

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45116	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 2H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3267'

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.		604'	NORTH	2308'	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	2190'	WEST	EDDY
¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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 FINAL LAST TAKE POINT X= 537,142' Y= 392,111' LAT. 32.077973° N LONG. 104.213418° W NAD 27 MID POINT X= 537,103' Y= 387,134' LAT. 32.064291° N LONG. 104.213560° W NAD 27 FINAL FIRST TAKE POINT X= 537,156' Y= 382,169' LAT. 32.050641° N LONG. 104.213407° W NAD 27 KICK OFF POINT X= 537,147' Y= 381,503' LAT. 32.048810° N LONG. 104.213439° W NAD 27 ACTUAL BOTTOM HOLE LOCATION X= 537,144' Y= 392,267' LAT. 32.078402° N LONG. 104.213409° W NAD 27 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 2H WELL X= 537,306' Y= 381,202' LAT. 32.047981° N LONG. 104.212927° W NAD 27 X= 578,489' Y= 381,259' LAT. 32.048103° N LONG. 104.213421° W NAD83/86 ELEVATION +3267' NAVD 88	Final Last Take Point @ 19,342' MD 334.00' FNL, 2188.13' FWL 463.04' FEL Lease Sec. 5 Mid Point @ 14,363.23' MD Sec. 8 Final First Take Point @ 9,394' MD 362.81' FSL, 2171.33' FWL 485.03' FEL Lease Kick Off Point @ 8,377' MD 303.31' FNL, 2154.01' FWL Sec. 17	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> 1/6/2020 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 12/18/2019 Certificate Number
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KWP

JAN 09 2020

EMNRD-OCD ARTESIA

Intent ☐ As Drilled ☒API #
30-015-45116Operator Name:
CHEVRON USA INCProperty Name:
HH SO 10 15 FED 003Well Number
2H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	17	26S	27E		303	N	2154	W	EDDY
Latitude 32.048931					Longitude -104.213933			NAD	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	8	26S	27E		362	S	2171	W	EDDY
Latitude 32.050763					Longitude -104.213901			NAD 83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	5	26S	27E		334	N	2188	W	EDDY
Latitude 32.078095					Longitude -104.213912			NAD 83	

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

NO

Is this well an infill well?

YES

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

API #
30-015-45115Operator Name:
CHEVRON USA INCProperty Name:
HH SO 8 5 FED 003Well Number
1H

KZ 06/29/2018

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)

RECEIVED

FEB 18 2020

Schlumberger

EMNRD-OCDARTESIA

April 3, 2019

Chevron USA
6301 DEAUVILLE BLVD
Midland, TX 79706-0000

5, 24S, 29E, Eddy NM
N 32.24035 W 104.01020

Re:

CLIENT: Chevron USA
WELL: CB SE 5 32 FED COM 3 1H
FIELD: Purple Sage Wolfcamp

RIG: Patterson 257
COUNTY: Eddy
API NO: 30-015-44974
JOB NO: 18MLD4011

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>
Saraj Aldawlah FE	CB SE 5 32 FED COM 3 1H Original Hole	426.00 Ft to 20220.00 Ft	December 21, 2018 to February 26, 2019	TelePacer SlimPulse

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Dana Lasher
Field Service Manager

Schlumberger-Private

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)

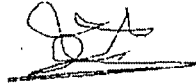
Schlumberger

Well Reference:

S, 24S, 29E, Eddy NM
N 32.24035 W 104.01020

I, Saraj Aldawlah certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of December 21, 2018 through February 26, 2019, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 426.00 feet to a depth of 20220.00 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 for the CB SE 5 32 FED COM 3 1H Well (Original Hole) API No. 30-015-44974 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
Saraj Aldawlah
FE



Subscribed and Sworn to before me this 3rd day of April (month) 2019 (yr)

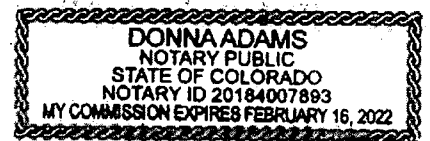
My Commission expires:

2-16-2022

D. Adams
Notary Public

(signature)

Adams County Colorado
(County State)





Chevron HH SO 8 5 FED 003 No. 2H MWD to 10498ft Survey Geodetic

Report
(Def Survey)

