

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

Rec'd 05/04/2020 - NMOCD 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 CHEVRON USA INC 6301 DEAUVILLE BLVD MIDLAND, TX 79706		² OGRID Number 4323	
		³ Reason for Filing Code/ Effective Date NW	
⁴ API Number 30 - 015-45119	⁵ Pool Name PURPLE SAGE;WOLFCAMP		⁶ Pool Code 98220
⁷ Property Code	⁸ Property Name HH SO 8 5 FED 003		⁹ Well Number 5H

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
C	17	26S	27E		529	NORTH	2310	WEST	EDDY

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
C	5	26S	27E		178	NORTH	2024	WEST	EDDY
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 12/9/19	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

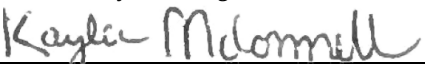
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
34053	PLAINS 500 Dallas, Ste 700 Houston, TX	O
151618	ENTERPRISE PO BOX 4503 Houston, TX	G

IV. Well Completion Data

²¹ Spud Date 09/22/2018	²² Ready Date 12/9/2019	²³ TD 20515'	²⁴ PBTD 20381'	²⁵ Perforations 10405' - 20349'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
SURF 17.5"	13.375"	475'	461		
INT 12.250"	9.625"	9139'	1990		
PROD 8.5"	5.5"	20476'	3968		
TBG	2.875"	9428'			

V. Well Test Data

³¹ Date New Oil 12/9/2019	³² Gas Delivery Date 12/09/2019	³³ Test Date 12/27/2019	³⁴ Test Length 24 HR	³⁵ Tbg. Pressure 1528	³⁶ Csg. Pressure 0
³⁷ Choke Size 64	³⁸ Oil 329	³⁹ Water 4165	⁴⁰ Gas 2078		⁴¹ Test Method

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: 	OIL CONSERVATION DIVISION
Printed name: KAYLA MCCONNELL	Approved by: DENIED
Title: PERMITTING SPECIALIST	Title: See NMAC 19.15.5.9 (11 wells on inactive list)
E-mail Address: GNCV@CHEVRON.COM	Approval Date:
Date: 3/18/2020	Phone: 432-687-7375

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

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

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

☒ AMENDED REPORT

AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45119	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code	⁵ Property Name HH SO 8 5 FED 003	⁶ Well Number 5H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3265'

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
C	17	26 SOUTH	27 EAST, N.M.P.M.		529'	NORTH	2310'	WEST	EDDY

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
C	5	26 SOUTH	27 EAST, N.M.P.M.		178'	NORTH	2024'	WEST	EDDY

