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SURVEY REPORT

HAMBONE FEDERAL COM #26H

NABORS #894

2/26/2019

This survey is correct to the best of my knowledge and is supported by actual field data.

JAKE ELGER

Notarized this date 04 of APRIL

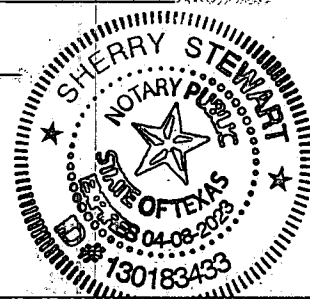
2019

Sherry Stewart

Notary Signature

County of Midland

State of Texas



The Ultimate Partner In Wellbore Placement

SURVEY REPORT

HAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

CUSTOMER
PROJECT
FIELD

COG
Hambone Federal Com #26H
Hambone Federal Com #26H

SDI JOB NO.
SDI DISTRICT
SDI KIT/UNIT

OP:016870
Midland

SITE INFORMATION

Site Name
Lat/Long
Northing
Easting

Hambone Federal Com #26H
32.05045° N, 104.00656° W
382,231.57 ft
601,241.54 ft

Section
Township
Range

MAP INFORMATION

North Reference
Grid Correction
System
Datum
Map Zone

Grid North
-0.17 deg
US State Plane 1927
North American Datum 1927 (Clarke 1866)
New Mexico East: 3001

**WELL INFORMATION**

Lat/Long
Northing
Easting
UWI

32.05045° N, 104.00656° W
382,231.57 ft
601,241.54 ft
30-015-45664

DEPTH AND ELEVATION REFERENCE

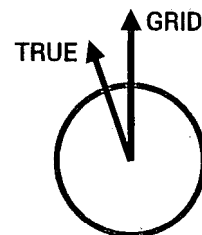
Ground Level
Level
Reference Datum
Reference Height
Reference Elevation

2894.5 ft above Mean Sea
Level
RKB
30 ft above G.L.
2924.5 ft

VERTICAL SECTION REFERENCE

+N/-S
+E/-W
Proposal Direction
Calculation Method

0 ft
0 ft
2.78°
Minimum Curvature

**LOCAL GRAVITY REFERENCE INFORMATION**

Local Gravity
True to Grid

998.534 mG [computed]
subtract 0.17°

WELL NOTES**OPERATORS**

Nathan Yerby

SDI Operator Name (Printed)

SIGNATURE

DATE

SURVEY REPORT

LAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	NVS	FEAW	DLS	CLOSURE	CLOSURE
ft	deg	deg	ft	ft	ft	ft	/100ft	DIST	DIR
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.13	5.97	100.00	0.11	0.11	0.01	0.13	0.11	5.97
125.00	0.07	32.80	125.00	0.15	0.15	0.02	0.28	0.15	8.70
150.00	0.06	294.14	150.00	0.17	0.17	0.02	0.42	0.17	6.51
175.00	0.14	13.52	175.00	0.21	0.21	0.01	0.59	0.21	3.97
200.00	0.18	6.74	200.00	0.28	0.28	0.03	0.17	0.28	5.44
225.00	0.22	8.11	225.00	0.36	0.36	0.04	0.15	0.36	5.93
250.00	0.20	19.09	250.00	0.46	0.45	0.06	0.17	0.46	7.48
275.00	0.17	31.92	275.00	0.53	0.53	0.09	0.23	0.54	10.15
300.00	0.19	20.03	300.00	0.61	0.60	0.13	0.16	0.61	12.11
325.00	0.17	346.61	325.00	0.68	0.67	0.13	0.41	0.69	11.26
350.00	0.30	353.00	350.00	0.78	0.78	0.12	0.55	0.78	8.64
375.00	0.34	355.96	375.00	0.92	0.92	0.10	0.18	0.92	6.50
400.00	0.23	358.37	400.00	1.04	1.04	0.10	0.46	1.05	5.36
425.00	0.28	1.54	425.00	1.15	1.15	0.10	0.20	1.16	4.86
450.00	0.35	10.33	450.00	1.29	1.29	0.11	0.36	1.29	5.03
475.00	0.39	8.98	475.00	1.45	1.45	0.14	0.17	1.45	5.54
500.00	0.31	11.23	500.00	1.61	1.60	0.16	0.39	1.61	5.55
525.00	0.27	345.60	525.00	1.73	1.73	0.14	0.35	1.73	4.70
550.00	0.29	343.25	550.00	1.85	1.84	0.11	0.07	1.85	3.38
575.00	0.30	347.66	575.00	1.97	1.97	0.08	0.09	1.97	2.24
600.00	0.19	355.12	600.00	2.07	2.07	0.06	0.44	2.07	1.65
625.00	0.24	348.00	625.00	2.16	2.16	0.05	0.22	2.16	1.20
650.00	0.23	326.34	649.99	2.25	2.26	0.01	0.35	2.26	0.17
675.00	0.29	333.86	674.99	2.35	2.36	-0.05	0.27	2.36	358.80
700.00	0.17	314.27	699.99	2.43	2.44	0.10	0.56	2.44	357.55
725.00	0.15	299.48	724.99	2.47	2.48	0.16	0.20	2.49	356.32
750.00	0.14	303.52	749.99	2.50	2.51	0.21	0.06	2.52	355.18
775.00	0.19	326.69	774.99	2.55	2.56	0.26	0.34	2.58	354.22
800.00	0.26	305.65	799.99	2.61	2.63	0.33	0.42	2.65	352.89
825.00	0.11	260.01	824.99	2.64	2.66	-0.40	0.78	2.69	351.51
850.00	0.08	253.32	849.99	2.63	2.65	-0.44	0.12	2.69	350.62

