/70, PW 40/70, Bulk Sand	32,233.00	135,345.00
10	40/70, PW 40/70, Bulk Sand	24,733.00	160,078.00
10	100 mesh, 100 Mesh, Bulk Sand	2,899.00	164,593.00
10	100 mesh, 100 Mesh, Bulk Sand	8,233.00	172,826.00
10	100 mesh, 100 Mesh, Bulk Sand	9,486.00	182,312.00
10	100 mesh, 100 Mesh, Bulk Sand	16,294.00	198,606.00
10	100 mesh, 100 Mesh, Bulk Sand	11,659.00	210,265.00
10	40/70, PW 40/70, Bulk Sand	7,156.00	217,482.00
10	40/70, PW 40/70, Bulk Sand	21,099.00	238,581.00
10	40/70, PW 40/70, Bulk Sand	25,137.00	263,718.00
10	40/70, PW 40/70, Bulk Sand	32,416.00	296,134.00
10	40/70, PW 40/70, Bulk Sand	25,498.00	321,632.00
11	100 mesh, 100 Mesh, Bulk Sand	3,676.00	3,676.00
11	100 mesh, 100 Mesh, Bulk Sand	8,218.00	11,894.00
11	100 mesh, 100 Mesh, Bulk Sand	9,483.00	21,377.00
11	100 mesh, 100 Mesh, Bulk Sand	16,382.00	37,759.00

11	100 mesh, 100 Mesh, Bulk Sand	12,542.00	50,301.00
11	40/70, PW 40/70, Bulk Sand	10,391.00	60,842.00
11	40/70, PW 40/70, Bulk Sand	17,097.00	77,939.00
11	40/70, PW 40/70, Bulk Sand	24,828.00	102,767.00
11	40/70, PW 40/70, Bulk Sand	32,244.00	135,011.00
11	40/70, PW 40/70, Bulk Sand	25,106.00	160,117.00
11	100 mesh, 100 Mesh, Bulk Sand	4,335.00	164,551.00
11	100 mesh, 100 Mesh, Bulk Sand	7,892.00	172,443.00
11	100 mesh, 100 Mesh, Bulk Sand	9,497.00	181,940.00
11	100 mesh, 100 Mesh, Bulk Sand	16,349.00	198,289.00
11	100 mesh, 100 Mesh, Bulk Sand	15,917.00	214,206.00
11	40/70, PW 40/70, Bulk Sand	7,120.00	221,331.00
11	40/70, PW 40/70, Bulk Sand	17,652.00	238,983.00
11	40/70, PW 40/70, Bulk Sand	24,699.00	263,682.00
11	40/70, PW 40/70, Bulk Sand	32,385.00	296,067.00
11	40/70, PW 40/70, Bulk Sand	24,837.00	320,904.00
12	100 mesh, 100 Mesh, Bulk Sand	4,071.00	4,148.00
12	100 mesh, 100 Mesh, Bulk Sand	8,149.00	12,297.00
12	100 mesh, 100 Mesh, Bulk Sand	10,951.00	23,248.00
12	100 mesh, 100 Mesh, Bulk Sand	15,471.00	38,719.00
12	100 mesh, 100 Mesh, Bulk Sand	15,087.00	53,806.00
12	40/70, PW 40/70, Bulk Sand	7,093.00	60,912.00
12	40/70, PW 40/70, Bulk Sand	17,442.00	78,354.00
12	40/70, PW 40/70, Bulk Sand	24,817.00	103,171.00
12	40/70, PW 40/70, Bulk Sand	32,220.00	135,391.00
12	40/70, PW 40/70, Bulk Sand	26,342.00	161,733.00
12	100 mesh, 100 Mesh, Bulk Sand	4,414.00	166,217.00
12	100 mesh, 100 Mesh, Bulk Sand	6,723.00	172,940.00
12	100 mesh, 100 Mesh, Bulk Sand	9,394.00	182,334.00
12	100 mesh, 100 Mesh, Bulk Sand	16,343.00	198,677.00
12	100 mesh, 100 Mesh, Bulk Sand	15,346.00	214,023.00
12	40/70, PW 40/70, Bulk Sand	8,028.00	222,115.00
12	40/70, PW 40/70, Bulk Sand	16,831.00	238,946.00
12	40/70, PW 40/70, Bulk Sand	25,303.00	264,249.00
12	40/70, PW 40/70, Bulk Sand	32,123.00	296,372.00
12	40/70, PW 40/70, Bulk Sand	25,221.00	321,593.00
13	100 mesh, 100 Mesh, Bulk Sand	80	80
13	100 mesh, 100 Mesh, Bulk Sand	3,416.00	3,496.00
13	100 mesh, 100 Mesh, Bulk Sand	8,639.00	12,135.00
13	100 mesh, 100 Mesh, Bulk Sand	11,482.00	23,617.00
13	40/70, PW 40/70, Bulk Sand	13,862.00	54,141.00
13	40/70, PW 40/70, Bulk Sand	252	54,393.00
13	40/70, PW 40/70, Bulk Sand	8,322.00	62,715.00
13	40/70, PW 40/70, Bulk Sand	17,139.00	79,854.00
13	40/70, PW 40/70, Bulk Sand	24,007.00	103,861.00
13	100 mesh, 100 Mesh, Bulk Sand	115	160,865.00
13	100 mesh, 100 Mesh, Bulk Sand	3,751.00	164,616.00

13	40/70, PW 40/70, Bulk Sand	8,931.00	182,248.00
13	40/70, PW 40/70, Bulk Sand	14,544.00	196,792.00
13	40/70, PW 40/70, Bulk Sand	13,741.00	210,533.00
13	40/70, PW 40/70, Bulk Sand	25	210,558.00
13	40/70, PW 40/70, Bulk Sand	9,128.00	219,686.00
14	100 mesh, 100 Mesh, Bulk Sand	4,533.00	4,561.00
14	100 mesh, 100 Mesh, Bulk Sand	8,175.00	12,736.00
14	100 mesh, 100 Mesh, Bulk Sand	9,227.00	21,963.00
14	100 mesh, 100 Mesh, Bulk Sand	16,255.00	38,218.00
14	100 mesh, 100 Mesh, Bulk Sand	14,922.00	53,140.00
14	40/70, PW 40/70, Bulk Sand	8,142.00	61,341.00
14	40/70, PW 40/70, Bulk Sand	17,112.00	78,453.00
14	40/70, PW 40/70, Bulk Sand	24,760.00	103,213.00
14	40/70, PW 40/70, Bulk Sand	32,291.00	135,504.00
14	40/70, PW 40/70, Bulk Sand	24,981.00	160,485.00
14	100 mesh, 100 Mesh, Bulk Sand	4,115.00	164,630.00
14	100 mesh, 100 Mesh, Bulk Sand	8,191.00	172,821.00
14	100 mesh, 100 Mesh, Bulk Sand	9,585.00	182,406.00
14	100 mesh, 100 Mesh, Bulk Sand	16,738.00	199,144.00
14	100 mesh, 100 Mesh, Bulk Sand	14,790.00	213,934.00
14	40/70, PW 40/70, Bulk Sand	7,765.00	221,800.00
14	40/70, PW 40/70, Bulk Sand	17,199.00	238,999.00
14	40/70, PW 40/70, Bulk Sand	24,785.00	263,784.00
14	40/70, PW 40/70, Bulk Sand	32,113.00	295,897.00
14	40/70, PW 40/70, Bulk Sand	24,992.00	320,889.00
15	100 mesh, 100 Mesh, Bulk Sand	4,065.00	4,167.00
15	100 mesh, 100 Mesh, Bulk Sand	8,691.00	12,858.00
15	100 mesh, 100 Mesh, Bulk Sand	9,329.00	22,187.00
15	100 mesh, 100 Mesh, Bulk Sand	16,727.00	38,914.00
15	100 mesh, 100 Mesh, Bulk Sand	12,999.00	51,913.00
15	40/70, PW 40/70, Bulk Sand	8,403.00	60,600.00
15	40/70, PW 40/70, Bulk Sand	16,594.00	77,194.00
15	40/70, PW 40/70, Bulk Sand	24,178.00	101,372.00
15	40/70, PW 40/70, Bulk Sand	31,138.00	132,510.00
15	40/70, PW 40/70, Bulk Sand	28,323.00	160,833.00
15	100 mesh, 100 Mesh, Bulk Sand	4,352.00	165,195.00
15	100 mesh, 100 Mesh, Bulk Sand	9,187.00	174,382.00
15	100 mesh, 100 Mesh, Bulk Sand	11,037.00	185,419.00
15	100 mesh, 100 Mesh, Bulk Sand	14,911.00	200,330.00
15	100 mesh, 100 Mesh, Bulk Sand	12,608.00	212,938.00
15	40/70, PW 40/70, Bulk Sand	8,505.00	221,470.00
15	40/70, PW 40/70, Bulk Sand	17,072.00	238,542.00
15	40/70, PW 40/70, Bulk Sand	23,608.00	262,150.00
15	40/70, PW 40/70, Bulk Sand	32,933.00	295,083.00
15	40/70, PW 40/70, Bulk Sand	24,349.00	319,432.00
16	100 mesh, 100 Mesh, Bulk Sand	3,471.00	3,509.00
16	100 mesh, 100 Mesh, Bulk Sand	7,984.00	11,493.00