¹² Dedicated Acres 640	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 <table border="1"> <tr><th colspan="2">FINAL LAST TAKE POINT</th></tr> <tr><td>X=</td><td>536,969'</td></tr> <tr><td>Y=</td><td>392,102'</td></tr> <tr><td>LAT.</td><td>32.077947° N</td></tr> <tr><td>LONG.</td><td>104.213975° W</td></tr> <tr><td>X=</td><td>578,153'</td></tr> <tr><td>Y=</td><td>392,159'</td></tr> <tr><td>LAT.</td><td>32.078069° N</td></tr> <tr><td>LONG.</td><td>104.214470° W</td></tr> </table> <table border="1"> <tr><th colspan="2">MID POINT</th></tr> <tr><td>X=</td><td>536,928'</td></tr> <tr><td>Y=</td><td>387,135'</td></tr> <tr><td>LAT.</td><td>32.064294° N</td></tr> <tr><td>LONG.</td><td>104.214127° W</td></tr> <tr><td>X=</td><td>578,111'</td></tr> <tr><td>Y=</td><td>387,192'</td></tr> <tr><td>LAT.</td><td>32.064415° N</td></tr> <tr><td>LONG.</td><td>104.214621° W</td></tr> </table> <table border="1"> <tr><th colspan="2">FINAL FIRST TAKE POINT</th></tr> <tr><td>X=</td><td>537,036'</td></tr> <tr><td>Y=</td><td>382,166'</td></tr> <tr><td>LAT.</td><td>32.050633° N</td></tr> <tr><td>LONG.</td><td>104.213795° W</td></tr> <tr><td>X=</td><td>578,220'</td></tr> <tr><td>Y=</td><td>382,223'</td></tr> <tr><td>LAT.</td><td>32.050755° N</td></tr> <tr><td>LONG.</td><td>104.214289° W</td></tr> </table> <table border="1"> <tr><th colspan="2">KICK OFF POINT</th></tr> <tr><td>X=</td><td>537,103'</td></tr> <tr><td>Y=</td><td>381,284'</td></tr> <tr><td>LAT.</td><td>32.048209° N</td></tr> <tr><td>LONG.</td><td>104.213581° W</td></tr> <tr><td>X=</td><td>578,287'</td></tr> <tr><td>Y=</td><td>381,341'</td></tr> <tr><td>LAT.</td><td>32.048331° N</td></tr> <tr><td>LONG.</td><td>104.214075° W</td></tr> </table>	FINAL LAST TAKE POINT		X=	536,969'	Y=	392,102'	LAT.	32.077947° N	LONG.	104.213975° W	X=	578,153'	Y=	392,159'	LAT.	32.078069° N	LONG.	104.214470° W	MID POINT		X=	536,928'	Y=	387,135'	LAT.	32.064294° N	LONG.	104.214127° W	X=	578,111'	Y=	387,192'	LAT.	32.064415° N	LONG.	104.214621° W	FINAL FIRST TAKE POINT		X=	537,036'	Y=	382,166'	LAT.	32.050633° N	LONG.	104.213795° W	X=	578,220'	Y=	382,223'	LAT.	32.050755° N	LONG.	104.214289° W	KICK OFF POINT		X=	537,103'	Y=	381,284'	LAT.	32.048209° N	LONG.	104.213581° W	X=	578,287'	Y=	381,341'	LAT.	32.048331° N	LONG.	104.214075° W	<table border="1"> <tr><th colspan="2">ACTUAL BOTTOM HOLE LOCATION</th></tr> <tr><td>X=</td><td>536,978'</td></tr> <tr><td>Y=</td><td>392,267'</td></tr> <tr><td>LAT.</td><td>32.078403° N</td></tr> <tr><td>LONG.</td><td>104.213945° W</td></tr> <tr><td>X=</td><td>578,162'</td></tr> <tr><td>Y=</td><td>392,324'</td></tr> <tr><td>LAT.</td><td>32.078524° N</td></tr> <tr><td>LONG.</td><td>104.214440° W</td></tr> </table> CORNER COORDINATES TABLE (NAD 27) A - Y=392442.33, X=534954.83 B - Y=392446.14, X=537606.87 C - Y=387143.09, X=534935.36 D - Y=387132.57, X=537574.14 E - Y=381810.94, X=534988.20 F - Y=381805.09, X=537646.07 G - Y=376480.27, X=535066.16 H - Y=376477.58, X=537710.13 HH SO 8 5 FED 003 5H WELL <table border="1"> <tr><td>X=</td><td>537,306'</td></tr> <tr><td>Y=</td><td>381,277'</td></tr> <tr><td>LAT.</td><td>32.048187° N</td></tr> <tr><td>LONG.</td><td>104.212927° W</td></tr> <tr><td>X=</td><td>578,490'</td></tr> <tr><td>Y=</td><td>381,334'</td></tr> <tr><td>LAT.</td><td>32.048309° N</td></tr> <tr><td>LONG.</td><td>104.213420° W</td></tr> </table> ELEVATION +3265' NAVD 88	ACTUAL BOTTOM HOLE LOCATION		X=	536,978'	Y=	392,267'	LAT.	32.078403° N	LONG.	104.213945° W	X=	578,162'	Y=	392,324'	LAT.	32.078524° N	LONG.	104.214440° W	X=	537,306'	Y=	381,277'	LAT.	32.048187° N	LONG.	104.212927° W	X=	578,490'	Y=	381,334'	LAT.	32.048309° N	LONG.	104.213420° W	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Kayla McConnell</i> 3/17/2020 Signature Date KAYLA MCCONNELL Printed Name GNCV@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. 04/07/2017 Date of Survey <i>Robert L. Lastrapes</i> Signature and Seal of Professional Surveyor: 23006 12/13/2019 Certificate Number
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Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other				5. Lease Serial No. NMNM100549	
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____				6. If Indian, Allottee or Tribe Name	
2. Name of Operator CHEVRON USA INC				7. Unit or CA Agreement Name and No. NMNM138618	
Contact: KAYLA MCCONNELL E-Mail: gncv@chevron.com				8. Lease Name and Well No. HH SO 8 5 FED 003 5H	
3. Address 6301 DEAUVILLE BLVD MIDLAND, TX 79706			3a. Phone No. (include area code) Ph: 432-687-7375		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 17 T26S R27E Mer At surface 529FNL 2310FWL 32.048309 N Lat, 104.213420 W Lon Sec 8 T26S R27E Mer At top prod interval reported below 359FSL 2051FWL 32.050755 N Lat, 104.214289 W Lon Sec 5 T26S R27E Mer At total depth 178FNL 2024FWL 32.078524 N Lat, 104.214440 W Lon				9. API Well No. 30-015-45119	
10. Field and Pool, or Exploratory PURPLE SAGE WOLFCAMP				11. Sec., T., R., M., or Block and Survey or Area Sec 17 T26S R27E Mer	
12. County or Parish EDDY				13. State NM	
14. Date Spudded 09/22/2018		15. Date T.D. Reached 04/20/2019		16. Date Completed ☐ D & A ☒ Ready to Prod. 12/09/2019	
17. Elevations (DF, KB, RT, GL)* 3265 GL					
18. Total Depth: MD 20515 TVD 9755		19. Plug Back T.D.: MD 20381 TVD		20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) GR				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 Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J-55	54.5	0	475		461		0	
12.250	9.625 HCL-80	43.5	0	9139	1944	1990		0	
8.500	5.500 P110	20.0	0	20476		3968		2110	

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	9428	9424						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	10405	20349	10405 TO 20349			OPEN
B)						
C)						
D)						

26. Perforation Record

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

Depth Interval	Amount and Type of Material
10405 TO 20349	FRAC W/1.2 MM BBLS FLUID & 24.9 MM# PROPPANT

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
12/09/2019	12/27/2019	24		329.0	4165.0	2078.0	58.3	0.74	FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. 1528 SI	Csg. Press. 0.0	24 Hr. Rate	Oil BBL 329	Gas MCF 4165	Water BBL 2078	Gas:Oil Ratio	Well Status PGW	

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 #507460 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

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	
				RUSTLER LAMAR BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING AVALON WOLFCAMP	55 2116 2167 2998 4100 5821 6381 8938	

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 #507460 Verified by the BLM Well Information System.
For CHEVRON USA INC, sent to the Carlsbad

Name(*please print*) KAYLA MCCONNELL Title PERMITTING SPECIALIST

Signature _____ (Electronic Submission) Date 03/17/2020

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.