SURVEY REPORT

HAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/S	HE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%100ft	ft	deg
875.00	0.10	243.88	874.99	2.61	2.64	-0.47	0.09	2.68	349.79
900.00	0.11	228.65	899.99	2.58	2.61	-0.51	0.11	2.66	348.91
925.00	0.21	238.54	924.99	2.54	2.57	-0.57	0.41	2.63	347.55
950.00	0.16	247.38	949.99	2.50	2.54	-0.64	0.21	2.61	345.86
975.00	0.18	258.04	974.99	2.48	2.51	-0.71	0.14	2.61	344.25
1000.00	0.22	237.18	999.99	2.44	2.48	-0.79	0.34	2.60	342.37
1025.00	0.15	260.02	1024.99	2.40	2.45	-0.86	0.41	2.59	340.59
1050.00	0.21	239.02	1049.99	2.37	2.42	-0.94	0.35	2.59	338.85
1075.00	0.06	212.03	1074.99	2.33	2.38	-0.98	0.65	2.58	337.61
1100.00	0.06	217.50	1099.99	2.31	2.36	-1.00	0.03	2.56	337.12
1125.00	0.13	214.95	1124.99	2.27	2.33	-1.02	0.29	2.54	336.29
1150.00	0.14	215.56	1149.99	2.22	2.28	-1.06	0.01	2.51	335.14
1175.00	0.08	218.79	1174.99	2.19	2.24	-1.08	0.20	2.49	334.17
1200.00	0.11	265.72	1199.99	2.17	2.22	-1.12	0.32	2.49	333.28
1225.00	0.06	213.84	1224.99	2.15	2.21	-1.15	0.35	2.49	332.51
1250.00	0.14	218.78	1249.99	2.12	2.18	-1.18	0.34	2.47	331.58
1275.00	0.17	209.90	1274.99	2.06	2.12	-1.22	0.15	2.44	330.16
1300.00	0.15	241.45	1299.99	2.01	2.07	-1.26	0.36	2.43	328.61
1325.00	0.05	298.49	1324.99	2.00	2.06	-1.30	0.52	2.44	327.71
1350.00	0.13	224.71	1349.99	1.98	2.05	-1.33	0.49	2.44	326.95
1375.00	0.17	232.71	1374.99	1.93	2.00	-1.38	0.21	2.43	325.44
1400.00	0.21	218.77	1399.99	1.87	1.95	-1.44	0.23	2.42	323.51
1425.00	0.07	238.42	1424.99	1.83	1.90	-1.48	0.57	2.41	322.09
1450.00	0.07	214.24	1449.99	1.81	1.88	-1.50	0.12	2.41	321.38
1475.00	0.05	213.84	1474.99	1.78	1.86	-1.52	0.07	2.40	320.79
1500.00	0.16	218.58	1499.99	1.75	1.82	-1.55	0.44	2.39	319.71
1525.00	0.11	210.07	1524.99	1.70	1.77	-1.58	0.22	2.38	318.33
1550.00	0.09	233.59	1549.99	1.66	1.74	-1.61	0.18	2.37	317.31
1575.00	0.08	176.04	1574.99	1.63	1.71	-1.62	0.33	2.36	316.57
1600.00	0.15	208.17	1599.99	1.58	1.67	-1.64	0.37	2.34	315.52
1625.00	0.13	239.76	1624.99	1.54	1.62	-1.68	0.32	2.33	314.06
1650.00	0.07	232.25	1649.99	1.51	1.60	-1.71	0.24	2.34	312.98

SURVEY REPORT

IAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	N/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
1675.00	0.16	214.68	1674.99	1.47	1.56	-1.75	0.37	2.34	311.75
1700.00	0.14	209.19	1699.99	1.42	1.50	-1.78	0.10	2.33	310.18
1725.00	0.22	225.54	1724.99	1.35	1.45	-1.83	0.37	2.33	308.30
1750.00	0.22	238.43	1749.99	1.29	1.39	-1.90	0.20	2.36	306.06
1775.00	0.20	197.86	1774.99	1.22	1.32	-1.96	0.59	2.36	303.99
1800.00	0.05	239.53	1799.99	1.18	1.27	-1.98	0.65	2.36	302.76
1825.00	0.16	216.20	1824.99	1.14	1.24	-2.01	0.47	2.36	301.67
1850.00	0.16	204.13	1849.99	1.08	1.18	-2.05	0.14	2.36	299.99
1875.00	0.13	227.31	1874.99	1.03	1.13	-2.08	0.25	2.37	298.51
1900.00	0.12	236.02	1899.99	0.99	1.10	-2.12	0.08	2.39	297.29
1925.00	0.03	174.46	1924.99	0.97	1.07	-2.15	0.45	2.40	296.59
1950.00	0.16	230.16	1949.99	0.94	1.05	-2.17	0.57	2.41	295.71
1975.00	0.18	210.75	1974.99	0.88	0.99	-2.22	0.25	2.43	294.04
2000.00	0.08	226.82	1999.99	0.83	0.94	-2.25	0.44	2.44	292.74
2025.00	0.06	153.76	2024.99	0.81	0.92	-2.26	0.34	2.44	292.17
2050.00	0.08	124.51	2049.99	0.79	0.90	-2.24	0.16	2.41	291.87
2075.00	0.14	130.13	2074.99	0.76	0.87	-2.20	0.25	2.37	291.55
2100.00	0.15	80.61	2099.99	0.75	0.85	-2.14	0.49	2.31	291.73
2125.00	0.39	87.13	2124.99	0.76	0.86	-2.03	0.95	2.20	293.09
2150.00	0.41	93.23	2149.99	0.77	0.86	-1.85	0.18	2.04	294.97
2175.00	0.47	103.20	2174.99	0.75	0.84	-1.67	0.39	1.86	296.62
2200.00	0.46	89.90	2199.99	0.74	0.81	-1.47	0.43	1.68	298.97
2225.00	0.54	93.32	2224.99	0.74	0.81	-1.25	0.33	1.49	302.80
2250.00	0.57	87.72	2249.99	0.75	0.80	-1.01	0.25	1.29	308.54
2275.00	0.58	96.75	2274.98	0.76	0.79	-0.76	0.37	1.10	316.28
2300.00	0.64	96.54	2299.98	0.74	0.76	-0.49	0.23	0.91	327.06
2325.00	0.57	99.59	2324.98	0.71	0.73	-0.23	0.30	0.76	342.21
2350.00	0.56	103.22	2349.98	0.68	0.68	0.01	0.15	0.68	0.75
2375.00	0.53	95.26	2374.98	0.65	0.64	0.24	0.33	0.68	20.79
2400.00	0.58	95.09	2399.98	0.64	0.62	0.48	0.21	0.78	38.09
2425.00	0.67	99.86	2424.98	0.62	0.58	0.75	0.41	0.95	52.40
2450.00	0.79	99.90	2449.97	0.58	0.53	1.07	0.48	1.19	63.78

