

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 30-025-45821	² Pool Code 98065	³ Pool Name WC-025 G-08 S263205N; UPPER WOLFCAMP
⁴ Property Code 325387	⁵ Property Name SD 14 23 FED P18	⁶ Well Number 12H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3197'

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	14	26 SOUTH	32 EAST, N.M.P.M.		455'	NORTH	1455'	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

SL

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	23	26 SOUTH	32 EAST, N.M.P.M.		26'	SOUTH	2301'	WEST	LEA

¹² Dedicated Acres 640	¹³ Joint or Infill 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.

SD 14 23 FED P18 NO. 12H WELL X= 712,036 Y= 382,198 LAT. 32.048930 N LONG. 103.648978 W NAD 27 X= 753,223 Y= 382,255 LAT. 32.049055 N LONG. 103.649448 W NAD83/2011 ELEVATION +3197' NAVD 88 FINAL FIRST TAKE POINT X= 712,885 Y= 382,255 LAT. 32.049071 N LONG. 103.646238 W NAD 27 X= 754,072 Y= 382,312 LAT. 32.049196 N LONG. 103.646708 W NAD83/2011 FINAL LAST TAKE POINT X= 712,935 Y= 372,146 LAT. 32.021282 N LONG. 103.646283 W NAD 27 X= 754,122 Y= 372,203 LAT. 32.021407 N LONG. 103.646752 W NAD83/2011		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: Date: 7/20/2020 Printed Name: Laura Becerra E-mail Address: LBecerra@Chevron.com 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. Date of Survey: 07/25/2017 Signature and Seal of Professional Surveyor: 04/29/2020 Certificate Number: 23006
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CORNER COORDINATES TABLE (NAD 27)

A - Y=382643.92, X=710579.74
B - Y=382677.22, X=715890.15
C - Y=371945.53, X=710630.44
D - Y=371978.70, X=715943.63
E - Y=382652.25, X=711907.34
F - Y=382660.57, X=713234.95
G - Y=371962.12, X=713287.04
H - Y=371953.82, X=711958.74

Intent ☐ As Drilled ☒

API # 30-025-45821			
Operator Name: CHEVRON USA INC		Property Name: SD 14 23 FED P18	Well Number 12H

Kick Off Point (KOP)

UL C	Section 14	Township 26S	Range 32E	Lot	Feet 42	From N/S FNL	Feet 2,270	From E/W FWL	County LEA
Latitude 32.050190					Longitude 103.646812			NAD NAD 83/86	

First Take Point (FTP)

UL C	Section 14	Township 26S	Range 32E	Lot	Feet 404	From N/S FNL	Feet 2,304	From E/W FWL	County LEA
Latitude 32.049196					Longitude 103.646708			NAD NAD 83/86	

Last Take Point (LTP)

UL N	Section 23	Township 26S	Range 32E	Lot	Feet 186	From N/S FSL	Feet 2,306	From E/W FWL	County LEA
Latitude 32.021407					Longitude 103.646752			NAD NAD 86/86	

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 # 30-025-45820			
Operator Name: CHEVRON USA INC		Property Name: SD 14 23 FED P18	Well Number 11H

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)

Rec'd 8/18/2020 - NMOCD



November 18, 2019

Chevron USA Incorporated
6301 Deauville Blvd.
Midland, TX 79706

Re:

S14, T26S, R32E Lea, NM
N 32.049055 W -103.649448

CLIENT: Chevron USA Incorporated
WELL: SD 14 23 Fed P18 12H
FIELD: Upper Wolfcamp

RIG: Nabors X30
COUNTY: Lea
API NO: 30-025-45821
JOB NO: 19MLI0218

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>
Tom Brady FS	SD 14 23 Fed P18 12H Original Hole	872.00 Ft to 22501.00 Ft	September 2, 2019 to September 22, 2019	TelePacer SlimPulse

Reservoir Development

Schlumberger Drilling and Measurements

7220 W I-H 20

Midland, Texas 79706

Phone : (432) 742-5400 (Main)

Fax : (432) 742-5606 (Shared)

Well Reference:

S14, T26S, R32E Lea, NM

N 32.049055 W -103.649448

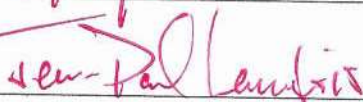
I, Tom Brady certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of September 02, 2019 through September 22, 2019, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 872.00 feet to a depth of 22501.00 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 SD 14 23 Fed P18 12H Well (Original Hole) API No. 30-025-45821 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
Tom Brady
FS



Subscribed and Sworn to before me this 18 day of November (month) 2019 (yr)

My Commission expires:

8/18/2023

Notary Public

(signature)

Comanche, Oklahoma

(County State)





Chevron SD 14 23 Fed P18 12H MWD to 22549ft Survey Geodetic Report

(Def Survey)