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)



October 23, 2019

Chevron USA Incorporated
6301 Deauville Blvd
Midland, TX 79706-0000

Re:

S17, T26S, R27E Eddy, NM
N 32.048309 W -104.21342

CLIENT: Chevron USA Incorporated
WELL: HH SO 8 5 Fed 003 5H
FIELD: Purple Sage-Wolfcamp (GAS)

RIG: Patterson 815
COUNTY: Eddy
API NO: 30-015-45119
JOB NO: 18MLD3957

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Khalid Issa FS	HH SO 8 5 Fed 003 5H Original Hole	503.00 Ft to 20472.00 Ft	November 16, 2018 to April 20, 2019	TelePacer

Schlumberger Drilling and Measurements

Drilling Group

Geo Market Area: South West Texas Basin

7220 W I-H 20

Midland, Texas 79706

Phone : (432) 742-5400 (Main)

Fax : (432) 742-5606 (Shared)

Schlumberger**Well Reference:**

S17, T26S, R27E Eddy, NM

N 32.048309 W -104.21342

I, Khalid Issa certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of November 16, 2018 through April 20, 2019, conduct or supervise the taking of the TelePacer surveys from a depth of 503.00 feet to a depth of 20472.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Chevron USA Incorporated for the HH SO 8 5 Fed 003 5H Well (Original Hole) API No. 30-015-45119 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
Khalid Issa
FS

Subscribed and Sworn to before me this 23 day of October (month) 2019 (yr)

My Commission expires:

6/14/23

Notary Public

Jean-Paul Langlois
Comanche, Oklahoma
(County State)

(signature)



Chevron HH SO 8 5 FED 003 No. 5H MWD to 20515ft Survey Geodetic Report (Def Survey)