SURVEY REPORT

LAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/S	TEAW	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%100ft	ft	deg
2475.00	0.79	99.28	2474.97	0.54	0.47	1.41	0.03	1.48	71.60
2500.00	0.75	104.63	2499.97	0.48	0.40	1.74	0.34	1.78	77.05
2525.00	0.82	95.44	2524.97	0.44	0.34	2.07	0.57	2.10	80.65
2550.00	0.73	106.46	2549.97	0.40	0.28	2.40	0.69	2.42	83.37
2575.00	0.81	104.97	2574.96	0.32	0.19	2.72	0.33	2.73	86.04
2600.00	0.75	105.14	2599.96	0.25	0.10	3.05	0.22	3.05	88.11
2625.00	0.79	95.86	2624.96	0.20	0.04	3.38	0.53	3.38	89.32
2650.00	0.67	105.98	2649.96	0.16	-0.02	3.70	0.71	3.70	90.28
2675.00	0.54	93.83	2674.96	0.13	-0.07	3.96	0.75	3.96	90.96
2700.00	0.31	99.24	2699.95	0.12	-0.08	4.14	0.93	4.14	91.18
2725.00	0.38	80.24	2724.95	0.13	-0.08	4.29	0.55	4.29	91.09
2750.00	0.35	97.26	2749.95	0.14	-0.08	4.45	0.45	4.45	90.99
2775.00	0.21	98.96	2774.95	0.13	-0.09	4.57	0.57	4.57	91.18
2800.00	0.18	115.86	2799.95	0.11	-0.12	4.65	0.27	4.65	91.46
2825.00	0.19	98.60	2824.95	0.09	-0.14	4.73	0.23	4.73	91.72
2850.00	0.38	62.67	2849.95	0.12	-0.11	4.84	0.99	4.84	91.31
2875.00	0.34	67.00	2874.95	0.20	-0.04	4.98	0.18	4.98	90.50
2900.00	0.20	81.84	2899.95	0.24	-0.01	5.09	0.62	5.09	90.10
2925.00	0.18	103.12	2924.95	0.24	-0.01	5.18	0.29	5.18	90.13
2950.00	0.25	64.07	2949.95	0.26	0.00	5.26	0.62	5.26	89.97
2975.00	0.22	92.87	2974.95	0.28	0.02	5.36	0.48	5.36	89.74
3000.00	0.26	88.74	2999.95	0.29	0.02	5.47	0.16	5.47	89.76
3025.00	0.14	90.88	3024.95	0.29	0.02	5.55	0.48	5.55	89.76
3050.00	0.22	90.79	3049.95	0.30	0.02	5.63	0.32	5.63	89.77
3075.00	0.19	104.70	3074.95	0.29	0.01	5.72	0.23	5.72	89.89
3100.00	0.20	87.90	3099.95	0.28	0.00	5.80	0.23	5.80	89.98
3125.00	0.23	77.49	3124.95	0.30	0.01	5.89	0.20	5.89	89.85
3150.00	0.24	80.28	3149.95	0.33	0.03	5.99	0.06	5.99	89.67
3175.00	0.21	100.53	3174.95	0.33	0.04	6.09	0.34	6.09	89.67
3200.00	0.25	79.01	3199.95	0.34	0.04	6.19	0.38	6.19	89.66
3225.00	0.15	101.30	3224.95	0.35	0.04	6.28	0.49	6.28	89.62
3250.00	0.22	94.00	3249.95	0.34	0.03	6.36	0.27	6.36	89.72