Report Date: September 23, 2019 - 09:14 AM
Client: Chevron
Field: NM Lea County (NAD 27)
Structure / Slot: Chevron SD 14 23 Fed Pad 18 / 12H
Well: SD 14 23 Fed P18 12H
Borehole: SD 14 23 Fed P18 12H
UWI / API#: Unknown / 30-025-45821
Survey Name: Chevron SD 14 23 Fed P18 12H MWD to 22549ft
Survey Date: September 22, 2019
Tort / AHD / DDI / ERD Ratio: 244,200 ° / 11657,850 ft / 6.723 / 0.959
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 2' 56.14789", W 103° 38' 56.32078"
Location Grid N/E Y/X: N 382198,000 ftUS, E 712036,000 ftUS
CRS Grid Convergence Angle: 0.3632 °
Grid Scale Factor: 0.99996059
Version / Patch: 2.10,782.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.730 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB = 32.6ft
TVD Reference Elevation: 3229.600 ft above
Seabed / Ground Elevation: 3197.000 ft above
Magnetic Declination: 6.632 °
Total Gravity Field Strength: 998.4326mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47878.168 nT
Magnetic Dip Angle: 59.632 °
Declination Date: September 22, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: 0.3632 °
Total Corr Mag North->Grid North: 6.2688 °
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	382198.00	712036.00	N 32 2 56.15	W 103 38 56.32
Adjusted KB	33.00	0.00	0.00	33.00	0.00	0.00	0.00	0.00	382198.00	712036.00	N 32 2 56.15	W 103 38 56.32
First 3rd Party Survey	199.70	1.80	45.39	199.67	-1.83	1.84	1.86	1.08	382199.84	712037.86	N 32 2 56.17	W 103 38 56.30
	286.70	1.30	62.39	286.64	-3.24	3.26	3.71	0.77	382201.26	712039.71	N 32 2 56.18	W 103 38 56.28
	374.70	1.00	52.39	374.62	-4.16	4.19	5.20	0.41	382202.19	712041.20	N 32 2 56.19	W 103 38 56.26
	464.70	1.20	23.39	464.61	-5.50	5.53	6.20	0.65	382203.53	712042.20	N 32 2 56.20	W 103 38 56.25
	556.70	1.40	62.39	556.59	-6.90	6.94	7.58	0.97	382204.94	712043.58	N 32 2 56.22	W 103 38 56.23
	649.70	1.40	18.39	649.56	-8.50	8.54	8.94	1.13	382206.54	712044.94	N 32 2 56.23	W 103 38 56.22
Last 3rd Party Survey	767.70	0.90	348.39	767.54	-10.77	10.82	9.21	0.65	382208.82	712045.21	N 32 2 56.25	W 103 38 56.21
First SLB MWD Survey	872.00	0.68	29.85	871.83	-12.11	12.16	9.36	0.57	382210.16	712045.36	N 32 2 56.27	W 103 38 56.21
	968.00	1.72	31.90	967.81	-13.82	13.87	10.40	1.08	382211.87	712046.40	N 32 2 56.28	W 103 38 56.20
	1062.00	2.26	29.26	1061.75	-16.63	16.69	12.05	0.58	382214.69	712048.05	N 32 2 56.31	W 103 38 56.18
	1156.00	3.18	38.06	1155.64	-20.29	20.36	14.56	1.07	382218.36	712050.56	N 32 2 56.35	W 103 38 56.15
	1250.00	4.38	42.69	1249.44	-24.96	25.05	18.61	1.32	382223.05	712054.61	N 32 2 56.39	W 103 38 56.10
	1345.00	4.77	43.39	1344.13	-30.47	30.59	23.78	0.41	382228.58	712059.78	N 32 2 56.45	W 103 38 56.04
	1439.00	5.45	46.76	1437.76	-36.34	36.48	29.72	0.79	382234.48	712065.71	N 32 2 56.51	W 103 38 55.97
	1533.00	6.38	54.13	1531.26	-42.43	42.60	37.20	1.28	382240.60	712073.20	N 32 2 56.57	W 103 38 55.89