Report Date: April 21, 2019 - 03:08 PM
Client: Chevron
Field: NM Eddy County (NAD 27)
Structure / Slot: Chevron HH SO 8 5 FED 003 No. 5H / Chevron HH SO 8 5 FED 003 No. 5H
Well: Chevron HH SO 8 5 FED 003 No. 5H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Chevron HH SO 8 5 FED 003 No. 5H MWD to 20515ft
Survey Date: April 21, 2019
Tort / AHD / DDI / ERD Ratio: 318.275 ° / 11269.747 ft / 6.876 / 1.152
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 2' 53.47753", W 104° 12' 46.53489"
Location Grid N/E Y/X: N 381277.000 ftUS, E 537306.000 ftUS
CRS Grid Convergence Angle: 0.0639 °
Grid Scale Factor: 0.99991068
Version / Patch: 2.10.753.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.830 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB = 28ft
TVD Reference Elevation: 3293.000 ft above MSL
Seabed / Ground Elevation: 3265.000 ft above MSL
Magnetic Declination: 7.236 °
Total Gravity Field Strength: 998.4291mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47783.448 nT
Magnetic Dip Angle: 59.661 °
Declination Date: April 21, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: 0.0639 °
Total Corr Mag North->Grid North: 7.1724 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	381277.00	537306.00	N 32° 2' 53.48"	W 104° 12' 46.53"
First 3rd Party Survey	148.00	0.80	6.50	148.00	1.03	1.03	0.12	0.54	381278.03	537306.12	N 32° 2' 53.49"	W 104° 12' 46.53"
	193.00	0.70	108.02	192.99	1.25	1.25	0.41	2.59	381278.25	537306.41	N 32° 2' 53.49"	W 104° 12' 46.53"
	281.00	0.90	278.35	280.99	1.19	1.19	0.24	1.81	381278.19	537306.24	N 32° 2' 53.49"	W 104° 12' 46.53"
Last 3rd Party Survey	371.00	1.06	72.23	370.98	1.54	1.54	0.33	2.12	381278.54	537306.33	N 32° 2' 53.49"	W 104° 12' 46.53"
	449.00	0.70	79.80	448.98	1.84	1.85	1.49	0.48	381278.85	537307.49	N 32° 2' 53.50"	W 104° 12' 46.52"
	503.00	1.18	318.77	502.97	2.32	2.33	1.45	3.06	381279.33	537307.45	N 32° 2' 53.50"	W 104° 12' 46.52"
First SLB MWD Survey	595.00	2.40	284.83	594.93	3.53	3.53	-1.04	1.70	381280.53	537304.96	N 32° 2' 53.51"	W 104° 12' 46.55"
	687.00	4.73	276.53	686.74	4.48	4.46	-6.67	2.59	381281.46	537299.33	N 32° 2' 53.52"	W 104° 12' 46.61"
	779.00	6.36	282.20	778.31	6.01	5.96	-15.42	1.87	381282.96	537290.58	N 32° 2' 53.54"	W 104° 12' 46.71"
	871.00	6.26	285.84	869.75	8.48	8.41	-25.23	0.45	381285.41	537280.78	N 32° 2' 53.56"	W 104° 12' 46.83"
	966.00	6.04	288.43	964.21	11.51	11.40	-34.95	0.37	381288.40	537271.05	N 32° 2' 53.59"	W 104° 12' 46.94"
	1060.00	5.80	292.40	1057.71	14.91	14.78	-44.03	0.50	381291.78	537261.97	N 32° 2' 53.62"	W 104° 12' 47.05"
	1155.00	5.69	295.94	1152.23	18.82	18.67	-52.71	0.39	381295.66	537253.30	N 32° 2' 53.66"	W 104° 12' 47.15"
	1249.00	5.55	296.86	1245.78	22.94	22.76	-60.95	0.18	381299.76	537245.05	N 32° 2' 53.70"	W 104° 12' 47.24"
	1343.00	5.22	301.25	1339.36	27.23	27.03	-68.66	0.56	381304.03	537237.34	N 32° 2' 53.75"	W 104° 12' 47.33"
	1438.00	4.10	313.76	1434.05	31.84	31.62	-74.81	1.59	381308.62	537231.20	N 32° 2' 53.79"	W 104° 12' 47.40"
	1532.00	4.07	316.02	1527.81	36.58	36.35	-79.55	0.17	381313.34	537226.45	N 32° 2' 53.84"	W 104° 12' 47.46"
	1627.00	4.67	296.74	1622.54	40.77	40.51	-85.35	1.66	381317.51	537220.66	N 32° 2' 53.88"	W 104° 12' 47.53"
	1721.00	3.94	291.46	1716.27	43.69	43.42	-91.77	0.88	381320.41	537214.24	N 32° 2' 53.91"	W 104° 12' 47.60"
	1816.00	2.48	299.93	1811.12	45.92	45.64	-96.59	1.61	381322.63	537209.42	N 32° 2' 53.93"	W 104° 12' 47.66"
	1910.00	2.15	268.81	1905.05	46.91	46.61	-100.12	1.36	381323.61	537205.89	N 32° 2' 53.94"	W 104° 12' 47.70"
	2004.00	4.01	255.56	1998.91	46.07	45.76	-105.06	2.11	381322.75	537200.95	N 32° 2' 53.93"	W 104° 12' 47.75"
	2099.00	4.81	269.92	2093.63	45.26	44.92	-112.26	1.43	381321.92	537193.75	N 32° 2' 53.92"	W 104° 12' 47.84"
	2193.00	4.67	275.90	2187.31	45.67	45.31	-120.01	0.55	381322.31	537186.00	N 32° 2' 53.93"	W 104° 12' 47.93"
	2288.00	4.44	275.79	2282.01	46.46	46.08	-127.52	0.24	381323.08	537178.50	N 32° 2' 53.93"	W 104° 12' 48.02"
	2383.00	4.10	278.68	2376.75	47.36	46.96	-134.53	0.42	381323.96	537171.48	N 32° 2' 53.94"	W 104° 12' 48.10"
	2477.00	3.82	277.74	2470.52	48.31	47.89	-140.96	0.31	381324.89	537165.06	N 32° 2' 53.95"	W 104° 12' 48.17"
	2572.00	4.70	279.85	2565.26	49.42	48.98	-147.93	0.94	381325.98	537158.09	N 32° 2' 53.96"	W 104° 12' 48.25"
	2666.00	5.06	280.15	2658.92	50.84	50.37	-155.80	0.38	381327.37	537150.21	N 32° 2' 53.98"	W 104° 12' 48.34"
