



MIDWEST WIRELINE

# MICRORESISTIVITY LOG

|                                     |                   |                            |                   |
|-------------------------------------|-------------------|----------------------------|-------------------|
| CompanyCobalt Energy, LLC           |                   | Company Cobalt Energy, LLC |                   |
| Well                                | Marilyn Unit #1-6 | Well                       | Marilyn Unit #1-6 |
| Field                               | Hatcher           | Field                      | Hatcher           |
| County                              | Graham            | County                     | Graham            |
| State                               | Kansas            | State                      | Kansas            |
| Location: API #: 15-065-24196-00-00 |                   | Other Services             |                   |
| SEC 6 TWP 9S RGE 21W                |                   | CNL/CDL<br>DIL             |                   |
| Permanent Datum                     | Ground Level      | Elevation                  | 2173'             |
| Log Measured From                   | Kelly Bushing     | K.B.                       | 2178'             |
| Drilling Measured From              | Kelly Bushing     | D.F.                       | N/A               |
|                                     |                   | G.L.                       | 2173'             |
| Date                                | 7/1/2021          |                            |                   |
| Run Number                          | One               |                            |                   |
| Depth Driller                       | 3825'             |                            |                   |
| Depth Logger                        | 3828'             |                            |                   |
| Bottom Logged Interval              | 3827'             |                            |                   |
| Top Log Interval                    | 3000'             |                            |                   |
| Casing Driller                      | 8.625" @ 220'     |                            |                   |
| Casing Logger                       | 220'              |                            |                   |
| Bit Size                            | 7.875"            |                            |                   |
| Type Fluid in Hole                  | Chemical          |                            |                   |
| Salinity,ppm CL                     | 5000              |                            |                   |
| Density / Viscosity                 | 9.2 57            |                            |                   |
| pH / Fluid Loss                     | 10.5 7.8          |                            |                   |
| Source of Sample                    | FLOWLINE          |                            |                   |
| Rm @ Meas. Temp                     | 0.40 @ 60         |                            |                   |
| Rmt @ Meas. Temp                    | 0.30 @ 60         |                            |                   |
| Rmc @ Meas. Temp                    | 0.54 @ 60         |                            |                   |
| Source of Rmt/ Rmc                  | CHARTS            |                            |                   |
| Rm @ BHT                            | 0.21 @ 114        |                            |                   |
| Operating Rig Time                  | 3 Hours           |                            |                   |
| Max Rec. Temp. F                    | 114               |                            |                   |
| Equipment Number                    | P-24              |                            |                   |
| Location                            | HAYS              |                            |                   |
| Recorded By                         | D. Schmidt        |                            |                   |
| Witnessed By                        | Corey Baker       |                            |                   |

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

## Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Bogue,  
3 South to N Rd, 1 West, 1 South,  
East into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC  
785-625-3858

## Your Midwest Wireline Crew

Engineer: D. Schmidt  
Operator:  
Operator:  
Operator:

## This Log Record Was Witnessed By

Primary Witness: Corey Baker  
Secondary Witness:  
Secondary Witness:  
Secondary Witness:

| Sensor                                                                                                                              | Offset (ft)             | Schematic                                                                           |                                                                                     | Description                 | Length (ft) | O.D. (in) | Weight (lb) |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------|-------------|-----------|-------------|
| GR                                                                                                                                  | 40.58                   |     |     | GR-M&W (233-M&W)            | 3.00        | 3.50      | 50.00       |
| CNLSC<br>CNSSC                                                                                                                      | 37.48<br>36.73          |                                                                                     |                                                                                     | CNT-M&W (207-MW)            | 5.50        | 3.50      | 100.00      |
| LSD<br>DCAL<br>SSD                                                                                                                  | 28.43<br>28.42<br>27.93 |    |    | CDL-M&W (934-226)           | 8.50        | 4.00      | 250.00      |
| ML-PSIML (PSI-01)<br>GO Micro log tools converted to Simplec electronics                                                            |                         |                                                                                     |                                                                                     |                             | 7.58        | 4.00      | 65.00       |
| MCAL<br>MI<br>MN                                                                                                                    | 19.83<br>19.83<br>19.83 |  |  |                             |             |           |             |
| RLL3F<br>RLL3                                                                                                                       | 15.80<br>15.80          |                                                                                     |                                                                                     |                             |             |           |             |
| CILD                                                                                                                                | 8.00                    |  |  | DIL-PSI HIGH TEMP (952-828) | 18.50       | 3.50      | 220.00      |
| CILM                                                                                                                                | 4.70                    |  |  |                             |             |           |             |
| SP                                                                                                                                  | 0.20                    |  |  |                             |             |           |             |
| Dataset: cobalt_marilyn unit 1-6.db: field/well/stkml/pass3.9<br>Total length: 43.08 ft<br>Total weight: 685.00 lb<br>O.D.: 4.00 in |                         |                                                                                     |                                                                                     |                             |             |           |             |

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\cobalt\_marilyn unit 1-6.db  
Dataset field/well/stkml/pass3.9/\_vars\_

## Top - Bottom

|           |        |         |         |          |          |       |          |
|-----------|--------|---------|---------|----------|----------|-------|----------|
| A         | BOREID | BOTTEMP | CASEOD  | CASETHCK | FLUIDDEN | M     | MATRXDEN |
| 1         | in     | degF    | in      | in       | g/cc     | 2     | g/cc     |
|           | 7.875  | 100     | 5.5     | 0        | 1        |       | 2.71     |
| NPORSEL   | PERFS  | SNDERR  | SNDERRM | SPSHIFT  | SRFTEMP  | SZCOR | TDEPTH   |
| Limestone | No     | mmho/m  | mmho/m  | mV       | degF     | Off   | ft       |
|           |        | 0       | 0       | 275      | 60       |       | 0        |

## Variable Description

A : Cement Factor (a)  
BOREID : Borehole I.D.  
BOTTEMP : Bottom Hole Temperature  
CASEOD : Casing O.D.  
CASETHCK : Casing Thickness  
FLUIDDEN : Fluid Density  
M : Cement Exp (m)  
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select  
PERFS : Perforation Flag  
SNDERR : Deep Sonde Error Correction  
SNDERRM : Medium Sonde Error Correction  
SPSHIFT : S.P. Baseline Offset  
SRFTEMP : Surface Temperature  
SZCOR : CN Size Cor. ?  
TDEPTH : Total Depth