16	100 mesh, 100 Mesh, Bulk Sand	9,276.00	20,769.00
16	100 mesh, 100 Mesh, Bulk Sand	16,198.00	36,967.00
16	100 mesh, 100 Mesh, Bulk Sand	17,782.00	54,749.00
16	40/70, PW 40/70, Bulk Sand	8,107.00	62,911.00
16	40/70, PW 40/70, Bulk Sand	17,563.00	80,474.00
16	40/70, PW 40/70, Bulk Sand	25,865.00	106,339.00
16	40/70, PW 40/70, Bulk Sand	31,820.00	138,159.00
16	40/70, PW 40/70, Bulk Sand	22,896.00	161,055.00
16	100 mesh, 100 Mesh, Bulk Sand	3,548.00	164,614.00
16	100 mesh, 100 Mesh, Bulk Sand	8,294.00	172,908.00
16	100 mesh, 100 Mesh, Bulk Sand	9,419.00	182,327.00
16	100 mesh, 100 Mesh, Bulk Sand	16,357.00	198,684.00
16	100 mesh, 100 Mesh, Bulk Sand	15,073.00	213,757.00
16	40/70, PW 40/70, Bulk Sand	7,996.00	221,790.00
16	40/70, PW 40/70, Bulk Sand	17,110.00	238,900.00
16	40/70, PW 40/70, Bulk Sand	24,905.00	263,805.00
16	40/70, PW 40/70, Bulk Sand	32,014.00	295,819.00
16	40/70, PW 40/70, Bulk Sand	26,453.00	322,272.00
17	100 mesh, 100 Mesh, Bulk Sand	4,083.00	4,223.00
17	100 mesh, 100 Mesh, Bulk Sand	8,366.00	12,589.00
17	100 mesh, 100 Mesh, Bulk Sand	9,249.00	21,838.00
17	100 mesh, 100 Mesh, Bulk Sand	16,340.00	38,178.00
17	100 mesh, 100 Mesh, Bulk Sand	15,442.00	53,620.00
17	40/70, PW 40/70, Bulk Sand	7,719.00	61,355.00
17	40/70, PW 40/70, Bulk Sand	17,031.00	78,386.00
17	40/70, PW 40/70, Bulk Sand	24,882.00	103,268.00
17	40/70, PW 40/70, Bulk Sand	32,162.00	135,430.00
17	40/70, PW 40/70, Bulk Sand	25,081.00	160,511.00
17	100 mesh, 100 Mesh, Bulk Sand	4,108.00	164,638.00
17	100 mesh, 100 Mesh, Bulk Sand	8,252.00	172,890.00
17	100 mesh, 100 Mesh, Bulk Sand	9,687.00	182,577.00
17	100 mesh, 100 Mesh, Bulk Sand	16,304.00	198,881.00
17	100 mesh, 100 Mesh, Bulk Sand	13,926.00	212,807.00
17	40/70, PW 40/70, Bulk Sand	8,987.00	221,831.00
17	40/70, PW 40/70, Bulk Sand	17,072.00	238,903.00
17	40/70, PW 40/70, Bulk Sand	24,814.00	263,717.00
17	40/70, PW 40/70, Bulk Sand	32,242.00	295,959.00
17	40/70, PW 40/70, Bulk Sand	24,722.00	320,681.00
18	100 mesh, 100 Mesh, Bulk Sand	4,052.00	4,336.00
18	100 mesh, 100 Mesh, Bulk Sand	8,053.00	12,389.00
18	100 mesh, 100 Mesh, Bulk Sand	9,420.00	21,809.00
18	100 mesh, 100 Mesh, Bulk Sand	16,375.00	38,184.00
18	100 mesh, 100 Mesh, Bulk Sand	15,685.00	53,869.00
18	40/70, PW 40/70, Bulk Sand	7,496.00	61,368.00
18	40/70, PW 40/70, Bulk Sand	17,078.00	78,446.00
18	40/70, PW 40/70, Bulk Sand	24,662.00	103,108.00
18	40/70, PW 40/70, Bulk Sand	31,834.00	134,942.00

18	40/70, PW 40/70, Bulk Sand	24,811.00	159,753.00
18	100 mesh, 100 Mesh, Bulk Sand	4,569.00	164,730.00
18	100 mesh, 100 Mesh, Bulk Sand	8,142.00	172,872.00
18	100 mesh, 100 Mesh, Bulk Sand	9,493.00	182,365.00
18	100 mesh, 100 Mesh, Bulk Sand	16,261.00	198,626.00
18	100 mesh, 100 Mesh, Bulk Sand	14,374.00	213,000.00
18	40/70, PW 40/70, Bulk Sand	8,805.00	221,840.00
18	40/70, PW 40/70, Bulk Sand	17,051.00	238,891.00
18	40/70, PW 40/70, Bulk Sand	26,968.00	265,859.00
18	40/70, PW 40/70, Bulk Sand	30,033.00	295,892.00
18	40/70, PW 40/70, Bulk Sand	26,704.00	322,596.00
19	100 mesh, 100 Mesh, Bulk Sand	4,014.00	4,100.00
19	100 mesh, 100 Mesh, Bulk Sand	8,245.00	12,345.00
19	100 mesh, 100 Mesh, Bulk Sand	9,487.00	21,832.00
19	100 mesh, 100 Mesh, Bulk Sand	16,301.00	38,133.00
19	100 mesh, 100 Mesh, Bulk Sand	15,642.00	53,775.00
19	40/70, PW 40/70, Bulk Sand	7,470.00	61,338.00
19	40/70, PW 40/70, Bulk Sand	17,087.00	78,425.00
19	40/70, PW 40/70, Bulk Sand	25,518.00	103,943.00
19	40/70, PW 40/70, Bulk Sand	31,770.00	135,713.00
19	40/70, PW 40/70, Bulk Sand	24,972.00	160,685.00
19	100 mesh, 100 Mesh, Bulk Sand	3,935.00	164,627.00
19	100 mesh, 100 Mesh, Bulk Sand	8,194.00	172,821.00
19	100 mesh, 100 Mesh, Bulk Sand	9,531.00	182,352.00
19	100 mesh, 100 Mesh, Bulk Sand	16,348.00	198,700.00
19	100 mesh, 100 Mesh, Bulk Sand	15,714.00	214,414.00
19	40/70, PW 40/70, Bulk Sand	7,552.00	221,982.00
19	40/70, PW 40/70, Bulk Sand	16,930.00	238,912.00
19	40/70, PW 40/70, Bulk Sand	24,726.00	263,638.00
19	40/70, PW 40/70, Bulk Sand	32,264.00	295,902.00
19	40/70, PW 40/70, Bulk Sand	25,422.00	321,324.00
20	100 mesh, 100 Mesh, Bulk Sand	4,261.00	4,527.00
20	100 mesh, 100 Mesh, Bulk Sand	8,103.00	12,630.00
20	100 mesh, 100 Mesh, Bulk Sand	10,705.00	23,335.00
20	100 mesh, 100 Mesh, Bulk Sand	15,062.00	38,397.00
20	100 mesh, 100 Mesh, Bulk Sand	14,027.00	52,424.00
20	40/70, PW 40/70, Bulk Sand	9,185.00	61,644.00
20	40/70, PW 40/70, Bulk Sand	16,799.00	78,443.00
20	40/70, PW 40/70, Bulk Sand	24,742.00	103,185.00
20	40/70, PW 40/70, Bulk Sand	32,171.00	135,356.00
20	40/70, PW 40/70, Bulk Sand	22,242.00	157,598.00
20	100 mesh, 100 Mesh, Bulk Sand	6,896.00	164,574.00
20	100 mesh, 100 Mesh, Bulk Sand	8,258.00	172,832.00
20	100 mesh, 100 Mesh, Bulk Sand	9,491.00	182,323.00
20	100 mesh, 100 Mesh, Bulk Sand	16,800.00	199,123.00
20	100 mesh, 100 Mesh, Bulk Sand	14,843.00	213,966.00
20	40/70, PW 40/70, Bulk Sand	8,050.00	222,105.00

