



|                   |                                       |                              |
|-------------------|---------------------------------------|------------------------------|
| FILE NO:          | COMPANY                               | HUSKY OIL OPERATIONS LIMITED |
| API NO:           | WELL                                  | LITTLE BEAR H-64             |
|                   | FIELD                                 | SLATER RIVER                 |
|                   | PROVINCE                              | NORTHWEST TERRITORIES        |
| Ver. 3.87         | LOCATION:                             | OTHER SERVICES               |
| UID:              | SURF LOC:                             | ZDL-CR-CAL                   |
| 300H6500126000    | LAT 64 53' 28.5"N LONG 126 11' 20.3"W | HDIL-CR-CAL, CIL             |
| LICENSE:          | BH LOC, LSD:                          | XUAC-CR, DSL, CBL            |
| 482               | LAT 64 53' 28.5"N LONG 126 11' 20.3"W | EI-CRIL-CR, WEX              |
|                   |                                       | DIRSUR                       |
| PERMANENT DATUM   | G.L.                                  | ELEVATION                    |
| LOG MEASURED FROM | K.B.                                  | 178.0 M                      |
| DRILL MEAS. FROM  | 5.2 M                                 | ABOVE P.D.                   |
|                   | KELLY BUSHING                         |                              |
|                   |                                       | ELEVATIONS:                  |
|                   |                                       | KB 183.2 M                   |
|                   |                                       | DF                           |
|                   |                                       | GL 178.0 M                   |

| DATE                   | TRIP                  |           |  |
|------------------------|-----------------------|-----------|--|
| 06-MAR-2012            | 1                     | 3         |  |
| SERVICE ORDER          | CA212311              |           |  |
| DEPTH DRILLER          | 1341.0 M              |           |  |
| DEPTH LOGGER           | DID NOT TAG           |           |  |
| BOTTOM LOGGED INTERVAL | 1339.1 M              |           |  |
| TOP LOGGED INTERVAL    | 650.0 M               |           |  |
| CASING DRILLER         | 244.5 M               | 510.0 M   |  |
| CASING LOGGER          | 510.0 M               |           |  |
| BIT SIZE               | 222.0 MM              |           |  |
| TYPE OF FLUID IN HOLE  | INVERT                |           |  |
| DENSITY                | 1240.0 G/L            | 47.0 S    |  |
| PH                     | MA                    | MA        |  |
| SOURCE OF SAMPLE       | NO SAMPLE             |           |  |
| RM AT MEAS. TEMP.      | MA                    | MA        |  |
| RM AT MEAS. TEMP.      | MA                    | MA        |  |
| RM AT MEAS. TEMP.      | MA                    | MA        |  |
| SOURCE OF RMF          | NO SAMPLE             | NO SAMPLE |  |
| RM AT BHT              | MA                    | MA        |  |
| TIME SINCE CIRCULATION | 23.8 HOURS            |           |  |
| MAX. RECORDED TEMP.    | 64.1 DEGC             |           |  |
| EQUIP. NO.             | Z008672               | OH CANADA |  |
| RECORDED BY            | J. COLLIER/D. DOUCETT |           |  |
| WITNESSED BY           | H. ARENBURG           |           |  |

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE 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.

| BOREHOLE RECORD |         |          |
|-----------------|---------|----------|
| BIT SIZE        | FROM    | TO       |
| 311.0 MM        | 0.0 M   | 510.0 M  |
| 222.0 MM        | 510.0 M | 1341.0 M |

| CASING RECORD |           |       |       |         |
|---------------|-----------|-------|-------|---------|
| SIZE          | WEIGHT    | GRADE | FROM  | TO      |
| 244.5 MM      | 53.6 KG/M | MA    | 0.0 M | 510.0 M |

**REMARKS**

RUN 1 TRIP 3: TIME STOPPED CIRCULATION: 06-MAR-2012 02:30 PM  
 BARRITE CORRECTION TURNED ON  
 OIL BASED MUD FRAC 0.82  
 RIG: NABORS 23