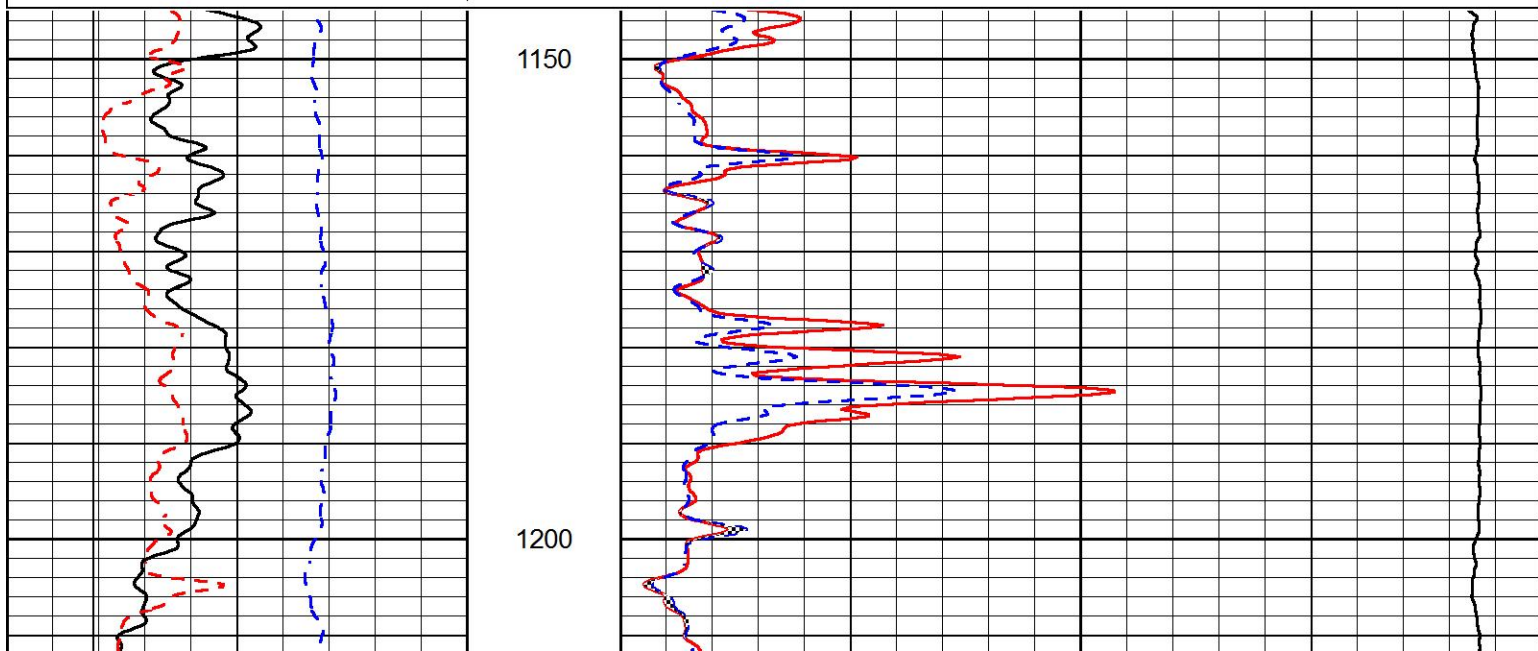
## CEDAR HILLS

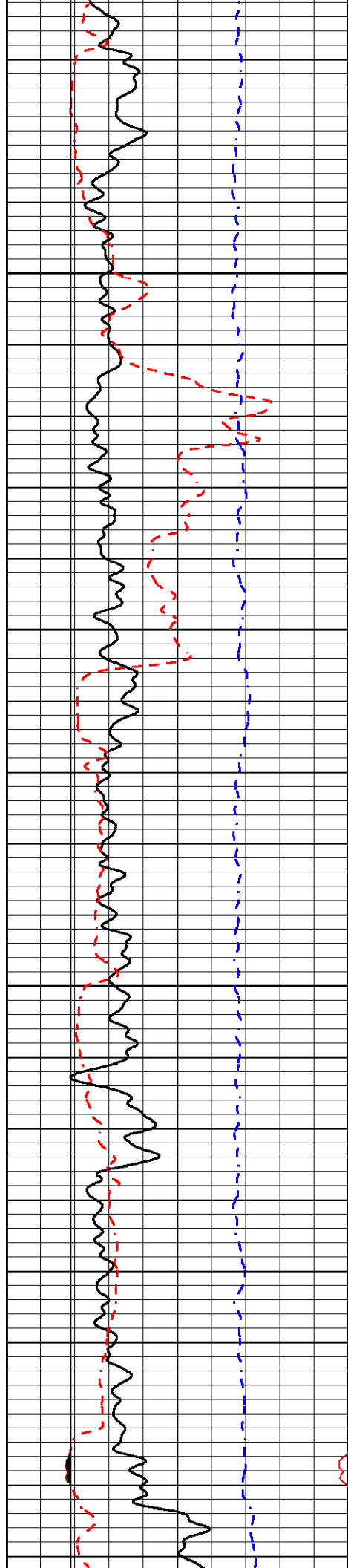
### 5" DETAIL SECTION

Database File cobalt\_marilyn unit 1-6.db  
Dataset Pathname stkml/pass5.1  
Presentation Format \_micro  
Dataset Creation Thu Jul 01 09:52:22 2021  
Charted by Depth in Feet scaled 1:240

|       |                  |       |
|-------|------------------|-------|
| 0     | GAMMA RAY (GAPI) | 150   |
| 6     | MCAL (in)        | 16    |
| 2.875 | MCAL (in)        | 7.875 |
| 6     | Bit Size (in)    | 16    |
| -200  | sp (mV)          | 0     |

|       |                             |    |
|-------|-----------------------------|----|
| 0     | MICRO INVERSE 1 X 1 (Ohm-m) | 40 |
| 0     | MICRO NORMAL 2" (Ohm-m)     | 40 |
| 10000 | Line Weight (lb)            | 0  |