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MD	INC	AZIM	TVD	VS	N/S	TE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
3275.00	0.18	106.96	3274.95	0.33	0.02	6.44	0.24	6.44	89.85
3300.00	0.19	68.05	3299.95	0.34	0.02	6.52	0.48	6.52	89.82
3325.00	0.25	89.36	3324.95	0.36	0.04	6.61	0.42	6.61	89.68
3350.00	0.23	74.32	3349.95	0.38	0.05	6.71	0.27	6.71	89.57
3375.00	0.21	95.54	3374.95	0.39	0.06	6.81	0.34	6.81	89.49
3400.00	0.21	68.98	3399.95	0.41	0.07	6.89	0.38	6.90	89.40
3425.00	0.25	77.92	3424.95	0.44	0.10	6.99	0.20	6.99	89.18
3450.00	0.20	95.82	3449.95	0.45	0.11	7.09	0.32	7.09	89.14
3475.00	0.21	120.50	3474.95	0.43	0.08	7.17	0.36	7.17	89.37
3500.00	0.18	84.78	3499.95	0.41	0.06	7.25	0.49	7.25	89.53
3525.00	0.14	99.69	3524.95	0.41	0.06	7.32	0.26	7.32	89.55
3550.00	0.15	94.46	3549.95	0.41	0.05	7.38	0.07	7.38	89.61
3575.00	0.20	64.89	3574.95	0.43	0.07	7.45	0.41	7.45	89.49
3600.00	0.13	66.58	3599.95	0.46	0.10	7.52	0.26	7.52	89.27
3625.00	0.13	91.11	3624.95	0.47	0.11	7.57	0.22	7.57	89.19
3650.00	0.15	70.08	3649.95	0.49	0.12	7.63	0.23	7.63	89.11
3675.00	0.04	10.34	3674.95	0.51	0.14	7.67	0.55	7.67	88.96
3700.00	0.16	359.43	3699.95	0.55	0.18	7.67	0.47	7.67	88.64
3725.00	0.14	62.83	3724.95	0.60	0.23	7.69	0.63	7.70	88.28
3750.00	0.06	83.79	3749.95	0.62	0.25	7.73	0.37	7.74	88.18
3775.00	0.11	27.77	3774.95	0.65	0.27	7.76	0.38	7.76	88.01
3800.00	0.15	3.37	3799.95	0.70	0.32	7.77	0.25	7.78	87.62
3825.00	0.10	41.47	3824.95	0.75	0.37	7.79	0.36	7.80	87.27
3850.00	0.07	38.96	3849.95	0.78	0.40	7.81	0.12	7.82	87.06
3875.00	0.14	8.47	3874.95	0.82	0.44	7.83	0.36	7.84	86.76
3900.00	0.03	118.76	3899.95	0.85	0.47	7.84	0.62	7.85	86.56
3925.00	0.10	18.13	3924.95	0.87	0.49	7.85	0.45	7.87	86.43
3950.00	0.13	347.77	3949.95	0.92	0.54	7.85	0.26	7.87	86.07
3975.00	0.07	89.24	3974.95	0.95	0.57	7.86	0.63	7.88	85.87
4000.00	0.13	65.31	3999.95	0.96	0.58	7.90	0.29	7.92	85.81
4025.00	0.10	63.42	4024.95	0.99	0.60	7.94	0.09	7.97	85.68
4050.00	0.18	10.45	4049.95	1.04	0.65	7.97	0.57	8.00	85.34

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LAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/S	HEAV	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%100ft	ft	deg
4075.00	0.10	19.37	4074.95	1.10	0.71	7.99	0.31	8.02	84.93
4100.00	0.13	56.59	4099.95	1.13	0.75	8.02	0.32	8.05	84.68
4125.00	0.08	29.91	4124.95	1.17	0.78	8.05	0.27	8.09	84.48
4150.00	0.07	42.66	4149.95	1.19	0.80	8.07	0.10	8.11	84.31
4175.00	0.14	43.04	4174.95	1.23	0.84	8.10	0.29	8.14	84.10
4200.00	0.08	68.42	4199.95	1.26	0.87	8.14	0.30	8.18	83.93
4225.00	0.27	55.74	4224.95	1.30	0.91	8.20	0.78	8.25	83.70
4250.00	0.24	45.80	4249.95	1.38	0.98	8.29	0.21	8.35	83.28
4275.00	0.25	34.87	4274.95	1.46	1.06	8.36	0.19	8.43	82.78
4300.00	0.19	31.24	4299.95	1.55	1.14	8.41	0.27	8.49	82.29
4325.00	0.45	44.82	4324.95	1.65	1.24	8.50	1.08	8.59	81.68
4350.00	0.14	35.71	4349.94	1.75	1.34	8.59	1.24	8.69	81.15
4375.00	0.01	137.74	4374.94	1.78	1.36	8.61	0.56	8.72	81.03
4400.00	0.12	184.33	4399.94	1.75	1.33	8.61	0.44	8.71	81.21
4425.00	0.06	129.76	4424.94	1.71	1.30	8.62	0.38	8.71	81.43
4450.00	0.19	179.66	4449.94	1.67	1.25	8.63	0.63	8.72	81.77
4475.00	0.13	164.25	4474.94	1.60	1.18	8.63	0.31	8.71	82.21
4500.00	0.06	138.78	4499.94	1.58	1.17	8.65	0.67	8.73	82.33
4525.00	0.31	184.84	4524.94	1.53	1.11	8.65	1.46	8.72	82.70
4550.00	0.15	185.31	4549.94	1.42	1.01	8.64	0.64	8.70	83.36
4575.00	0.13	160.67	4574.94	1.37	0.95	8.65	0.26	8.70	83.75
4600.00	0.27	170.26	4599.94	1.28	0.86	8.67	0.59	8.71	84.33
4625.00	0.34	184.29	4624.94	1.15	0.73	8.67	0.40	8.70	85.20
4650.00	0.17	180.65	4649.94	1.04	0.62	8.67	0.68	8.69	85.93
4675.00	0.18	156.41	4674.94	0.96	0.54	8.68	0.29	8.70	86.41
4700.00	0.31	186.28	4699.94	0.86	0.44	8.69	0.72	8.70	87.09
4725.00	0.37	182.44	4724.94	0.71	0.29	8.68	0.25	8.69	88.07
4750.00	0.23	175.41	4749.94	0.58	0.16	8.68	0.56	8.68	88.93
4775.00	0.25	179.22	4774.94	0.48	0.06	8.69	0.10	8.69	89.63
4800.00	0.32	183.28	4799.94	0.35	0.07	8.68	0.29	8.68	90.46
4825.00	0.37	178.16	4824.94	0.20	-0.22	8.68	0.24	8.68	91.46
4850.00	0.44	186.54	4849.94	0.02	-0.40	8.67	0.34	8.68	92.62