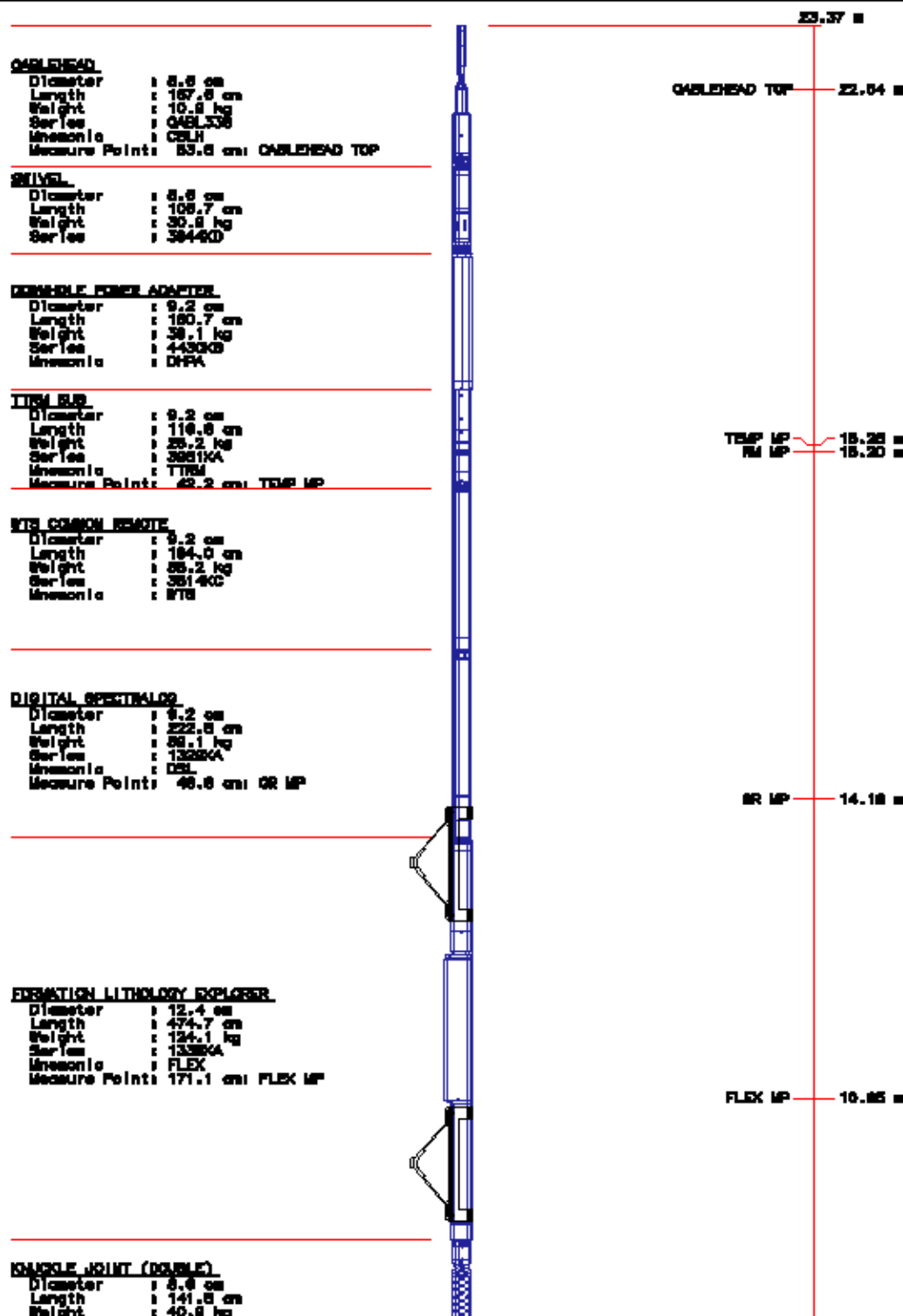
CREW: J. COLLIER, D. DOUCETT, D. KIRMAN, D. SCHNEIDER, N. WODERWID, P. ARENBURG

| EQUIPMENT DATA |      |          |            |            |
|----------------|------|----------|------------|------------|
| RUN            | TRIP | TOOL     | SERIES NO. | SERIAL NO. |
| 1              | 3    | SWIVEL   | 3844XD     | 11848158   |
| 1              | 3    | DHPA     | 4430XB     | 12085588   |
| 1              | 3    | TRIM SUB | 3811XB     | 2173348    |
| 1              | 3    | CONV     | 3544XB     | 1003050F   |

|   |   |             |        |          |               |
|---|---|-------------|--------|----------|---------------|
| 1 | 3 | CANN        | 351400 | 12079083 | FREE          |
| 1 | 3 | WTS DGR/SU  | 132903 | 11756674 | FREE          |
| 1 | 3 | FLEX        | 13380A | 10474275 | DECENTRALIZED |
| 1 | 3 | FLEX        | 13380A | 10436785 | DECENTRALIZED |
| 1 | 3 | DBLNUCK     | 38380A | 168285   | FREE          |
| 1 | 3 | MREX CAPAC  | 32180A | 10148380 | DECENTRALIZED |
| 1 | 3 | NTMR ELECT  | 32180B | 403511   | DECENTRALIZED |
| 1 | 3 | NTMR MANDRE | 32180B | 402475   | DECENTRALIZED |

## INSTRUMENT CONFIGURATION

Source File: /dat1a/husky\_CA212311/run3-fdg



Series : 38380A  
Insonia : KOUT

#### MRXK CAPACITOR CHARGER SUB

Diameter : 9.2 cm  
Length : 271.1 cm  
Weight : 80.0 kg  
Series : 38180A  
Insonia : MRXK

#### MRXK ELECTRONICS

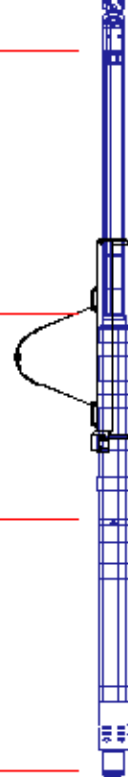
Diameter : 12.7 cm  
Length : 211.8 cm  
Weight : 80.8 kg  
Series : 32180B  
Insonia : MRXK

#### MRXK MAGNET

Diameter : 12.7 cm  
Length : 380.8 cm  
Weight : 140.8 kg  
Series : 32180B  
Insonia : MRXK  
Measure Point: 180.4 cm ANTENNA

#### BALL PLUG 3 3/8

TOTAL LENGTH: 33.37 m  
TOTAL WEIGHT: 714.5 kg  
MAX DIAMETER: 12.7 cm



ANTENNA 1.88 m

0.00 m

## MAIN PASS

ECLIPS 6.11 Aug 06, 2010  
Updates: 1 Patches: 1

Thu Mar 8 03:27:07 2012

Perpht /main/62

Cplot

Pdf\_Cpp /main/16

Fileview 5.51

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/husky\_CA212311/m878gf\_XC13.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 1081.841 m BOTTOM DEPTH: 1337.996 m

### SYMMETRIC FILTER

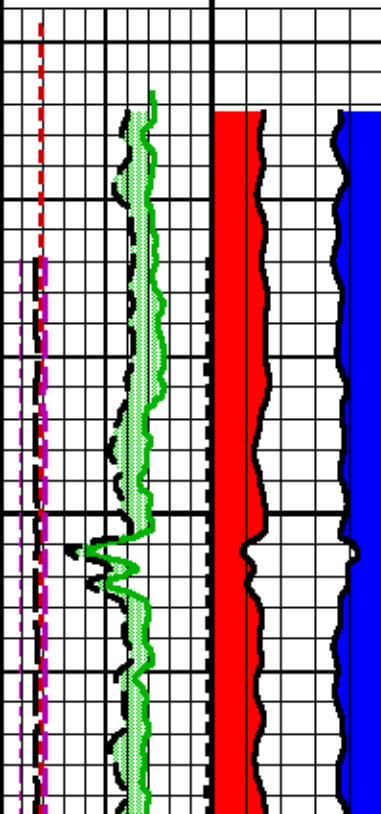
| MEASUREMENT TYPE | PARAMETER   | VALUE      | UNITS | INTERVAL (m) |        |
|------------------|-------------|------------|-------|--------------|--------|
| CHT<br>SPEED     | FILTER ()   | medium (1) |       | TOP          | BOTTOM |
|                  | FILTER ()   | medium (1) |       | "            | "      |
|                  | FILTER (.h) | medium (1) |       | "            | "      |
|                  | FILTER (.i) | medium (1) |       | "            | "      |
| TENSION<br>GR    | FILTER ()   | medium (1) |       | "            | "      |
|                  | FILTER ()   | medium (1) |       | "            | "      |
|                  | FILTER (.h) | medium (1) |       | "            | "      |
|                  | FILTER (.i) | medium (1) |       | "            | "      |
| SL-II            | FILTER      | medium (1) |       | "            | "      |