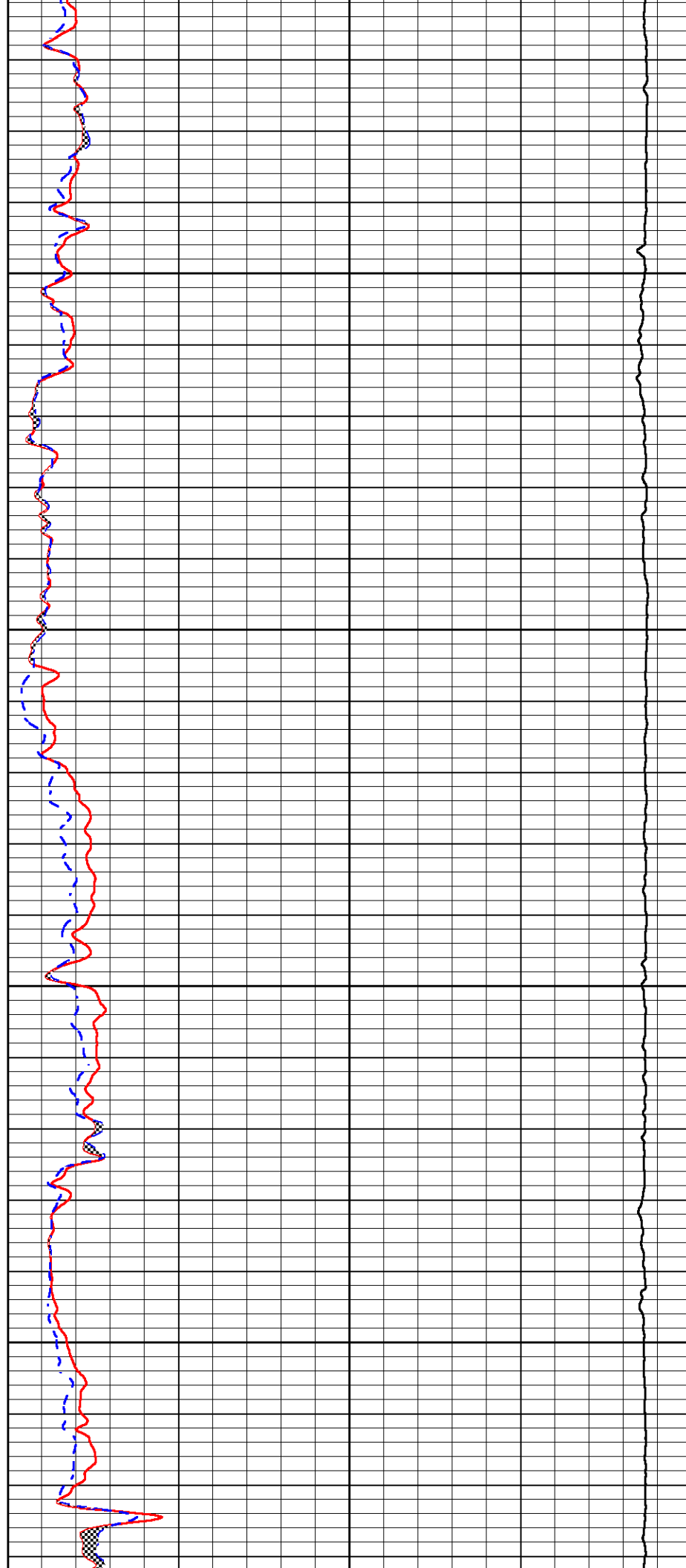


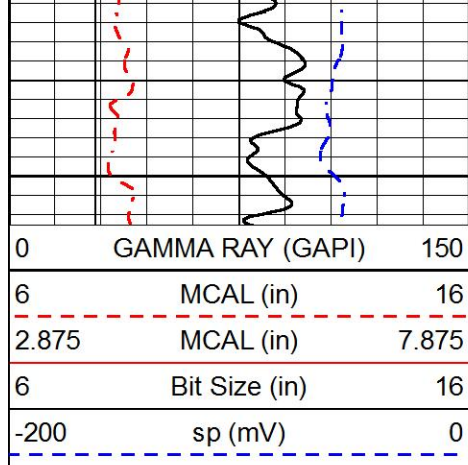
1250

1300

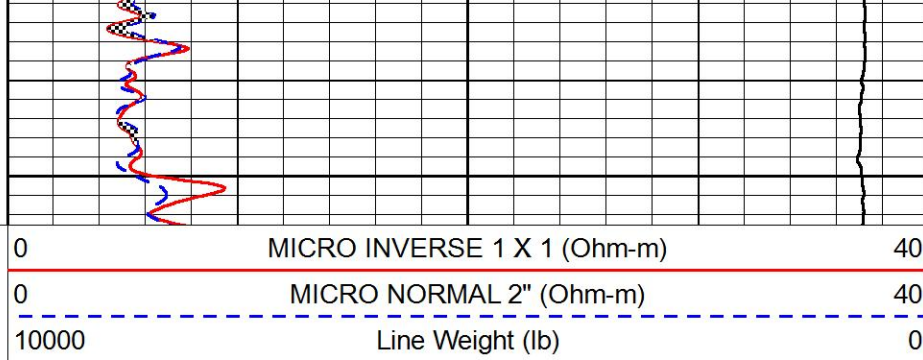
1350

1400





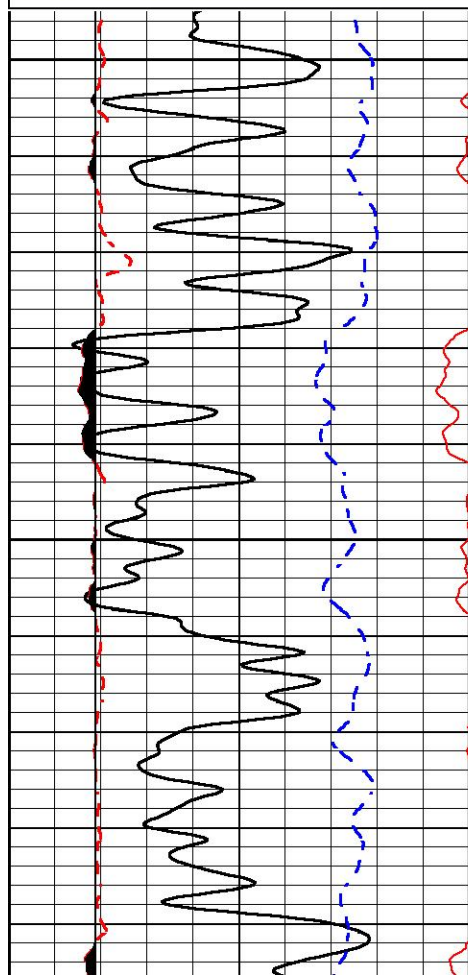
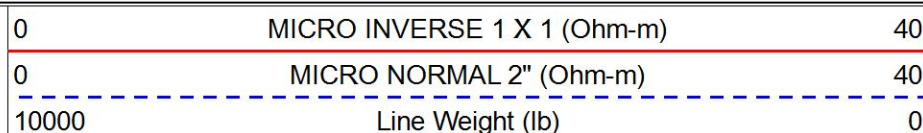
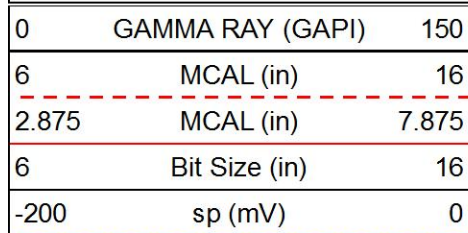
1450