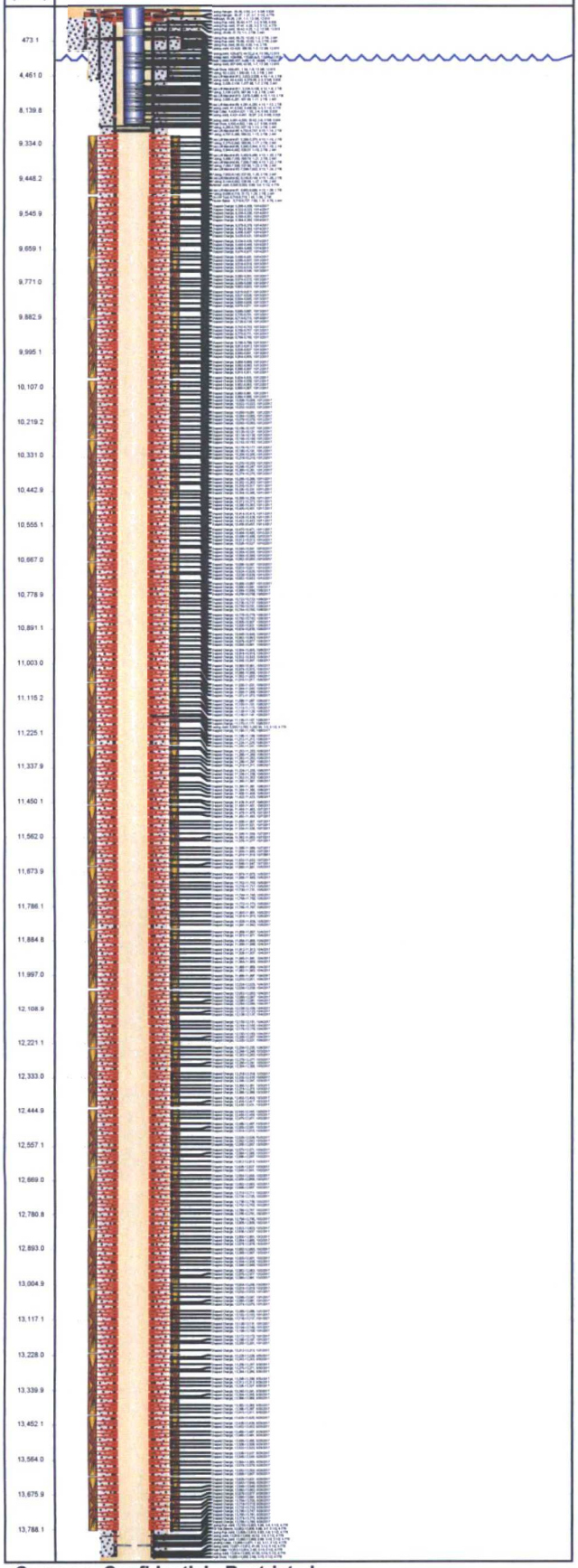
20	40/70, PW 40/70, Bulk Sand	16,147.00	238,252.00
20	40/70, PW 40/70, Bulk Sand	25,419.00	263,671.00
20	40/70, PW 40/70, Bulk Sand	32,124.00	295,795.00
20	40/70, PW 40/70, Bulk Sand	24,841.00	320,636.00
21	100 mesh, 100 Mesh, Bulk Sand	3,962.00	3,962.00
21	100 mesh, 100 Mesh, Bulk Sand	8,326.00	12,288.00
21	100 mesh, 100 Mesh, Bulk Sand	9,638.00	21,926.00
21	100 mesh, 100 Mesh, Bulk Sand	16,876.00	38,802.00
21	100 mesh, 100 Mesh, Bulk Sand	14,499.00	53,301.00
21	40/70, PW 40/70, Bulk Sand	8,076.00	61,377.00
21	40/70, PW 40/70, Bulk Sand	17,110.00	78,487.00
21	40/70, PW 40/70, Bulk Sand	24,699.00	103,186.00
21	40/70, PW 40/70, Bulk Sand	32,273.00	135,459.00
21	40/70, PW 40/70, Bulk Sand	25,810.00	161,269.00
21	100 mesh, 100 Mesh, Bulk Sand	3,203.00	164,666.00
21	100 mesh, 100 Mesh, Bulk Sand	8,192.00	172,858.00
21	100 mesh, 100 Mesh, Bulk Sand	9,528.00	182,386.00
21	100 mesh, 100 Mesh, Bulk Sand	16,961.00	199,347.00
21	100 mesh, 100 Mesh, Bulk Sand	13,142.00	212,489.00
21	40/70, PW 40/70, Bulk Sand	9,242.00	221,733.00
21	40/70, PW 40/70, Bulk Sand	17,563.00	239,296.00
21	40/70, PW 40/70, Bulk Sand	24,300.00	263,596.00
21	40/70, PW 40/70, Bulk Sand	32,279.00	295,875.00
21	40/70, PW 40/70, Bulk Sand	25,618.00	321,493.00
22	100 mesh, 100 Mesh, Bulk Sand	3,955.00	4,113.00
22	100 mesh, 100 Mesh, Bulk Sand	8,645.00	12,758.00
22	100 mesh, 100 Mesh, Bulk Sand	9,292.00	22,050.00
22	100 mesh, 100 Mesh, Bulk Sand	16,129.00	38,179.00
22	100 mesh, 100 Mesh, Bulk Sand	14,727.00	52,906.00
22	40/70, PW 40/70, Bulk Sand	8,451.00	61,357.00
22	40/70, PW 40/70, Bulk Sand	17,326.00	78,683.00
22	40/70, PW 40/70, Bulk Sand	26,315.00	104,998.00
22	40/70, PW 40/70, Bulk Sand	30,325.00	135,323.00
22	40/70, PW 40/70, Bulk Sand	25,228.00	160,551.00
22	100 mesh, 100 Mesh, Bulk Sand	3,729.00	164,560.00
22	100 mesh, 100 Mesh, Bulk Sand	8,312.00	172,872.00
22	100 mesh, 100 Mesh, Bulk Sand	9,460.00	182,332.00
22	100 mesh, 100 Mesh, Bulk Sand	16,341.00	198,673.00
22	100 mesh, 100 Mesh, Bulk Sand	14,959.00	213,632.00
22	40/70, PW 40/70, Bulk Sand	8,238.00	221,870.00
22	40/70, PW 40/70, Bulk Sand	17,059.00	238,929.00
22	40/70, PW 40/70, Bulk Sand	24,704.00	263,633.00
22	40/70, PW 40/70, Bulk Sand	32,275.00	295,908.00
22	40/70, PW 40/70, Bulk Sand	26,546.00	322,454.00
23	100 mesh, 100 Mesh, Bulk Sand	8,175.00	8,240.00
23	100 mesh, 100 Mesh, Bulk Sand	8,480.00	16,720.00
23	100 mesh, 100 Mesh, Bulk Sand	8,703.00	25,423.00

23	100 mesh, 100 Mesh, Bulk Sand	13,401.00	38,824.00
23	100 mesh, 100 Mesh, Bulk Sand	19,679.00	58,503.00
23	40/70, PW 40/70, Bulk Sand	6,909.00	65,486.00
23	40/70, PW 40/70, Bulk Sand	17,226.00	82,712.00
23	40/70, PW 40/70, Bulk Sand	25,119.00	107,831.00
23	40/70, PW 40/70, Bulk Sand	32,322.00	140,153.00
23	40/70, PW 40/70, Bulk Sand	20,423.00	160,576.00
23	100 mesh, 100 Mesh, Bulk Sand	3,954.00	164,543.00
23	100 mesh, 100 Mesh, Bulk Sand	8,428.00	172,971.00
23	100 mesh, 100 Mesh, Bulk Sand	11,240.00	184,211.00
23	100 mesh, 100 Mesh, Bulk Sand	15,463.00	199,674.00
23	100 mesh, 100 Mesh, Bulk Sand	14,769.00	214,443.00
23	40/70, PW 40/70, Bulk Sand	7,647.00	222,091.00
23	40/70, PW 40/70, Bulk Sand	17,049.00	239,140.00
23	40/70, PW 40/70, Bulk Sand	24,503.00	263,643.00
23	40/70, PW 40/70, Bulk Sand	32,215.00	295,858.00
23	40/70, PW 40/70, Bulk Sand	24,212.00	320,070.00
	TOTAL =	**7,227,593.00**	

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:36 PM



Job Details

Job Category	Start Date	Rig/Unit End Date
Completion	11/3/2017	11/4/2017

Casing Strings

Csg Des	OD (in)	Wt/Len (lb/ft)	Grade	Top Thread	Set Depth (MD) (ftKB)
Surface	13 3/8	54.50	J-55	ST&C	651
Intermediate Casing 1	9 5/8	40.00	HCL-80	LTC	4,502
Production Casing	5 1/2	20.00	HCP-110	TXP-BTC-S	13,958

Tubing Strings

Production tubing. set at 8,727.0ftKB on 11/4/2017 17:00

Tubing Description	Run Date	String Length (ft)	Set Depth (MD) (ftKB)
Production tubing.	11/4/2017	8,692.49	8,727.0

Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Btm (ftKB)
Tubing	1	2 7/8	6.50	L-80	31.70	66.2
Tubing Pup Joint	1	2 7/8	6.50	L-80	10.00	76.2
Tubing Pup Joint	1	2 7/8	6.50	L-80	10.00	86.2
Tubing Pup Joint	1	2 7/8	6.50	L80	6.00	92.2
Tubing	61	2 7/8	6.50	L-80	1,930.00	2,022.2
Gas Lift Mandrel #12	1	2 7/8			4.10	2,026.3
Tubing	34	2 7/8	6.50	L-80	1,077.66	3,104.0
Gas Lift Mandrel #11	1	2 7/8			4.10	3,108.1
Tubing	18	2 7/8	6.50	L-80	567.46	3,675.5
Gas Lift Mandrel #10	1	2 7/8			4.10	3,679.6
Tubing	19	2 7/8	6.50	L-80	601.68	4,281.3
Gas Lift Mandrel #9	1	2 7/8			4.10	4,285.4
Tubing	16	2 7/8	6.50	L-80	507.19	4,792.6
Gas Lift Mandrel #8	1	2 7/8			4.10	4,796.7
Tubing	18	2 7/8	6.50	L-80	569.52	5,366.2
Gas Lift Mandrel #7	1	2 7/8			4.10	5,370.3
Tubing	18	2 7/8	6.50	L-80	569.86	5,940.2
Gas Lift Mandrel #6	1	2 7/8			4.10	5,944.3
Tubing	17	2 7/8	6.50	L-80	538.07	6,482.4
Gas Lift Mandrel #5	1	2 7/8			4.10	6,486.5
Tubing	18	2 7/8	6.50	L-80	569.74	7,056.2
Gas Lift Mandrel #4	1	2 7/8			4.10	7,060.3
Tubing	17	2 7/8	6.50	L-80	537.86	7,598.2
Gas Lift Mandrel #3	1	2 7/8			4.10	7,602.3
Tubing	17	2 7/8	6.50	L-80	537.65	8,139.9
Gas Lift Mandrel #2	1	2 7/8			4.10	8,144.0
Tubing	17	2 7/8	6.50	L-80	538.08	8,682.1
Gas Lift Mandrel #1	1	2 7/8			4.10	8,686.2
Tubing	1	2 7/8	6.50	L-80	31.72	8,717.9
On-Off Tool	1	2 7/8			1.45	8,719.4
Packer Baker	1	4.778			7.65	8,727.0