	1627.00	7.29	63.19	1624.59	-48.13	48.35	46.76	1.50	382246.35	712082.75	N 32 2 56.62	W 103 38 55.77
	1722.00	9.08	70.43	1718.62	-53.30	53.58	59.20	2.17	382251.58	712095.20	N 32 2 56.67	W 103 38 55.63
	1816.00	10.90	71.23	1811.19	-58.58	58.93	74.60	1.94	382256.93	712110.60	N 32 2 56.73	W 103 38 55.45
	1911.00	11.31	70.26	1904.42	-64.53	64.96	91.88	0.47	382262.96	712127.87	N 32 2 56.78	W 103 38 55.25
	2005.00	12.55	71.43	1996.38	-70.81	71.33	110.24	1.34	382269.33	712146.23	N 32 2 56.85	W 103 38 55.03
	2194.00	12.13	72.70	2181.02	-83.07	83.77	148.66	0.26	382281.77	712184.65	N 32 2 56.97	W 103 38 54.59
	2289.00	12.64	67.61	2273.81	-89.91	90.70	167.80	1.27	382286.70	712203.79	N 32 2 57.03	W 103 38 54.36
	2384.00	12.70	65.35	2366.50	-98.14	99.02	186.90	0.53	382297.01	712222.89	N 32 2 57.12	W 103 38 54.14
	2478.00	12.40	66.00	2458.25	-106.46	107.43	205.51	0.35	382305.43	712241.50	N 32 2 57.20	W 103 38 53.93
	2573.00	12.20	66.60	2551.07	-114.51	115.57	224.04	0.25	382313.56	712260.03	N 32 2 57.28	W 103 38 53.71
	2667.00	12.79	65.45	2642.84	-122.69	123.83	242.62	0.68	382321.83	712278.61	N 32 2 57.36	W 103 38 53.49
	2761.00	13.06	65.33	2734.46	-131.36	132.59	261.74	0.29	382330.58	712297.73	N 32 2 57.44	W 103 38 53.27
	2855.00	12.44	64.88	2826.14	-140.03	141.35	280.54	0.68	382339.35	712316.53	N 32 2 57.53	W 103 38 53.05
	2950.00	12.51	64.94	2918.90	-148.68	150.09	299.11	0.09	382348.08	712335.10	N 32 2 57.61	W 103 38 52.83
	3044.00	12.10	66.01	3010.74	-156.91	158.41	317.34	0.50	382356.40	712353.32	N 32 2 57.70	W 103 38 52.62
	3138.00	12.90	65.97	3102.51	-165.10	166.68	335.92	0.85	382364.68	712371.91	N 32 2 57.78	W 103 38 52.41
	3231.00	13.01	66.22	3193.14	-173.46	175.13	354.98	0.13	382373.13	712390.97	N 32 2 57.86	W 103 38 52.18
	3326.00	12.53	67.57	3285.79	-181.61	183.38	374.29	0.59	382381.37	712410.28	N 32 2 57.94	W 103 38 51.96
	3515.00	11.12	67.73	3470.78	-196.17	198.11	410.11	0.75	382396.10	712446.09	N 32 2 58.08	W 103 38 51.54
	3609.00	12.48	64.08	3562.79	-203.96	205.98	427.64	1.65	382403.97	712463.62	N 32 2 58.16	W 103 38 51.34
	3797.00	10.73	62.66	3746.94	-220.72	222.90	461.45	0.94	382420.89	712497.44	N 32 2 58.32	W 103 38 50.94
	3892.00	11.71	60.60	3840.13	-229.44	231.69	477.71	1.11	382429.69	712513.69	N 32 2 58.41	W 103 38 50.75
	4080.00	13.90	68.22	4023.45	-247.01	249.44	515.31	1.47	382447.43	712551.29	N 32 2 58.58	W 103 38 50.32
	4175.00	13.11	69.69	4115.82	-254.89	257.42	536.01	0.91	382455.41	712571.99	N 32 2 58.66	W 103 38 50.07
	4269.00	12.71	72.14	4207.45	-261.67	264.29	555.85	0.72	382462.28	712591.83	N 32 2 58.73	W 103 38 49.84
	4362.00	12.22	75.33	4298.26	-267.21	269.92	575.11	0.91	382467.91	712611.08	N 32 2 58.78	W 103 38 49.62
	4515.00	10.78	77.40	4448.18	-274.29	277.14	604.74	0.98	382475.13	712640.71	N 32 2 58.85	W 103 38 49.27
	4646.00	11.02	70.65	4576.82	-281.00	283.96	628.51	0.99	382481.95	712664.48	N 32 2 58.92	W 103 38 49.00
