



BOREHOLE PROFILE LOG

| | | |
|---|---|---|
| FILE NO: OH145636 | COMPANY LARAMIE ENERGY LLC | |
| API NO: 05077105820000 | WELL SUP & SHEP FEDERAL 0993-25-14W | |
| | FIELD BUZZARD CREEK | |
| | COUNTY MESA STATE COLORADO | |
| Version RIG: H&P 522 | LOCATION: LAT: 39.244799 N LONG: 107.723413 W SEC <u>25</u> TWP <u>9S</u> RGE <u>93W</u> | OTHER SERVICES NONE |
| PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM | GL ELEVATION 8078 FT KB 30 FT ABOVE P.D. KB | ELEVATIONS: KB 8108 FT DF GL 8078 FT |

| | | |
|------------------------|------------------------|--------------------|
| DATE | 20-NOV-2018 | |
| RUN | TRIP | 1 |
| SERVICE ORDER | US145636 | |
| DEPTH DRILLER | 1563 FT | |
| DEPTH LOGGER | 1440 FT | |
| BOTTOM LOGGED INTERVAL | 1440 FT | |
| TOP LOGGED INTERVAL | 0 FT | |
| CASING DRILLER | 16 IN @ 90 FT | |
| CASING LOGGER | 90 FT | |
| BIT SIZE | 11 IN | |
| TYPE OF FLUID IN HOLE | WBM | |
| DENSITY | VISCOSITY | 60 CP |
| PH | FLUID LOSS | 14 C3 |
| SOURCE OF SAMPLE | TOOL MEASURED | |
| RM AT MEAS. TEMP. | 2.71 OHMM @ 82.93 DEGF | |
| RMF AT MEAS. TEMP. | 2.08 OHMM @ 82.93 DEGF | |
| RMC AT MEAS. TEMP. | 3.33 OHMM @ 82.93 DEGF | |
| SOURCE OF RMF | RMC | CALCULATED |
| RM AT BHT | 2.86 OHMM @ 85.12 DEGF | |
| TIME SINCE CIRCULATION | 5 HOURS | |
| MAX. RECORDED TEMP. | 85.12 DEGF | |
| EQUIP. NO. | LOCATION | ML-4268 GRAND JCT. |
| RECORDED BY | TIM NEWELL | |
| WITNESSED BY | TYLER HALE | |

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

| EQUIPMENT DATA | | | | | |
|----------------|------|-------------|------------|------------|---------------|
| RUN | TRIP | TOOL | SERIES NO. | SERIAL NO. | POSITION |
| 1 | 1 | TTRM | 3981XA | 10435924 | FREE |
| 1 | 1 | COMM REMOTE | 3514XB | 10435562 | FREE |
| 1 | 1 | GR | 1329XB | 10378541 | FREE |
| 1 | 1 | CN | 2446XA | 10560252 | DECENTRALIZED |
| 1 | 1 | ZDL | 2234XA | 10460300 | PAD DEVICE |
| 1 | 1 | KNUCKLE | 3939XA | 12081598 | FREE |
| 1 | 1 | HDIL EA | 1515EA | 10037710 | FREE |
| 1 | 1 | HDIL | 1515MA | 11831570 | FREE |

BOREHOLE PROFILE

Plotted: Wed Nov 21 11:13:51 2018

| PARAMETER AND FILTER SUMMARY REPORT | | | | | |
|---|-------------|------------|-------|---------------|--------|
| FILE: C:\dat1a\Laramie_OH\p870b04.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 813.933 ft BOTTOM DEPTH: 1446.015 ft | | | | | |
| SYMMETRIC FILTER | | | | | |
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
| Y AXIS CALIPER | FILTER () | medium (1) | | TOP | BOTTOM |
| TENSION | FILTER () | medium (1) | | " | " |
| GR | FILTER () | medium (1) | | " | " |
| CALIPER | FILTER () | medium (1) | | " | " |
| | FILTER (.h) | medium (1) | | " | " |
| | FILTER (.i) | medium (1) | | " | " |
| SP-SPDH | FILTER () | medium (1) | | " | " |
| BOREHOLE & CEMENT | | | | | |
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
| CASING - BOREHOLE & CEMENT VOLUME | CASING O.D. | 8.625 | in | TOP | BOTTOM |
| BIT SIZE | BIT SIZE | 11.000 | in | " | " |