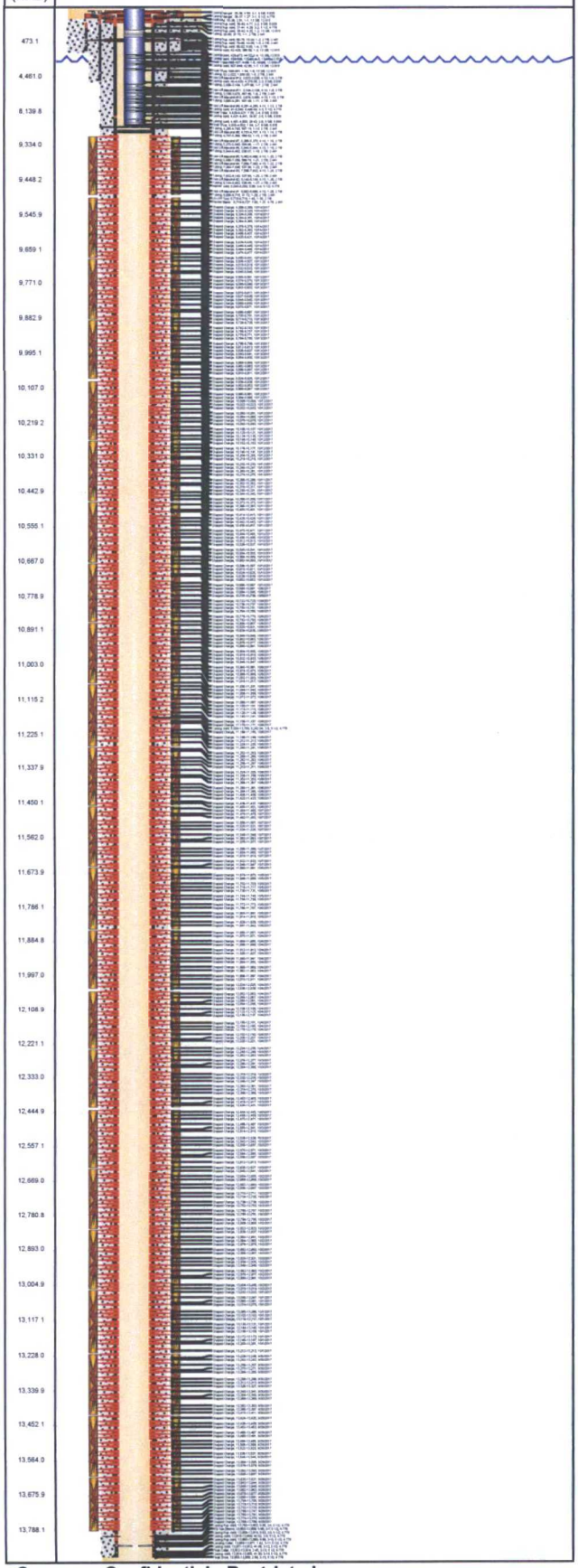
Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
10/14/2017	9,308.0	9,309.0	2.0	2	Avalon, Original Hole
10/14/2017	9,322.0	9,323.0	2.0	2	Avalon, Original Hole
10/14/2017	9,334.0	9,335.0	2.0	2	Avalon, Original Hole
10/14/2017	9,350.0	9,351.0	2.0	2	Avalon, Original Hole
10/14/2017	9,364.0	9,365.0	2.0	2	Avalon, Original Hole
10/14/2017	9,378.0	9,379.0	2.0	2	Avalon, Original Hole
10/14/2017	9,392.0	9,393.0	2.0	2	Avalon, Original Hole
10/14/2017	9,406.0	9,407.0	3.0	3	Avalon, Original Hole
10/14/2017	9,420.0	9,421.0	3.0	3	Avalon, Original Hole
10/14/2017	9,434.0	9,435.0	3.0	3	Avalon, Original Hole
10/14/2017	9,448.0	9,449.0	3.0	3	Avalon, Original Hole
10/14/2017	9,464.0	9,465.0	3.0	3	Avalon, Original Hole
10/14/2017	9,476.0	9,477.0	4.0	4	Avalon, Original Hole
10/14/2017	9,490.0	9,491.0	5.0	5	Avalon, Original Hole

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:37 PM



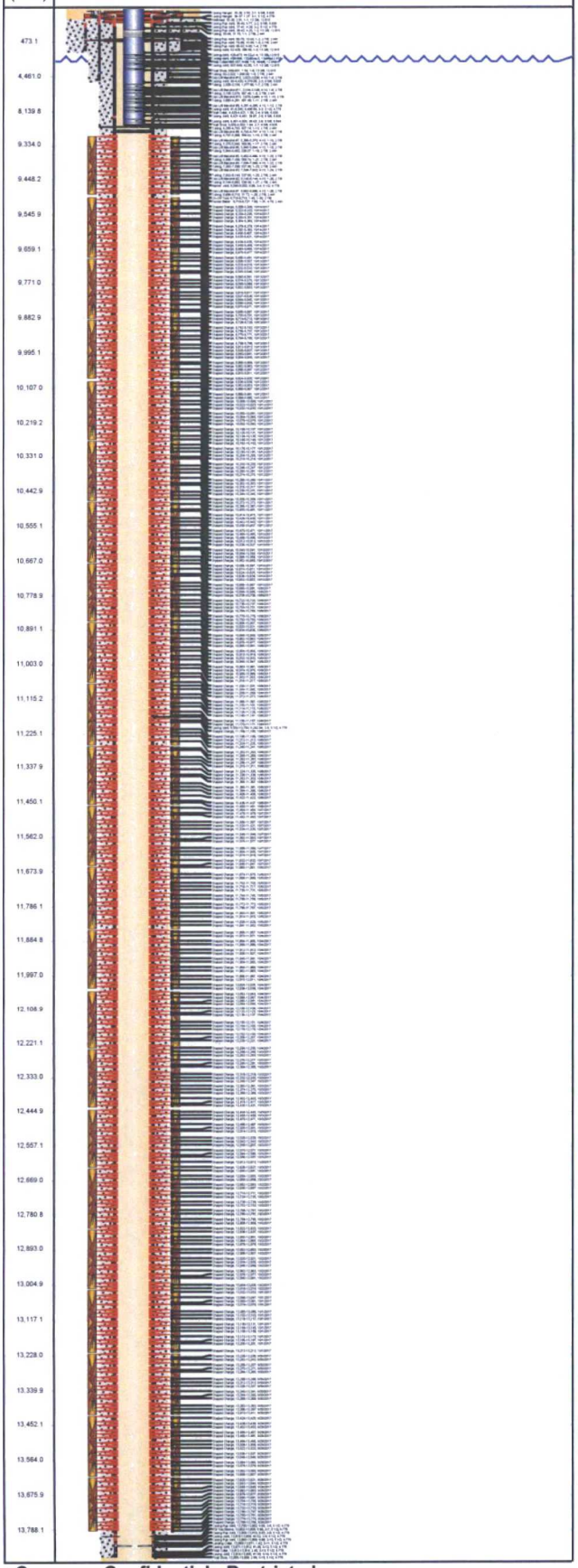
Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
10/13/2017	9,506.0	9,507.0	2.0	2	Avalon, Original Hole
10/13/2017	9,518.0	9,519.0	2.0	2	Avalon, Original Hole
10/13/2017	9,532.0	9,533.0	2.0	2	Avalon, Original Hole
10/13/2017	9,545.0	9,546.0	2.0	2	Avalon, Original Hole
10/13/2017	9,560.0	9,561.0	2.0	2	Avalon, Original Hole
10/13/2017	9,574.0	9,575.0	2.0	2	Avalon, Original Hole
10/13/2017	9,588.0	9,589.0	2.0	2	Avalon, Original Hole
10/13/2017	9,602.0	9,603.0	3.0	3	Avalon, Original Hole
10/13/2017	9,616.0	9,617.0	3.0	3	Avalon, Original Hole
10/13/2017	9,627.0	9,628.0	3.0	3	Avalon, Original Hole
10/13/2017	9,644.0	9,645.0	3.0	3	Avalon, Original Hole
10/13/2017	9,658.0	9,659.0	3.0	3	Avalon, Original Hole
10/13/2017	9,670.0	9,671.0	4.0	4	Avalon, Original Hole
10/13/2017	9,686.0	9,687.0	5.0	5	Avalon, Original Hole
10/13/2017	9,700.0	9,701.0	2.0	2	Avalon, Original Hole
10/13/2017	9,714.0	9,715.0	2.0	2	Avalon, Original Hole
10/13/2017	9,728.0	9,729.0	2.0	2	Avalon, Original Hole
10/13/2017	9,742.0	9,743.0	2.0	2	Avalon, Original Hole
10/13/2017	9,756.0	9,757.0	2.0	2	Avalon, Original Hole
10/13/2017	9,770.0	9,771.0	2.0	2	Avalon, Original Hole
10/13/2017	9,784.0	9,785.0	2.0	2	Avalon, Original Hole
10/13/2017	9,798.0	9,799.0	3.0	3	Avalon, Original Hole
10/13/2017	9,812.0	9,813.0	3.0	3	Avalon, Original Hole
10/13/2017	9,826.0	9,827.0	3.0	3	Avalon, Original Hole
10/13/2017	9,840.0	9,841.0	3.0	3	Avalon, Original Hole
10/13/2017	9,854.0	9,855.0	3.0	3	Avalon, Original Hole
10/13/2017	9,868.0	9,869.0	4.0	4	Avalon, Original Hole
10/13/2017	9,882.0	9,883.0	5.0	5	Avalon, Original Hole
10/12/2017	9,896.0	9,897.0	2.0	2	Avalon, Original Hole
10/12/2017	9,910.0	9,911.0	2.0	2	Avalon, Original Hole
10/12/2017	9,924.0	9,925.0	2.0	2	Avalon, Original Hole
10/12/2017	9,938.0	9,939.0	2.0	2	Avalon, Original Hole
10/12/2017	9,952.0	9,953.0	2.0	2	Avalon, Original Hole
10/12/2017	9,966.0	9,967.0	2.0	2	Avalon, Original Hole
10/12/2017	9,980.0	9,981.0	2.0	2	Avalon, Original Hole
10/12/2017	9,994.0	9,995.0	3.0	3	Avalon, Original Hole
10/12/2017	10,008.0	10,009.0	3.0	3	Avalon, Original Hole
10/12/2017	10,022.0	10,023.0	3.0	3	Avalon, Original Hole
10/12/2017	10,032.0	10,033.0	3.0	3	Avalon, Original Hole
10/12/2017	10,050.0	10,051.0	3.0	3	Avalon, Original Hole
10/12/2017	10,064.0	10,065.0	4.0	4	Avalon, Original Hole
10/12/2017	10,078.0	10,079.0	5.0	5	Avalon, Original Hole
10/12/2017	10,092.0	10,093.0	2.0	2	Avalon, Original Hole
10/12/2017	10,106.0	10,107.0	2.0	2	Avalon, Original Hole
10/12/2017	10,120.0	10,121.0	2.0	2	Avalon, Original Hole
10/12/2017	10,134.0	10,135.0	2.0	2	Avalon, Original Hole
10/12/2017	10,148.0	10,149.0	2.0	2	Avalon, Original Hole
10/12/2017	10,162.0	10,163.0	2.0	2	Avalon, Original Hole
10/12/2017	10,176.0	10,177.0	2.0	2	Avalon, Original Hole
10/12/2017	10,190.0	10,191.0	3.0	3	Avalon, Original Hole
10/12/2017	10,204.0	10,205.0	3.0	3	Avalon, Original Hole
10/12/2017	10,218.0	10,219.0	3.0	3	Avalon, Original Hole
10/12/2017	10,232.0	10,233.0	3.0	3	Avalon, Original Hole
10/12/2017	10,246.0	10,247.0	3.0	3	Avalon, Original Hole
10/12/2017	10,260.0	10,261.0	4.0	4	Avalon, Original Hole
10/12/2017	10,274.0	10,275.0	5.0	5	Avalon, Original Hole
10/11/2017	10,288.0	10,289.0	2.0	2	Avalon, Original Hole
10/11/2017	10,302.0	10,303.0	2.0	2	Avalon, Original Hole