	4740.00	12.88	65.70	4668.79	-288.20	291.25	646.54	2.26	382489.24	712682.51	N 32 2 58.99	W 103 38 48.79
	4834.00	14.34	65.37	4760.14	-297.27	300.41	666.67	1.56	382498.40	712702.64	N 32 2 59.08	W 103 38 48.55
	4929.00	14.56	63.85	4852.14	-307.33	310.58	688.08	0.46	382508.57	712724.05	N 32 2 59.18	W 103 38 48.30
	5022.00	13.24	61.97	4942.41	-317.40	320.74	707.98	1.50	382518.72	712743.95	N 32 2 59.28	W 103 38 48.07
	5117.00	11.55	58.37	5035.20	-327.41	330.84	725.68	1.96	382528.82	712761.65	N 32 2 59.38	W 103 38 47.87
	5212.00	9.40	54.63	5128.61	-336.83	340.32	740.10	2.37	382538.30	712776.07	N 32 2 59.47	W 103 38 47.70
	5306.00	9.53	54.77	5221.33	-345.70	349.25	752.72	0.14	382547.24	712788.69	N 32 2 59.56	W 103 38 47.55
	5400.00	9.03	57.71	5314.10	-354.07	357.68	765.31	0.73	382555.66	712801.28	N 32 2 59.64	W 103 38 47.40
	5494.00	7.64	66.09	5407.11	-360.49	364.15	777.26	1.96	382562.14	712813.23	N 32 2 59.70	W 103 38 47.26
	5585.00	6.78	71.05	5497.39	-364.63	368.35	787.87	1.17	382566.33	712823.84	N 32 2 59.74	W 103 38 47.14
	5772.00	4.67	67.46	5683.45	-371.05	374.85	805.34	1.14	382572.84	712841.31	N 32 2 59.81	W 103 38 46.94
	5864.00	4.98	64.47	5775.12	-374.18	378.01	812.41	0.43	382575.99	712848.37	N 32 2 59.84	W 103 38 46.85
	5958.00	4.24	67.24	5868.82	-377.25	381.11	819.29	0.82	382579.10	712855.26	N 32 2 59.87	W 103 38 46.77
	6053.00	2.84	74.74	5963.63	-379.20	383.09	824.80	1.55	382581.07	712860.77	N 32 2 59.89	W 103 38 46.71
	6147.00	2.26	66.50	6057.54	-380.53	384.44	828.75	0.73	382582.43	712864.71	N 32 2 59.90	W 103 38 46.66
	6241.00	1.91	21.37	6151.48	-382.72	386.64	831.02	1.74	382584.62	712866.98	N 32 2 59.92	W 103 38 46.64
	6334.00	2.21	353.32	6244.42	-385.94	389.87	831.38	1.12	382587.85	712867.34	N 32 2 59.95	W 103 38 46.63
	6429.00	3.67	320.18	6339.30	-390.11	394.02	829.22	2.30	382592.00	712865.18	N 32 2 59.99	W 103 38 46.66
	6523.00	0.91	52.30	6433.24	-392.88	396.79	827.88	4.06	382594.77	712863.84	N 32 3 0.02	W 103 38 46.67
	6617.00	1.55	93.83	6527.22	-393.25	397.16	829.74	1.13	382595.14	712865.70	N 32 3 0.03	W 103 38 46.65
	6711.00	1.35	97.59	6621.19	-393.00	396.93	832.10	0.24	382594.91	712868.07	N 32 3 0.02	W 103 38 46.62
	6806.00	0.76	20.63	6716.17	-393.44	397.37	833.44	1.47	382595.35	712869.40	N 32 3 0.03	W 103 38 46.61
	6900.00	0.78	5.74	6810.16	-394.66	398.59	833.72	0.21	382596.57	712869.68	N 32 3 0.04	W 103 38 46.61
	6995.00	0.84	357.94	6905.15	-396.00	399.93	833.76	0.13	382597.91	712869.72	N 32 3 0.05	W 103 38 46.60
	7089.00	0.62	349.60	6999.15	-397.19	401.12	833.64	0.26	382599.10	712869.61	N 32 3 0.06	W 103 38 46.61
	7182.00	0.53	356.51	7092.14	-398.11	402.04	833.52	0.12	382600.03	712869.49	N 32 3 0.07	W 103 38 46.61
	7276.00	0.51	326.75	7186.14	-398.90	402.83	833.27	0.28	382600.81	712869.23	N 32 3 0.08	W 103 38 46.61
	7370.00	0.28	291.61	728092.								