## DETAIL SECTION

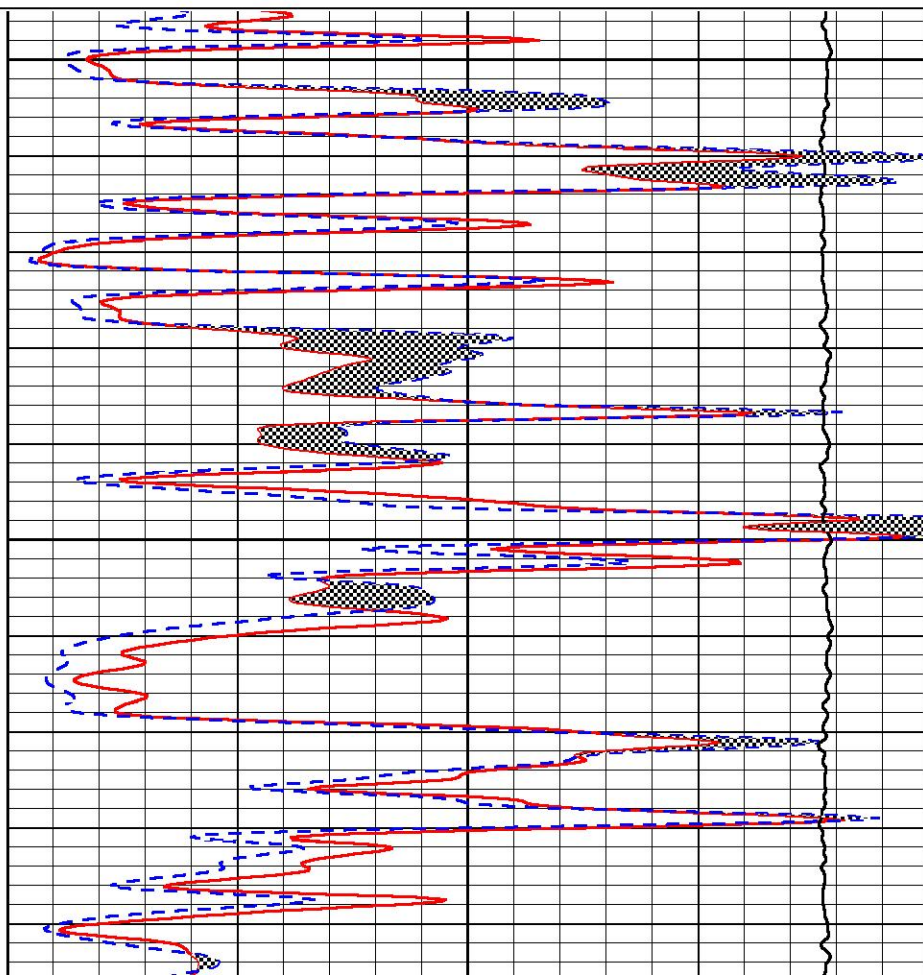
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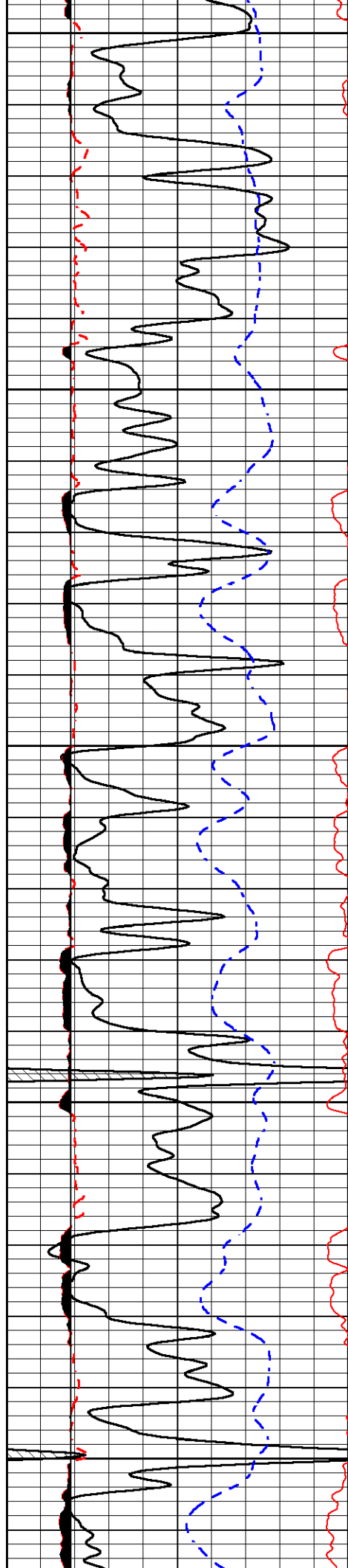
Database File cobalt\_marilyn unit 1-6.db  
 Dataset Pathname stkml/pass7.1  
 Presentation Format micro  
 Dataset Creation Thu Jul 01 09:52:41 2021  
 Charted by Depth in Feet scaled 1:240