	2760.00	4.76	283.46	2752.57	52.50	52.01	-163.67	0.44	381329.01	537142.34	N 32° 2' 53.99"	W 104° 12' 48.44"
	2855.00	4.43	281.10	2847.27	54.14	53.64	-171.11	0.40	381330.63	537134.91	N 32° 2' 54.01"	W 104° 12' 48.52"
	2949.00	4.11	279.23	2941.01	55.40	54.88	-178.00	0.37	381331.87	537128.02	N 32° 2' 54.02"	W 104° 12' 48.60"
	3044.00	2.43	277.08	3035.85	56.21	55.67	-183.35	1.77	381332.66	537122.66	N 32° 2' 54.03"	W 104° 12' 48.66"
	3138.00	1.73	297.11	3129.79	57.12	56.56	-186.60	1.06	381333.56	537119.42	N 32° 2' 54.04"	W 104° 12' 48.70"
	3233.00	0.32	353.03	3224.77	58.04	57.48	-187.90	1.66	381334.47	537118.11	N 32° 2' 54.05"	W 104° 12' 48.72"
	3327.00	0.22	47.10	3318.77	58.42	57.86	-187.80	0.28	381334.86	537118.21	N 32° 2' 54.05"	W 104° 12' 48.72"
	3422.00	0.08	11.01	3413.77	58.61	58.05	-187.66	0.17	381335.05	537118.36	N 32° 2' 54.05"	W 104° 12' 48.71"
	3516.00	0.11	324.74	3507.77	58.75	58.19	-187.70	0.08	381335.18	537118.32	N 32° 2' 54.06"	W 104° 12' 48.71"
	3611.00	0.23	246.04	3602.77	58.74	58.19	-187.92	0.25	381335.18	537118.09	N 32° 2' 54.06"	W 104° 12' 48.72"
	3705.00	0.20	228.48	3696.77	58.56	58.00	-188.22	0.08	381335.00	537117.80	N 32° 2' 54.05"	W 104° 12' 48.72"
	3800.00	0.22	241.93	3791.77	58.36	57.81	-188.50	0.06	381334.80	537117.51	N 32° 2' 54.05"	W 104° 12' 48.72"
	3894.00	0.18	198.47	3885.77	58.14	57.58	-188.71	0.16	381334.58	537117.31	N 32° 2' 54.05"	W 104° 12' 48.73"
	3988.00	0.13	219.34	3979.77	57.92	57.36	-188.82	0.08	381334.35	537117.19	N 32° 2' 54.05"	W 104° 12' 48.73"
	4083.00	0.20	214.03	4074.77	57.70	57.14	-188.99	0.08	381334.13	537117.03	N 32° 2' 54.05"	W 104° 12' 48.73"
	4177.00	0.22	150.52	4168.77	57.40	56.84	-188.99	0.24	381333.84	537117.03	N 32° 2' 54.04"	W 104° 12' 48.73"
	4272.00	0.13	158.71	4263.77	57.14	56.58	-188.86	0.10	381333.58	537117.16	N 32° 2' 54.04"	W 104° 12' 48.73"
	4366.00	0.06	187.81	4357.77	57.00	56.44	-188.83	0.09	381333.43	537117.19	N 32° 2' 54.04"	W 104° 12' 48.73"
	4461.00	0.17	144.16	4452.77	56.83	56.27	-188.75	0.14	381333.27	537117.27	N 32° 2' 54.04"	W 104° 12' 48.73"
	4555.00	0.25	145.41	4546.76	56.55	55.99	-188.55	0.09	381332.99	537117.46	N 32° 2' 54.03"	W 104° 12' 48.72"
	4650.00	0.18	121.54	4641.76	56.30	55.74	-188.31	0.12	381332.74	537117.71	N 32° 2' 54.03"	W 104° 12' 48.72"
	4744.00	0.24	137.85	4735.76	56.08	55.52	-188.05	0.09	381332.51	537117.97	N 32° 2' 54.03"	W 104° 12' 48.72"
	4839.00	0.22	135.53	4830.76	55.80	55.24	-187.79	0.02	381332.24	537118.23	N 32° 2' 54.03"	W 104° 12' 48.72"
	4934.00	0.13	107.19	4925.76	55.64	55.08	-187.56	0.13	381332.07	537118.46	N 32° 2' 54.02"	W 104° 12' 48.71"
	5028.00	0.18	120.96	5019.76	55.53	54.97	-187.33	0.07	381331.97	537118.69	N 32° 2' 54.02"	W 104° 12' 48.71"
	5123.00	0.28	154.24	5114.76	55.24	54.69	-187.10	0.17	381331.68	537118.92	N 32° 2' 54.02"	W 104° 12' 48.71"
	5217.00	0.24	146.00	5208.76	54.87	54.32	-186.89	0.06	381331.31	537119.13	N 32° 2' 54.02"	W 104° 12' 48.71"
	5312.00	0.25	179.92	5303.76	54.50	53.94	-186.78	0.15	381330.94	537119.24	N 32° 2' 54.01"	W 104° 12' 48.70"
	5406.00	0.38	165.02	5397.76	53.99	53.44	-186.70	0.16	381330.43	537119.32	N 32° 2' 54.01"	W 104° 12' 48.70"
	5501.00	0.43	159.28	5492.76	53.35	52.80	-186.49	0.07	381329.80	537119.53	N 32° 2' 54.00"	W 104° 12' 48.70"
	5691.00	0.36	186.50	5682.75	52.09	51.54	-186.31	0.10	381328.54	537119.71	N 32° 2' 53.99"	W 104° 12' 48.70"
	5785.00	0.23	194.05	5776.75	51.62	51.06	-186.39	0.14	381328.06	537119.63	N 32° 2' 53.98"	W 104° 12' 48.70"
	5880.00	0.46	187.71	5871.75	51.05	50.50	-186.48	0.25	381327.50	537119.53	N 32° 2' 53.98"	W 104° 12' 48.70"
	5974.00	0.68	205.00	5965.74	50.18	49.62	-186.77	0.29	381326.62	537119.25	N 32° 2' 53.97"	W 104° 12' 48.70"
	6069.00	0.93	209.67	6060.73	49.00	48.44	-187.39	0.27	381325.44	537118.63	N 32° 2' 53.96"	W 104° 12' 48.71"
	6163.00	0.97	217.92	6154.72	47.71	47.15	-188.26	0.15	381324.15	537117.76	N 32° 2' 53.95"	W 104° 12' 48.72"
	6257.00	1.04	213.99	6248.71	46.38	45.82	-189.22	0.10	381322.81	537116.79	N 32° 2' 53.93"	W 104° 12' 48.73"
	6352.00	1.39	203.91	6343.69	44.61	44.05	-190.17	0.43	381321.04	537115.85	N 32° 2' 53.92"	W 104° 12' 48.74"
	6446.00	1.19	215.53	6437.66	42.78	42.21	-191.20	0.35	381319.21	537114.82	N 32° 2' 53.90"	W 104° 12' 48.76"
	6541.00	1.31	220.30	6532.64	41.15	40.58	-192.48	0.17	381317.58	537113.54	N 32° 2' 53.88"	W 104° 12' 48.77"