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 ° ' ")
	7558.00	0.30	254.62	7468.14	-399.37	403.30	832.25	0.24	382601.28	712868.21	N 32 3 0.09	W 103 38 46.62
	7652.00	0.38	213.55	7562.13	-399.05	402.97	831.84	0.27	382600.96	712867.80	N 32 3 0.08	W 103 38 46.63
	7747.00	0.51	216.54	7657.13	-398.45	402.37	831.41	0.14	382600.35	712867.38	N 32 3 0.08	W 103 38 46.63
	7840.00	0.63	220.05	7750.13	-397.73	401.65	830.83	0.13	382599.63	712866.80	N 32 3 0.07	W 103 38 46.64
	7934.00	0.85	222.69	7844.12	-396.82	400.74	830.03	0.24	382598.72	712865.99	N 32 3 0.06	W 103 38 46.65
	8029.00	1.00	223.93	7939.11	-395.71	399.62	828.98	0.16	382597.61	712864.94	N 32 3 0.05	W 103 38 46.66
	8123.00	0.72	222.65	8033.10	-394.69	398.80	828.01	0.30	382596.58	712863.97	N 32 3 0.04	W 103 38 46.67
	8218.00	1.03	228.36	8128.08	-393.69	397.59	826.96	0.34	382595.58	712862.93	N 32 3 0.03	W 103 38 46.68
	8406.00	0.58	164.79	8316.07	-391.66	395.55	825.95	0.49	382593.54	712861.92	N 32 3 0.01	W 103 38 46.70
	8500.00	0.62	76.72	8410.07	-391.31	395.21	826.57	0.89	382593.19	712862.54	N 32 3 0.01	W 103 38 46.69
	8593.00	0.73	82.09	8503.06	-391.50	395.41	827.65	0.14	382593.39	712863.61	N 32 3 0.01	W 103 38 46.68
	8687.00	0.86	99.25	8597.05	-391.47	395.38	828.94	0.29	382593.36	712864.90	N 32 3 0.01	W 103 38 46.66
	8781.00	0.89	356.49	8691.04	-392.08	395.99	829.59	1.45	382593.97	712865.55	N 32 3 0.01	W 103 38 46.65
	8876.00	1.01	335.88	8786.03	-393.58	397.49	829.20	0.38	382595.48	712865.17	N 32 3 0.03	W 103 38 46.66
	8971.00	0.68	227.50	8881.02	-393.97	397.88	828.44	1.46	382595.86	712864.41	N 32 3 0.03	W 103 38 46.67
	9159.00	0.93	205.38	9069.01	-391.84	395.74	826.97	0.21	382593.73	712862.93	N 32 3 0.01	W 103 38 46.68
	9253.00	1.34	195.54	9162.99	-390.10	393.99	826.35	0.48	382591.98	712862.31	N 32 2 59.99	W 103 38 46.69
	9348.00	1.52	195.00	9257.96	-387.81	391.71	825.72	0.19	382589.69	712861.69	N 32 2 59.97	W 103 38 46.70
	9537.00	1.23	187.16	9446.90	-383.38	387.27	824.82	0.18	382585.26	712860.79	N 32 2 59.93	W 103 38 46.71
	9632.00	1.02	215.89	9541.89	-381.69	385.58	824.20	0.63	382583.56	712860.16	N 32 2 59.91	W 103 38 46.72
	9727.00	0.45	188.63	9636.88	-380.64	384.52	823.65	0.69	382582.51	712859.61	N 32 2 59.90	W 103 38 46.72
	9820.00	0.43	120.75	9729.88	-380.10	383.98	823.89	0.53	382581.97	712859.86	N 32 2 59.90	W 103 38 46.72
	9914.00	0.56	84.75	9823.87	-379.95	383.85	824.65	0.35	382581.83	712860.62	N 32 2 59.89	W 103 38 46.71
	10009.00	1.18	348.16	9918.86	-380.95	384.85	824.91	1.43	382582.83	712860.88	N 32 2 59.90	W 103 38 46.71
	10103.00	1.19	355.36	10012.84	-382.88	386.77	824.64	0.16	382584.75	712860.60	N 32 2 59.92	W 103 38 46.71
	10292.00	1.12	339.70	10201.81	-386.57	390.45	823.84	0.17	382588.44	712859.80	N 32 2 59.96	W 103 38 46.72
	10481.00	1.43	0.59	10390.76	-390.66	394.54	823.22	0.29	382592.53	712859.19	N 32 3 0.00	W 103 38 46.73
	10574.00	1.65	340.22	10483.73	-393.08	396.96	822.78	0.63	382594.95	712858.74	N 32 3 0.02	W 103 38 46.73
	10668.00	2.54	350.33	10577.66	-396.41	400.29	821.97	1.02	382598.28	712857.94	N 32 3 0.06	W 103 38 46.74
	10762.00	2.08	344.47	10671.59	-400.11	403.99	821.16	0.55	382601.97	712857.13	N 32 3 0.09	W 103 38 46.75
	10856.00	2.20	325.76	10765.52	-403.26	407.12	819.69	0.75	382605.11	712856.66	N 32 3 0.13	W 103 38 46.77
	10951.00	0.34	355.93	10860.50	-405.05	408.91	818.65	2.01	382606.90	712854.61	N 32 3 0.14	W 103 38 46.78
	11044.00	0.28	337.48	10953.49	-405.54	409.40	818.54	0.12	382607.38	712854.51	N 32 3 0.15	W 103 38 46.78
	11232.00	1.01	334.95	11141.48	-407.47	411.32	817.66	0.39	382609.31	712853.63	N 32 3 0.17	W 103 38 46.79
	11311.00	1.65	339.86	11220.46	-409.17	413.02	816.98	0.82	382611.00	712852.94	N 32 3 0.18	W 103 38 46.80
	11371.00	1.65	339.86	11280.44	-410.79	414.64	816.38	0.00	382612.63	712852.35	N 32 3 0.20	W 103 38 46.81
	11432.00	2.07	328.14	11341.40	-412.56	416.40	815.50	0.93	382614.39	712851.46	N 32 3 0.22	W 103 38 46.82
	11504.00	2.00	330.84	11413.36	-414.76	418.61	814.20	0.16	382616.59	712850.16	N 32 3 0.24	W 103 38 46.83
	11526.00	1.70	327.54	11435.35	-415.38	419.22	813.84	1.45	382617.20	712849.80	N 32 3 0.25	W 103 38 46.83