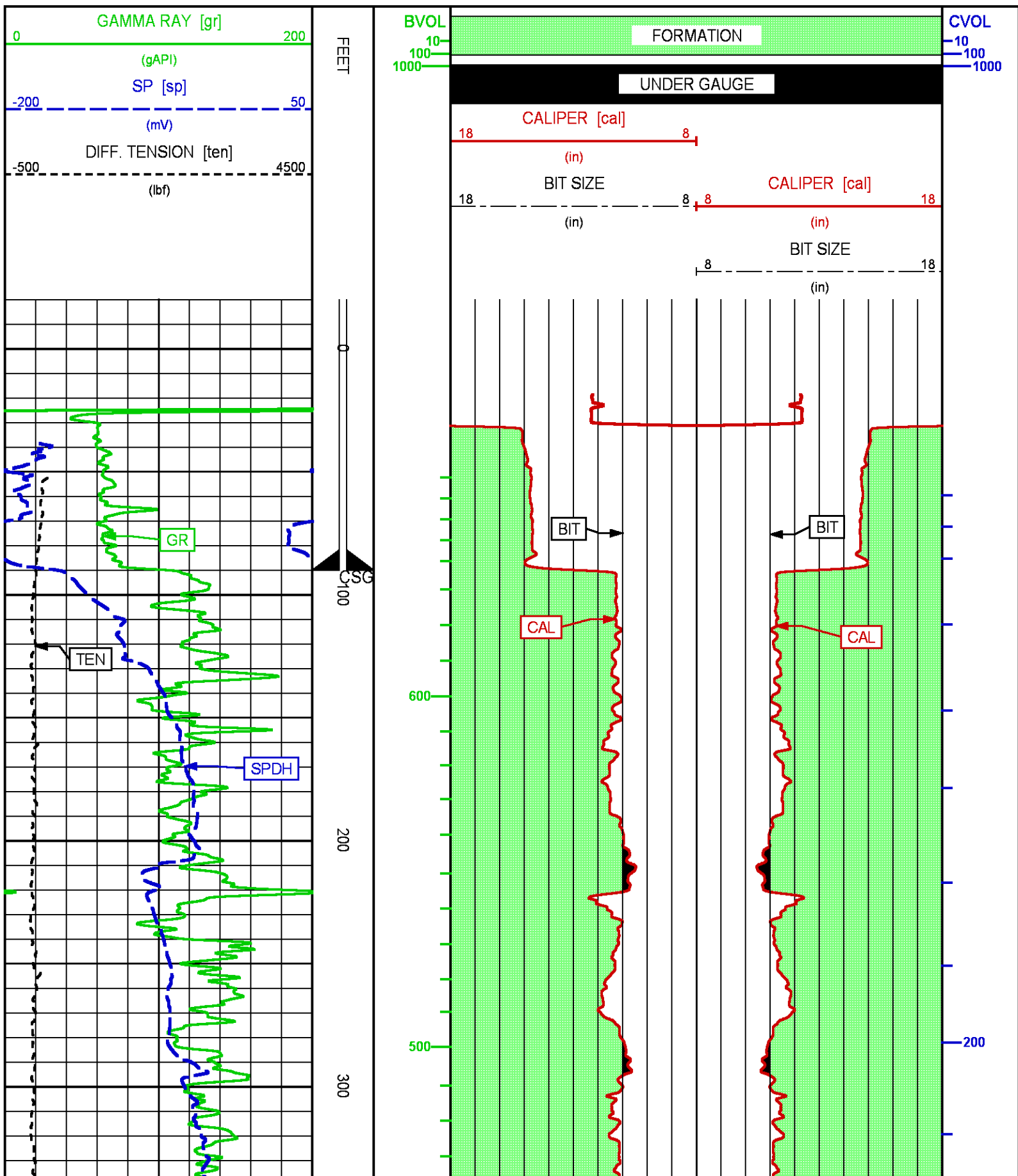
| PARAMETER AND FILTER SUMMARY REPORT | | | | | |
|---|-------------|------------|-------|---------------|--------|
| FILE: C:\dat1a\Laramie_OH\p870bR02.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 51.240 ft BOTTOM DEPTH: 1034.354 ft | | | | | |
| SYMMETRIC FILTER | | | | | |
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
| Y AXIS CALIPER | FILTER () | medium (1) | | TOP | BOTTOM |
| TENSION | FILTER () | medium (1) | | " | " |
| GR | FILTER () | medium (1) | | " | " |
| CALIPER | FILTER () | medium (1) | | " | " |
| | FILTER (.h) | medium (1) | | " | " |
| | FILTER (.i) | medium (1) | | " | " |
| SP-SPDH | FILTER () | medium (1) | | " | " |
| BOREHOLE & CEMENT | | | | | |
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
| CASING - BOREHOLE & CEMENT VOLUME | CASING O.D. | 8.625 | in | TOP | BOTTOM |
| BIT SIZE | BIT SIZE | 11.000 | in | " | " |