SURVEY REPORT

IAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	N/S	HEAW	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%100ft	ft	deg
4875.00	0.41	179.82	4874.94	-0.16	-0.58	8.66	0.23	8.68	93.83
4900.00	0.39	164.60	4899.94	-0.33	-0.75	8.69	0.43	8.72	94.94
4925.00	0.41	188.20	4924.94	-0.50	-0.92	8.70	0.67	8.74	96.06
4950.00	0.48	182.25	4949.94	-0.70	-1.12	8.68	0.34	8.75	97.34
4975.00	0.39	180.13	4974.94	-0.89	-1.31	8.67	0.40	8.77	98.58
5000.00	0.36	173.28	4999.94	-1.05	-1.47	8.68	0.21	8.81	99.61
5025.00	0.47	178.62	5024.94	-1.23	-1.65	8.69	0.48	8.85	100.76
5050.00	0.34	178.29	5049.94	-1.40	-1.83	8.70	0.54	8.89	101.87
5075.00	0.40	180.67	5074.93	-1.57	-1.99	8.70	0.27	8.93	102.89
5100.00	0.50	173.00	5099.93	-1.76	-2.19	8.71	0.46	8.98	104.09
5125.00	0.40	171.66	5124.93	-1.96	-2.38	8.74	0.41	9.06	105.25
5150.00	0.49	189.41	5149.93	-2.15	-2.57	8.73	0.65	9.11	106.42
5175.00	0.45	174.29	5174.93	-2.35	-2.78	8.73	0.51	9.16	107.65
5200.00	0.35	177.56	5199.93	-2.52	-2.95	8.74	0.43	9.22	108.65
5225.00	0.42	184.98	5224.93	-2.69	-3.12	8.73	0.34	9.27	109.63
5250.00	0.42	175.36	5249.93	-2.87	-3.30	8.73	0.28	9.34	110.68
5275.00	0.44	170.57	5274.93	-3.05	-3.48	8.76	0.17	9.42	111.68
5300.00	0.45	177.89	5299.93	-3.24	-3.67	8.78	0.23	9.51	112.72
5325.00	0.43	183.13	5324.93	-3.44	-3.87	8.78	0.18	9.59	113.78
5350.00	0.37	172.81	5349.93	-3.61	-4.04	8.78	0.38	9.66	114.71
5375.00	0.38	175.69	5374.93	-3.77	-4.20	8.80	0.10	9.75	115.53
5400.00	0.43	168.32	5399.93	-3.94	-4.38	8.82	0.29	9.85	116.39
5425.00	0.39	169.39	5424.93	-4.12	-4.55	8.86	0.15	9.96	117.21
5450.00	0.52	181.01	5449.92	-4.32	-4.75	8.87	0.63	10.06	118.18
5475.00	0.47	183.57	5474.92	-4.53	-4.97	8.86	0.23	10.16	119.27
5500.00	0.38	180.04	5499.92	-4.72	-5.15	8.86	0.38	10.25	120.20
5525.00	0.49	182.28	5524.92	-4.91	-5.34	8.85	0.45	10.34	121.12
5550.00	0.40	160.61	5549.92	-5.09	-5.53	8.88	0.77	10.46	121.93
5575.00	0.43	161.81	5574.92	-5.26	-5.70	8.93	0.15	10.60	122.55
5600.00	0.47	152.05	5599.92	-5.44	-5.88	9.01	0.35	10.76	123.14
5625.00	0.55	139.77	5624.92	-5.62	-6.07	9.14	0.53	10.97	123.58
5650.00	0.51	152.01	5649.92	-5.80	-6.26	9.27	0.48	11.18	124.03

SURVEY REPORT

IAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/S	HE/W	DLS	CLOSURE	CLOSURE
ft	deg	deg	ft	ft	ft	ft	%/100ft	DIST	DIR
5675.00	0.47	154.02	5674.92	-5.99	-6.45	9.37	0.20	11.37	124.55
5700.00	0.49	156.21	5699.92	-6.17	-6.64	9.45	0.11	11.55	125.07
5725.00	0.51	152.72	5724.92	-6.36	-6.83	9.55	0.16	11.74	125.60
5750.00	0.55	157.29	5749.91	-6.57	-7.04	9.64	0.22	11.94	126.14
5775.00	0.52	146.12	5774.91	-6.77	-7.25	9.75	0.43	12.15	126.62
5800.00	0.60	152.76	5799.91	-6.97	-7.46	9.88	0.40	12.38	127.06
5825.00	0.55	151.40	5824.91	-7.19	-7.68	10.00	0.22	12.61	127.55
5850.00	0.50	161.15	5849.91	-7.39	-7.89	10.09	0.41	12.81	128.03
5875.00	0.57	150.97	5874.91	-7.60	-8.10	10.18	0.48	13.01	128.51
5900.00	0.59	148.72	5899.91	-7.81	-8.32	10.31	0.11	13.25	128.91
5925.00	0.53	144.01	5924.91	-8.01	-8.53	10.45	0.29	13.48	129.22
5950.00	0.49	147.19	5949.91	-8.19	-8.71	10.57	0.21	13.70	129.48
5975.00	0.56	141.77	5974.90	-8.37	-8.90	10.71	0.33	13.92	129.72
6000.00	0.61	156.33	5999.90	-8.58	-9.11	10.83	0.62	14.16	130.07
6025.00	0.50	158.63	6024.90	-8.79	-9.33	10.93	0.45	14.37	130.51
6050.00	0.53	158.12	6049.90	-9.00	-9.54	11.01	0.14	14.57	130.92
6075.00	0.56	152.74	6074.90	-9.21	-9.76	11.11	0.24	14.79	131.30
6100.00	0.44	179.47	6099.90	-9.41	-9.96	11.17	1.04	14.97	131.74
6125.00	0.35	236.03	6124.90	-9.55	-10.10	11.10	1.53	15.01	132.30
6150.00	0.41	249.38	6149.90	-9.63	-10.18	10.96	0.42	14.95	132.89
6175.00	0.41	250.53	6174.90	-9.70	-10.24	10.79	0.03	14.87	133.51
6200.00	0.43	256.02	6199.90	-9.76	-10.29	10.61	0.18	14.78	134.12
6225.00	0.35	258.83	6224.90	-9.81	-10.33	10.45	0.33	14.69	134.68
6250.00	0.43	252.35	6249.89	-9.86	-10.37	10.28	0.37	14.60	135.26
6275.00	0.46	237.65	6274.89	-9.95	-10.45	10.11	0.47	14.54	135.97
6300.00	0.57	245.10	6299.89	-10.07	-10.56	9.91	0.50	14.48	136.83
6325.00	0.54	241.90	6324.89	-10.18	-10.67	9.69	0.17	14.41	137.74
6350.00	0.61	232.87	6349.89	-10.33	-10.80	9.48	0.47	14.38	138.72
6375.00	0.77	231.22	6374.89	-10.53	-10.99	9.25	0.65	14.36	139.92
6400.00	0.60	243.64	6399.89	-10.70	-11.15	9.00	0.89	14.33	141.11
6425.00	0.75	237.60	6424.89	-10.86	-11.30	8.74	0.66	14.28	142.28
6450.00	0.88	227.54	6449.88	-11.09	-11.52	8.46	0.75	14.29	143.70