Report Date: February 24, 2019 - 07:50 AM
 Client: Chevron
 Field: NM Eddy County (NAD 27)
 Structure / Slot: Chevron HH SO 8 5 FED 003 No. 2H / Chevron HH SO 8 5 FED 003 No. 2H
 Well: Chevron HH SO 8 5 FED 003 No. 2H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Chevron HH SO 8 5 FED 003 No. 2H MWD to 19498ft
 Survey Date: February 23, 2019
 Tort / AHD / DDI / ERD Ratio: 231.214' / 11216.568 ft / 6.745 / 1.232
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 2' 52.73528", W 104° 12' 46.53586"
 Location Grid N/E Y/X: N 381202.000 RUS, E 537306.000 RUS
 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: 359.825 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB = 28ft
 TVD Reference Elevation: 3295.000 ft above MSL
 Seabed / Ground Elevation: 3267.000 ft above MSL
 Magnetic Declination: 7.252 °
 Total Gravity Field Strength: 998.4289mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47800.168 nT
 Magnetic Dip Angle: 59.666 °
 Declination Date: February 23, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.0639 °
 Total Corr Mag North->Grid North: 7.1883 °
 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	381202.00	537306.00	N 32° 2' 52.74"	W 104° 12' 46.54"
First 3rd Party Survey	198.00	2.10	322.90	197.96	2.90	2.89	-2.19	1.06	381204.89	537303.81	N 32° 2' 52.76"	W 104° 12' 46.56"
	282.00	1.40	359.90	281.92	5.16	5.15	-3.12	1.54	381207.15	537302.88	N 32° 2' 52.79"	W 104° 12' 46.57"
	372.00	2.00	311.10	371.88	7.29	7.28	-4.30	1.67	381209.28	537301.70	N 32° 2' 52.81"	W 104° 12' 46.59"
Last 3rd Party Survey	452.00	1.00	342.50	451.86	8.88	8.86	-5.57	1.57	381210.86	537300.43	N 32° 2' 52.82"	W 104° 12' 46.60"
First SLB MWD Survey	596.00	1.73	176.69	595.84	7.91	7.89	-5.82	1.88	381209.89	537300.18	N 32° 2' 52.81"	W 104° 12' 46.60"
	688.00	2.75	216.50	687.77	4.75	4.73	-7.05	1.96	381206.73	537298.95	N 32° 2' 52.78"	W 104° 12' 46.62"
	779.00	2.76	266.13	778.68	2.86	2.83	-10.54	2.54	381204.83	537295.46	N 32° 2' 52.76"	W 104° 12' 46.66"
	872.00	1.71	281.51	871.61	3.00	2.95	-14.13	1.29	381204.95	537291.87	N 32° 2' 52.76"	W 104° 12' 46.70"
	967.00	1.43	280.37	966.57	3.50	3.45	-16.68	0.30	381205.45	537289.32	N 32° 2' 52.77"	W 104° 12' 46.73"
	1061.00	1.46	275.42	1060.54	3.83	3.77	-19.03	0.14	381205.77	537286.97	N 32° 2' 52.77"	W 104° 12' 46.76"
	1156.00	1.21	271.76	1155.52	3.98	3.92	-21.24	0.28	381205.92	537284.76	N 32° 2' 52.77"	W 104° 12' 46.78"
	1250.00	1.03	281.39	1249.50	4.19	4.12	-23.06	0.28	381206.12	537282.94	N 32° 2' 52.78"	W 104° 12' 46.80"
	1344.00	0.63	308.49	1343.49	4.68	4.60	-24.29	0.59	381206.60	537281.71	N 32° 2' 52.78"	W 104° 12' 46.82"
	1439.00	0.68	299.19	1438.48	5.28	5.20	-25.19	0.12	381207.20	537280.81	N 32° 2' 52.79"	W 104° 12' 46.83"
	1533.00	1.91	260.25	1532.46	5.29	5.21	-27.22	1.54	381207.21	537278.78	N 32° 2' 52.79"	W 104° 12' 46.85"
	1628.00	2.24	261.61	1627.40	4.77	4.67	-30.62	0.35	381206.67	537275.38	N 32° 2' 52.78"	W 104° 12' 46.89"