3000

3050





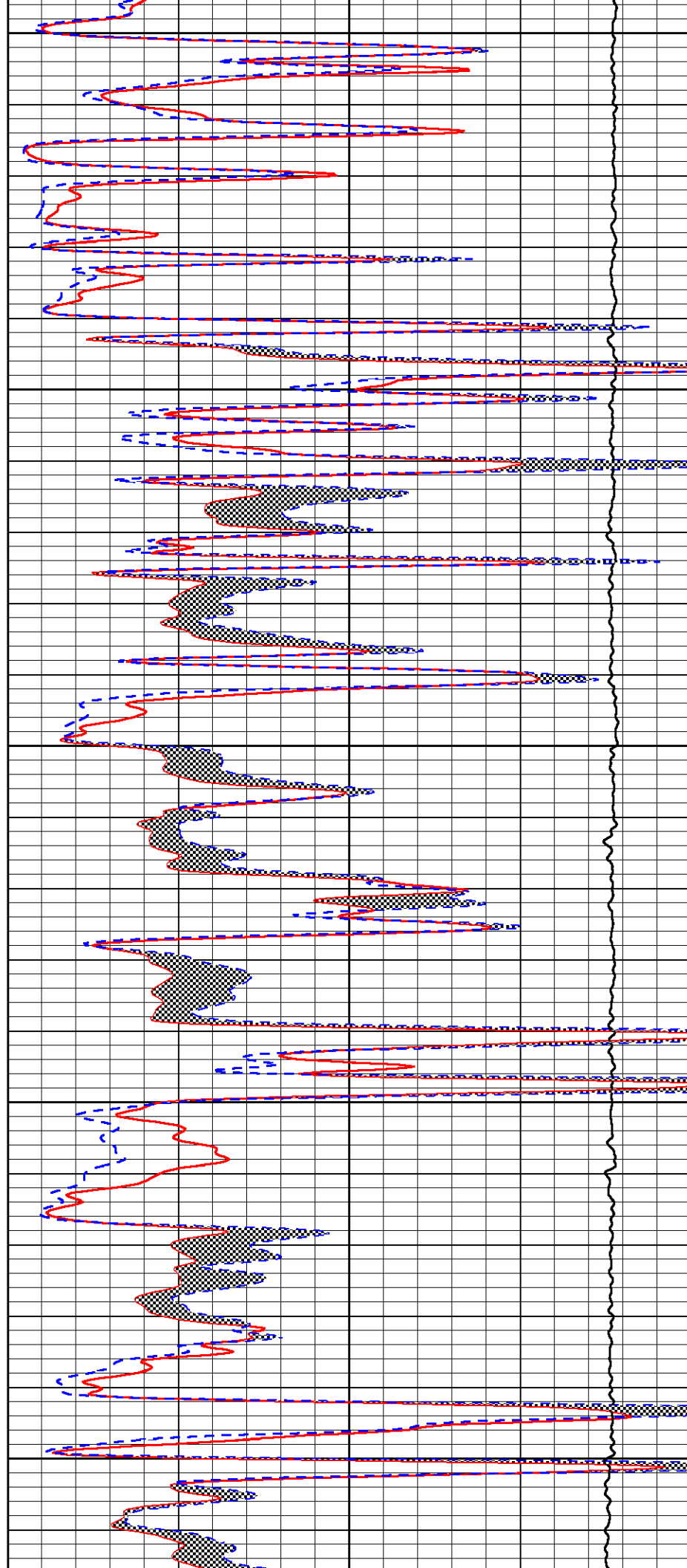
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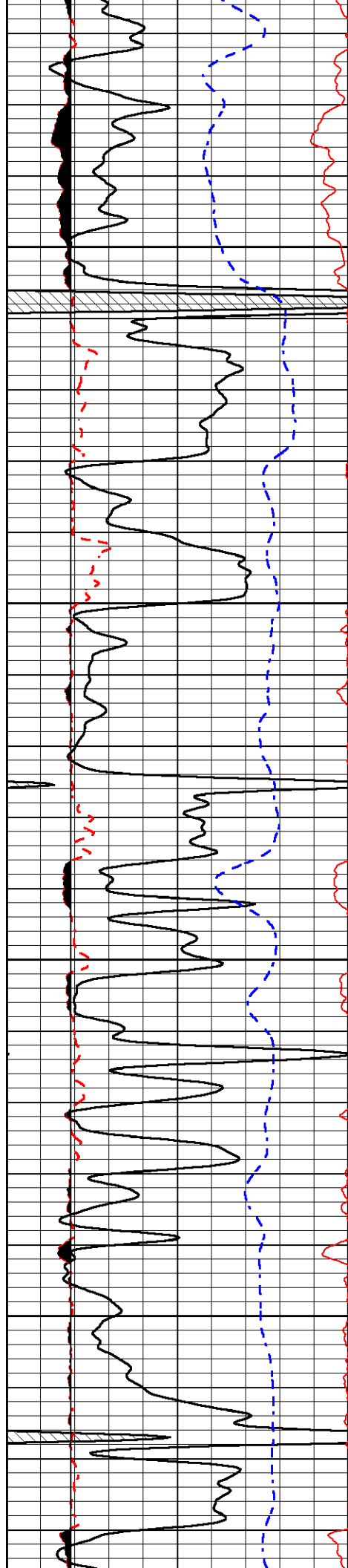
3150