SURVEY REPORT

HAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/5	HEAV	DLS	CLOSURE	CLOSURE
ft	deg	deg	ft	ft	ft	ft	%/100ft	DIST	DIR
6475.00	0.92	229.21	6474.88	-11.37	-11.78	8.17	0.20	14.33	145.26
6500.00	0.94	229.46	6499.88	-11.64	-12.04	7.86	0.08	14.38	146.86
6525.00	0.88	225.16	6524.87	-11.93	-12.31	7.57	0.37	14.45	148.41
6550.00	0.93	229.39	6549.87	-12.21	-12.58	7.28	0.33	14.53	149.94
6575.00	0.91	222.26	6574.87	-12.50	-12.86	6.99	0.46	14.63	151.46
6600.00	0.93	223.41	6599.86	-12.81	-13.15	6.72	0.08	14.77	152.94
6625.00	0.98	222.22	6624.86	-13.13	-13.45	6.44	0.23	14.91	154.44
6650.00	1.00	227.66	6649.86	-13.45	-13.76	6.13	0.39	15.06	155.98
6675.00	0.64	218.65	6674.85	-13.71	-14.02	5.88	1.54	15.20	157.23
6700.00	0.48	200.06	6699.85	-13.93	-14.22	5.76	0.96	15.34	157.95
6725.00	0.55	209.86	6724.85	-14.13	-14.42	5.66	0.44	15.50	158.56
6750.00	0.42	210.53	6749.85	-14.32	-14.61	5.56	0.52	15.63	159.16
6775.00	0.32	204.43	6774.85	-14.46	-14.75	5.48	0.43	15.73	159.60
6800.00	0.32	208.32	6799.85	-14.59	-14.87	5.42	0.09	15.83	159.97
6825.00	0.26	196.59	6824.85	-14.71	-14.99	5.37	0.31	15.92	160.28
6850.00	0.32	206.28	6849.85	-14.83	-15.10	5.33	0.30	16.02	160.58
6875.00	0.20	222.09	6874.85	-14.93	-15.20	5.27	0.57	16.09	160.89
6900.00	0.11	293.24	6899.85	-14.95	-15.22	5.22	0.77	16.09	161.09
6925.00	0.06	27.31	6924.85	-14.93	-15.20	5.20	0.51	16.07	161.11
6950.00	0.23	53.45	6949.85	-14.89	-15.16	5.25	0.72	16.04	160.91
6975.00	0.70	96.16	6974.85	-14.86	-15.15	5.44	2.20	16.09	160.24
7000.00	1.36	97.43	6999.84	-14.90	-15.20	5.89	2.65	16.30	158.83
7025.00	1.59	101.42	7024.84	-14.97	-15.31	6.52	0.99	16.64	156.93
7050.00	2.30	112.85	7049.82	-15.20	-15.57	7.32	3.23	17.21	154.81
7075.00	3.55	118.15	7074.79	-15.70	-16.13	8.47	5.11	18.22	152.31
7100.00	3.87	120.37	7099.74	-16.42	-16.92	9.88	1.43	19.59	149.73
7125.00	4.18	119.68	7124.67	-17.23	-17.80	11.40	1.25	21.14	147.37
7150.00	4.65	120.48	7149.60	-18.11	-18.77	13.06	1.90	22.87	145.16
7175.00	4.99	121.42	7174.51	-19.10	-19.85	14.87	1.39	24.80	143.17
7200.00	4.96	121.35	7199.42	-20.14	-20.98	16.72	0.11	26.82	141.45
7225.00	4.88	122.02	7224.32	-21.18	-22.10	18.54	0.40	28.85	140.01
7250.00	4.83	118.70	7249.23	-22.16	-23.17	20.37	1.14	30.85	138.69