	1722.00	0.57	288.18	1721.37	4.65	4.55	-32.88	1.86	381206.55	537273.12	N 32° 2' 52.78"	W 104° 12' 46.92"
	1817.00	1.48	327.00	1816.35	5.83	5.73	-34.00	1.15	381207.73	537272.00	N 32° 2' 52.79"	W 104° 12' 46.93"
	1911.00	4.01	310.04	1910.24	8.97	8.86	-37.18	2.80	381210.86	537268.83	N 32° 2' 52.82"	W 104° 12' 46.97"
	2005.00	5.94	311.97	2003.88	14.36	14.23	-43.31	2.06	381216.23	537262.69	N 32° 2' 52.88"	W 104° 12' 47.04"
	2100.00	6.44	331.15	2098.33	22.33	22.18	-49.54	2.23	381224.18	537256.47	N 32° 2' 52.96"	W 104° 12' 47.11"
	2194.00	6.84	346.87	2191.71	32.41	32.25	-53.35	1.97	381234.25	537252.65	N 32° 2' 53.06"	W 104° 12' 47.16"
	2289.00	7.70	347.93	2285.95	44.16	43.98	-55.97	0.92	381245.98	537250.04	N 32° 2' 53.17"	W 104° 12' 47.19"
	2384.00	8.83	344.85	2379.96	57.43	57.25	-59.20	1.28	381259.24	537246.80	N 32° 2' 53.30"	W 104° 12' 47.22"
	2478.00	9.76	343.87	2472.72	72.06	71.86	-63.30	1.00	381273.86	537242.70	N 32° 2' 53.45"	W 104° 12' 47.27"
	2573.00	11.31	343.31	2566.12	88.73	88.52	-68.22	1.64	381290.52	537237.79	N 32° 2' 53.61"	W 104° 12' 47.33"
	2667.00	12.38	342.44	2658.12	107.19	106.96	-73.90	1.15	381308.95	537232.10	N 32° 2' 53.79"	W 104° 12' 47.39"
	2761.00	13.71	339.08	2749.69	127.22	126.97	-80.92	1.63	381328.96	537225.09	N 32° 2' 53.99"	W 104° 12' 47.47"
	2856.00	13.79	338.09	2841.97	148.27	147.99	-89.17	0.26	381349.98	537216.84	N 32° 2' 54.20"	W 104° 12' 47.57"
	2950.00	13.24	338.28	2933.36	168.69	168.39	-97.33	0.59	381370.37	537208.68	N 32° 2' 54.40"	W 104° 12' 47.66"
	3045.00	12.96	342.48	3025.89	188.97	188.65	-104.56	1.04	381390.64	537201.45	N 32° 2' 54.60"	W 104° 12' 47.75"
	3139.00	11.83	345.70	3117.70	208.38	208.04	-110.12	1.41	381410.02	537195.89	N 32° 2' 54.80"	W 104° 12' 47.81"
	3234.00	11.57	346.81	3210.73	227.10	226.76	-114.70	0.36	381428.73	537191.31	N 32° 2' 54.98"	W 104° 12' 47.87"
	3328.00	10.59	347.76	3302.97	244.74	244.38	-118.68	1.06	381446.35	537187.33	N 32° 2' 55.15"	W 104° 12' 47.91"
	3423.00	9.44	347.88	3396.53	260.90	260.52	-122.17	1.21	381462.50	537183.85	N 32° 2' 55.31"	W 104° 12' 47.95"
	3517.00	7.84	349.07	3489.46	274.74	274.36	-125.00	1.71	381476.33	537181.01	N 32° 2' 55.45"	W 104° 12' 47.98"
	3612.00	6.97	351.66	3583.66	286.81	286.42	-127.06	0.98	381488.40	537178.95	N 32° 2' 55.57"	W 104° 12' 48.01"
	3706.00	5.85	352.13	3677.07	297.20	296.81	-128.55	1.19	381498.78	537177.46	N 32° 2' 55.67"	W 104° 12' 48.03"
	3801.00	4.60	352.54	3771.68	305.78	305.38	-129.70	1.32	381507.36	537176.31	N 32° 2' 55.76"	W 104° 12' 48.04"
	3895.00	3.71	348.55	3865.43	312.50	312.10	-130.80	0.99	381514.07	537175.21	N 32° 2' 55.83"	W 104° 12' 48.05"
	3989.00	2.98	348.66	3959.27	317.88	317.48	-131.88	0.78	381519.45	537174.13	N 32° 2' 55.88"	W 104° 12' 48.06"
	4084.00	2.66	346.75	4054.15	322.45	322.05	-132.87	0.35	381524.02	537173.14	N 32° 2' 55.92"	W 104° 12' 48.08"