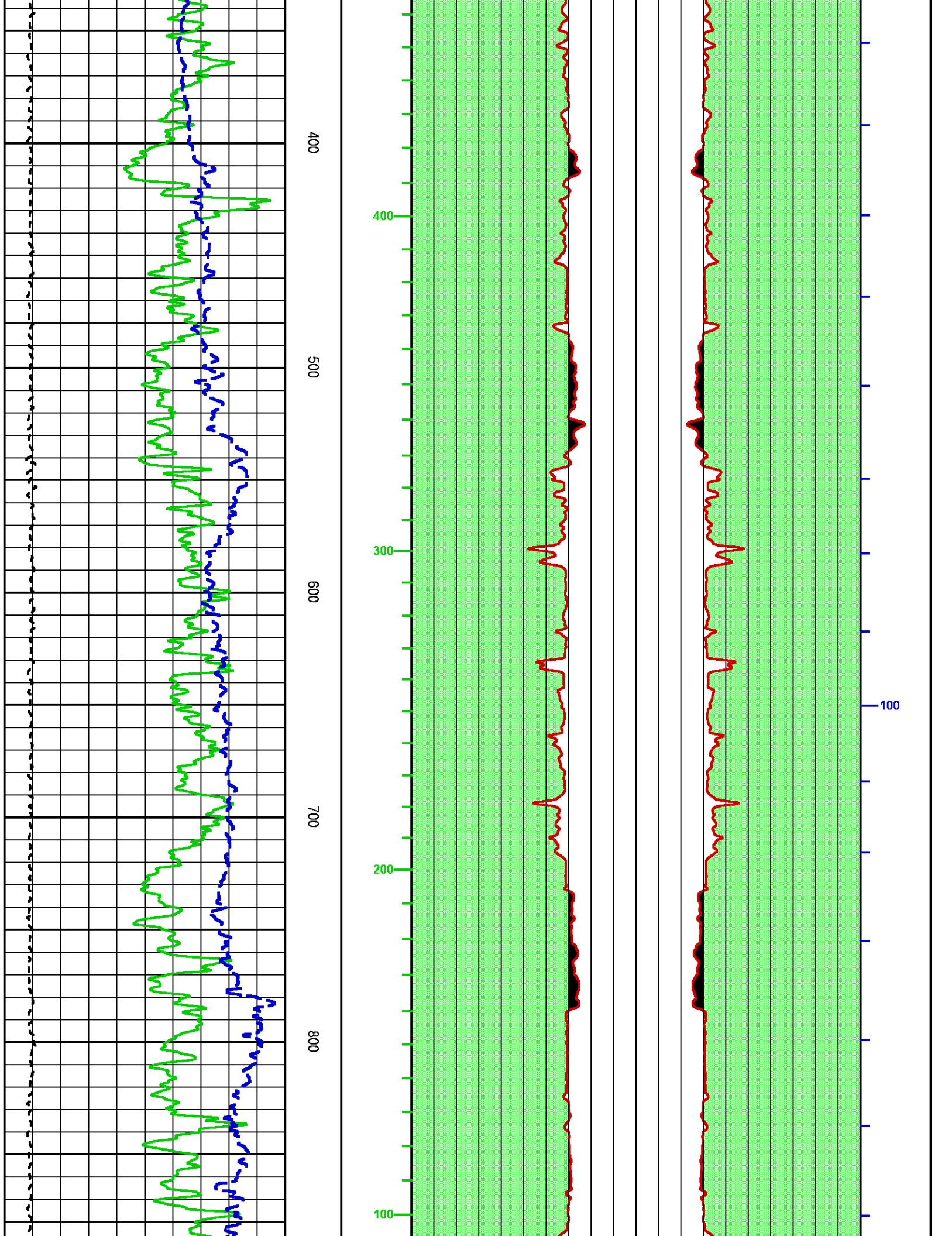
| CURVE DESCRIPTION REPORT | | |
|--------------------------|----------------------|-----------------------|
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
| F1:BIT | Nov 21 00:26:10 2018 | BIT SIZE |
| F1:BVOL | Nov 21 00:26:10 2018 | BOREHOLE VOLUME |
| F1:CAL | Nov 21 00:26:10 2018 | CALIPER |
| F1:CVOL | Nov 21 00:26:10 2018 | CEMENT VOLUME |
| F1:GR | Nov 21 00:26:10 2018 | GAMMA RAY |
| F1:SP | Nov 21 00:26:10 2018 | SPONTANEOUS POTENTIAL |
| F1:TEN | Nov 21 00:26:10 2018 | DIFFERENTIAL TENSION |