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:37 PM



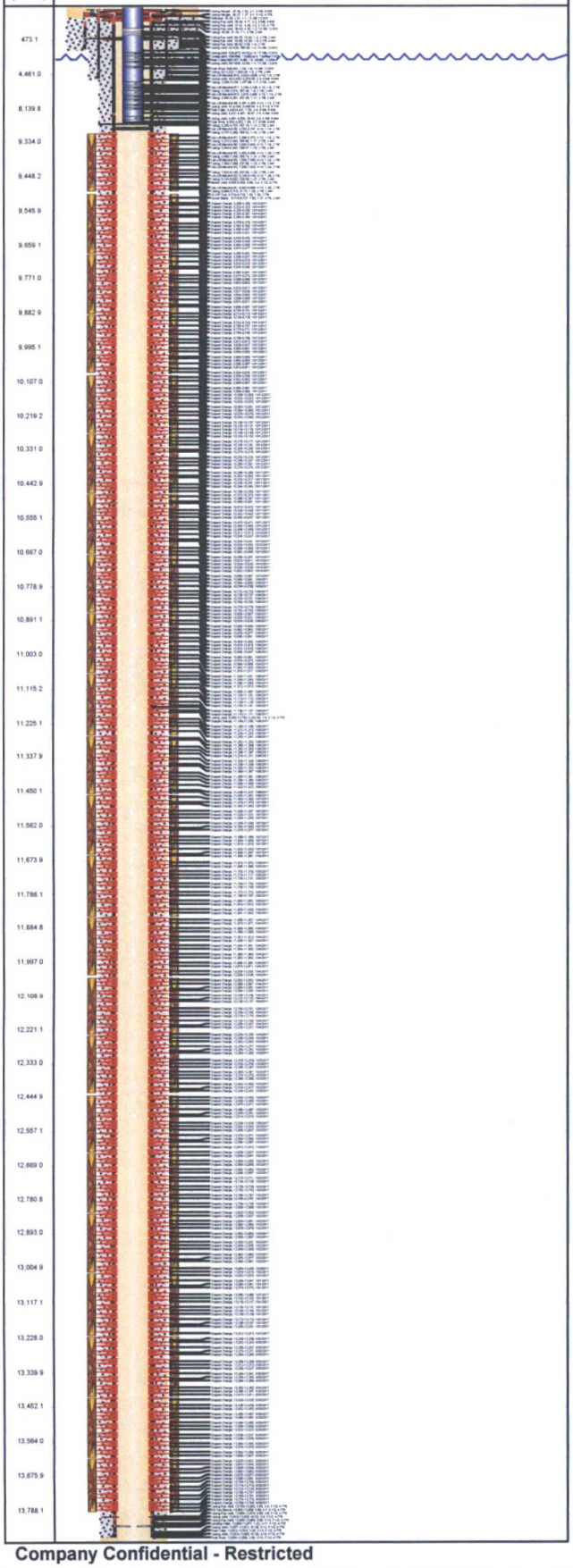
Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
10/11/2017	10,316.0	10,317.0	2.0	2	Avalon, Original Hole
10/11/2017	10,330.0	10,331.0	2.0	2	Avalon, Original Hole
10/11/2017	10,344.0	10,345.0	2.0	2	Avalon, Original Hole
10/11/2017	10,358.0	10,359.0	2.0	2	Avalon, Original Hole
10/11/2017	10,372.0	10,373.0	2.0	2	Avalon, Original Hole
10/11/2017	10,386.0	10,387.0	3.0	3	Avalon, Original Hole
10/11/2017	10,400.0	10,401.0	3.0	3	Avalon, Original Hole
10/11/2017	10,414.0	10,415.0	3.0	3	Avalon, Original Hole
10/11/2017	10,428.0	10,429.0	3.0	3	Avalon, Original Hole
10/11/2017	10,442.0	10,443.0	3.0	3	Avalon, Original Hole
10/11/2017	10,456.0	10,457.0	4.0	4	Avalon, Original Hole
10/11/2017	10,470.0	10,471.0	5.0	5	Avalon, Original Hole
10/10/2017	10,484.0	10,485.0	2.0	2	Avalon, Original Hole
10/10/2017	10,498.0	10,499.0	2.0	2	Avalon, Original Hole
10/10/2017	10,512.0	10,513.0	2.0	2	Avalon, Original Hole
10/10/2017	10,526.0	10,527.0	2.0	2	Avalon, Original Hole
10/10/2017	10,540.0	10,541.0	2.0	2	Avalon, Original Hole
10/10/2017	10,554.0	10,555.0	2.0	2	Avalon, Original Hole
10/10/2017	10,568.0	10,569.0	2.0	2	Avalon, Original Hole
10/10/2017	10,582.0	10,583.0	3.0	3	Avalon, Original Hole
10/10/2017	10,596.0	10,597.0	3.0	3	Avalon, Original Hole
10/10/2017	10,610.0	10,611.0	3.0	3	Avalon, Original Hole
10/10/2017	10,624.0	10,625.0	3.0	3	Avalon, Original Hole
10/10/2017	10,638.0	10,639.0	3.0	3	Avalon, Original Hole
10/10/2017	10,652.0	10,653.0	4.0	4	Avalon, Original Hole
10/10/2017	10,666.0	10,667.0	5.0	5	Avalon, Original Hole
10/9/2017	10,680.0	10,681.0	2.0	2	Avalon, Original Hole
10/9/2017	10,694.0	10,695.0	2.0	2	Avalon, Original Hole
10/9/2017	10,708.0	10,709.0	2.0	2	Avalon, Original Hole
10/9/2017	10,722.0	10,723.0	2.0	2	Avalon, Original Hole
10/9/2017	10,736.0	10,737.0	2.0	2	Avalon, Original Hole
10/9/2017	10,750.0	10,751.0	2.0	2	Avalon, Original Hole
10/9/2017	10,764.0	10,765.0	2.0	2	Avalon, Original Hole
10/9/2017	10,778.0	10,779.0	3.0	3	Avalon, Original Hole
10/9/2017	10,792.0	10,793.0	3.0	3	Avalon, Original Hole
10/9/2017	10,806.0	10,807.0	3.0	3	Avalon, Original Hole
10/9/2017	10,820.0	10,821.0	3.0	3	Avalon, Original Hole
10/9/2017	10,834.0	10,835.0	3.0	3	Avalon, Original Hole
10/9/2017	10,848.0	10,849.0	4.0	4	Avalon, Original Hole
10/9/2017	10,862.0	10,863.0	5.0	5	Avalon, Original Hole
10/9/2017	10,876.0	10,877.0	2.0	2	Avalon, Original Hole
10/9/2017	10,890.0	10,891.0	2.0	2	Avalon, Original Hole
10/9/2017	10,904.0	10,905.0	2.0	2	Avalon, Original Hole
10/9/2017	10,918.0	10,919.0	2.0	2	Avalon, Original Hole
10/9/2017	10,932.0	10,933.0	2.0	2	Avalon, Original Hole
10/9/2017	10,946.0	10,947.0	2.0	2	Avalon, Original Hole
10/9/2017	10,960.0	10,961.0	2.0	2	Avalon, Original Hole
10/9/2017	10,974.0	10,975.0	3.0	3	Avalon, Original Hole
10/9/2017	10,988.0	10,989.0	3.0	3	Avalon, Original Hole
10/9/2017	11,002.0	11,003.0	3.0	3	Avalon, Original Hole
10/9/2017	11,016.0	11,017.0	3.0	3	Avalon, Original Hole
10/9/2017	11,030.0	11,031.0	3.0	3	Avalon, Original Hole
10/9/2017	11,044.0	11,045.0	4.0	4	Avalon, Original Hole
10/9/2017	11,058.0	11,059.0	5.0	5	Avalon, Original Hole
10/8/2017	11,072.0	11,073.0	2.0	2	Avalon, Original Hole
10/8/2017	11,086.0	11,087.0	2.0	2	Avalon, Original Hole
10/8/2017	11,100.0	11,101.0	2.0	2	Avalon, Original Hole
10/8/2017	11,114.0	11,115.0	2.0	2	Avalon, Original Hole