	4178.00	2.26	344.21	4148.07	326.36	325.95	-133.88	0.44	381527.92	537172.14	N 32° 2' 55.96"	W 104° 12' 48.09"
	4273.00	2.00	345.88	4243.00	329.77	329.36	-134.79	0.28	381531.33	537171.22	N 32° 2' 56.00"	W 104° 12' 48.10"
	4367.00	1.07	333.21	4336.97	332.15	331.74	-135.59	1.05	381533.71	537170.43	N 32° 2' 56.02"	W 104° 12' 48.11"
	4462.00	0.73	331.24	4431.95	333.47	333.06	-136.28	0.36	381535.03	537169.73	N 32° 2' 56.03"	W 104° 12' 48.11"
	4556.00	0.74	340.48	4525.95	334.57	334.16	-136.77	0.13	381536.13	537169.24	N 32° 2' 56.04"	W 104° 12' 48.12"
	4651.00	0.50	311.87	4620.94	335.43	335.01	-137.28	0.40	381536.98	537168.73	N 32° 2' 56.05"	W 104° 12' 48.13"
	4745.00	0.46	310.40	4714.94	335.95	335.53	-137.88	0.04	381537.50	537168.14	N 32° 2' 56.06"	W 104° 12' 48.13"
	4840.00	0.46	299.64	4809.94	336.39	335.96	-138.50	0.09	381537.93	537167.52	N 32° 2' 56.06"	W 104° 12' 48.14"
	4935.00	0.48	286.36	4904.93	336.69	336.27	-139.21	0.12	381538.23	537166.80	N 32° 2' 56.06"	W 104° 12' 48.15"
	5029.00	0.45	276.84	4998.93	336.85	336.42	-139.95	0.09	381538.39	537166.06	N 32° 2' 56.07"	W 104° 12' 48.16"
	5124.00	0.23	252.34	5093.93	336.83	336.41	-140.51	0.27	381538.38	537165.51	N 32° 2' 56.07"	W 104° 12' 48.16"
	5218.00	0.25	257.05	5187.93	336.73	336.30	-140.89	0.03	381538.27	537165.13	N 32° 2' 56.06"	W 104° 12' 48.17"
	5313.00	0.23	310.36	5282.93	336.81	336.38	-141.23	0.23	381538.35	537164.78	N 32° 2' 56.07"	W 104° 12' 48.17"
	5407.00	0.30	280.45	5376.92	336.98	336.55	-141.62	0.16	381538.52	537164.39	N 32° 2' 56.07"	W 104° 12' 48.18"
	5502.00	0.36	242.30	5471.92	336.89	336.45	-142.13	0.23	381538.42	537163.88	N 32° 2' 56.07"	W 104° 12' 48.18"
	5597.00	0.29	256.93	5566.92	336.70	336.26	-142.63	0.11	381538.23	537163.39	N 32° 2' 56.06"	W 104° 12' 48.19"
	5692.00	0.25	196.98	5661.92	336.44	336.01	-142.92	0.29	381537.98	537163.09	N 32° 2' 56.06"	W 104° 12' 48.19"
	5786.00	0.60	172.74	5755.92	335.76	335.32	-142.92	0.41	381537.29	537163.09	N 32° 2' 56.06"	W 104° 12' 48.19"
	5881.00	0.75	174.40	5850.91	334.65	334.21	-142.80	0.16	381536.18	537163.22	N 32° 2' 56.04"	W 104° 12' 48.19"
	5975.00	0.78	197.70	5944.90	333.43	332.99	-142.93	0.33	381534.96	537163.08	N 32° 2' 56.03"	W 104° 12' 48.19"
	6070.00	0.44	211.86	6039.90	332.50	332.06	-143.32	0.39	381534.03	537162.69	N 32° 2' 56.02"	W 104° 12' 48.20"
	6164.00	0.34	234.16	6133.90	332.03	331.59	-143.74	0.19	381533.56	537162.28	N 32° 2' 56.02"	W 104° 12' 48.20"
	6258.00	0.57	254.42	6227.89	331.75	331.31	-144.41	0.29	381533.28	537161.80	N 32° 2' 56.02"	W 104° 12' 48.21"
	6353.00	0.69	264.12	6322.89	331.56	331.12	-145.44	0.17	381533.09	537160.58	N 32° 2' 56.01"	W 104° 12' 48.22"
	6447.00	0.84	274.93	6416.88	331.57	331.12	-146.69	0.22	381533.09	537159.33	N 32° 2' 56.01"	W 104° 12' 48.24"
	6542.00	0.60	293.70	6511.87	331.83	331.38	-147.84	0.35	381533.35	537158.18	N 32° 2' 56.02"	W 104° 12' 48.25"
	6637.00	0.68										