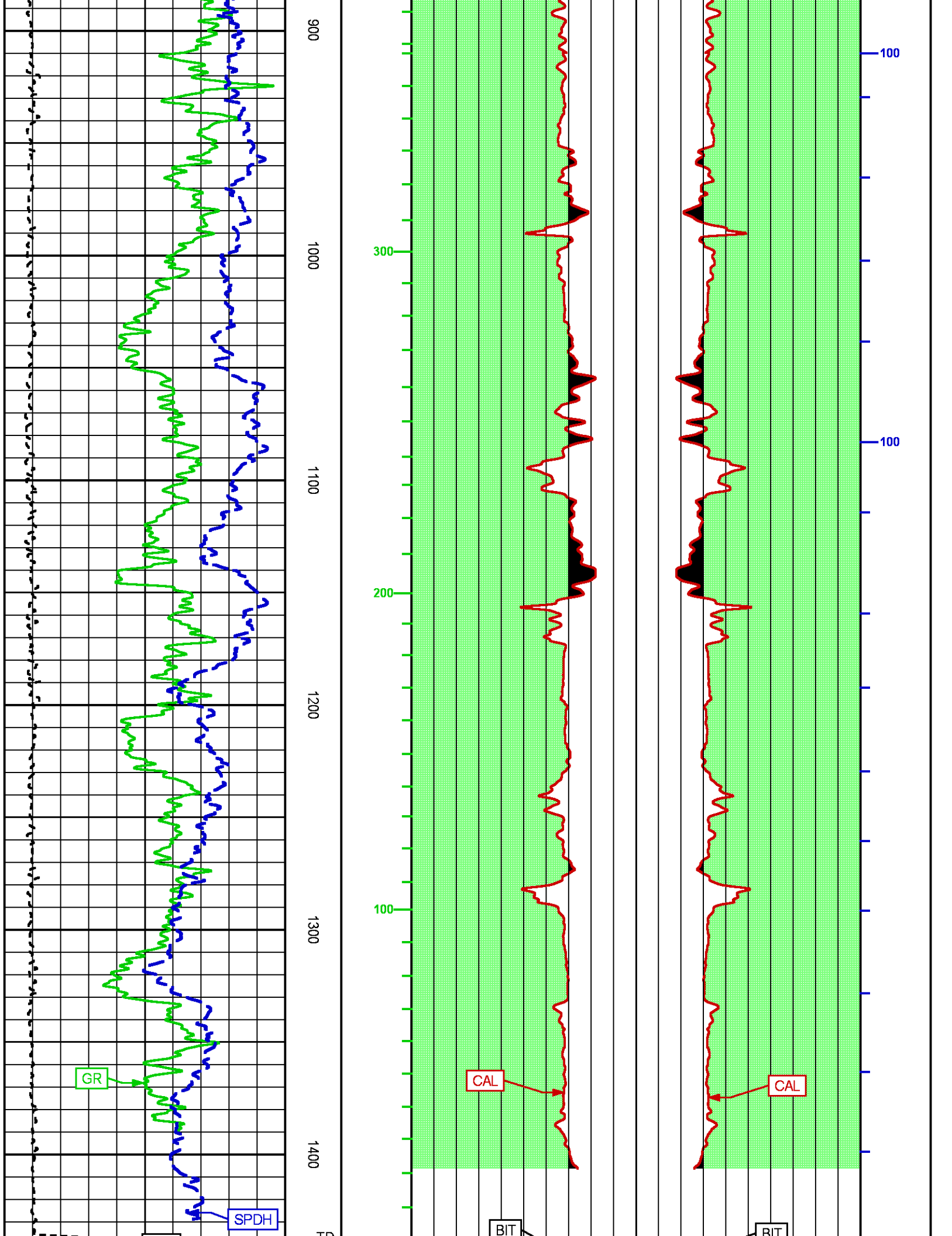
| CURVE MEASURE POINT OFFSET | | | | | | | |
|----------------------------|-------------|-------|-------------|-------|-------------|-------|-------------|
| CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) |
| BIT | 0.00 | GR | -52.25 | TEN | 0.00 | | |
| CAL | -35.00 | SP | -14.00 | | | | |