### BOREHOLE & CEMENT

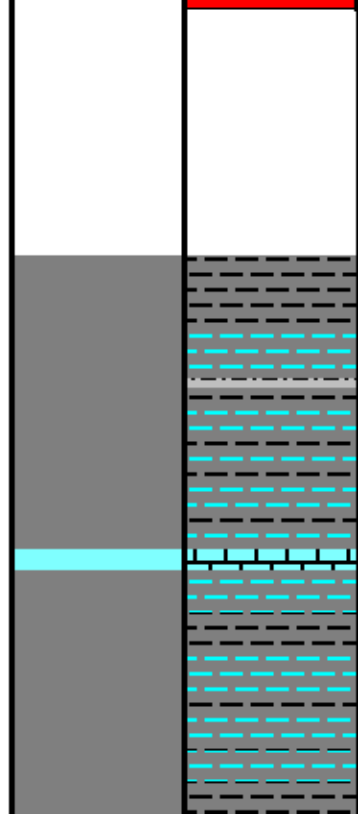
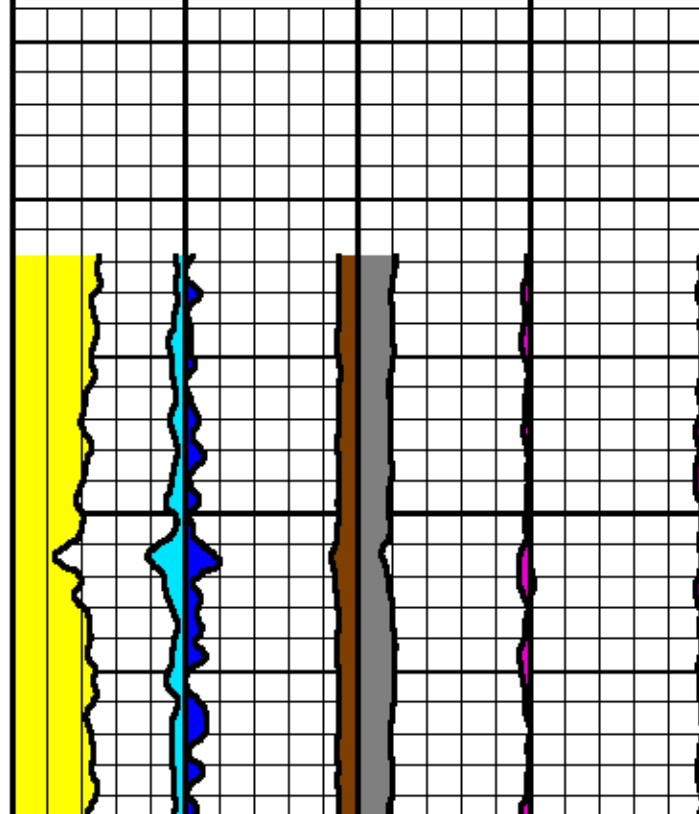
| MEASUREMENT TYPE              | PARAMETER                 | VALUE          | UNITS | INTERVAL (m) |        |
|-------------------------------|---------------------------|----------------|-------|--------------|--------|
| BIT SIZE                      | BIT SIZE                  | 222.000        | mm    | TOP          | BOTTOM |
| MUD DENSITY                   | MUD DENSITY               | 1.00           | g/cm3 | "            | "      |
| BOREHOLE CORR DIAMETER SOURCE | CALIPER/FIXED DIA. (fbh*) | USE FIXED SIZE |       | "            | "      |
| BOREHOLE CORR DIAMETER        | DATE DIAMETER (mm)        | 222.000        |       | "            | "      |

|                                                                     |  |                       |  |                      |  |            |  |              |        |            |  |
|---------------------------------------------------------------------|--|-----------------------|--|----------------------|--|------------|--|--------------|--------|------------|--|
| BOREHOLE CORR DIAMETER                                              |  | FIXED DIAMETER (fsh*) |  | 222.000              |  | m          |  |              |        |            |  |
| SLII PROCESSING                                                     |  |                       |  |                      |  |            |  |              |        |            |  |
| MEASUREMENT TYPE                                                    |  | PARAMETER             |  | VALUE                |  | UNITS      |  | INTERVAL (m) |        |            |  |
| SLII BOREHOLE                                                       |  | KCL MUD CONTENT       |  | 0                    |  | pct        |  | TOP          | BOTTOM |            |  |
| E MATRIX                                                            |  | OPEN/CASED HOLE       |  | OPEN HOLE            |  |            |  | ''           | ''     |            |  |
| SLII AUTOGAIN                                                       |  | AUTO GAIN             |  | AUTO GAIN ON         |  |            |  | ''           | ''     |            |  |
| SLII ENERGY RANGE                                                   |  | ENERGY RANGE          |  | NORMAL: 0.25-3.0 MeV |  |            |  | ''           | ''     |            |  |
| SPECTRUM CALIBRATION                                                |  | MODE                  |  | AUTOMATIC            |  |            |  | ''           | ''     |            |  |
| FLEX PROCESSING                                                     |  |                       |  |                      |  |            |  |              |        |            |  |
| MEASUREMENT TYPE                                                    |  | PARAMETER             |  | VALUE                |  | UNITS      |  | INTERVAL (m) |        |            |  |
| CAPTURE SUBTRACTION FACTOR                                          |  | SUBTRACTION FACTOR    |  | 1.00                 |  |            |  | TOP          | BOTTOM |            |  |
| BOREHOLE CORRECTIONS                                                |  | BARITE MUD (BaSO4)    |  | ON                   |  |            |  | ''           | ''     |            |  |
|                                                                     |  | OIL BASED MUD FRAC    |  | 0.82                 |  |            |  | ''           | ''     |            |  |
| POROSITY CORRECTION SOURCE                                          |  | POROSITY/FIXED VALUE  |  | PREFERRED POROSITY   |  |            |  | ''           | ''     |            |  |
|                                                                     |  | FIXED POROSITY        |  | 10.000               |  | pu         |  | ''           | ''     |            |  |
| FLEX SPECTRUM CONTROL                                               |  |                       |  |                      |  |            |  |              |        |            |  |
| MEASUREMENT TYPE                                                    |  | PARAMETER             |  | VALUE                |  | UNITS      |  | INTERVAL (m) |        |            |  |
| SPECTRUM CALIBRATION                                                |  | MODE                  |  | AUTOMATIC            |  |            |  | TOP          | BOTTOM |            |  |
|                                                                     |  | MANUAL QM, CAPT       |  | 29.01575             |  |            |  | ''           | ''     |            |  |
|                                                                     |  | MANUAL QA, CAPT       |  | -0.882270            |  |            |  | ''           | ''     |            |  |
|                                                                     |  | MANUAL QM, TOTL       |  | 29.27649             |  |            |  | ''           | ''     |            |  |
|                                                                     |  | MANUAL QA, TOTL       |  | -1.406227            |  |            |  | ''           | ''     |            |  |
| CURVE MEASURE POINT OFFSET                                          |  |                       |  |                      |  |            |  |              |        |            |  |
| CURVE                                                               |  | OFFSET (m)            |  | CURVE                |  | OFFSET (m) |  | CURVE        |        | OFFSET (m) |  |
| CAL                                                                 |  | 7.01                  |  | SLIT                 |  | 1.88       |  | WFAL         |        | 1.88       |  |
| CHT                                                                 |  | 0.00                  |  | SPD                  |  | 0.00       |  | WFC          |        | 1.88       |  |
| GLIT                                                                |  | 1.88                  |  | TEN                  |  | 0.00       |  | WFCA         |        | 1.88       |  |
| K                                                                   |  | 5.22                  |  | TH                   |  | 5.22       |  | WFFE         |        | 1.88       |  |
| KTH                                                                 |  | 5.22                  |  | TTEN                 |  | 0.00       |  | WFMG         |        | 1.88       |  |
| Presentation : ./data/husky_CA212311/flex_main_re.pdf [1:240 Scale] |  |                       |  |                      |  |            |  |              |        |            |  |
| Plot Interval : 1084.55 - 1337.81 Meters                            |  |                       |  |                      |  |            |  |              |        |            |  |
| Data File 1 : F1 : ./data/husky_CA212311/m878gf_XC13.off            |  |                       |  |                      |  |            |  |              |        |            |  |
| Created On : Mar B 01:05:18 2012                                    |  |                       |  |                      |  |            |  |              |        |            |  |
| Company : HUSKY OIL OPERATIONS LIMITED                              |  |                       |  |                      |  |            |  |              |        |            |  |
| Well : LITTLE BEAR H-84                                             |  |                       |  |                      |  |            |  |              |        |            |  |
| Field : SLATER RIVER                                                |  |                       |  |                      |  |            |  |              |        |            |  |
| File Interval : 1082.5 - 1338 Meters                                |  |                       |  |                      |  |            |  |              |        |            |  |
| Out : m878gf_X                                                      |  |                       |  |                      |  |            |  |              |        |            |  |
| GR-KTH                                                              |  |                       |  |                      |  |            |  |              |        |            |  |
| POTASSIUM                                                           |  |                       |  |                      |  |            |  |              |        |            |  |
| THORIUM                                                             |  |                       |  |                      |  |            |  |              |        |            |  |
| POTASSIUM [k]                                                       |  |                       |  |                      |  |            |  |              |        |            |  |
| (pct)                                                               |  |                       |  |                      |  |            |  |              |        |            |  |
| THORIUM [th]                                                        |  |                       |  |                      |  |            |  |              |        |            |  |
| (ppm)                                                               |  |                       |  |                      |  |            |  |              |        |            |  |
| CALIPER [cal]                                                       |  |                       |  |                      |  |            |  |              |        |            |  |
| (mm)                                                                |  |                       |  |                      |  |            |  |              |        |            |  |
| SPEED [spd]                                                         |  |                       |  |                      |  |            |  |              |        |            |  |
| (m/min)                                                             |  |                       |  |                      |  |            |  |              |        |            |  |
| DIFF. TENSION [ten]                                                 |  |                       |  |                      |  |            |  |              |        |            |  |
| (kgf)                                                               |  |                       |  |                      |  |            |  |              |        |            |  |
| TOTAL TENSION [tten]                                                |  |                       |  |                      |  |            |  |              |        |            |  |
| (kgf)                                                               |  |                       |  |                      |  |            |  |              |        |            |  |
| WEIGHT FRACTIONS                                                    |  |                       |  |                      |  |            |  |              |        |            |  |
| WEIGHT FRACTIONS                                                    |  |                       |  |                      |  |            |  |              |        |            |  |
| WEIGHT FRACTIONS                                                    |  |                       |  |                      |  |            |  |              |        |            |  |
| WEIGHT FRACTIONS                                                    |  |                       |  |                      |  |            |  |              |        |            |  |
| General Lithology                                                   |  |                       |  |                      |  |            |  |              |        |            |  |
| Specific Lithology                                                  |  |                       |  |                      |  |            |  |              |        |            |  |
| Shale                                                               |  |                       |  |                      |  |            |  |              |        |            |  |
| Shale                                                               |  |                       |  |                      |  |            |  |              |        |            |  |
| Coal                                                                |  |                       |  |                      |  |            |  |              |        |            |  |
| Limey Shale                                                         |  |                       |  |                      |  |            |  |              |        |            |  |
| Evaporite                                                           |  |                       |  |                      |  |            |  |              |        |            |  |
| Sandy Shale                                                         |  |                       |  |                      |  |            |  |              |        |            |  |
| Carbonate                                                           |  |                       |  |                      |  |            |  |              |        |            |  |
| Shaly Coal                                                          |  |                       |  |                      |  |            |  |              |        |            |  |
| Sand                                                                |  |                       |  |                      |  |            |  |              |        |            |  |
| Sandy Coal                                                          |  |                       |  |                      |  |            |  |              |        |            |  |
| Igneous                                                             |  |                       |  |                      |  |            |  |              |        |            |  |
| Coal                                                                |  |                       |  |                      |  |            |  |              |        |            |  |
| Unknown                                                             |  |                       |  |                      |  |            |  |              |        |            |  |
| Salt                                                                |  |                       |  |                      |  |            |  |              |        |            |  |