SURVEY REPORT

HAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/S	HE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
7275.00	4.70	118.42	7274.15	-23.06	-24.17	22.19	0.55	32.81	137.44
7300.00	4.68	118.95	7299.06	-23.95	-25.15	23.98	0.18	34.75	136.36
7325.00	4.74	119.27	7323.98	-24.87	-26.15	25.78	0.26	36.72	135.40
7350.00	5.56	114.34	7348.88	-25.77	-27.15	27.78	3.70	38.85	134.34
7375.00	5.76	116.51	7373.76	-26.72	-28.21	30.01	1.17	41.19	133.23
7400.00	5.69	115.44	7398.63	-27.70	-29.30	32.25	0.51	43.57	132.26
7425.00	5.61	114.66	7423.51	-28.64	-30.34	34.48	0.45	45.93	131.35
7450.00	5.63	114.33	7448.39	-29.54	-31.36	36.71	0.16	48.28	130.51
7475.00	5.51	113.38	7473.27	-30.41	-32.34	38.92	0.61	50.61	129.72
7500.00	5.37	112.95	7498.16	-31.24	-33.27	41.10	0.59	52.88	128.99
7525.00	5.30	113.00	7523.05	-32.04	-34.18	43.24	0.28	55.12	128.32
7550.00	5.27	111.99	7547.95	-32.82	-35.06	45.37	0.39	57.34	127.70
7575.00	5.33	112.59	7572.84	-33.59	-35.94	47.50	0.31	59.57	127.11
7600.00	5.35	112.68	7597.73	-34.38	-36.83	49.65	0.09	61.82	126.57
7625.00	5.44	111.32	7622.62	-35.15	-37.71	51.83	0.62	64.10	126.04
7650.00	5.60	111.65	7647.50	-35.92	-38.59	54.07	0.68	66.43	125.52
7675.00	5.62	112.79	7672.39	-36.74	-39.52	56.33	0.45	68.81	125.05
7700.00	5.59	112.30	7697.27	-37.56	-40.45	58.58	0.23	71.19	124.62
7725.00	5.38	112.54	7722.15	-38.37	-41.36	60.79	0.85	73.53	124.23
7750.00	5.19	111.47	7747.04	-39.12	-42.23	62.93	0.87	75.78	123.86
7775.00	5.01	111.46	7771.95	-39.84	-43.04	64.99	0.71	77.95	123.51
7800.00	4.78	111.21	7796.86	-40.51	-43.81	66.98	0.93	80.04	123.19
7825.00	4.55	109.45	7821.77	-41.13	-44.52	68.88	1.06	82.02	122.87
7850.00	4.63	110.51	7846.69	-41.72	-45.20	70.77	0.47	83.97	122.57
7875.00	4.58	109.03	7871.61	-42.31	-45.88	72.65	0.53	85.93	122.27
7900.00	4.62	109.03	7896.53	-42.87	-46.54	74.55	0.19	87.88	121.97
7925.00	4.84	108.22	7921.45	-43.43	-47.20	76.50	0.91	89.89	121.67
7950.00	4.83	108.86	7946.36	-44.00	-47.87	78.50	0.22	91.94	121.37
7975.00	4.92	107.60	7971.27	-44.57	-48.53	80.52	0.56	94.01	121.08
8000.00	5.26	109.54	7996.17	-45.17	-49.24	82.62	1.52	96.18	120.79
8025.00	5.55	109.59	8021.06	-45.85	-50.03	84.84	1.17	98.49	120.53
8050.00	5.48	108.61	8045.94	-46.53	-50.81	87.11	0.49	100.85	120.26

SURVEY REPORT

LAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	+N/S	HEAW	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
8075.00	5.63	109.67	8070.82	-47.21	-51.61	89.40	0.73	103.22	120.00
8100.00	5.60	108.90	8095.70	-47.90	-52.41	91.71	0.32	105.63	119.75
8125.00	5.59	109.06	8120.58	-48.58	-53.21	94.01	0.07	108.02	119.51
8150.00	5.49	108.00	8145.47	-49.24	-53.97	96.30	0.58	110.39	119.27
8175.00	5.49	107.29	8170.35	-49.85	-54.70	98.58	0.27	112.74	119.03
8200.00	5.59	107.93	8195.24	-50.47	-55.43	100.88	0.46	115.10	118.79
8225.00	5.65	108.71	8220.12	-51.13	-56.20	103.20	0.38	117.51	118.57
8250.00	5.60	109.01	8245.00	-51.81	-56.99	105.52	0.23	119.93	118.37
8275.00	5.54	110.03	8269.88	-52.50	-57.80	107.81	0.46	122.32	118.20
8300.00	5.57	111.77	8294.76	-53.26	-58.66	110.07	0.68	124.72	118.06
8325.00	5.59	113.33	8319.64	-54.08	-59.60	112.31	0.61	127.14	117.95
8350.00	5.66	113.14	8344.52	-54.93	-60.56	114.56	0.31	129.58	117.86
8375.00	5.43	113.77	8369.40	-55.79	-61.52	116.78	0.95	131.99	117.78
8400.00	5.24	113.36	8394.30	-56.61	-62.45	118.91	0.81	134.31	117.71
8425.00	5.23	114.71	8419.19	-57.44	-63.38	120.99	0.49	136.59	117.65
8450.00	5.17	115.72	8444.09	-58.30	-64.35	123.04	0.44	138.85	117.61
8475.00	5.04	116.92	8468.99	-59.19	-65.33	125.03	0.67	141.07	117.59
8500.00	4.81	117.50	8493.90	-60.08	-66.31	126.94	0.95	143.22	117.58
8525.00	4.78	119.09	8518.81	-60.98	-67.30	128.78	0.54	145.31	117.59
8550.00	4.75	118.82	8543.72	-61.89	-68.31	130.60	0.15	147.38	117.61
8575.00	4.73	118.13	8568.64	-62.79	-69.29	132.41	0.23	149.45	117.62
8600.00	4.86	119.15	8593.55	-63.70	-70.29	134.25	0.61	151.54	117.64
8625.00	4.78	118.79	8618.46	-64.63	-71.31	136.08	0.34	153.64	117.66
8650.00	4.79	118.66	8643.38	-65.54	-72.31	137.91	0.05	155.72	117.67
8675.00	4.78	118.93	8668.29	-66.45	-73.32	139.74	0.09	157.81	117.68
8700.00	4.63	118.84	8693.20	-67.36	-74.31	141.54	0.60	159.86	117.70
8725.00	4.54	118.82	8718.12	-68.24	-75.27	143.29	0.36	161.86	117.71
8750.00	4.44	119.13	8743.05	-69.10	-76.22	145.00	0.43	163.82	117.73
8775.00	4.42	118.64	8767.97	-69.95	-77.15	146.69	0.17	165.75	117.74
8800.00	4.45	118.65	8792.90	-70.79	-78.08	148.39	0.11	167.68	117.75
8825.00	4.46	119.02	8817.82	-71.65	-79.02	150.09	0.13	169.62	117.77
8850.00	4.51	119.41	8842.75	-72.52	-79.97	151.80	0.22	171.57	117.78