	6639.00	0.30	187.34	6630.63	40.04	39.47	-193.23	1.09	381316.47	537112.78	N 32° 2' 53.87"</	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7491.00	1.24	192.23	7482.58	34.34	33.76	-197.22	0.31	381310.75	537108.70	N 32 2 53.81	W 104 12 48.83
	7586.00	0.96	181.61	7577.57	32.54	31.96	-197.46	0.36	381308.95	537108.56	N 32 2 53.80	W 104 12 48.83
	7680.00	0.74	184.03	7671.56	31.15	30.56	-197.52	0.24	381307.56	537108.50	N 32 2 53.78	W 104 12 48.83
	7774.00	0.48	140.68	7765.55	30.24	29.65	-197.31	0.54	381306.65	537108.70	N 32 2 53.77	W 104 12 48.83
	7869.00	0.73	91.75	7860.55	29.91	29.33	-196.46	0.58	381306.32	537109.56	N 32 2 53.77	W 104 12 48.82
	7963.00	0.84	96.95	7954.54	29.80	29.23	-195.17	0.14	381306.22	537110.84	N 32 2 53.77	W 104 12 48.80
	8058.00	0.94	120.51	8049.53	29.32	28.75	-193.81	0.40	381305.74	537112.21	N 32 2 53.76	W 104 12 48.79
	8152.00	0.90	138.57	8143.51	28.37	27.80	-192.66	0.31	381304.80	537113.36	N 32 2 53.75	W 104 12 48.77
	8247.00	0.96	160.81	8238.50	27.06	26.49	-191.90	0.38	381303.49	537114.11	N 32 2 53.74	W 104 12 48.76
	8342.00	0.95	180.22	8333.49	25.52	24.95	-191.65	0.34	381301.95	537114.37	N 32 2 53.73	W 104 12 48.76
	8436.00	1.18	182.40	8427.47	23.77	23.20	-191.69	0.25	381300.20	537114.33	N 32 2 53.71	W 104 12 48.76
	8530.00	1.31	198.35	8521.45	21.79	21.22	-192.07	0.39	381298.22	537113.95	N 32 2 53.69	W 104 12 48.77
	8625.00	1.52	198.22	8616.42	19.56	18.99	-192.80	0.22	381295.99	537113.21	N 32 2 53.67	W 104 12 48.77
	8720.00	1.50	210.19	8711.39	17.29	16.72	-193.82	0.33	381293.72	537112.19	N 32 2 53.65	W 104 12 48.79
	8815.00	1.42	217.72	8806.36	15.29	14.71	-195.17	0.22	381291.71	537110.85	N 32 2 53.63	W 104 12 48.80
	8909.00	1.58	218.82	8900.33	13.37	12.78	-196.69	0.17	381289.78	537109.32	N 32 2 53.61	W 104 12 48.82
	9004.00	1.65	219.80	8995.29	11.30	10.71	-198.39	0.08	381287.71	537107.63	N 32 2 53.59	W 104 12 48.84
	9098.00	1.53	235.05	9089.25	9.55	8.95	-200.28	0.47	381285.95	537105.73	N 32 2 53.57	W 104 12 48.86
	9188.00	1.59	235.77	9179.22	8.16	7.56	-202.30	0.07	381284.56	537103.72	N 32 2 53.55	W 104 12 48.89
	9235.00	1.42	348.01	9226.21	8.37	7.76	-202.96	5.32	381284.76	537103.06	N 32 2 53.56	W 104 12 48.89
	9282.00	8.63	22.15	9273.00	12.20	11.61	-201.75	15.95	381288.60	537104.27	N 32 2 53.59	W 104 12 48.88
	9329.00	14.78	19.20	9319.01	21.13	20.54	-198.45	13.14	381297.54	537107.57	N 32 2 53.68	W 104 12 48.84
	9377.00	19.73	15.69	9364.83	34.71	34.13	-194.24	10.53	381311.13	537111.78	N 32 2 53.82	W 104 12 48.79
	9424.00	24.70	9.44	9408.34	52.04	51.47	-190.48	11.70	381328.47	537115.54	N 32 2 53.99	W 104 12 48.75
	9471.00	28.89	7.00	9450.28	72.99	72.44	-187.49	9.22	381349.43	537118.53	N 32 2 54.20	W 104 12 48.71
	9518.00	33.21	5.76	9490.54	97.07	96.52	-184.81	9.29	381373.51	537121.21	N 32 2 54.43	W 104 12 48.68
	9566.00	38.67	3.78	9529.39	125.13	124.59	-182.50	11.63	381401.58	537123.52	N 32 2 54.71	W 104 12 48.65
	9613.00	45.23	359.67	9564.33	156.50	155.96	-181.63	15.13	381432.95	537124.39	N 32 2 55.02	W 104 12 48.64
	9661.00	51.58	356.77	9596.18	192.36	191.82	-182.78	13.98	381468.80	537123.23	N 32 2 55.38	W 104 12 48.66
	9708.00	56.46	354.78	9623.79	230.28	229.73	-185.61	10.93	381506.71	537120.41	N 32 2 55.75	W 104 12 48.69
	9755.00	59.89	353.19	9648.57	270.00	269.43	-189.80	7.84	381546.41	537116.22	N 32 2 56.15	W 104 12 48.74
	9802.00	62.69	352.47	9671.15	310.91	310.33	-194.95	6.11	381587.30	537111.07	N 32 2 56.55	W 104 12 48.80
	9850.00	65.45	352.37	9692.13	353.71	353.12	-200.64	5.75	381630.08	537105.38	N 32 2 56.97	W 104 12 48.86
	9897.00	65.45	352.32	9711.66	396.10	395.49	-206.34	0.10	381672.45	537099.68	N 32 2 57.39	W 104 12 48.93
	9945.00	68.13	353.33	9730.58	439.88	439.25	-211.84	5.91	381716.21	537094.18	N 32 2 57.83	W 104 12 48.99
	9992.00	72.52	355.05	9746.40	483.91	483.27	-216.31	9.96	381760.22	537089.71	N 32 2 58.26	W 104 12 49.04
	10039.00	75.80	355.50	9759.22	528.97	528.32	-220.03	7.04	381805.28	537085.99	N 32 2 58.71	W 104 12 49.08
	10086.00	79.64	354.28	9769.22	574.72	574.06	-224.13	8.55	381851.00	537081.89	N 32 2 59.16	W 104 12 49.13
	10133.00	85.46	352.65	9775.31	621.01	620.33	-229.43	12.85	381897.28	537076.59	N 32 2 59.62	W 104 12 49.19
	10180.00	89.05	351.09	9777.56	667.50	666.80	-236.07	8.33	381943.74	537069.95	N 32 3 0.08	W 104 12 49.27
	10228.00	89.78	351.27	9778.05	714.95	714.23	-243.43	1.57	381991.16	537062.59	N 32 3 0.55	W 104 12 49.35
	10322.00	90.06	351.47	9778.18	807.93	807.16	-257.54	0.37	382084.09	537048.49	N 32 3 1.47	W 104 12 49.52