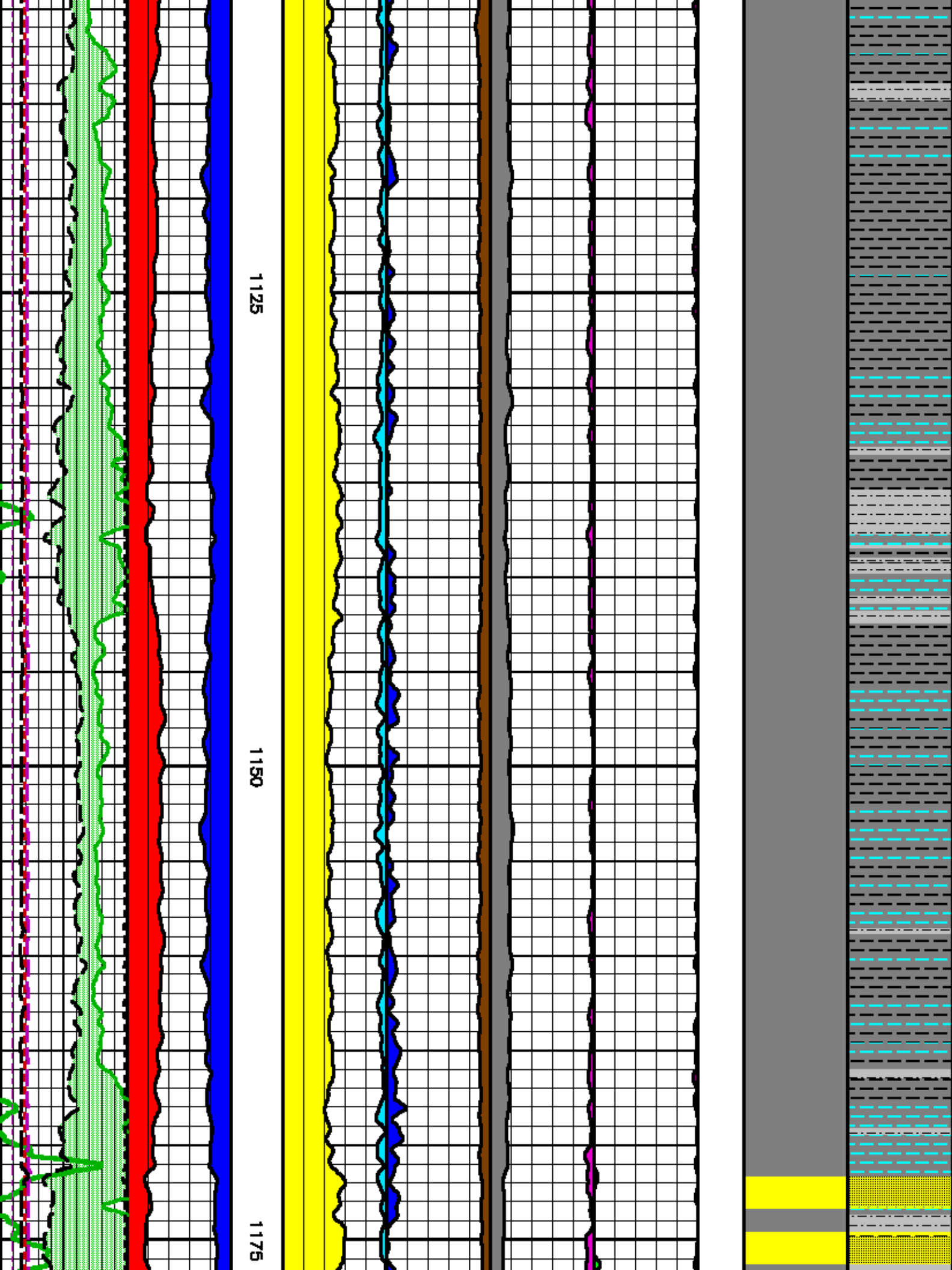
(kgf)  
CH-TENSION [cht]  
-100 2400  
(kgf)