	11621.00	5.95	162.62	11530.21	-411.86	415.70	814.55	8.00	382613.68	712850.52	N 32 3 0.21	W 103 38 46.83
	11716.00	15.32	166.03	11623.47	-394.92	398.79	819.06	9.88	382596.77	712850.03	N 32 3 0.04	W 103 38 46.78
	11811.00	24.46	166.95	11712.71	-363.48	367.38	826.55	9.63	382565.36	712862.51	N 32 2 59.73	W 103 38 46.69
Heel HL Cross	11826.00	25.73	167.93	11726.30	-357.26	367.17	827.93	8.91	382559.16	712863.90	N 32 2 59.67	W 103 38 46.68
	11906.00	32.59	171.93	11796.12	-318.87	322.81	834.60	8.91	382520.79	712870.56	N 32 2 59.29	W 103 38 46.60
	12001.00	40.51	179.67	11872.42	-262.55	266.50	838.37	9.63	382464.49	712874.34	N 32 2 58.73	W 103 38 46.56
	12096.00	48.65	178.19	11940.03	-195.93	199.89	839.68	8.64	382397.89	712875.64	N 32 2 58.07	W 103 38 46.55
	12191.00	56.01	177.16	11998.05	-120.84	124.81	842.76	7.79	382322.81	712877.73	N 32 2 57.33	W 103 38 46.52
	12286.00	66.87	173.03	12043.41	-37.84	41.84	850.04	12.05	382239.84	712886.00	N 32 2 56.51	W 103 38 46.44
	12381.00	78.46	174.58	12071.67	52.21	-48.16	859.77	12.30	382149.84	712895.73	N 32 2 55.62	W 103 38 46.34
	12476.00	82.16	177.93	12087.66	145.65	-141.57	865.87	5.22	382056.43	712901.83	N 32 2 54.69	W 103 38 46.27
	12528.00	87.04	177.32	12092.55	197.37	-193.28	868.01	9.46	382004.72	712903.98	N 32 2 54.18	W 103 38 46.25
	12571.00	87.73	177.70	12094.52	240.29	-236.20	869.88	1.83	381961.81	712905.84	N 32 2 53.76	W 103 38 46.23
	12666.00	90.83	177.86	12095.71	335.22	-331.11	873.56	3.27	381866.91	712909.52	N 32 2 52.82	W 103 38 46.20
	12761.00	89.24	179.51	12095.65	430.20	-426.08	875.74	2.41	381771.94	712911.70	N 32 2 51.88	W 103 38 46.18
	12780.00	89.04	180.14	12095.94	449.20	-445.07	875.80	3.48	381752.94	712911.76	N 32 2 51.69	W 103 38 46.18
	12874.00	90.34	179.21	12096.45	543.19	-539.07	876.33	1.70	381658.95	712912.29	N 32 2 50.76	W 103 38 46.18
	12968.00	90.17	180.30	12096.03	637.19	-633.06	876.73	1.17	381564.96	712912.70	N 32 2 49.83	W 103 38 46.18
	13156.00	88.83	179.28	12097.67	825.18	-821.05	877.42	0.90	381376.98	712913.38	N 32 2 47.97	W 103 38 46.19
	13251.00	88.90	179.74	12099.55	920.16	-916.03	878.23	0.49	381282.01	712914.20	N 32 2 47.03	W 103 38 46.19
	13345.00	88.80	179.20	12101.44	1014.14	-1010.00	879.10	0.58	381188.04	712915.07	N 32 2 46.10	W 103 38 46.18
	13439.00	88.93	179.76	12103.30	1108.12	-1103.98	879.96	0.61	381094.06	712915.92	N 32 2 45.17	W 103 38 46.18
	13533.00	88.90	179.01	12105.08	1202.10	-1197.96	880.96	0.80	381000.09	712916.93	N 32 2 44.24	W 103 38 46.17
	13627.00	88.80	179.34	12106.96	1296.07	-1291.93	882.32	0.37	380906.12	712918.28	N 32 2 43.31	W 103 38 46.17
	13721.00	89.14	179.81	12108.65	1390.06	-1385.91	883.01	0.62	380812.15	712918.98	N 32 2 42.38	W 103 38 46.16
	13815.00	88.66	179.73	12110.48	1484.04	-1479.89	883.39	0.52	380718.17	712919.36	N 32 2 41.45	W 103 38 46.17
	13909.00	88.83	179.12	12112.52	1578.01	-1573.87	884.33	0.67	380624.20	712920.30	N 32 2 40.52	W 103 38 46.16
	14004.00	89.45	178.97	12113.94	1673.00	-1668.84	885.92	0.67	380529.23	712921.88	N 32 2 39.58	W 103 38 46.15
	14098.00	89.86	179.30	12114.51	1766.99	-1762.83	887.34	0.56	380435.25	712923.30	N 32 2 38.65	W 103 38 46.14
	14192.00	89.66	179.21	12114.90	1860.99	-1856.82	888.56	0.23	380341.26	712924.52	N 32 2 37.72	W 103 38 46.13
	14286.00	89.55	178.86	12115.55	1954.98	-1950.80	890.14	0.39	380247.28	712926.11	N 32 2 36.79	W 103 38 46.12
	14380.00	89.93	179.56	12115.98	2048.97	-2044.79	891.44	0.85	380153.29	712927.40	N 32 2 35.86	W 103 38 46.12
	14475.00	89.93	179.26	12116.09	2143.97	-2139.79	892.42	0.32	380058.30	712928.38	N 32 2 34.92	W 103 38 46.11
	14569.00	89.86	179.06	12116.27	2237.96	-2233.78	893.79	0.23	379964.32	712929.76	N 32 2 33.99	W 103 38 46.10
	14663.00	90.00	181.31	12116.38	2331.96	-2327.77	893.49	2.40	379870.33	712929.45	N 32 2 33.06	W 103 38 46.11
	14757.00	89.86	181.53	12116.50	2425.91	-2421.74	891.16	0.28	379776.36	712927.12	N 32 2 32.13	W 103 38 46.15
	14851.00	90.07	181.40	12116.55	2519.87	-2515.71	888.76	0.26	379682.39	712924.72	N 32 2 31.20	W 103 38 46.18
	14946.00	90.07	180.65	12116.44	261							