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 ° ' '')
	7015.00	0.63	239.84	6984.84	329.46	329.00	-152.52	0.01	381530.97	537153.49	N 32 2 55.99	W 104 12 48.30
	7110.00	0.40	246.76	7079.84	329.07	328.61	-153.28	0.25	381530.58	537152.74	N 32 2 55.99	W 104 12 48.31
	7205.00	0.20	236.33	7174.84	328.85	328.38	-153.72	0.22	381530.35	537152.29	N 32 2 55.99	W 104 12 48.32
	7299.00	0.60	255.21	7268.83	328.64	328.17	-154.33	0.44	381530.14	537151.68	N 32 2 55.98	W 104 12 48.32
	7394.00	0.92	220.16	7363.82	327.93	327.46	-155.31	0.58	381529.43	537150.71	N 32 2 55.98	W 104 12 48.34
	7489.00	1.04	212.77	7458.81	326.63	326.15	-156.26	0.18	381528.12	537149.75	N 32 2 55.96	W 104 12 48.35
	7584.00	1.12	202.63	7553.79	325.05	324.57	-157.09	0.22	381526.54	537148.93	N 32 2 55.95	W 104 12 48.36
	7678.00	1.19	197.44	7647.77	323.27	322.79	-157.73	0.13	381524.76	537148.28	N 32 2 55.93	W 104 12 48.36
	7772.00	1.29	188.06	7741.75	321.29	320.81	-158.18	0.24	381522.78	537147.84	N 32 2 55.91	W 104 12 48.37
	7867.00	1.68	176.37	7836.72	318.84	318.36	-158.24	0.52	381520.33	537147.78	N 32 2 55.89	W 104 12 48.37
	7961.00	2.09	177.41	7930.67	315.76	315.27	-158.07	0.44	381517.24	537147.94	N 32 2 55.86	W 104 12 48.37
	8056.00	2.40	173.38	8025.60	312.05	311.57	-157.77	0.37	381515.54	537148.25	N 32 2 55.82	W 104 12 48.36
	8150.00	2.22	175.58	8119.52	308.28	307.80	-157.40	0.21	381509.77	537148.62	N 32 2 55.78	W 104 12 48.36
	8260.00	1.86	189.16	8229.45	304.39	303.91	-157.52	0.55	381505.88	537148.50	N 32 2 55.74	W 104 12 48.36
	8351.00	1.96	197.61	8320.40	301.45	300.97	-158.22	0.33	381502.94	537147.79	N 32 2 55.72	W 104 12 48.37
	8398.00	3.37	322.21	8367.37	301.78	301.30	-159.31	10.14	381503.27	537146.70	N 32 2 55.72	W 104 12 48.38
	8445.00	8.57	342.51	8414.11	306.22	305.73	-161.21	11.77	381507.70	537144.80	N 32 2 55.76	W 104 12 48.40
	8492.00	13.04	344.64	8460.26	314.69	314.19	-163.67	9.55	381516.16	537142.34	N 32 2 55.85	W 104 12 48.43
	8540.00	19.47	339.89	8506.32	327.45	326.93	-167.86	13.67	381528.91	537138.15	N 32 2 55.97	W 104 12 48.48
	8586.00	25.96	345.21	8548.74	344.42	343.89	-173.07	14.79	381545.86	537132.94	N 32 2 56.14	W 104 12 48.54
	8634.00	30.35	351.86	8591.06	366.61	366.07	-177.48	11.23	381568.03	537128.54	N 32 2 56.36	W 104 12 48.59
	8681.00	34.30	0.15	8630.78	391.63	391.09	-179.12	12.62	381593.05	537126.89	N 32 2 56.61	W 104 12 48.61
	8729.00	37.31	7.04	8669.72	419.61	419.07	-177.31	10.47	381621.03	537128.71	N 32 2 56.88	W 104 12 48.59
	8776.00	39.62	7.96	8706.52	448.58	448.05	-173.48	5.06	381650.01	537132.53	N 32 2 57.17	W 104 12 48.55
	8823.00	41.31	8.02	8742.28	478.77	478.25	-169.24	3.60	381680.21	537136.77	N 32 2 57.47	W 104 12 48.50