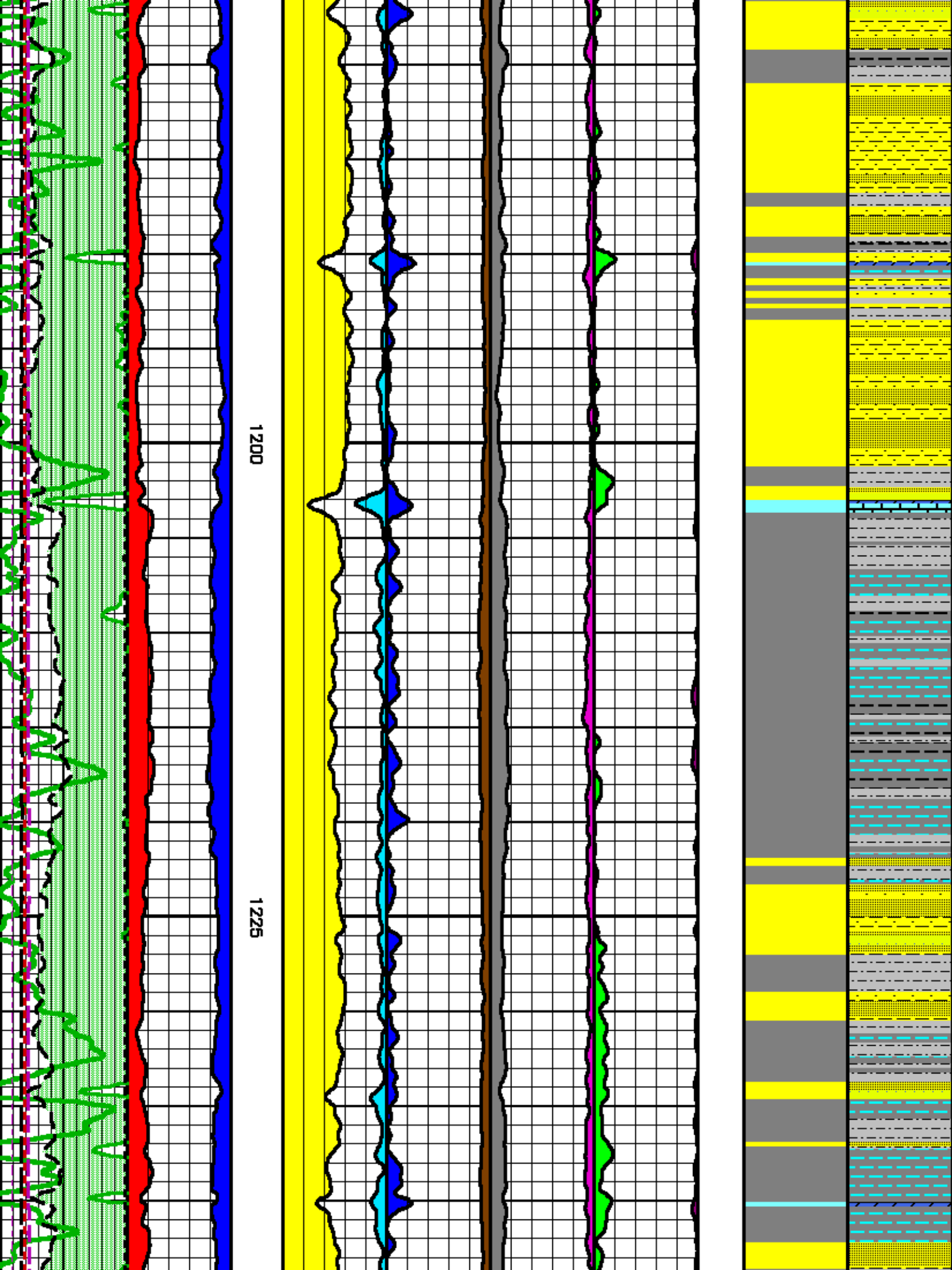


1100

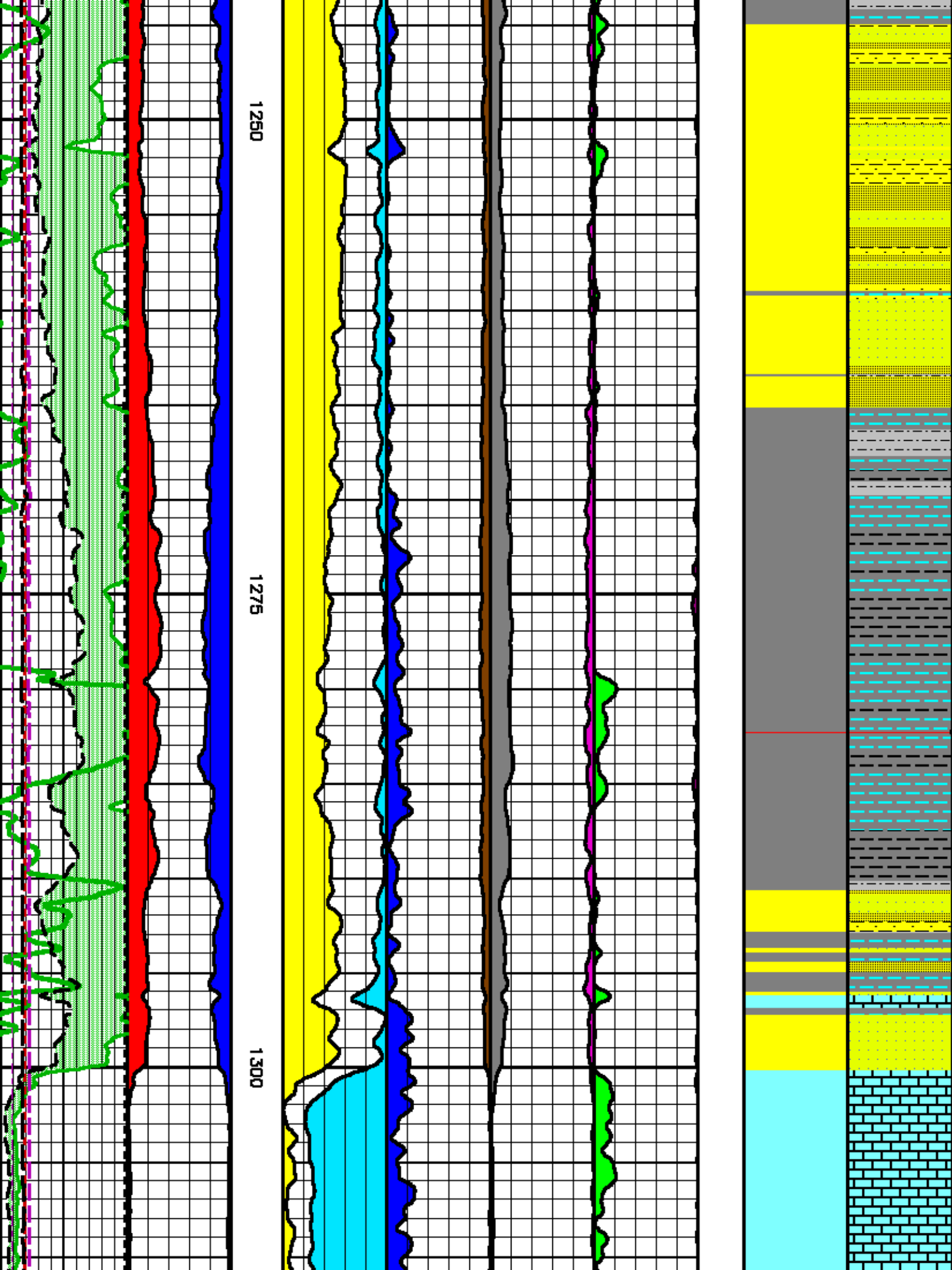


- Dolomitic Anhydrite
- Limy Anhydrite
- Anhydrite
- Shaly Dolomite
- Anhydritic Dolomite
- Limy Dolomite
- Dolomite
- Dolomitic Limestone
- Shaly Limestone
- Anhydritic Limestone
- Limestone
- Limy Sand
- Shaly Sand
- Feldspathic
- Quartzose
- Rhyolite
- Unknown