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 ° ' ")
	17876.00	89.55	179.65	12119.04	5544.23	-5540.20	868.18	0.54	376658.03	712904.14	N 32 2 1.27	W 103 38 46.64
	17971.00	88.73	178.75	12120.47	5639.22	-5635.18	869.50	1.28	376563.05	712905.47	N 32 2 0.33	W 103 38 46.64
	18065.00	88.42	178.61	12122.81	5733.17	-5729.13	871.67	0.36	376469.11	712907.63	N 32 1 59.40	W 103 38 46.62
	18160.00	89.76	178.62	12124.31	5828.14	-5824.09	873.96	1.41	376374.16	712909.93	N 32 1 58.46	W 103 38 46.60
	18254.00	89.59	178.15	12124.85	5922.11	-5918.05	876.61	0.53	376280.20	712912.58	N 32 1 57.53	W 103 38 46.57
	18349.00	89.17	178.03	12125.88	6017.07	-6012.99	879.78	0.46	376185.26	712915.74	N 32 1 56.59	W 103 38 46.54
	18443.00	89.89	178.71	12126.81	6111.03	-6106.94	882.45	0.91	376091.31	712918.42	N 32 1 55.86	W 103 38 46.52
	18538.00	90.07	178.62	12127.01	6206.02	-6201.92	884.67	0.41	375996.34	712920.63	N 32 1 54.72	W 103 38 46.50
	18633.00	90.24	179.40	12126.75	6301.01	-6296.90	886.31	0.84	375901.36	712922.27	N 32 1 53.78	W 103 38 46.49
	18728.00	90.48	179.48	12126.16	6396.01	-6391.90	887.24	0.27	375806.37	712923.20	N 32 1 52.84	W 103 38 46.49
	18822.00	90.38	179.76	12125.45	6490.00	-6485.89	887.86	0.32	375712.38	712923.82	N 32 1 51.91	W 103 38 46.49
	19012.00	90.41	178.94	12124.14	6679.99	-6675.87	890.02	0.43	375522.40	712925.98	N 32 1 50.03	W 103 38 46.47
	19106.00	90.31	179.20	12123.55	6773.98	-6769.86	891.54	0.30	375428.42	712927.50	N 32 1 49.10	W 103 38 46.46
	19201.00	90.41	179.61	12122.95	6868.98	-6864.85	892.53	0.44	375333.43	712928.49	N 32 1 48.16	W 103 38 46.46
	19296.00	89.00	179.07	12123.44	6963.98	-6959.84	893.62	1.59	375238.45	712929.59	N 32 1 47.22	W 103 38 46.45
	19391.00	89.14	179.04	12124.98	7058.96	-7054.82	895.19	0.15	375143.48	712931.15	N 32 1 46.28	W 103 38 46.44
	19485.00	89.35	179.28	12126.22	7152.94	-7148.80	896.57	0.34	375049.50	712932.53	N 32 1 45.35	W 103 38 46.43
	19580.00	89.90	179.52	12126.84	7247.94	-7243.79	897.56	0.63	374954.51	712933.52	N 32 1 44.41	W 103 38 46.43
	19675.00	89.21	179.54	12127.58	7342.93	-7338.78	898.34	0.73	374859.52	712934.30	N 32 1 43.47	W 103 38 46.43
	19865.00	89.83	180.08	12129.17	7532.93	-7528.77	898.97	0.43	374669.54	712934.93	N 32 1 41.59	W 103 38 46.43
	19960.00	89.76	179.59	12129.51	7627.93	-7623.77	899.24	0.52	374574.54	712935.21	N 32 1 40.65	W 103 38 46.44
	20149.00	89.45	179.25	12130.82	7816.92	-7812.76	901.16	0.24	374385.57	712937.12	N 32 1 38.78	W 103 38 46.43
	20243.00	89.31	179.28	12131.83	7910.91	-7906.74	902.36	0.15	374291.58	712938.33	N 32 1 37.85	W 103 38 46.42
	20338.00	89.42	179.20	12132.89	8005.90	-8001.73	903.62	0.14	374196.60	712939.59	N 32 1 36.91	W 103 38 46.41
	20433.00	89.24	179.38	12134.00	8100.89	-8096.72	904.80	0.27	374101.62	712940.76	N 32 1 35.97	W 103 38 46.41
	20622.00	89.42	179.32	12136.21	8289.87	-8285.69	906.94	0.10	373912.65	712942.91	N 32 1 34.10	W 103 38 46.40
	20716.00	89.38	178.93	12137.19	8383.86	-8379.67	908.38	0.42	373818.67	712944.34	N 32 1 33.17	W 103 38 46.39