3200

3250

3300



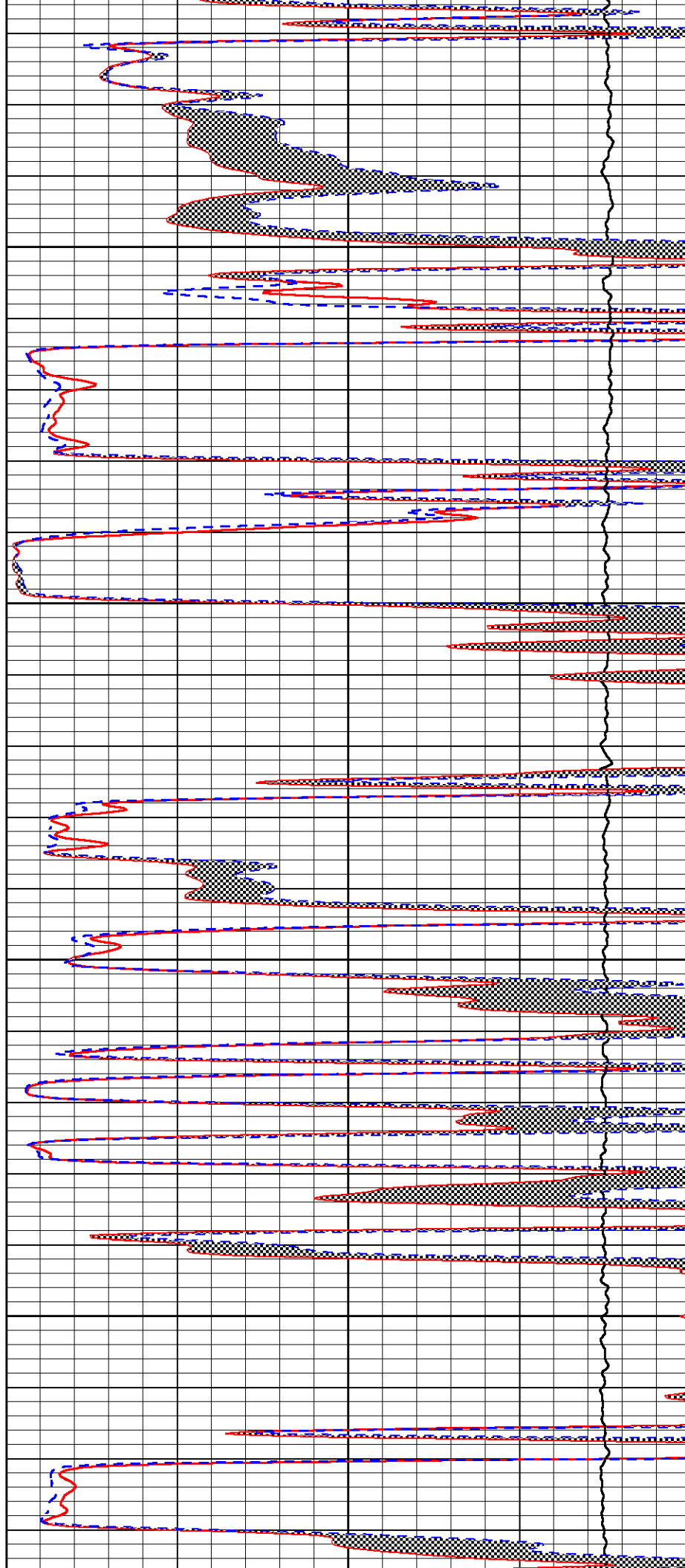


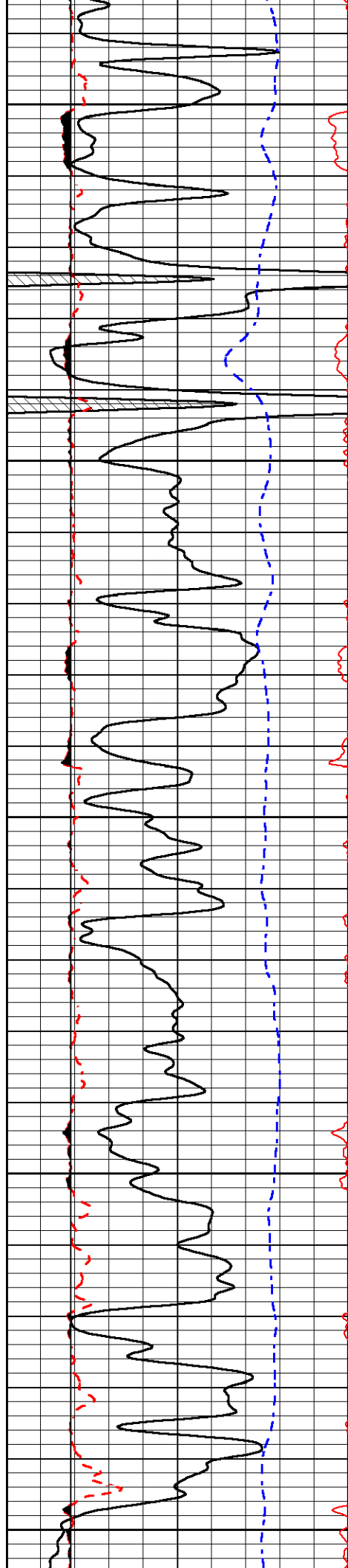
3350

3400

3450

3500





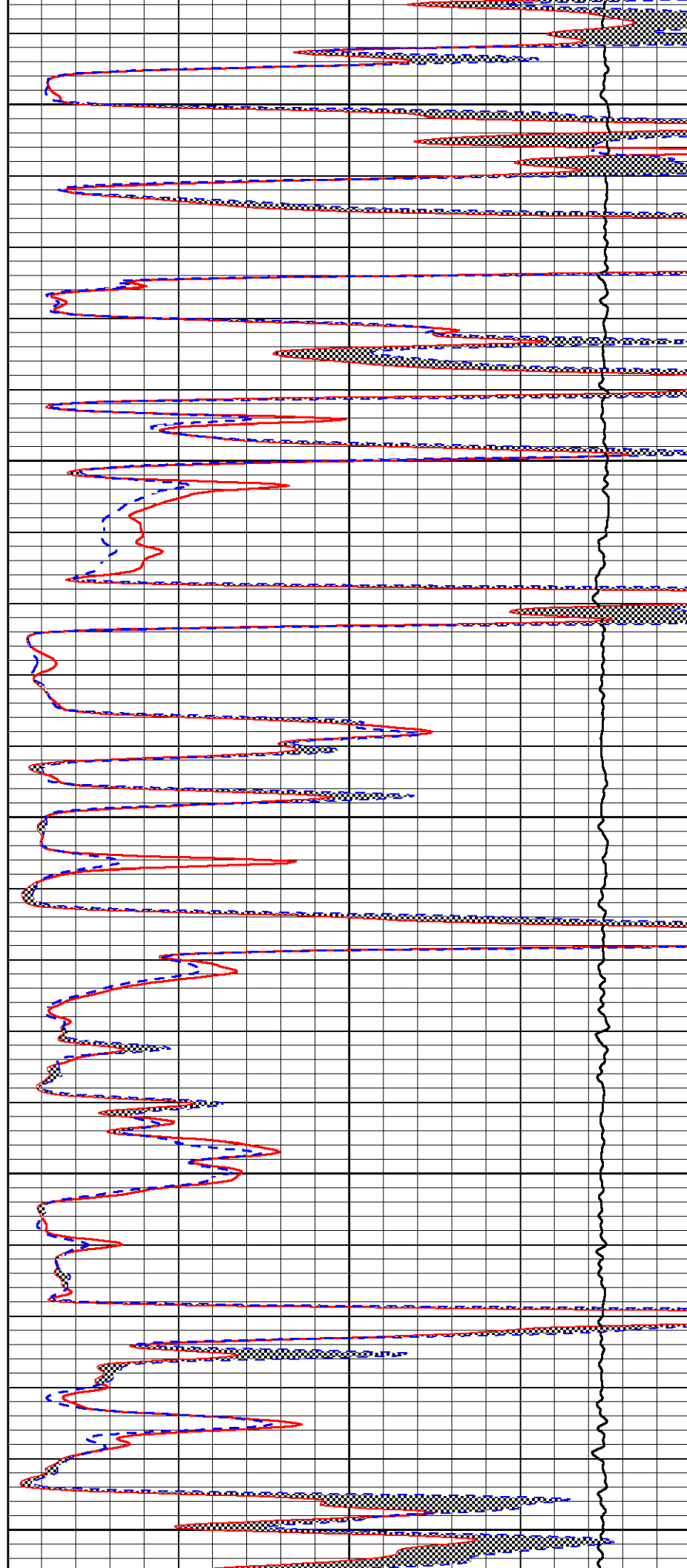
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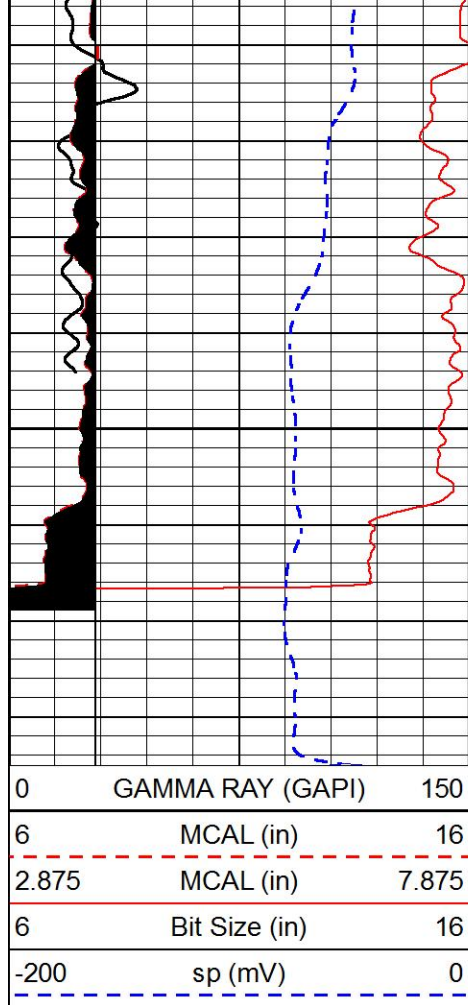
3600