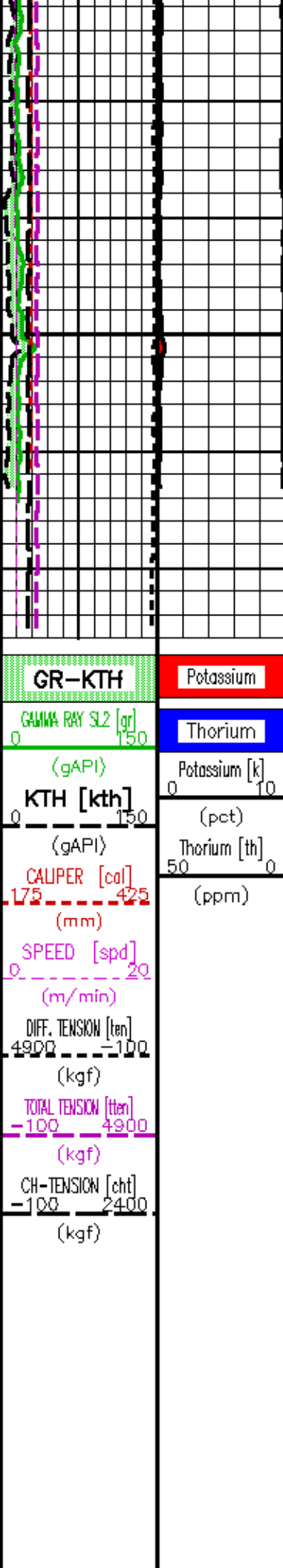






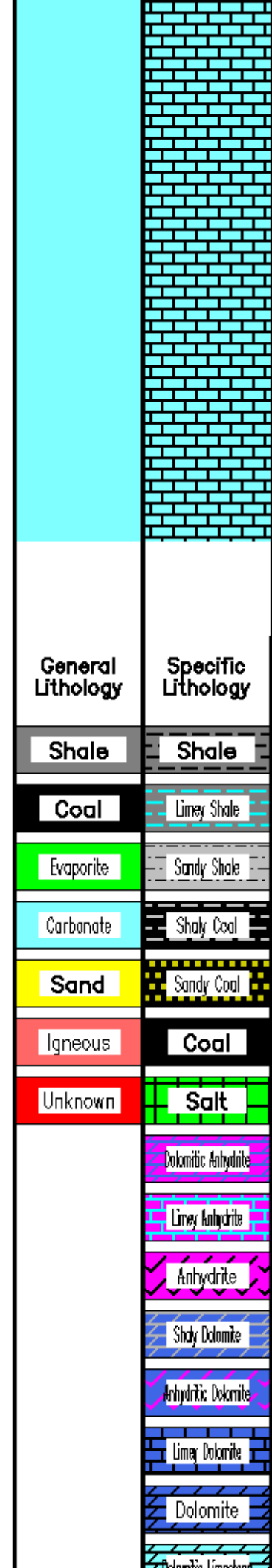
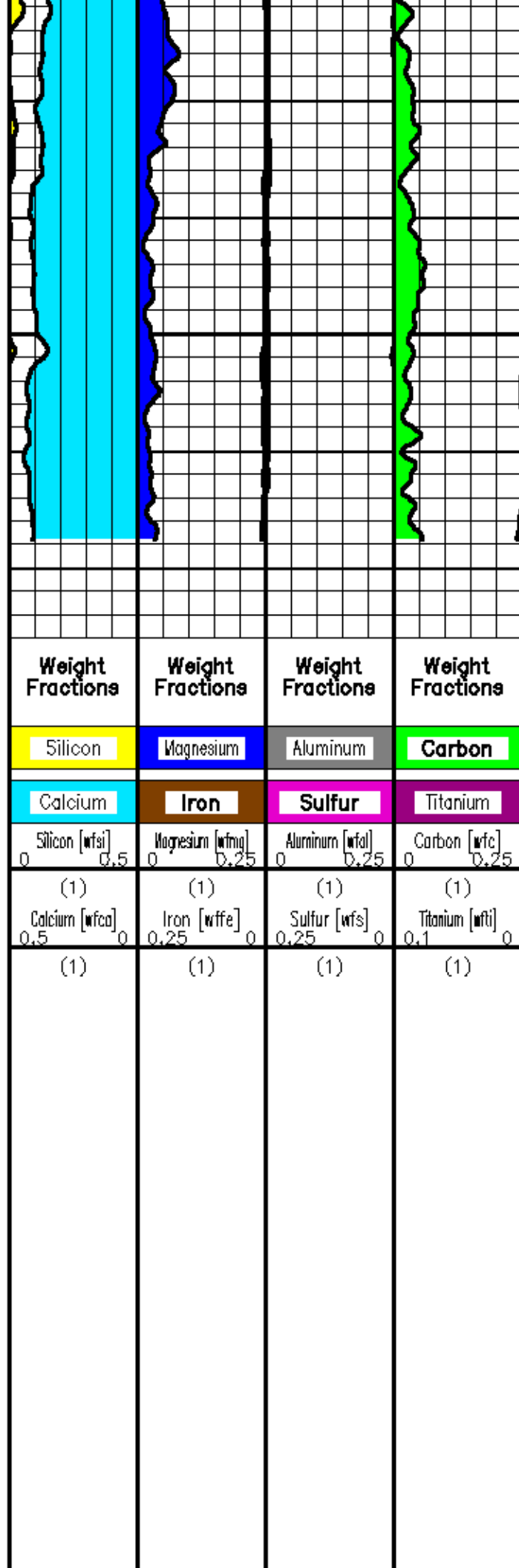






1325

METERS





## GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Mar 5 17:29:14 2012 DAYS SINCE CAL: 6

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

|    | BACKGROUND<br>(cts/s) | CALBRTR ON<br>(cts/s) | MULT  | BACKGROUND<br>(gAPI) | CALBRTR ON<br>(gAPI) | DIFF.<br>(gAPI) |
|----|-----------------------|-----------------------|-------|----------------------|----------------------|-----------------|
| GR | 44.80                 | 951.49                | 0.171 | 7.66                 | 162.65               | 154.99          |
|    |                       |                       |       |                      |                      | 140.48 160.48   |

## GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Wed Mar 7 02:34:48 2012 DAYS SINCE CAL: 8

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

|    | BACKGROUND<br>(cts/s) | CALBRTR ON<br>(cts/s) | MULT  | BACKGROUND<br>(gAPI) | CALBRTR ON<br>(gAPI) | DIFF.<br>(gAPI) |
|----|-----------------------|-----------------------|-------|----------------------|----------------------|-----------------|
| GR | 59.27                 | 927.44                | 0.171 | 10.13                | 158.54               | 148.40          |
|    |                       |                       |       |                      |                      | 144.39 164.39   |

## SL\_II PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 27 20:18:03 2012

UNIT #: 5753XB 10108816 CALIBRATOR ID: 4702NA DA-554

|                 | Bkgnd<br>(cts/s) | Cal ON<br>(cts/s) | Mult<br>(gAPI/(cts/s)) | Bkgnd<br>(gAPI) | Cal ON<br>(gAPI) | Cal Value<br>(gAPI) |
|-----------------|------------------|-------------------|------------------------|-----------------|------------------|---------------------|
| GR-SL (.06-3.5) | 143.40           | 1024.60           | 0.171                  | 24.40           | 174.40           | 150                 |

|             | Std Rate<br>(cts/s) | Meas Rate<br>(cts/s) | Tool Norm   | Std Mult | Log Mult | App Con<br>(pct ppm) |
|-------------|---------------------|----------------------|-------------|----------|----------|----------------------|
| E (.25-3.0) | 554                 | 545.6                | 1.015       |          |          |                      |
|             |                     |                      | 0.900 1.100 |          |          |                      |

|   |         |         |       |
|---|---------|---------|-------|
| K | 0.01602 | 0.01627 | 8.900 |
|---|---------|---------|-------|

|   |         |         |        |
|---|---------|---------|--------|
| U | 0.03851 | 0.03910 | 21.300 |
|---|---------|---------|--------|

|    |         |         |        |
|----|---------|---------|--------|
| TH | 0.10135 | 0.10290 | 56.100 |
|----|---------|---------|--------|

|          | Mult<br>chnl/MeV | Add<br>chnls | QSA         | QCAL        | GAIN      | U Pk Res<br>% |
|----------|------------------|--------------|-------------|-------------|-----------|---------------|
| SPECTRUM | 72.260           | 0.704        | 0.954       | 1.007       | 3012      | 8.81          |
|          |                  |              | 0.900 1.000 | 0.980 1.020 | 2950 3050 | 10.00         |

| P1      | P2      | P3        | P4        | P5        |
|---------|---------|-----------|-----------|-----------|
| 352 MeV | 609 MeV | 1.120 MeV | 1.765 MeV | 2.204 MeV |

|         |             |             |             |               |               |
|---------|-------------|-------------|-------------|---------------|---------------|
|         | .352 MeV    | .609 MeV    | 1.120 MeV   | 1.765 MeV     | 2.204 MeV     |
| Std Pk  | 25.80       | 44.20       | 81.00       | 127.40        | 159.00        |
| Meas Pk | 25.33       | 44.84       | 82.78       | 128.34        | 159.39        |
|         | 22.80 28.80 | 40.20 48.20 | 76.00 86.00 | 121.40 133.40 | 152.00 166.00 |
| Fit Pk  | 26.14       | 44.71       | 81.63       | 128.24        | 159.96        |

## SL\_II PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Mon Feb 27 20:23:09 2012

UNIT #: 5753XB 10108816

CALIBRATOR ID: 4702NA DA-554

|                 | Bkgnd<br>(cts/s) | Cal ON<br>(cts/s) | Mult<br>(gAPI/(cts/s)) | Bkgnd<br>(gAPI) | Cal ON<br>(gAPI) | Cal Value<br>(gAPI) |
|-----------------|------------------|-------------------|------------------------|-----------------|------------------|---------------------|
| GR-SL (.06-3.5) | 141.18           | 1013.32           | 0.171                  | 24.01           | 172.47           | 148                 |
|                 |                  |                   |                        |                 |                  | 135 165             |

|             | Std rate<br>(cts/s) | Meas rate<br>(cts/s) | Tool norm | Std Mult | Log Mult | App Con<br>(pct ppm) |
|-------------|---------------------|----------------------|-----------|----------|----------|----------------------|
| E (.25-3.0) | 554                 | 538.1                | 1.015     |          |          |                      |

|    |         |         |               |
|----|---------|---------|---------------|
| K  | 0.01602 | 0.01627 | 8.753         |
|    |         |         | 8.010 9.790   |
| U  | 0.03851 | 0.03910 | 21.040        |
|    |         |         | 19.170 23.430 |
| TH | 0.01602 | 0.10290 | 55.373        |
|    |         |         | 50.490 61.710 |

|          | Mult<br>chnl/MeV | Add<br>chnls | QSA         | QCAL        | GAIN | U Pk Res<br>% |
|----------|------------------|--------------|-------------|-------------|------|---------------|
| SPECTRUM | 72.483           | 0.721        | 0.928       | 1.010       | 3012 | 9.75          |
|          |                  |              | 0.900 1.000 | 0.980 1.020 |      |               |

|         | P1<br>.352 MeV | P2<br>.609 MeV | P3<br>1.120 MeV | P4<br>1.765 MeV | P5<br>2.204 MeV |
|---------|----------------|----------------|-----------------|-----------------|-----------------|
| Std Pk  | 25.80          | 44.20          | 81.00           | 127.40          | 159.00          |
| Meas Pk | 25.43          | 45.01          | 82.98           | 128.87          | 159.84          |
|         | 22.80 28.80    | 40.20 48.20    | 76.00 86.00     | 121.40 133.40   | 152.00 166.00   |
| Fit Pk  | 26.24          | 44.86          | 81.90           | 128.65          | 160.47          |

## SL\_II BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Mon Mar 5 17:59:14 2012

DAYS SINCE CAL: 6

UNIT #: 38545A 008672

CALIBRATOR ID: 4702NA DA-554

|                 | Bkgnd<br>(cts/s) | Cal ON<br>(cts/s) | Mult<br>(gAPI/(cts/s)) | Bkgnd<br>(gAPI) | Cal ON<br>(gAPI) | Cal Value<br>(gAPI) |
|-----------------|------------------|-------------------|------------------------|-----------------|------------------|---------------------|
| GR-SL (.06-3.5) | 45.13            | 953.37            | 0.171                  | 7.65            | 161.99           | 154                 |
|                 |                  |                   |                        |                 |                  | 135 165             |

|             | Std rate<br>(cts/s) | Meas rate<br>(cts/s) | Tool norm | Std Mult | Log Mult | App Con<br>(pct ppm)    |
|-------------|---------------------|----------------------|-----------|----------|----------|-------------------------|
| E (.25-3.0) | 554                 | 550.4                | 1.015     |          |          |                         |
| K           |                     |                      |           | 0.01602  | 0.01627  | 8.952<br>8.010 9.790    |
| U           |                     |                      |           | 0.03851  | 0.03910  | 21.521<br>19.170 23.430 |
| TH          |                     |                      |           | 0.01602  | 0.10290  | 56.638<br>50.490 61.710 |

|          | Mult<br>chnl/MeV | Add<br>chnls | QSA                  | QCAL                 | GAIN | U Pk Res<br>% |
|----------|------------------|--------------|----------------------|----------------------|------|---------------|
| SPECTRUM | 71.306           | 1.017        | 0.940<br>0.000 1.000 | 0.996<br>0.980 1.020 | 3027 | 9.43          |

|         | P1<br>.352 MeV       | P2<br>.609 MeV       | P3<br>1.120 MeV      | P4<br>1.765 MeV         | P5<br>2.204 MeV         |
|---------|----------------------|----------------------|----------------------|-------------------------|-------------------------|
| Std Pk  | 25.80                | 44.20                | 81.00                | 127.40                  | 159.00                  |
| Meas Pk | 25.27<br>22.80 28.80 | 44.65<br>40.20 48.20 | 81.93<br>76.00 86.00 | 127.10<br>121.40 133.40 | 157.54<br>152.00 168.00 |
| Fit Pk  | 26.12                | 44.44                | 80.88                | 126.87                  | 158.17                  |