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:38 PM



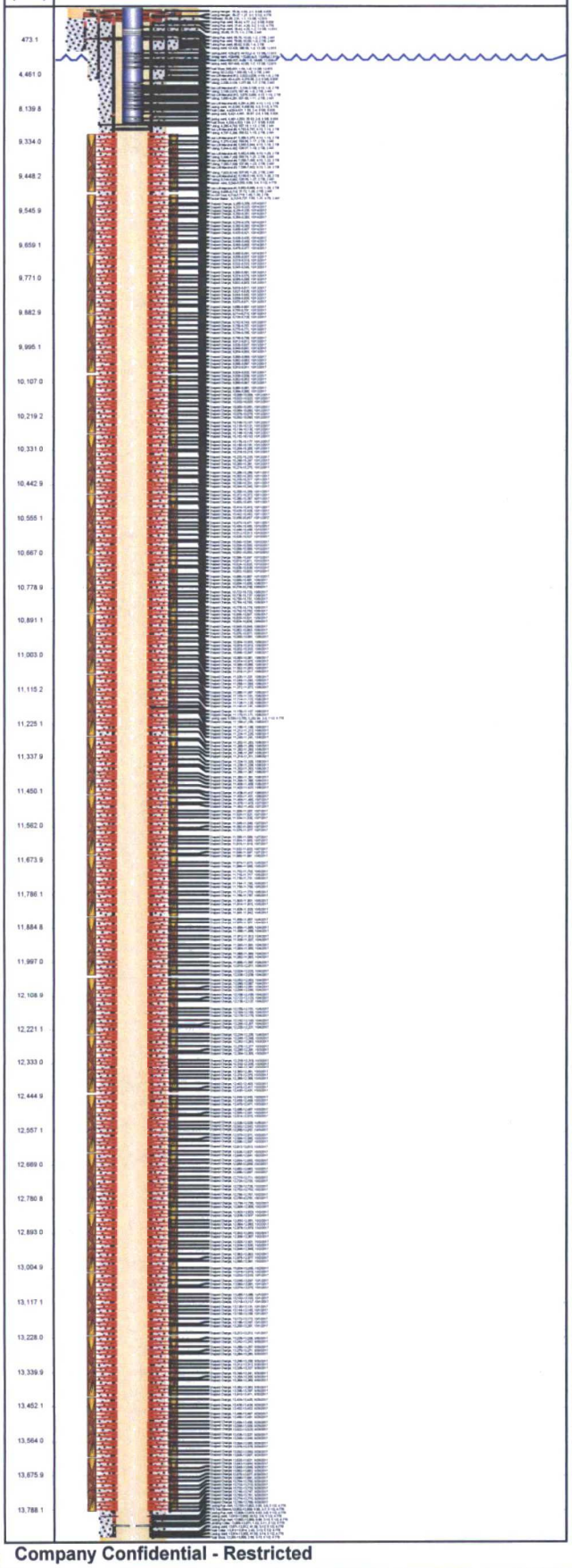
Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
10/8/2017	11,128.0	11,129.0	2.0	2	Avalon, Original Hole
10/8/2017	11,140.0	11,141.0	2.0	2	Avalon, Original Hole
10/8/2017	11,156.0	11,157.0	2.0	2	Avalon, Original Hole
10/8/2017	11,170.0	11,171.0	3.0	3	Avalon, Original Hole
10/8/2017	11,184.0	11,185.0	3.0	3	Avalon, Original Hole
10/8/2017	11,198.0	11,199.0	3.0	3	Avalon, Original Hole
10/8/2017	11,212.0	11,213.0	3.0	3	Avalon, Original Hole
10/8/2017	11,224.0	11,225.0	3.0	3	Avalon, Original Hole
10/8/2017	11,240.0	11,241.0	4.0	4	Avalon, Original Hole
10/8/2017	11,252.0	11,253.0	5.0	5	Avalon, Original Hole
10/8/2017	11,268.0	11,269.0	2.0	2	Avalon, Original Hole
10/8/2017	11,282.0	11,283.0	2.0	2	Avalon, Original Hole
10/8/2017	11,296.0	11,297.0	2.0	2	Avalon, Original Hole
10/8/2017	11,310.0	11,311.0	2.0	2	Avalon, Original Hole
10/8/2017	11,324.0	11,325.0	2.0	2	Avalon, Original Hole
10/8/2017	11,338.0	11,339.0	2.0	2	Avalon, Original Hole
10/8/2017	11,352.0	11,353.0	2.0	2	Avalon, Original Hole
10/8/2017	11,366.0	11,367.0	3.0	3	Avalon, Original Hole
10/8/2017	11,380.0	11,381.0	3.0	3	Avalon, Original Hole
10/8/2017	11,394.0	11,395.0	3.0	3	Avalon, Original Hole
10/8/2017	11,408.0	11,409.0	3.0	3	Avalon, Original Hole
10/8/2017	11,422.0	11,423.0	3.0	3	Avalon, Original Hole
10/8/2017	11,436.0	11,437.0	4.0	4	Avalon, Original Hole
10/8/2017	11,450.0	11,451.0	5.0	5	Avalon, Original Hole
10/7/2017	11,464.0	11,465.0	2.0	2	Avalon, Original Hole
10/7/2017	11,478.0	11,479.0	2.0	2	Avalon, Original Hole
10/7/2017	11,492.0	11,493.0	2.0	2	Avalon, Original Hole
10/7/2017	11,506.0	11,507.0	2.0	2	Avalon, Original Hole
10/7/2017	11,520.0	11,521.0	2.0	2	Avalon, Original Hole
10/7/2017	11,534.0	11,535.0	2.0	2	Avalon, Original Hole
10/7/2017	11,548.0	11,549.0	2.0	2	Avalon, Original Hole
10/7/2017	11,562.0	11,563.0	3.0	3	Avalon, Original Hole
10/7/2017	11,576.0	11,577.0	3.0	3	Avalon, Original Hole
10/7/2017	11,588.0	11,589.0	3.0	3	Avalon, Original Hole
10/7/2017	11,604.0	11,605.0	3.0	3	Avalon, Original Hole
10/7/2017	11,618.0	11,619.0	3.0	3	Avalon, Original Hole
10/7/2017	11,632.0	11,633.0	4.0	4	Avalon, Original Hole
10/7/2017	11,646.0	11,647.0	5.0	5	Avalon, Original Hole
10/5/2017	11,660.0	11,661.0	2.0	2	Avalon, Original Hole
10/5/2017	11,674.0	11,675.0	2.0	2	Avalon, Original Hole
10/5/2017	11,688.0	11,689.0	2.0	2	Avalon, Original Hole
10/5/2017	11,702.0	11,703.0	2.0	2	Avalon, Original Hole
10/5/2017	11,716.0	11,717.0	2.0	2	Avalon, Original Hole
10/5/2017	11,730.0	11,731.0	2.0	2	Avalon, Original Hole
10/5/2017	11,744.0	11,745.0	2.0	2	Avalon, Original Hole
10/5/2017	11,758.0	11,759.0	3.0	3	Avalon, Original Hole
10/5/2017	11,772.0	11,773.0	3.0	3	Avalon, Original Hole
10/5/2017	11,786.0	11,787.0	3.0	3	Avalon, Original Hole
10/5/2017	11,800.0	11,801.0	3.0	3	Avalon, Original Hole
10/5/2017	11,814.0	11,815.0	3.0	3	Avalon, Original Hole
10/5/2017	11,828.0	11,829.0	4.0	4	Avalon, Original Hole
10/5/2017	11,841.0	11,842.0	5.0	5	Avalon, Original Hole
10/4/2017	11,856.0	11,857.0	2.0	2	Avalon, Original Hole
10/4/2017	11,870.0	11,871.0	2.0	2	Avalon, Original Hole
10/4/2017	11,884.0	11,885.0	2.0	2	Avalon, Original Hole
10/4/2017	11,898.0	11,899.0	2.0	2	Avalon, Original Hole
10/4/2017	11,912.0	11,913.0	2.0	2	Avalon, Original Hole
10/4/2017	11,926.0	11,927.0	2.0	2	Avalon, Original Hole