	8870.00	43.46	8.51	8776.99	510.11	509.61	-164.69	4.63	381711.56	537141.33	N 32 2 57.78	W 104 12 48.44
	8917.00	47.62	4.89	8809.91	543.40	542.91	-160.81	10.42	381744.86	537145.20	N 32 2 58.11	W 104 12 48.40
	8964.00	51.22	1.20	8840.49	579.02	578.54	-158.95	9.70	381780.49	537147.07	N 32 2 58.46	W 104 12 48.38
	9012.00	54.78	0.66	8869.37	617.34	616.86	-158.33	7.47	381818.81	537147.68	N 32 2 58.84	W 104 12 48.37
	9059.00	57.13	1.33	8895.68	656.28	655.80	-157.65	5.14	381857.74	537148.36	N 32 2 59.23	W 104 12 48.36
	9106.00	60.83	1.04	8919.90	696.54	696.06	-158.82	7.89	381898.00	537149.19	N 32 2 59.63	W 104 12 48.35
	9153.00	65.27	0.58	8941.19	738.41	737.94	-158.23	9.49	381939.87	537149.78	N 32 3 0.04	W 104 12 48.34
	9201.00	68.51	0.69	8960.03	782.55	782.08	-155.74	6.75	381984.01	537150.27	N 32 3 0.48	W 104 12 48.34
	9250.00	72.03	1.13	8976.57	828.66	828.19	-155.01	7.23	382030.11	537151.01	N 32 3 0.93	W 104 12 48.33
	9296.00	74.69	1.48	8989.74	872.71	872.25	-154.00	5.83	382074.17	537152.01	N 32 3 1.37	W 104 12 48.31
	9343.00	75.58	2.91	9001.80	918.10	917.64	-152.26	3.50	382119.56	537153.75	N 32 3 1.82	W 104 12 48.29
Heel HL Cross	9360.00	76.37	3.00	9005.92	934.57	934.11	-151.41	4.69	382136.03	537154.60	N 32 3 1.98	W 104 12 48.28
	9390.00	77.77	3.16	9012.63	963.76	963.31	-149.84	4.69	382165.22	537156.17	N 32 3 2.27	W 104 12 48.26
	9437.00	83.48	1.68	9020.28	1010.07	1009.62	-147.89	12.54	382211.53	537158.13	N 32 3 2.73	W 104 12 48.24
	9485.00	86.73	1.43	9024.38	1057.86	1057.42	-146.59	6.79	382259.32	537159.42	N 32 3 3.20	W 104 12 48.23
	9579.00	86.73	0.37	9029.74	1151.69	1151.25	-145.12	1.13	382353.15	537160.90	N 32 3 4.13	W 104 12 48.21
	9631.00	86.70	359.57	9032.72	1203.61	1203.17	-145.14	1.54	382405.06	537160.87	N 32 3 4.64	W 104 12 48.21
	9707.00	87.42	358.03	9036.62	1279.49	1279.05	-146.73	2.23	382480.93	537159.28	N 32 3 5.39	W 104 12 48.22
	9801.00	87.35	358.40	9040.91	1373.29	1372.84	-151.30	1.73	382574.71	537154.72	N 32 3 6.32	W 104 12 48.28
	9896.00	87.53	357.97	9045.15	1468.09	1467.62	-155.96	1.66	382669.49	537150.06	N 32 3 7.26	W 104 12 48.33
	9991.00	87.87	359.74	9048.96	1563.00	1562.52	-157.85	1.90	382764.38	537148.16	N 32 3 8.20	W 104 12 48.35
	10085.00	88.52	1.39	9051.92	1656.84	1656.47	-156.93	1.89	382858.32	537149.09	N 32 3 9.13	W 104 12 48.34
	10180.00	88.93	1.00	9054.04	1751.89	1751.42	-154.95	0.60	382953.26	537151.07	N 32 3 10.07	W 104 12 48.31
	10274.00	88.90	1.31	9055.82	1845.85	1845.39	-153.05	0.33	383047.22	537152.96	N 32 3 11.00	W 104 12 48.29
	10369.00	89.17	1.54	9057.42	1940.80	1940.35	-150.69	0.37	383142.17	537155.33	N 32 3 11.94	W 104 12 48.26
	10464.00	88.97	1.11	9058.96	2035.75	2035.31	-148.49	0.50	383237.12	537157.52	N 32 3 12.88	W 104 12 48.23