Heel HL Cross	10377.00	90.11	351.00	9778.10	862.31	861.52	-265.92	0.86	382138.44	537040.11	N 32 3 2.01	W 104 12 49.61
	10385.00	90.12	350.93	9778.08	870.21	869.42	-267.18	0.86	382146.34	537038.85	N 32 3 2.08	W 104 12 49.63
	10480.00	90.06	352.72	9777.94	964.28	963.45	-280.68	1.89	382240.37	537025.34	N 32 3 3.01	W 104 12 49.78
	10574.00	90.62	355.96	9777.38	1057.84	1056.98	-289.95	3.50	382333.88	537016.07	N 32 3 3.94	W 104 12 49.89
	10669.00	90.34	357.77	9776.58	1152.70	1151.83	-295.15	1.93	382428.73	537010.88	N 32 3 4.88	W 104 12 49.95
	10764.00	88.21	356.37	9777.78	1247.58	1246.69	-300.00	2.68	382523.58	537006.02	N 32 3 5.82	W 104 12 50.00
	10858.00	90.45	357.57	9778.88	1341.44	1340.55	-304.97	2.70	382617.43	537001.06	N 32 3 6.75	W 104 12 50.06
	10953.00	89.11	357.71	9779.25	1436.37	1435.46	-308.88	1.42	382712.33	536997.15	N 32 3 7.69	W 104 12 50.11
	11047.00	89.16	357.71	9780.67	1530.30	1529.38	-312.64	0.05	382806.24	536993.39	N 32 3 8.62	W 104 12 50.15
	11142.00	89.05	357.47	9782.15	1625.21	1624.28	-316.63	0.28	382901.13	536989.40	N 32 3 9.55	W 104 12 50.19
	11236.00	89.28	357.48	9783.52	1719.12	1718.18	-320.77	0.24	382995.02	536985.26	N 32 3 10.48	W 104 12 50.24
	11330.00	90.06	357.92	9784.06	1813.06	1812.10	-324.55	0.95	383088.94	536981.48	N 32 3 11.41	W 104 12 50.28
	11425.00	90.95	358.00	9783.22	1908.00	1907.04	-327.93	0.94	383183.86	536978.10	N 32 3 12.35	W 104 12 50.32
	11519.00	91.18	353.79	9781.48	2001.74	2000.76	-334.65	4.48	383277.58	536971.38	N 32 3 13.28	W 104 12 50.40
	11614.00	91.12	356.90	9779.57	2096.42	2095.41	-342.36	3.27	383372.22	536963.67	N 32 3 14.22	W 104 12 50.49
	11709.00	91.79	358.58	9777.16	2191.32	2190.31	-346.11	1.90	383467.11	536959.93	N 32 3 15.16	W 104 12 50.53
	11803.00	90.00	0.23	9775.69	2285.30	2284.28	-347.08	2.59	383561.07	536958.95	N 32 3 16.09	W 104 12 50.54
	11898.00	90.56	1.09	9775.22	2380.29	2379.27	-345.99	1.08	383656.06	536960.05	N 32 3 17.03	W 104 12 50.52
	11992.00	87.47	358.74	9776.84	2474.26	2473.24	-346.12	4.13	383750.02	536959.91	N 32 3 17.96	W 104 12 50.52
	12087.00	90.95	0.21	9778.15	2569.23	2568.21	-346.99	3.98	383844.98	536959.04	N 32 3 18.90	W 104 12 50.53
	12181.00	92.51	359.84	9775.31	2663.18	2662.17	-346.95	1.71	383938.92	536959.08	N 32 3 19.83	W 104 12 50.53
	12276.00	92.06	359.03	9771.52	2758.10	2757.08	-347.89	0.97	384033.83	536958.14	N 32 3 20.76	W 104 12 50.54
	12371.00	91.79	358.98	9768.33	2853.04	2852.02	-349.54	0.29	384128.76	536956.49	N 32 3 21.70	W 104 12 50.56
	12465.00	91.62	359.48	9765.54	2946.99	2945.97	-350.80	0.56	384222.70	536955.23	N 32 3 22.63	W 104 12 50.57
	12560.00	91.06	359.27	9763.31	3041.96	3040.93	-351.84	0.63	384317.66	536954.20	N 32 3 23.57	W 104 12 50.58
	12654.00	91.79	359.65	9760.98	3135.93	3134.90	-352.72	0.88	384411.61	536953.31	N 32 3 24.50	W 104 12 50.59
	12749.00	91.39	0.11	9758.34	3230.89	3229.86	-352.92	0.64	384506.57	536953.11	N 32 3 25.44	W 104 12 50.59
	12843.00	91.06	359.84	9756.33	3324.87	3323.84	-352.96	0.45	384600.54	536953.07	N 32 3 26.37	W 104 12 50.59
	12938.00	90.66	359.29	9754.91	3419.86	3418.83	-353.68	0.72	384695.51	536952.35	N 32 3 27.31	W 104 12 50.60
	13033.00	90.66	356.95	9753.81	3514.81	3513.76	-356.80	2.46	384790.44	536949.23	N 32 3 28.25	W 104 12 50.64
	13127.00	90.78	359.98	9752.63	3608.76	3607.71	-359.32	3.23	384884.38	536946.72	N 32 3 29.18	W 104 12 50.66
	13222.00	90.66	1.29	9751.44	3703.74	3702.69	-358.26	1.38	384979.36	536947.77	N 32 3 30.12	W 104 12 50.65
	13316.00	90.66	1.06	9750.35	3797.71	3796.67	-356.34	0.24	385073.32	536949.70	N 32 3 31.05	W 104 12 50.63
	13411.00	90.61	1.91	9749.30	3892.66	3891.63	-353.88	0.90	385168.27	536952.16	N 32 3 31.99	W 104 12 50.60
	13505.00	91.28	1.62	9747.75	3986.60	3985.57	-350.98	0.78	385262.21	536955.05	N 3	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	16717.00	89.77	0.74	9735.66	7195.82	7194.83	-345.74	0.69	388471.17	536960.29	N 32 4 4.68	W 104 12 50.46
	16811.00	88.82	0.18	9736.82	7289.81	7288.81	-344.98	1.17	388565.15	536961.05	N 32 4 5.61	W 104 12 50.45
	16905.00	89.66	1.51	9738.06	7383.78	7382.79	-343.60	1.67	388659.12	536962.43	N 32 4 6.54	W 104 12 50.43
	17000.00	90.33	0.31	9738.07	7478.76	7477.78	-342.09	1.45	388754.10	536963.94	N 32 4 7.48	W 104 12 50.41
	17095.00	88.71	358.89	9738.87	7573.75	7572.77	-342.75	2.27	388849.08	536963.28	N 32 4 8.42	W 104 12 50.42