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:38 PM



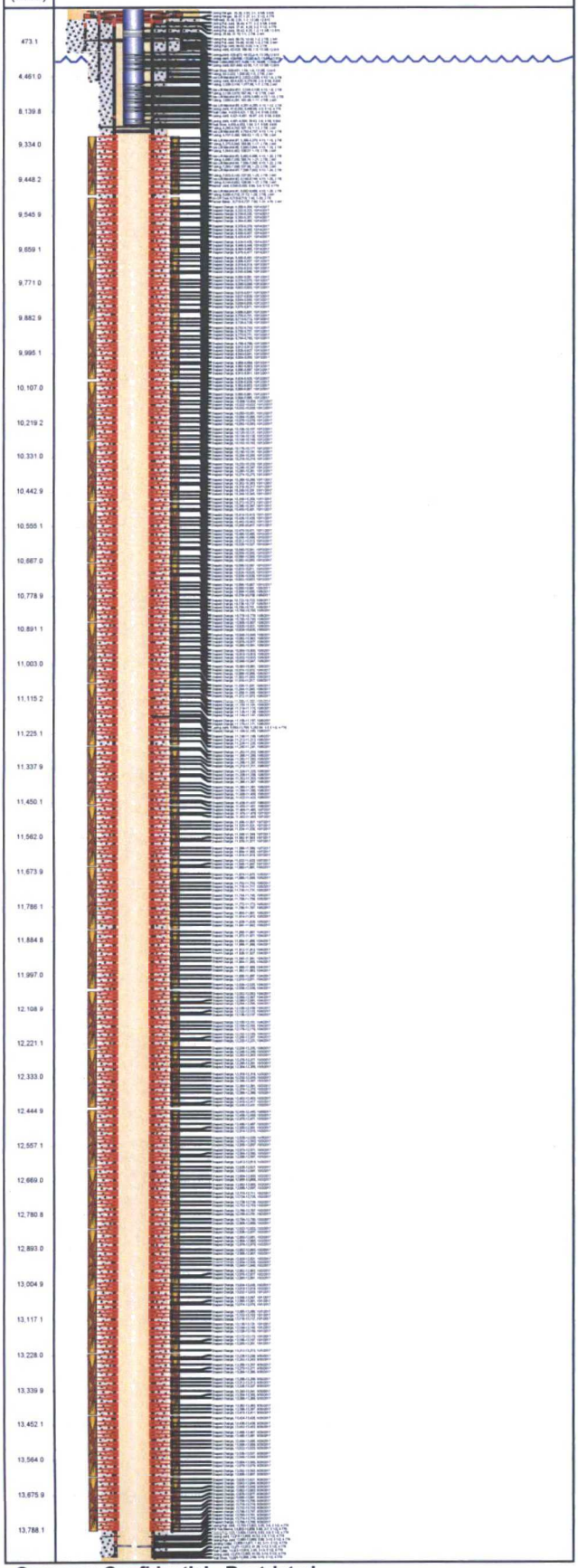
Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
10/4/2017	11,940.0	11,941.0	2.0	2	Avalon, Original Hole
10/4/2017	11,954.0	11,955.0	3.0	3	Avalon, Original Hole
10/4/2017	11,968.0	11,969.0	3.0	3	Avalon, Original Hole
10/4/2017	11,982.0	11,983.0	3.0	3	Avalon, Original Hole
10/4/2017	11,996.0	11,997.0	3.0	3	Avalon, Original Hole
10/4/2017	12,010.0	12,011.0	3.0	3	Avalon, Original Hole
10/4/2017	12,024.0	12,025.0	4.0	4	Avalon, Original Hole
10/4/2017	12,038.0	12,039.0	5.0	5	Avalon, Original Hole
10/4/2017	12,052.0	12,053.0	2.0	2	Avalon, Original Hole
10/4/2017	12,066.0	12,067.0	2.0	2	Avalon, Original Hole
10/4/2017	12,080.0	12,081.0	2.0	2	Avalon, Original Hole
10/4/2017	12,094.0	12,095.0	2.0	2	Avalon, Original Hole
10/4/2017	12,108.0	12,109.0	2.0	2	Avalon, Original Hole
10/4/2017	12,122.0	12,123.0	2.0	2	Avalon, Original Hole
10/4/2017	12,136.0	12,137.0	2.0	2	Avalon, Original Hole
10/4/2017	12,150.0	12,151.0	3.0	3	Avalon, Original Hole
10/4/2017	12,164.0	12,165.0	3.0	3	Avalon, Original Hole
10/4/2017	12,178.0	12,179.0	3.0	3	Avalon, Original Hole
10/4/2017	12,192.0	12,193.0	3.0	3	Avalon, Original Hole
10/4/2017	12,206.0	12,207.0	3.0	3	Avalon, Original Hole
10/4/2017	12,220.0	12,221.0	4.0	4	Avalon, Original Hole
10/4/2017	12,234.0	12,235.0	5.0	5	Avalon, Original Hole
10/3/2017	12,248.0	12,249.0	2.0	2	Avalon, Original Hole
10/3/2017	12,262.0	12,263.0	2.0	2	Avalon, Original Hole
10/3/2017	12,276.0	12,277.0	2.0	2	Avalon, Original Hole
10/3/2017	12,290.0	12,291.0	2.0	2	Avalon, Original Hole
10/3/2017	12,304.0	12,305.0	2.0	2	Avalon, Original Hole
10/3/2017	12,318.0	12,319.0	2.0	2	Avalon, Original Hole
10/3/2017	12,332.0	12,333.0	2.0	2	Avalon, Original Hole
10/3/2017	12,346.0	12,347.0	3.0	3	Avalon, Original Hole
10/3/2017	12,360.0	12,361.0	3.0	3	Avalon, Original Hole
10/3/2017	12,374.0	12,375.0	3.0	3	Avalon, Original Hole
10/3/2017	12,388.0	12,389.0	3.0	3	Avalon, Original Hole
10/3/2017	12,402.0	12,403.0	3.0	3	Avalon, Original Hole
10/3/2017	12,416.0	12,417.0	4.0	4	Avalon, Original Hole
10/3/2017	12,430.0	12,431.0	5.0	5	Avalon, Original Hole
10/3/2017	12,444.0	12,445.0	2.0	2	Avalon, Original Hole
10/3/2017	12,458.0	12,459.0	2.0	2	Avalon, Original Hole
10/3/2017	12,470.0	12,471.0	2.0	2	Avalon, Original Hole
10/3/2017	12,486.0	12,487.0	2.0	2	Avalon, Original Hole
10/3/2017	12,500.0	12,501.0	2.0	2	Avalon, Original Hole
10/3/2017	12,514.0	12,515.0	2.0	2	Avalon, Original Hole
10/3/2017	12,528.0	12,529.0	2.0	2	Avalon, Original Hole
10/3/2017	12,542.0	12,543.0	3.0	3	Avalon, Original Hole
10/3/2017	12,556.0	12,557.0	3.0	3	Avalon, Original Hole
10/3/2017	12,570.0	12,571.0	3.0	3	Avalon, Original Hole
10/3/2017	12,584.0	12,585.0	3.0	3	Avalon, Original Hole
10/3/2017	12,596.0	12,597.0	3.0	3	Avalon, Original Hole
10/3/2017	12,612.0	12,613.0	4.0	4	Avalon, Original Hole
10/3/2017	12,626.0	12,627.0	5.0	5	Avalon, Original Hole
10/2/2017	12,640.0	12,641.0	2.0	2	Avalon, Original Hole
10/2/2017	12,654.0	12,655.0	2.0	2	Avalon, Original Hole
10/2/2017	12,668.0	12,669.0	2.0	2	Avalon, Original Hole
10/2/2017	12,682.0	12,683.0	2.0	2	Avalon, Original Hole
10/2/2017	12,696.0	12,697.0	2.0	2	Avalon, Original Hole
10/2/2017	12,710.0	12,711.0	2.0	2	Avalon, Original Hole
10/2/2017	12,724.0	12,725.0	2.0	2	Avalon, Original Hole
10/2/2017	12,738.0	12,739.0	3.0	3	Avalon, Original Hole

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:39 PM



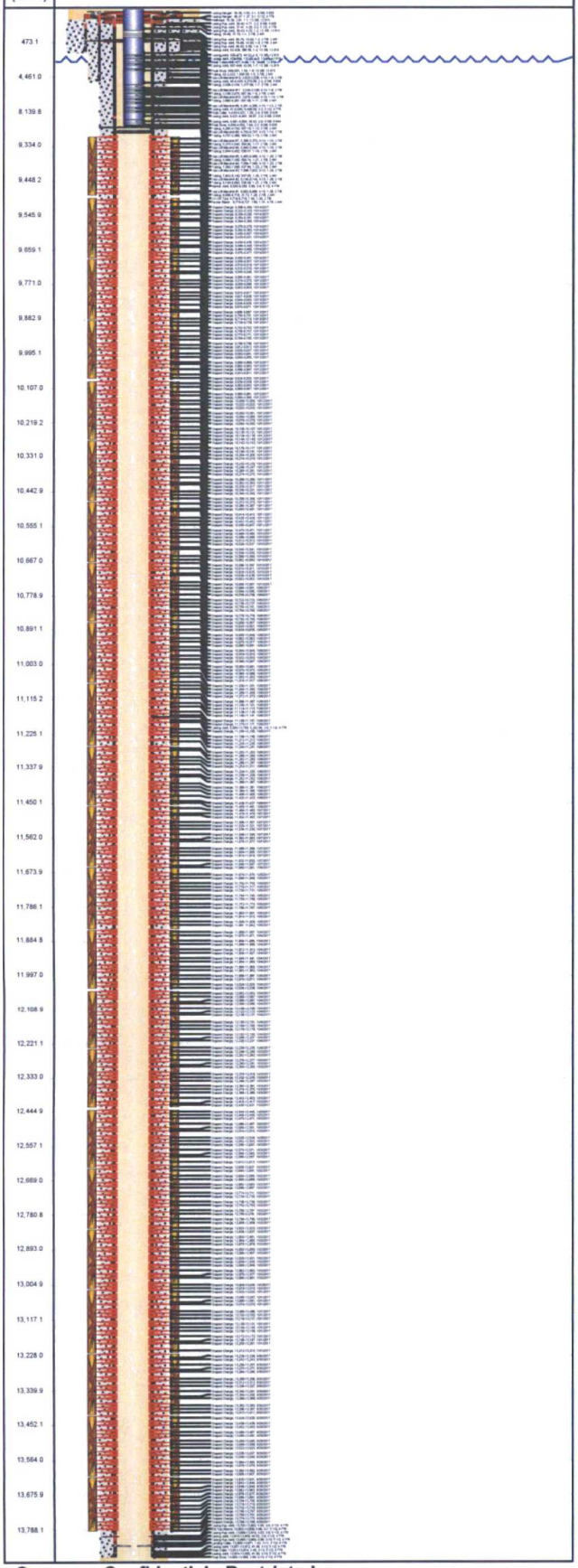
Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
10/2/2017	12,752.0	12,753.0	3.0	3	Avalon, Original Hole
10/2/2017	12,766.0	12,767.0	3.0	3	Avalon, Original Hole
10/2/2017	12,780.0	12,781.0	3.0	3	Avalon, Original Hole
10/2/2017	12,794.0	12,795.0	3.0	3	Avalon, Original Hole
10/2/2017	12,808.0	12,809.0	4.0	4	Avalon, Original Hole
10/2/2017	12,822.0	12,823.0	5.0	5	Avalon, Original Hole
10/2/2017	12,836.0	12,837.0	2.0	2	Avalon, Original Hole
10/2/2017	12,850.0	12,851.0	2.0	2	Avalon, Original Hole
10/2/2017	12,864.0	12,865.0	2.0	2	Avalon, Original Hole
10/2/2017	12,878.0	12,879.0	2.0	2	Avalon, Original Hole
10/2/2017	12,892.0	12,893.0	2.0	2	Avalon, Original Hole
10/2/2017	12,906.0	12,907.0	2.0	2	Avalon, Original Hole
10/2/2017	12,920.0	12,921.0	2.0	2	Avalon, Original Hole
10/2/2017	12,934.0	12,935.0	3.0	3	Avalon, Original Hole
10/2/2017	12,948.0	12,949.0	3.0	3	Avalon, Original Hole
10/2/2017	12,962.0	12,963.0	3.0	3	Avalon, Original Hole
10/2/2017	12,976.0	12,977.0	3.0	3	Avalon, Original Hole
10/2/2017	12,990.0	12,991.0	3.0	3	Avalon, Original Hole
10/2/2017	13,004.0	13,005.0	4.0	4	Avalon, Original Hole
10/2/2017	13,018.0	13,019.0	5.0	5	Avalon, Original Hole
10/1/2017	13,032.0	13,033.0	2.0	2	Avalon, Original Hole
10/1/2017	13,046.0	13,047.0	2.0	2	Avalon, Original Hole
10/1/2017	13,060.0	13,061.0	2.0	2	Avalon, Original Hole
10/1/2017	13,074.0	13,075.0	2.0	2	Avalon, Original Hole
10/1/2017	13,085.0	13,086.0	2.0	2	Avalon, Original Hole
10/1/2017	13,102.0	13,103.0	2.0	2	Avalon, Original Hole
10/1/2017	13,116.0	13,117.0	2.0	2	Avalon, Original Hole
10/1/2017	13,130.0	13,131.0	3.0	3	Avalon, Original Hole
10/1/2017	13,144.0	13,145.0	3.0	3	Avalon, Original Hole
10/1/2017	13,158.0	13,159.0	3.0	3	Avalon, Original Hole
10/1/2017	13,172.0	13,173.0	3.0	3	Avalon, Original Hole
10/1/2017	13,186.0	13,187.0	3.0	3	Avalon, Original Hole
10/1/2017	13,200.0	13,201.0	4.0	4	Avalon, Original Hole
10/1/2017	13,212.0	13,213.0	5.0	5	Avalon, Original Hole
9/30/2017	13,228.0	13,229.0	2.0	2	Avalon, Original Hole
9/30/2017	13,242.0	13,243.0	2.0	2	Avalon, Original Hole
9/30/2017	13,256.0	13,257.0	2.0	2	Avalon, Original Hole
9/30/2017	13,270.0	13,271.0	2.0	2	Avalon, Original Hole
9/30/2017	13,284.0	13,285.0	2.0	2	Avalon, Original Hole
9/30/2017	13,298.0	13,299.0	2.0	2	Avalon, Original Hole
9/30/2017	13,312.0	13,313.0	2.0	2	Avalon, Original Hole
9/30/2017	13,326.0	13,327.0	3.0	3	Avalon, Original Hole
9/30/2017	13,340.0	13,341.0	3.0	3	Avalon, Original Hole
9/30/2017	13,354.0	13,355.0	3.0	3	Avalon, Original Hole
9/30/2017	13,368.0	13,369.0	3.0	3	Avalon, Original Hole
9/30/2017	13,382.0	13,383.0	3.0	3	Avalon, Original Hole
9/30/2017	13,396.0	13,397.0	4.0	4	Avalon, Original Hole
9/30/2017	13,410.0	13,411.0	5.0	5	Avalon, Original Hole
9/29/2017	13,424.0	13,425.0	2.0	2	Avalon, Original Hole
9/29/2017	13,438.0	13,439.0	2.0	2	Avalon, Original Hole
9/29/2017	13,452.0	13,453.0	2.0	2	Avalon, Original Hole
9/29/2017	13,466.0	13,467.0	2.0	2	Avalon, Original Hole
9/29/2017	13,480.0	13,481.0	2.0	2	Avalon, Original Hole
9/29/2017	13,494.0	13,495.0	2.0	2	Avalon, Original Hole
9/29/2017	13,508.0	13,509.0	2.0	2	Avalon, Original Hole
9/29/2017	13,522.0	13,523.0	3.0	3	Avalon, Original Hole
9/29/2017	13,536.0	13,537.0	3.0	3	Avalon, Original Hole
9/29/2017	13,548.0	13,549.0	3.0	3	Avalon, Original Hole