	10558.00	89.14	1.37	9060.51	2129.71	2129.27	-146.46	0.33	383331.08	537159.56	N 32 3 13.81	W 104 12 48.21
	10653.00	88.93	0.96	9062.11	2224.67	2224.24	-144.53	0.48	383426.04	537161.49	N 32 3 14.75	W 104 12 48.19
	10748.00	88.66	0.70	9064.11	2319.63	2319.21	-143.15	0.39	383521.00	537162.86	N 32 3 15.69	W 104 12 48.17
	10842.00	89.00	1.30	9066.03	2413.59	2413.17	-141.51	0.73	383614.95	537164.50	N 32 3 16.62	W 104 12 48.15
	10936.00	88.93	1.31	9067.72	2507.55	2507.13	-139.37	0.08	383708.90	537166.64	N 32 3 17.55	W 104 12 48.12
	11031.00	89.38	359.63	9069.13	2602.53	2602.12	-138.59	1.83	383803.88	537167.42	N 32 3 18.49	W 104 12 48.11
	11125.00	89.66	358.79	9069.91	2696.52	2696.10	-138.89	0.94	383897.86	537166.13	N 32 3 19.42	W 104 12 48.13
	11220.00	89.59	358.64	9070.54	2791.50	2791.08	-142.02	0.17	383992.82	537164.00	N 32 3 20.36	W 104 12 48.15
	11315.00	89.45	359.47	9071.33	2886.49	2886.06	-143.58	0.89	384087.80	537162.43	N 32 3 21.30	W 104 12 48.17
	11409.00	88.83	358.67	9072.74	2980.47	2980.04	-145.11	1.08	384181.76	537160.90	N 32 3 22.23	W 104 12 48.18
	11504.00	88.73	358.81	9074.76	3075.43	3074.99	-147.20	0.18	384276.71	537158.81	N 32 3 23.17	W 104 12 48.21
	11598.00	88.66	358.85	9076.91	3169.39	3168.95	-149.12	0.09	384370.66	537156.90	N 32 3 24.10	W 104 12 48.23
	11693.00	88.28	358.89	9079.44	3264.34	3263.90	-150.99	0.40	384465.60	537155.02	N 32 3 25.04	W 104 12 48.25
	11788.00	88.35	359.83	9082.24	3359.30	3358.85	-152.05	0.99	384560.54	537153.96	N 32 3 25.98	W 104 12 48.26
	11882.00	87.97	358.68	9085.25	3453.24	3452.79	-153.27	1.29	384654.47	537152.74	N 32 3 26.90	W 104 12 48.27
	11977.00	87.97	358.77	9088.62	3548.16	3547.71	-155.38	0.09	384749.38	537150.63	N 32 3 27.84	W 104 12 48.30
	12166.00	87.97	358.58	9095.31	3737.01	3736.54	-159.75	0.10	384938.20	537146.26	N 32 3 29.71	W 104 12 48.34
	12260.00	88.66	359.04	9097.91	3830.96	3830.48	-161.70	1.07	385032.13	537144.31	N 32 3 30.64	W 104 12 48.37
	12355.00	90.76	358.68	9098.23	3925.94	3925.46	-163.59	2.04	385127.10	537142.42	N 32 3 31.58	W 104 12 48.39
	12449.00	90.10	357.80	9097.52	4019.90	4019.41	-166.48	1.17	385221.04	537139.53	N 32 3 32.51	W 104 12 48.42
	12544.00	90.69	358.07	9096.87	4114.84	4114.34	-169.90	0.68	385315.97	537136.11	N 32 3 33.45	W 104 12 48.46
	12638.00	90.93	358.25	9095.54	4208.79	4208.28	-172.92	0.32	385409.90	537133.09	N 32 3 34.38	W 104 12 48.49
	12733.00	91.27	358.30	9093.72	4303.74	4303.22	-175.78	0.36	385504.83	537130.24	N 32 3 35.32	W 104 12 48.52
	12827.00	91.31	358.81	9091.60	4397.69	4397.17	-178.15	0.54	385598.77	537127.87	N 32 3 36.25	W 104 12 48.55
	12922.00	91.48	358.36	9089.29	4492.64	4492.11	-180.50	0.51	385693.70	537125.52	N 32 3 37.19	W 104 12 48.57
	13016.00	91.03	0.22	9087.23	4586.61	4586.08	-181.66	2.04				