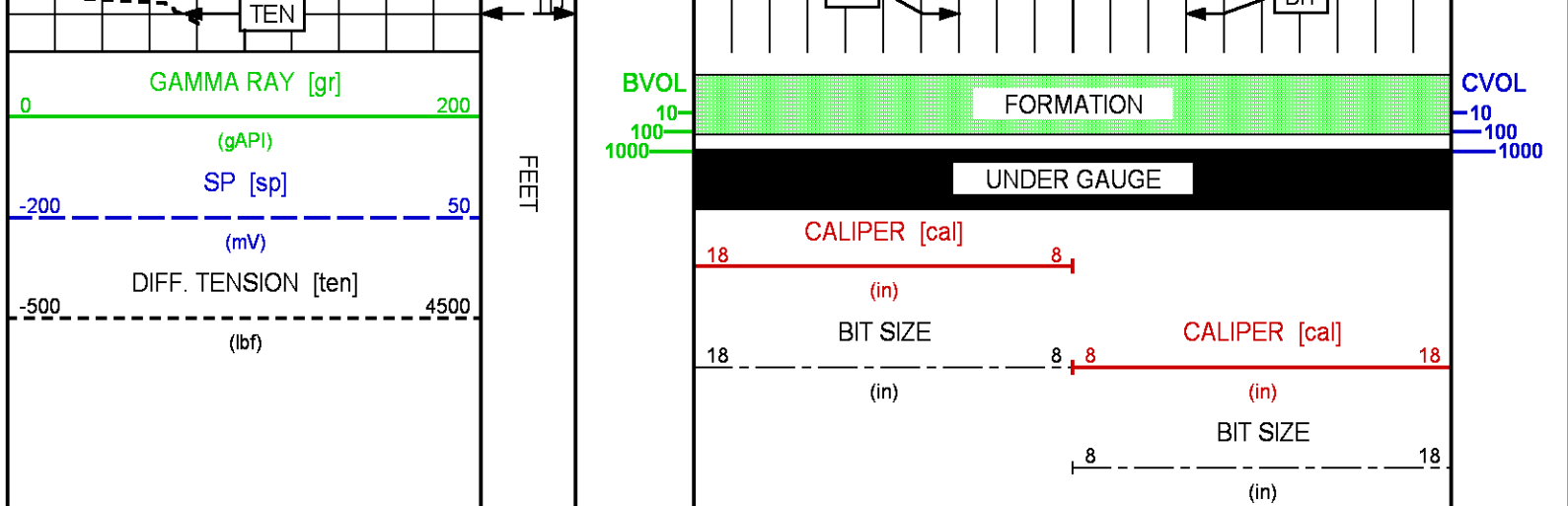
Presentation : BHIF8XRZF2:C:\dat1a\Laramie_OH\MAINSPICE.txt
Plot Interval : -13.75 - 1444.25 Feet