3650

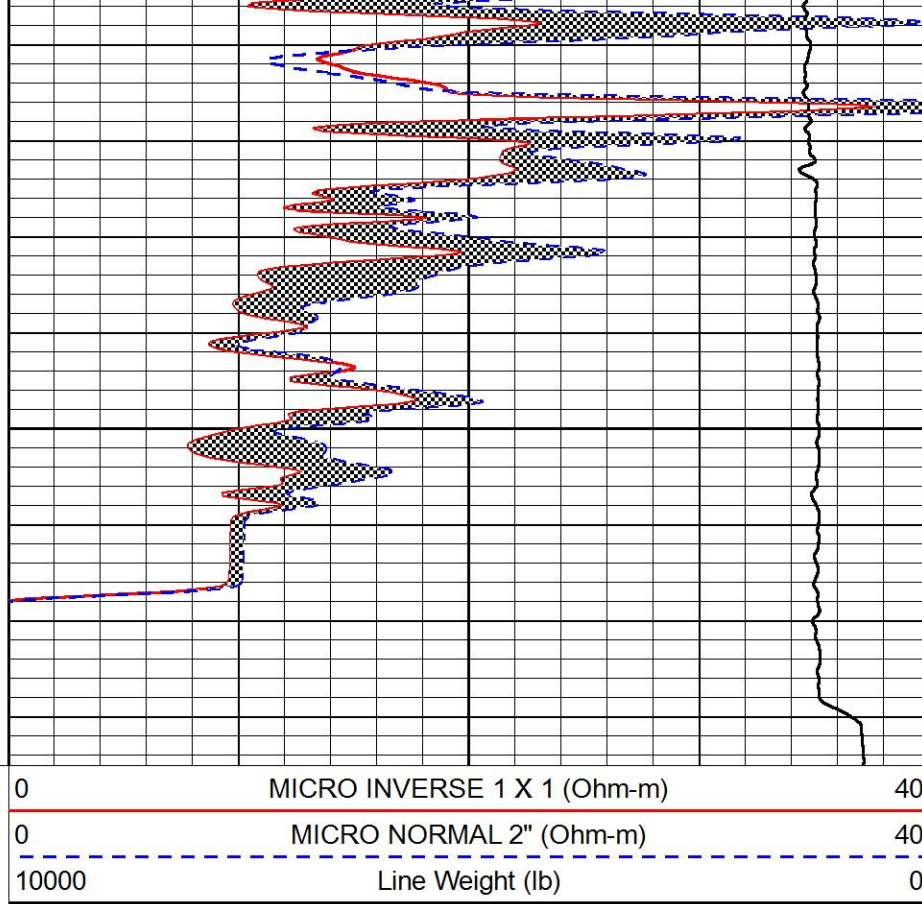
3700

3750





3800

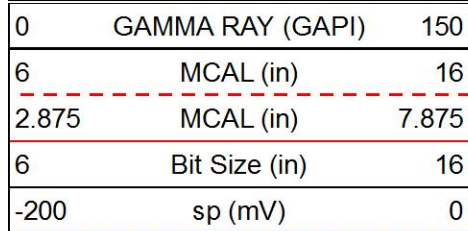


MIDWEST WIRELINE

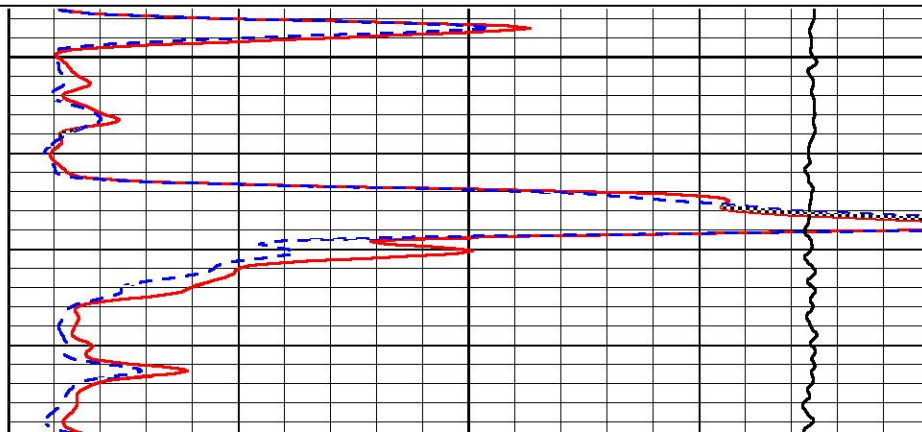
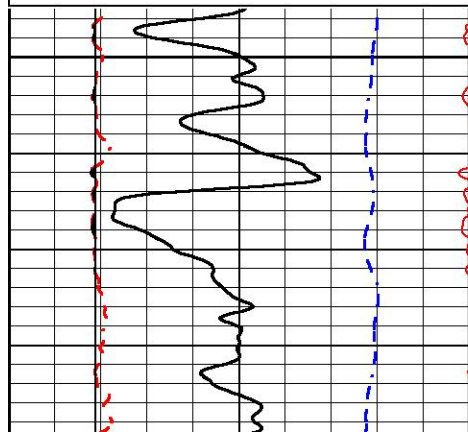
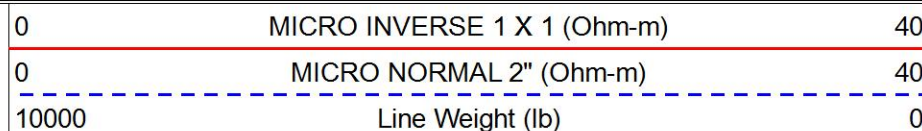
## REPEAT SECTION