	17189.00	89.49	359.88	9740.34	7667.73	7666.75	-343.76	1.34	388943.05	536962.27	N 32 4 9.35	W 104 12 50.43
	17284.00	89.38	358.99	9741.28	7762.73	7761.74	-344.70	0.94	389038.03	536961.33	N 32 4 10.29	W 104 12 50.44
	17378.00	88.15	359.54	9743.31	7856.70	7855.71	-345.90	1.43	389131.99	536960.13	N 32 4 11.22	W 104 12 50.45
	17473.00	88.65	0.29	9745.96	7951.66	7950.67	-346.04	0.95	389226.94	536959.99	N 32 4 12.16	W 104 12 50.45
	17568.00	88.88	1.26	9748.01	8046.62	8045.64	-344.76	1.05	389321.90	536961.27	N 32 4 13.10	W 104 12 50.44
	17662.00	88.82	1.29	9749.89	8140.58	8139.59	-342.67	0.07	389415.85	536963.36	N 32 4 14.03	W 104 12 50.41
	17757.00	89.60	0.47	9751.20	8235.55	8234.57	-341.21	1.19	389510.82	536964.82	N 32 4 14.97	W 104 12 50.39
	17852.00	88.65	0.06	9752.65	8330.53	8329.56	-340.77	1.09	389605.80	536965.26	N 32 4 15.91	W 104 12 50.39
	17946.00	91.17	358.58	9752.80	8424.52	8423.54	-341.89	3.11	389699.77	536964.15	N 32 4 16.84	W 104 12 50.40
	18041.00	89.27	356.97	9752.44	8519.45	8518.46	-345.57	2.62	389794.68	536960.46	N 32 4 17.78	W 104 12 50.44
	18135.00	88.37	355.58	9754.37	8613.25	8612.24	-351.68	1.76	389888.45	536954.35	N 32 4 18.71	W 104 12 50.51
	18230.00	88.71	1.47	9756.80	8708.15	8707.14	-354.12	6.21	389983.34	536951.91	N 32 4 19.64	W 104 12 50.54
	18324.00	88.76	1.64	9758.87	8802.08	8801.08	-351.57	0.19	390077.28	536954.46	N 32 4 20.57	W 104 12 50.51
	18419.00	88.88	0.32	9760.83	8897.04	8896.04	-349.95	1.39	390172.23	536956.08	N 32 4 21.51	W 104 12 50.49
	18513.00	87.42	1.40	9763.86	8990.97	8989.98	-348.54	1.93	390266.16	536957.49	N 32 4 22.44	W 104 12 50.47
	18608.00	88.26	3.24	9767.44	9085.81	9084.83	-344.69	2.13	390361.00	536961.34	N 32 4 23.38	W 104 12 50.42
	18702.00	91.29	357.72	9767.81	9179.76	9178.78	-343.91	6.70	390454.94	536962.12	N 32 4 24.31	W 104 12 50.41
	18797.00	90.17	1.92	9766.60	9274.73	9273.75	-344.21	4.58	390549.90	536961.83	N 32 4 25.25	W 104 12 50.41
	18892.00	90.73	3.20	9765.85	9369.61	9368.65	-339.96	1.47	390644.79	536966.07	N 32 4 26.19	W 104 12 50.36
	18986.00	90.39	2.69	9764.94	9463.47	9462.52	-335.13	0.65	390738.65	536970.90	N 32 4 27.12	W 104 12 50.31
	19081.00	91.57	0.69	9763.31	9558.40	9557.46	-332.33	2.44	390833.58	536973.70	N 32 4 28.06	W 104 12 50.27
	19176.00	90.22	358.55	9761.83	9653.38	9652.43	-332.96	2.68	390928.55	536973.07	N 32 4 29.00	W 104 12 50.28
	19271.00	90.00	357.73	9761.64	9748.34	9747.38	-336.05	0.89	391023.49	536969.98	N 32 4 29.94	W 104 12 50.31
	19460.00	89.66	357.63	9762.21	9937.20	9936.23	-343.70	0.19	391212.32	536962.33	N 32 4 31.81	W 104 12 50.40
	19555.00	90.06	359.68	9762.44	10032.18	10031.20	-345.93	2.20	391307.28	536960.11	N 32 4 32.75	W 104 12 50.43
	19745.00	90.11	357.83	9762.16	10222.14	10221.14	-350.05	0.97	391497.21	536955.98	N 32 4 34.63	W 104 12 50.47
	19840.00	89.77	358.57	9762.25	10317.10	10316.09	-353.04	0.86	391592.15	536952.99	N 32 4 35.57	W 104 12 50.50
	19934.00	90.11	357.88	9762.35	10411.06	10410.05	-355.95	0.82	391686.10	536950.08	N 32 4 36.50	W 104 12 50.54
	20029.00	90.34	357.98	9761.98	10506.01	10504.99	-359.38	0.26	391781.03	536946.65	N 32 4 37.44	W 104 12 50.58
	20124.00	89.89	358.29	9761.79	10600.96	10599.93	-362.47	0.58	391875.97	536943.56	N 32 4 38.38	W 104 12 50.61
	20218.00	89.77	2.38	9762.07	10694.94	10693.91	-361.92	4.35	391969.94	536944.11	N 32 4 39.31	W 104 12 50.60
	20313.00	89.89	2.65	9762.35	10789.83	10788.82	-357.76	0.31	392064.84	536948.28	N 32 4 40.24	W 104 12 50.55
Toe HL Cross	20363.00	91.47	3.19	9761.76	10839.76	10838.75	-355.21	3.34	392114.76	536950.82	N 32 4 40.74	W 104 12 50.52
	20407.00	92.86	3.67	9760.10	10883.64	10882.64	-352.58	3.34	392158.65	536953.46	N 32 4 41.17	W 104 12 50.49
Last SLB MWD Survey	20472.00	92.02	2.91	9757.33	10948.46	10947.47	-348.85	1.74	392223.47	536957.18	N 32 4 41.81	W 104 12 50.45
Projection to Bit	20515.00	92.02	2.91	9755.81	10991.37	10990.39	-346.67	0.00	392266.39	536959.36	N 32 4 42.24	W 104 12 50.42

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/98.425	30.000	30.000	A001Ma_MWD-Depth Only	Original Borehole / Chevron HH SO 8 5 FED 003 No. 5H MWD to
	1	28.000	28.000	Act Stns	30.000	30.000	A001Ma_MWD-Depth Only	Original Borehole / Chevron HH SO 8 5 FED 003 No. 5H MWD to
	1	28.000	449.000	Act Stns	30.000	30.000	A001Ma_MWD	Original Borehole / Chevron HH SO 8 5 FED 003 No. 5H MWD to
	1	449.000	20515.000	Act Stns	30.000	30.000	B001Ma_MWD+HDGM	Original Borehole / Chevron HH SO 8 5 FED 003 No. 5H MWD to