Data File 1 : F1 : BHIF8XRZF2:C:\dat1a\Laramie_OH\MAINSPICE.txt
Created On : Nov 21 00:26:10 2018
Company : LARAMIE ENERGY LLC
Well : SUP & SHEP FEDERAL 0993-25-14W
Field : BUZZARD CREEK
File Interval : -13.75 - 1444.25 Feet
OCT : p870b









CALIBRATION / VERIFICATION SUMMARY

Source File: C:\dat1a\Laramie_OH\p870b.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XB 10378541

DATE/TIME PERFORMED: Sat Nov 17 17:41:09 2018

UNIT #: 5753XD 10412898

CALB JIG #: 4702NK BA-869

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | CR DIFF (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | CALBRTR (gAPI) |
|----|-----------------------|-----------------------|--------------------|-------|----------------------|----------------------|-------------------|
| GR | 626.33 | 1502.31 | 876.0 | 0.171 | 107.25 | 257.25 | 150 |
| | | | 830.0 960.0 | | | | |

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XB 10378541

DATE/TIME PERFORMED: Sat Nov 17 17:45:25 2018

UNIT #: 5753XD 10412898

VERI JIG #: 4702NK BA-869

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|-----------------------|-----------------------|-------|----------------------|----------------------|-----------------|
| GR | 630.89 | 1519.56 | 0.171 | 108.03 | 260.20 | 152.17 |
| | | | | | | 140.00 160.00 |

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XB 10378541

DATE/TIME PERFORMED: Tue Nov 20 21:26:00 2018

DAYS SINCE CAL: 3

UNIT #: 5753XD 10412898

VERI JIG #: 4702NK BA-869

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|-----------------------|-----------------------|-------|----------------------|----------------------|-----------------|
| GR | 144.22 | 1041.24 | 0.171 | 24.70 | 178.30 | 153.60 |
| | | | | | | 142.17 162.17 |

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XB 10378541 DATE/TIME PERFORMED: Wed Nov 21 06:01:39 2018 DAYS SINCE CAL: 3

UNIT #: 5753XD 10412898 VERI JIG #: 4702NK BA-869

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|-----------------------|-----------------------|-------|----------------------|----------------------|-----------------|
| GR | 136.36 | 1019.51 | 0.171 | 23.35 | 174.58 | 151.23 |
| | | | | | | 143.60 163.60 |