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 ° ' '')
	15381.00	88.80	0.05	9099.26	6950.71	6950.16	-191.04	1.40	388151.52	537114.97	N 32 4 1.51	W 104 12 48.67
	15475.00	88.69	1.14	9101.32	7044.68	7044.13	-190.07	1.17	388245.48	537115.95	N 32 4 2.44	W 104 12 48.65
	15570.00	89.00	0.92	9103.23	7139.63	7139.09	-188.36	0.40	388340.44	537117.66	N 32 4 3.38	W 104 12 48.63
	15664.00	90.17	1.20	9103.92	7233.61	7233.07	-186.62	1.28	388434.41	537119.39	N 32 4 4.31	W 104 12 48.61
	15759.00	89.76	1.19	9103.97	7328.58	7328.05	-184.64	0.43	388529.38	537121.38	N 32 4 5.25	W 104 12 48.59
	15854.00	90.41	1.03	9103.83	7423.56	7423.03	-182.80	0.70	388624.36	537123.22	N 32 4 6.19	W 104 12 48.56
	15948.00	90.24	0.71	9103.30	7517.54	7517.02	-181.37	0.39	388718.33	537124.64	N 32 4 7.12	W 104 12 48.55
	16042.00	90.65	1.05	9102.57	7611.52	7611.01	-179.93	0.57	388812.31	537126.09	N 32 4 8.05	W 104 12 48.53
	16137.00	90.55	1.18	9101.57	7706.49	7706.98	-178.08	0.17	388907.28	537127.93	N 32 4 8.99	W 104 12 48.51
	16232.00	90.41	1.19	9100.78	7801.46	7800.96	-176.12	0.15	389002.25	537129.90	N 32 4 9.93	W 104 12 48.48
	16326.00	90.24	359.04	9100.25	7895.45	7894.95	-175.93	2.29	389096.23	537130.09	N 32 4 10.86	W 104 12 48.48
	16421.00	90.62	358.71	9099.53	7990.44	7989.93	-177.79	0.53	389191.20	537128.22	N 32 4 11.80	W 104 12 48.50
	16516.00	90.55	358.84	9098.56	8085.42	8084.90	-179.82	0.16	389286.17	537126.19	N 32 4 12.74	W 104 12 48.52
	16610.00	90.14	358.55	9098.00	8179.40	8178.88	-181.96	0.53	389380.13	537124.05	N 32 4 13.67	W 104 12 48.54
	16800.00	91.58	359.07	9095.14	8369.34	8368.81	-185.91	0.81	389570.05	537120.11	N 32 4 15.55	W 104 12 48.59
	16895.00	91.55	358.78	9092.55	8464.29	8463.76	-187.69	0.31	389664.98	537118.32	N 32 4 16.49	W 104 12 48.61
	16990.00	92.00	358.09	9089.61	8559.22	8558.68	-190.29	0.87	389759.89	537115.73	N 32 4 17.43	W 104 12 48.64
	17179.00	91.03	358.61	9084.61	8748.09	8747.53	-195.73	0.58	389848.73	537110.29	N 32 4 19.30	W 104 12 48.70
	17273.00	91.73	0.53	9082.35	8842.05	8841.49	-196.43	2.17	390042.69	537109.59	N 32 4 20.23	W 104 12 48.70
	17463.00	91.14	1.17	9077.59	9031.96	9031.41	-193.61	0.46	390232.59	537112.40	N 32 4 22.11	W 104 12 48.67
	17557.00	90.62	0.72	9076.14	9125.93	9125.39	-192.06	0.73	390326.55	537113.95	N 32 4 23.04	W 104 12 48.65
	17746.00	91.10	1.34	9073.31	9314.87	9314.33	-188.67	0.41	390515.48	537117.35	N 32 4 24.91	W 104 12 48.61
	17935.00	91.89	1.29	9068.38	9503.74	9503.22	-184.33	0.42	390704.35	537121.69	N 32 4 26.78	W 104 12 48.55
	18030.00	91.17	0.87	9065.84	9598.68	9598.17	-182.54	0.88	390799.29	537123.48	N 32 4 27.72	W 104 12 48.53
	18124.00	91.00	0.82	9064.06	9692.65	9692.14	-181.15	0.19	390893.25	537124.86	N 32 4 28.65	W 104 12 48.52
	18219.00	91.10	0.81	9062.32	9787.62	9787.11	-179.80	0.11	390988.22	537126.21	N 32 4 29.59	W 104 12 48.50
	18314.00	90.96	0.62	9060.61	9882.59	9882.09	-178.62	0.25	391083.19	537127.40	N 32 4 30.53	W 104 12 48.48
	18408.00	91.20	0.37	9058.84	9976.57	9976.07	-177.81	0.37	391177.16	537128.21	N 32 4 31.46	W 104 12 48.47
	18503.00	90.86	1.09	9057.13	10071.54	10071.05	-176.60	0.84	391272.13	537129.42	N 32 4 32.40	W 104 12 48.46
	18692.00	91.51	0.82	9053.22	10260.46	10259.98	-173.45	0.37	391461.04	537132.57	N 32 4 34.27	W 104 12 48.42
	18787.00	91.69	0.91	9050.57	10355.41	10354.93	-172.01	0.21	391555.99	537134.00	N 32 4 35.21	W 104 12 48.40
	18881.00	91.34	0.58	9048.09	10449.36	10448.89	-170.79	0.51	391649.94	537135.22	N 32 4 36.14	W 104 12 48.39
	19070.00	90.89	0.72	9044.41	10638.31	10637.84	-168.65	0.25	391838.87	537137.37	N 32 4 38.01	W 104 12 48.36
	19164.00	91.31	1.09	9042.60	10732.27	10731.81	-167.16	0.60	391932.83	537138.85	N 32 4 38.94	W 104 12 48.34
	19259.00	91.20	1.05	9040.52	10827.23	10826.77	-165.39	0.12	392027.78	537140.63	N 32 4 39.88	W 104 12 48.32
Toe HL Cross	19346.00	91.24	0.88	9038.67	10914.19	10913.74	-163.93	0.20	392114.74	537142.09	N 32 4 40.74	W 104 12 48.30
	19354.00	91.24	0.86	9038.50	10922.19	10921.74	-163.81	0.20	392122.74	537142.21	N 32 4 40.82	W 104 12 48.30
Last SLB MWD Survey	19448.00	91.48	0.91	9036.27	11016.14	11015.70	-162.35	0.26	392216.69	537143.66	N 32 4 41.75	W 104 12 48.28
Projection to Bit	19498.00	91.48	0.91	9034.98	11066.12	11065.68	-161.56	0.00	392266.67	537144.45	N 32 4 42.24	W 104 12 48.27

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. 2H 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. 2H MWD to
	1	28.000	452.000	Act Stns	30.000	30.000	A001Ma_MWD	Original Borehole / Chevron HH SO 8 5 FED 003 No. 2H MWD to
	1	452.000	19498.000	Act Stns	30.000	30.000	B001Ma_MWD+HDGM	Original Borehole / Chevron HH SO 8 5 FED 003 No. 2H MWD to

...Chevron HH SO 8 5 FED 003 No. 2H\Original Borehole\Chevron HH SO 8 5 FED 003 No. 2H MWD to 19498ft