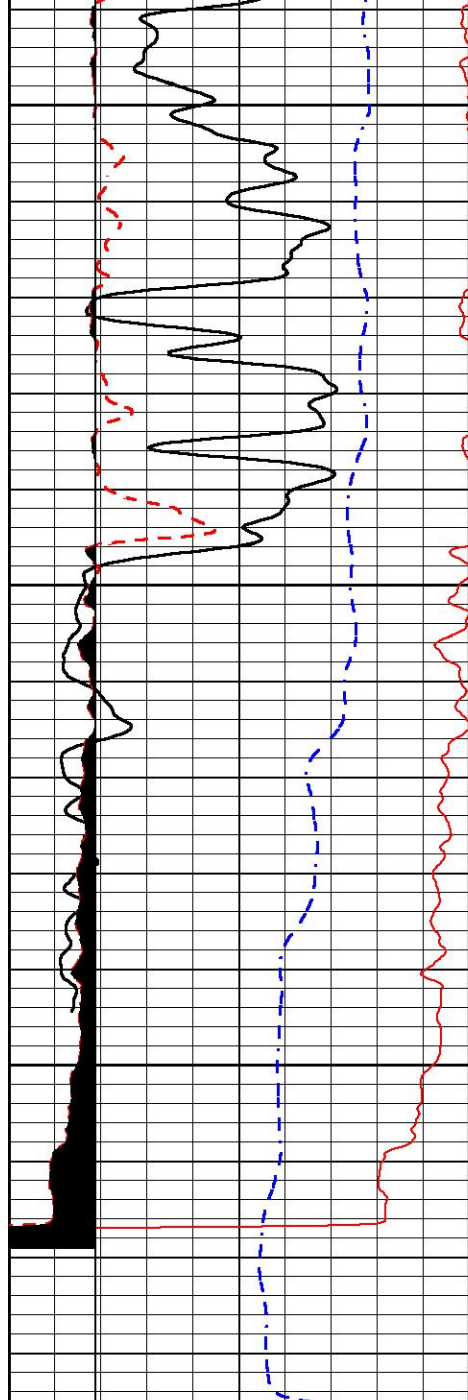
### REPEAT PASS

Database File cobalt\_marilyn unit 1-6.db  
 Dataset Pathname stkml/pass2.4  
 Presentation Format \_micro  
 Dataset Creation Thu Jul 01 09:25:10 2021  
 Charted by Depth in Feet scaled 1:240



3650



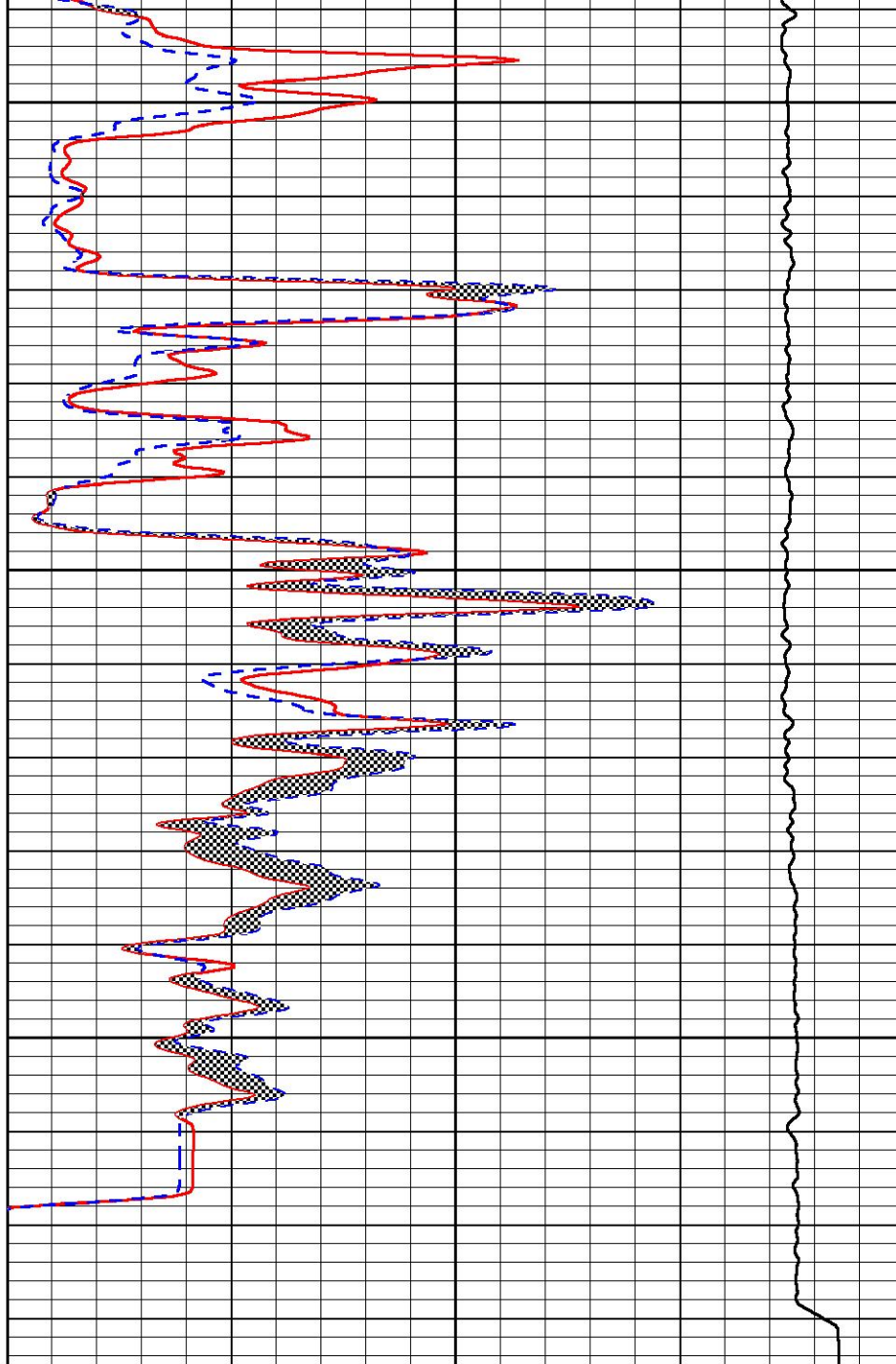


3700

3750

3800

|       |                  |       |
|-------|------------------|-------|
| 0     | GAMMA RAY (GAPI) | 150   |
| 6     | MCAL (in)        | 16    |
| 2.875 | MCAL (in)        | 7.875 |
| 6     | Bit Size (in)    | 16    |
| -200  | sp (mV)          | 0     |



|       |                             |    |
|-------|-----------------------------|----|
| 0     | MICRO INVERSE 1 X 1 (Ohm-m) | 40 |
| 0     | MICRO NORMAL 2" (Ohm-m)     | 40 |
| 10000 | Line Weight (lb)            | 0  |



MIDWEST WIRELINE

Company Cobalt Energy, LLC  
 Well Marilyn Unit #1-6  
 Field Hatcher  
 County Graham  
 State Kansas