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 10460300 DATE/TIME PERFORMED: Sun Nov 18 10:58:36 2018

UNIT #: 5753XD 10412898

| | SMALL RING | LARGE RING | MULT | ADD | SMALL RING (in) | LARGE RING (in) |
|---------|------------|------------|---------|----------|--------------------|--------------------|
| CALIPER | 2050.8 | 2619.2 | 0.00792 | -8.48610 | 7.750 | 12.250 |

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 10460300 DATE/TIME PERFORMED: Tue Nov 20 22:01:08 2018 DAYS SINCE CAL: 2

UNIT #: 5753XD 10412898

| | I.D. | MULT | ADD | I.D. (in) |
|---------|--------|---------|----------|--------------|
| CALIPER | 3053.2 | 0.00792 | -8.92206 | 15.250 |

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 10460300 DATE/TIME PERFORMED: Wed Nov 21 06:03:36 2018 DAYS SINCE CAL: 2

UNIT #: 5753XD 10412898

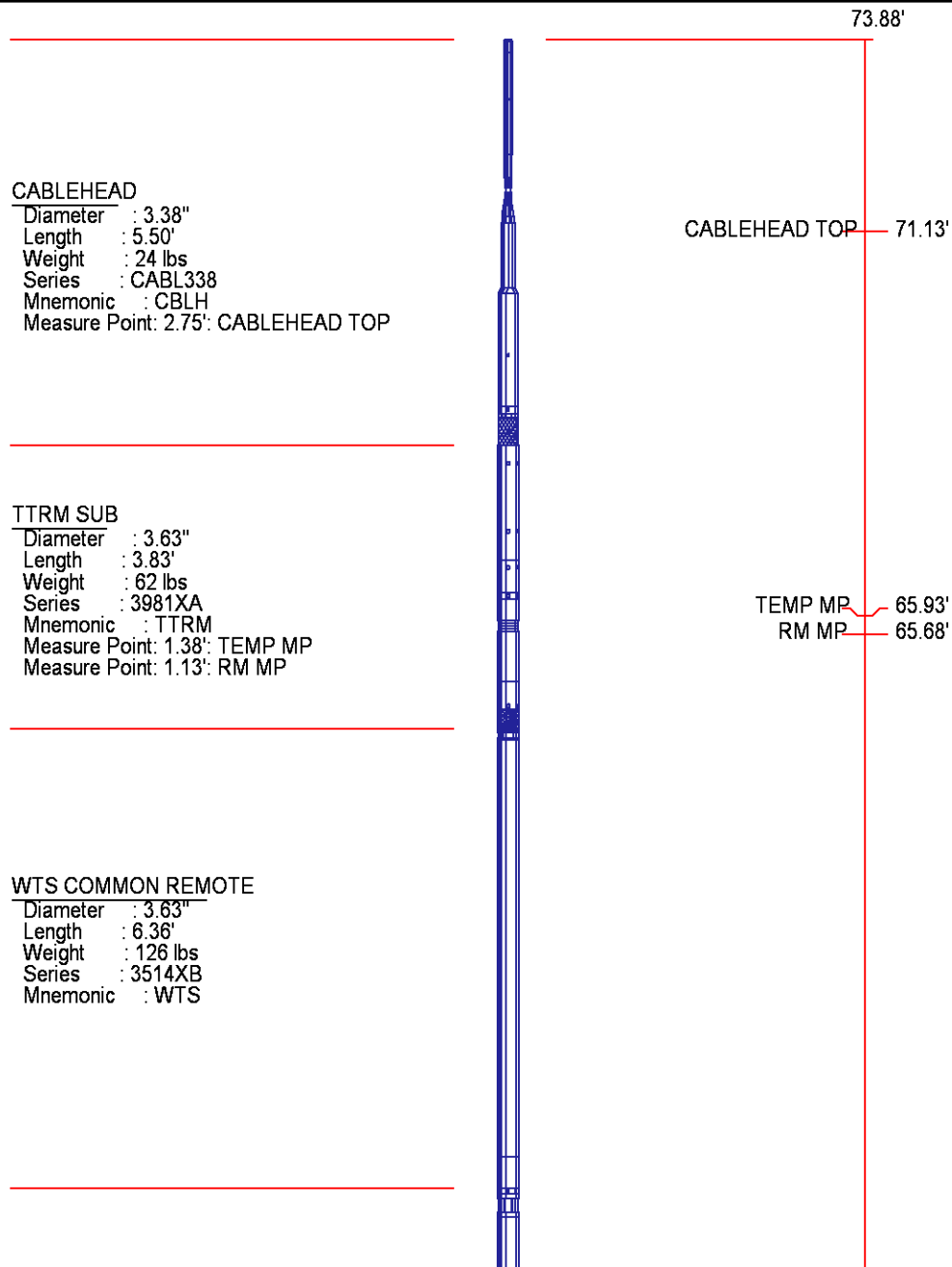
| | I.D. | MULT | ADD | I.D. (in) |
|---------|--------|---------|----------|---------------|
| CALIPER | 3040.8 | 0.00792 | -8.92206 | 15.152 |
| | | | | 14.750 15.750 |