SURVEY REPORT

LAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/S	FE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%100ft	ft	deg
8875.00	4.58	118.76	8867.67	-73.39	-80.94	153.53	0.33	173.55	117.80
8900.00	4.58	119.44	8892.59	-74.28	-81.91	155.27	0.22	175.55	117.81
8925.00	4.71	119.47	8917.50	-75.19	-82.90	157.04	0.52	177.58	117.83
8950.00	4.70	118.53	8942.42	-76.10	-83.90	158.83	0.31	179.63	117.84
8975.00	4.71	118.71	8967.34	-76.99	-84.88	160.63	0.06	181.68	117.85
9000.00	4.62	119.93	8992.25	-77.90	-85.88	162.40	0.52	183.71	117.87
9025.00	4.71	117.78	9017.17	-78.79	-86.86	164.19	0.79	185.74	117.88
9050.00	4.61	117.32	9042.09	-79.64	-87.80	165.99	0.44	187.78	117.88
9075.00	4.64	116.16	9067.01	-80.46	-88.70	167.79	0.39	189.79	117.86
9100.00	4.63	116.23	9091.92	-81.26	-89.59	169.60	0.03	191.81	117.85
9125.00	4.70	115.98	9116.84	-82.07	-90.49	171.42	0.28	193.84	117.83
9150.00	4.79	116.52	9141.76	-82.89	-91.40	173.28	0.41	195.91	117.81
9175.00	4.85	115.96	9166.67	-83.73	-92.33	175.16	0.31	198.01	117.79
9200.00	4.94	115.27	9191.58	-84.55	-93.25	177.08	0.43	200.14	117.77
9225.00	4.99	114.37	9216.48	-85.37	-94.16	179.05	0.38	202.30	117.74
9250.00	5.11	114.52	9241.39	-86.18	-95.07	181.05	0.47	204.50	117.70
9275.00	5.10	115.17	9266.29	-87.02	-96.01	183.07	0.23	206.72	117.67
9300.00	5.21	114.98	9291.19	-87.87	-96.96	185.11	0.46	208.96	117.65
9325.00	5.38	114.80	9316.08	-88.74	-97.93	187.20	0.69	211.27	117.62
9350.00	5.50	114.53	9340.97	-89.62	-98.92	189.36	0.46	213.64	117.58
9375.00	5.57	114.34	9365.85	-90.51	-99.92	191.55	0.29	216.04	117.55
9400.00	5.52	115.45	9390.73	-91.42	-100.93	193.74	0.46	218.46	117.52
9425.00	5.46	116.14	9415.62	-92.35	-101.97	195.89	0.37	220.85	117.50
9450.00	5.32	116.33	9440.51	-93.29	-103.01	198.00	0.55	223.19	117.49
9475.00	5.31	116.89	9465.40	-94.22	-104.05	200.07	0.21	225.51	117.48
9500.00	5.46	117.07	9490.29	-95.19	-105.11	202.16	0.61	227.86	117.47
9525.00	5.59	117.27	9515.17	-96.18	-106.21	204.30	0.49	230.26	117.47
9550.00	5.63	118.22	9540.05	-97.21	-107.35	206.47	0.41	232.71	117.47
9575.00	5.57	119.20	9564.93	-98.28	-108.52	208.61	0.45	235.15	117.48
9600.00	5.63	120.66	9589.82	-99.39	-109.74	210.72	0.62	237.58	117.51
9625.00	5.43	119.57	9614.70	-100.50	-110.95	212.80	0.90	239.99	117.54
9650.00	5.43	120.50	9639.59	-101.58	-112.13	214.85	0.35	242.36	117.56

SURVEY REPORT

HAMBONE FEDERAL COM #26H

COMPUTED KEEPER GYRO WIRELINE SURVEY

MD	INC	AZIM	TVD	VS	IN/S	HE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
9675.00	5.40	120.16	9664.47	-102.67	-113.33	216.89	0.18	244.71	117.59
9700.00	5.40	120.76	9689.36	-103.77	-114.52	218.92	0.23	247.06	117.61
9725.00	5.25	120.65	9714.26	-104.85	-115.71	220.92	0.60	249.38	117.64
9750.00	5.38	121.40	9739.15	-105.95	-116.90	222.90	0.59	251.70	117.67
9775.00	5.49	121.66	9764.04	-107.09	-118.14	224.92	0.42	254.06	117.71
9800.00	5.71	121.13	9788.92	-108.26	-119.41	227.00	0.92	256.49	117.75
9825.00	5.89	120.91	9813.79	-109.45	-120.71	229.17	0.74	259.02	117.78
9850.00	5.98	120.46	9838.65	-110.66	-122.03	231.39	0.40	261.60	117.81
9875.00	5.83	119.66	9863.52	-111.84	-123.32	233.62	0.69	264.17	117.83
9900.00	5.65	118.71	9888.40	-112.95	-124.54	235.80	0.79	266.67	117.84
9925.00	5.52	118.19	9913.28	-114.01	-125.70	237.94	0.57	269.10	117.85
9950.00	5.30	117.73	9938.17	-115.01	-126.80	240.02	0.92	271.46	117.85
9975.00	5.14	118.04	9963.06	-115.98	-127.87	242.03	0.62	273.73	117.85
10000.00	4.99	118.92	9987.96	-116.93	-128.92	243.97	0.68	275.94	117.85
10025.00	4.81	121.38	10012.87	-117.91	-129.99	245.82	1.11	278.07	117.87
10050.00	4.39	121.36	10037.79	-118.87	-131.03	247.53	1.69	280.07	117.90