	20811.00	89.28	178.94	12138.30	8478.85	-8474.65	910.15	0.11	373723.70	712946.11	N 32 1 32.23	W 103 38 46.37
	20905.00	89.79	179.45	12139.07	8572.84	-8568.64	911.47	0.77	373629.72	712947.43	N 32 1 31.30	W 103 38 46.36
	21000.00	89.45	179.27	12139.70	8667.83	-8663.63	912.53	0.40	373534.73	712948.49	N 32 1 30.36	W 103 38 46.36
	21095.00	89.48	179.05	12140.58	8762.83	-8758.62	913.92	0.23	373439.75	712949.88	N 32 1 29.42	W 103 38 46.35
	21190.00	89.28	178.92	12141.61	8857.81	-8853.60	915.60	0.25	373344.77	712951.56	N 32 1 28.48	W 103 38 46.34
	21285.00	89.38	179.26	12142.72	8952.80	-8948.58	917.11	0.37	373249.79	712953.07	N 32 1 27.54	W 103 38 46.33
	21380.00	89.38	178.85	12143.75	9047.79	-9043.56	918.68	0.43	373154.82	712954.64	N 32 1 26.60	W 103 38 46.32
	21474.00	89.35	179.79	12144.79	9141.78	-9137.55	919.79	1.00	373060.83	712955.76	N 32 1 25.67	W 103 38 46.31
	21569.00	89.31	181.36	12145.90	9236.76	-9232.53	918.84	1.65	372965.85	712954.80	N 32 1 24.73	W 103 38 46.33
	21663.00	89.38	181.17	12146.98	9330.72	-9326.50	916.76	0.22	372871.88	712952.73	N 32 1 23.80	W 103 38 46.36
	21758.00	89.59	181.83	12147.83	9425.67	-9421.46	914.28	0.73	372776.93	712950.24	N 32 1 22.86	W 103 38 46.40
	21853.00	89.93	181.08	12148.23	9520.62	-9516.43	911.87	0.87	372681.96	712947.83	N 32 1 21.92	W 103 38 46.43
	21947.00	89.45	181.48	12148.74	9614.59	-9610.41	909.77	0.66	372587.99	712945.73	N 32 1 20.99	W 103 38 46.46
	22041.00	89.28	181.10	12149.78	9708.55	-9704.38	907.65	0.44	372494.02	712943.61	N 32 1 20.06	W 103 38 46.49
	22135.00	89.83	181.47	12150.51	9802.51	-9798.35	905.54	0.71	372400.06	712941.50	N 32 1 19.13	W 103 38 46.52
	22230.00	90.52	181.57	12150.22	9897.46	-9893.32	903.02	0.73	372305.09	712938.98	N 32 1 18.19	W 103 38 46.56
	22324.00	90.38	181.35	12149.48	9991.42	-9987.28	900.63	0.28	372211.13	712936.59	N 32 1 17.26	W 103 38 46.60
	22418.00	90.45	180.99	12148.80	10085.38	-10081.26	898.71	0.39	372117.16	712934.67	N 32 1 16.33	W 103 38 46.62
Toe HL Cross	22474.00	90.45	181.43	12148.36	10141.36	-10137.25	897.53	0.78	372061.17	712933.49	N 32 1 15.78	W 103 38 46.64
Last SLB MWD Survey	22501.00	90.45	181.64	12148.15	10168.35	-10164.24	896.80	0.78	372034.19	712932.77	N 32 1 15.51	W 103 38 46.65
Projection to Bit	22549.00	90.45	181.64	12147.77	10216.32	-10212.21	895.43	0.00	371986.21	712931.39	N 32 1 15.04	W 103 38 46.67

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3,000 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	32.600	1/98.425	30.000	30.000	A001Mb_MWD-Depth Only	SD 14 23 Fed P18 12H / Chevron SD 14 23 Fed P18 12H MWD to
	1	32.600	32.600	Act Stns	30.000	30.000	A001Mb_MWD-Depth Only	SD 14 23 Fed P18 12H / Chevron SD 14 23 Fed P18 12H MWD to
	1	32.600	872.000	Act Stns	30.000	30.000	A001Mb_MWD	SD 14 23 Fed P18 12H / Chevron SD 14 23 Fed P18 12H MWD to
	1	872.000	22549.000	Act Stns	30.000	30.000	B001Mb_MWD+HRGM	SD 14 23 Fed P18 12H / Chevron SD 14 23 Fed P18 12H MWD to