INSTRUMENT CONFIGURATION

Source File: C:\dat1a\Laramie_OHMSLAM-tdg.meta

INSTRUMENT CONFIGURATION

Source File: /dat1a/LARAMIE_SS_FED_0993_25_14W/MSLAM-tdg



DIGITAL SPECTRALOG

Diameter : 3.63"
Length : 7.31'
Weight : 130 lbs
Series : 1329XB
Mnemonic : DSL
Measure Point: 1.60': GR MP

GR MP 52.48'

COMPENSATED NEUTRON

Diameter : 3.63"
Length : 7.59'
Weight : 150 lbs
Series : 2446XA
Mnemonic : CN
Measure Point: 2.63': LSN MP
Measure Point: 2.24': SSN MP

LSN MP 45.92'

SSN MP 45.52'

Z-DENSILOG

Diameter : 4.88"
Length : 11.22'
Weight : 360 lbs
Series : 2234XA
Mnemonic : ZDL
Measure Point: 3.19': CAL MP
Measure Point: 2.47': LSD MP
Measure Point: 2.07': SSD MP

CAL MP 35.26'

LSD MP 34.54'

SSD MP 34.14'

KNUCKLE JOINT (DOUBLE)

Diameter : 3.38"
Length : 4.65'

Length : 1100
Weight : 90 lbs
Series : 3939XA
Mnemonic : KNJT

HIGH DEFINITION INDUCTION TOOL

Diameter : 3.62"
Length : 27.13'
Weight : 415 lbs
Series : 1515XA
Mnemonic : HDIL
Measure Point: 13.91': SP MP
Measure Point: 7.44': XMTR MP

SP MP — 14.19'

XMTR MP — 7.72'

BULL PLUG 3 3/8

0.00'

TOTAL LENGTH: 73.88'
TOTAL WEIGHT: 1374 lbs
MAX DIAMETER: 0'4.88"

**BAKER
HUGHES**
a GE company



ECLIPS

COMPANY
WELL
FIELD
COUNTY

LARAMIE ENERGY LLC

SUP & SHEP FEDERAL 0993-25-14W

BUZZARD CREEK

MESA

STATE COLORADO

FILE NO:

OH145636

API NO:

05077105820000

LOCATION:

LAT: 39.244799 N

LONG: 107.723413 W

SEC 25

TWP 9S

RGE 93W

ELEVATIONS:

KB 8108 FT

DF

GL 8078 FT

DATE

20-NOV-2018

RIG: H&P 522