## SL-II AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Wed Mar 7 02:42:26 2012 DAYS SINCE CAL: 8

UNIT #: 38545A 008672 CALIBRATOR ID: 4702NA DA-554

|                 | Bkgnd<br>(cts/s) | Cal ON<br>(cts/s) | Mult<br>(gAPI/(cts/s)) | Bkgnd<br>(gAPI) | Cal ON<br>(gAPI) | Cal Value<br>(gAPI) |
|-----------------|------------------|-------------------|------------------------|-----------------|------------------|---------------------|
| GR-SL (.06-3.5) | 57.50            | 922.37            | 0.171                  | 9.80            | 157.32           | 148<br>135 165      |

|             | Std rate<br>(cts/s) | Meas rate<br>(cts/s) | Tool norm | Std Mult | Log Mult | App Con<br>(pct ppm)    |
|-------------|---------------------|----------------------|-----------|----------|----------|-------------------------|
| E (.25-3.0) | 554                 | 536.1                | 1.015     |          |          |                         |
| K           |                     |                      |           | 0.01602  | 0.01627  | 8.719<br>8.010 9.790    |
| U           |                     |                      |           | 0.03851  | 0.03910  | 20.960<br>19.170 23.430 |
| TH          |                     |                      |           | 0.01602  | 0.10290  | 55.162<br>50.490 61.710 |

|          | Mult<br>chnl/MeV | Add<br>chnls | QSA                  | QCAL                 | GAIN | U Pk Res<br>% |
|----------|------------------|--------------|----------------------|----------------------|------|---------------|
| SPECTRUM | 71.805           | 0.402        | 0.978<br>0.000 1.000 | 0.998<br>0.980 1.020 | 3001 | 9.93          |

P1 P2 P3 P4 P5

|         |             |             |             |               |               |
|---------|-------------|-------------|-------------|---------------|---------------|
|         | .352 MeV    | .609 MeV    | 1.120 MeV   | 1.765 MeV     | 2.204 MeV     |
| Std Pk  | 25.80       | 44.20       | 81.00       | 127.40        | 159.00        |
| Meas Pk | 24.87       | 44.26       | 81.87       | 127.48        | 157.94        |
|         | 22.80 28.80 | 40.20 48.20 | 78.00 86.00 | 121.40 133.40 | 152.00 168.00 |
| Fit Pk  | 25.68       | 44.13       | 80.82       | 127.14        | 158.66        |

## FLEX\_CAL PRIMARY CALIBRATION SUMMARY

TOOL: 1338XA 10203228

DATE/TIME PERFORMED: Fri Feb 24 11:03:48 2012

UNIT: 5753XB 10108816

CALIBRATOR: 2437XB 112675

SOURCE: 1338AA 11998839

HOURS: 1338AA 50

| Mtr Vltg<br>(V) | Gain | Flask Temp<br>(degC) | Sync Delay<br>(usec) | MCSTCR<br>(Cts/s) | PHATCR<br>(Cts/s) | PHACSH<br>(Cts/s) | PHAISH<br>(Cts/s) | Boron<br>(%) | H Pk Res<br>(%) |
|-----------------|------|----------------------|----------------------|-------------------|-------------------|-------------------|-------------------|--------------|-----------------|
| 99              | 1566 | 16.8                 | 13.0                 | 91674             | 90363             | 12630             | 31111             | 100          | 12.9            |
|                 |      |                      |                      | 88000 94000       | 86000 94000       | 12300 14500       | 29800 36300       | 90 100       | 10.0 13.0       |

|                    | Standard<br>(Ch) | Measured<br>(Ch)        | Fit<br>(Ch) | Difference<br>(Ch) |
|--------------------|------------------|-------------------------|-------------|--------------------|
| Capt H (1.712 MeV) | 48.90            | 48.886                  | 48.782      | 0.104              |
| Capt H (2.223 MeV) | 63.50            | 63.496<br>63.300 63.700 | 63.610      | -0.114             |
| Capt Fe(7.638 MeV) | 218.18           | 220.740                 | 220.730     | 0.010              |
| Tot H (2.223 MeV)  | 63.50            | 63.734                  | 63.675      | 0.059              |
| Tot C (4.438 MeV)  | 126.77           | 128.411                 | 128.522     | -0.112             |
| Tot O (6.130 MeV)  | 175.10           | 178.067                 | 178.058     | 0.009              |
| Tot O (7.035 MeV)  | 200.96           | 204.598                 | 204.554     | 0.044              |
| Bkgd Fe(0.847 MeV) | 24.19            | 24.999                  | 24.473      | 0.527              |
| Bkgd Ti(1.555 MeV) | 44.42            | 44.757                  | 45.364      | -0.607             |
| Bkgd O (6.130 MeV) | 175.10           | 180.443                 | 180.361     | 0.082              |

|            | Peaks<br>Found | Mult<br>(ch/MeV) | Additive<br>(ch) | Chi Square<br>QSA | Fit Quality<br>QCAL |
|------------|----------------|------------------|------------------|-------------------|---------------------|
| Capture    | 3              | 29.016           | -0.892           | 0.008             | 1.016               |
|            | 3 3            |                  |                  | 0.000 0.050       | 0.950 1.050         |
| Total      | 4              | 29.276           | -1.406           | 0.005             | 1.025               |
|            | 4 4            |                  |                  | 0.000 0.050       | 0.950 1.050         |
| Background | 3              | 29.508           | -0.520           | 0.217             | 1.033               |
|            | 3 3            |                  |                  | 0.000 0.500       | 0.950 1.050         |

Capt Hydrogen

Capt Iron

Inel Carbon

Inel Oxygen



Yields

|       |       |       |       |
|-------|-------|-------|-------|
| 0.799 | 0.201 | 0.181 | 0.819 |
| 0.780 | 0.825 | 0.175 | 0.220 |
| 0.180 | 0.205 | 0.785 | 0.820 |



COMPANY HUSKY OIL OPERATIONS LIMITED  
 WELL LITTLE BEAR H-64  
 FIELD SLATER RIVER  
 PROVINCE NORTHWEST TERRITORIES

FILE NO:

API NO:

LOCATION:

SURF LOC:  
 LAT 64 53' 28.5"N LONG 126 11' 20.3"W  
 BH LOC. LSD:  
 LAT 64 53' 28.5"N LONG 126 11' 20.3"W

ELEVATIONS:

KB 183.2 M  
 DF  
 GL 178.0 M

UID:  
 300H64500126000  
 LICENSE:  
 482

DATE 06-MAR-2012