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:39 PM



Perforations

Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total	Linked Zone
9/29/2017	13,564.0	13,565.0	3.0	3	Avalon, Original Hole
9/29/2017	13,578.0	13,579.0	3.0	3	Avalon, Original Hole
9/29/2017	13,592.0	13,593.0	4.0	4	Avalon, Original Hole
9/29/2017	13,606.0	13,607.0	5.0	5	Avalon, Original Hole
9/28/2017	13,620.0	13,621.0	2.0	2	Avalon, Original Hole
9/28/2017	13,643.0	13,644.0	2.0	2	Avalon, Original Hole
9/28/2017	13,648.0	13,649.0	2.0	2	Avalon, Original Hole
9/28/2017	13,662.0	13,663.0	2.0	2	Avalon, Original Hole
9/28/2017	13,676.0	13,677.0	2.0	2	Avalon, Original Hole
9/28/2017	13,690.0	13,691.0	2.0	2	Avalon, Original Hole
9/28/2017	13,704.0	13,705.0	3.0	3	Avalon, Original Hole
9/28/2017	13,718.0	13,719.0	3.0	3	Avalon, Original Hole
9/28/2017	13,732.0	13,733.0	3.0	3	Avalon, Original Hole
9/28/2017	13,746.0	13,747.0	3.0	3	Avalon, Original Hole
9/28/2017	13,760.0	13,761.0	3.0	3	Avalon, Original Hole
9/28/2017	13,774.0	13,775.0	4.0	4	Avalon, Original Hole
9/28/2017	13,788.0	13,789.0	5.0	5	Avalon, Original Hole

Other Strings

Run Date	Pull Date	Set Depth (ftKB)	Com

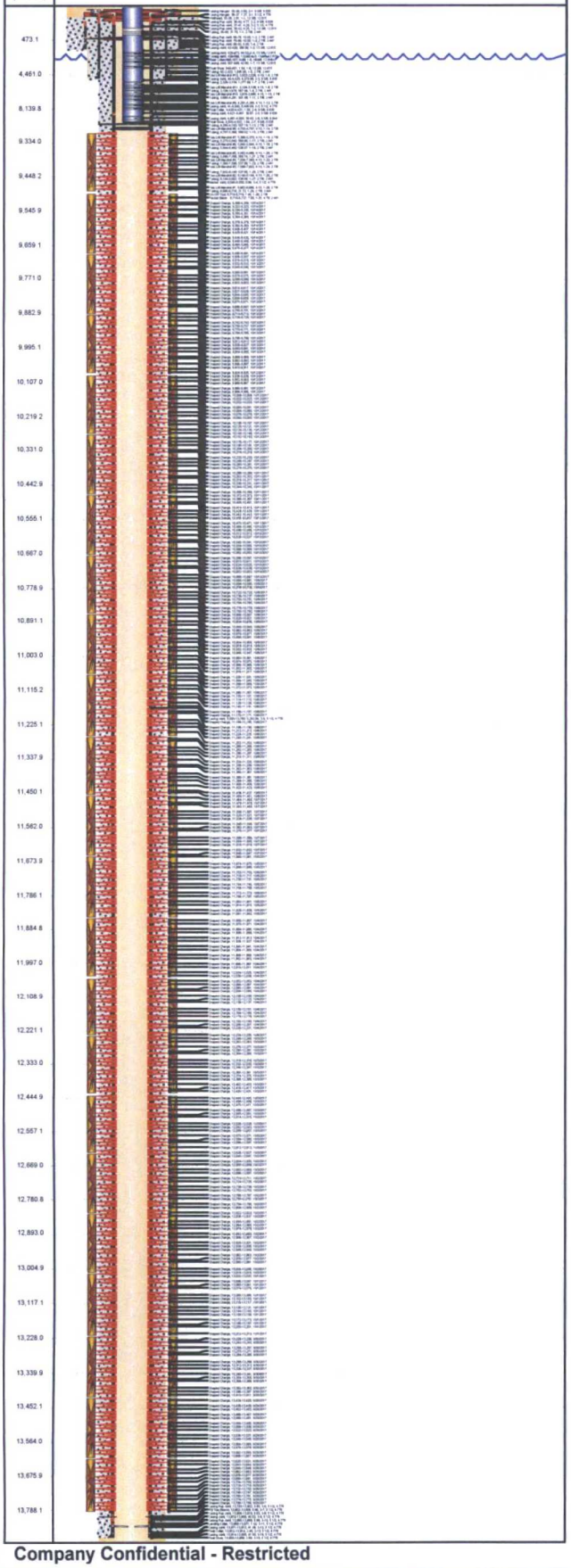
Other In Hole

Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Packer (retrievable)	8,748.0	8,771.7	10/25/2017		Packer element at 8740'
Composite Frac Plug (drop ball)	9,499.0	9,500.0	10/14/2017	10/23/2017	Stage 23
Composite Frac Plug (drop ball)	9,695.0	9,696.0	10/13/2017	10/23/2017	Stage 22
Composite Frac Plug (drop ball)	9,891.0	9,892.0	10/13/2017	10/23/2017	Stage 21
Composite Frac Plug (drop ball)	10,087.0	10,088.0	10/12/2017	10/23/2017	Stage 20
Composite Frac Plug (drop ball)	10,283.0	10,284.0	10/12/2017	10/23/2017	Stage 19
Composite Frac Plug (drop ball)	10,479.0	10,480.0	10/11/2017	10/23/2017	Stage 18
Composite Frac Plug (drop ball)	10,675.0	10,676.0	10/10/2017	10/23/2017	Stage 17
Composite Frac Plug (drop ball)	10,871.0	10,872.0	10/9/2017	10/23/2017	Stage 16
Composite Frac Plug (drop ball)	11,067.0	11,068.0	10/9/2017	10/24/2017	Stage 15
Composite Frac Plug (drop ball)	11,261.0	11,262.0	10/8/2017	10/24/2017	Stage 14
Composite Frac Plug (drop ball)	11,459.0	11,460.0	10/8/2017	10/24/2017	Stage 13
Composite Frac Plug (drop ball)	11,655.0	11,656.0	10/7/2017	10/24/2017	Stage 12
Composite Frac Plug (drop ball)	11,849.0	11,850.0	10/5/2017	10/24/2017	Stage 11
Composite Frac Plug (drop ball)	12,047.0	12,048.0	10/4/2017	10/24/2017	Stage 10
Composite Frac Plug (drop ball)	12,243.0	12,244.0	10/4/2017	10/24/2017	Stage 9
Composite Frac Plug (drop ball)	12,439.0	12,440.0	10/3/2017	10/24/2017	Stage 8
Composite Frac Plug (drop ball)	12,635.0	12,636.0	10/3/2017	10/24/2017	Stage 7
Composite Frac Plug (drop ball)	12,831.0	12,832.0	10/2/2017	10/24/2017	Stage 6
Composite Frac Plug (drop ball)	13,027.0	13,028.0	10/2/2017	10/24/2017	Stage 5

Wellbore Schematic

Well Name	Lease	Field Name	Business Unit
SD WE 15 FED P9 7H	SD WE 15 FED P9	JENNINGS	Mid-Continent

Land - Original Hole, 12/12/2017 12:33:40 PM



Other In Hole

Des	Top (ftKB)	Btm (ftKB)	Run Date	Pull Date	Com
Composite Frac Plug (drop ball)	13,220.0	13,221.0	10/1/2017	10/24/2017	Stage 4
Composite Frac Plug (drop ball)	13,419.0	13,420.0	9/30/2017	10/24/2017	Stage 3
Composite Frac Plug (drop ball)	13,615.0	13,616.0	9/29/2017	10/24/2017	Stage 2