



# INVOICE

Mud Master Drilling Fluid Services Ltd.

1000, 639 - 5th Ave. SW

Calgary, AB T2P 0M9

Phone: 403.237.8900

Fax: 403.265.6199

[www.mudmaster.ca](http://www.mudmaster.ca)

[info@mudmaster.ca](mailto:info@mudmaster.ca)

GST# 103797080

INVOICE NUMBER: 13288

|  |                       |                      |
|--|-----------------------|----------------------|
| <b>SOLD TO:</b><br><b>Surge Energy Inc.</b><br><b>2100, 635 - 8th Ave SW</b><br><b>Calgary, AB</b><br><b>T2P 3M3</b><br><b>VIA: Open Invoice</b> | <b>INVOICE DATE:</b>  | August 27, 2021      |
|  | <b>PAYMENT TERMS:</b> | Net 30               |
|  | <b>WELL NAME:</b>     | Surge Macklin        |
|  | <b>AFE:</b>           | 21DR0826             |
|  | <b>COST CODE:</b>     | 9310.326             |
|  | <b>SURFACE:</b>       | 05-12-039-02 W4M     |
|  | <b>UWI:</b>           | 103/05-11-039-02 W4M |
|  | <b>RIG:</b>           | Star Valley #102     |

FIELD SUPERVISOR:

Shawn Schuster/Wade Zakaluzny

FLUID SUPERVISOR:

Brian Mielke

SALESPERSON:

Rob Nieuwesteeg

| DESCRIPTION                | UOM      | QTY | UNIT PRICE | AMOUNT     |
|----------------------------|----------|-----|------------|------------|
| Barite                     | 40 kg    | 18  | \$22.00    | \$396.00   |
| Bleach                     | 20 L     | 6   | \$65.00    | \$390.00   |
| Calcium Nitrate/Envirofloc | 36.28 kg | 10  | \$44.00    | \$440.00   |
| Caustic Potash             | 25 kg    | 16  | \$110.00   | \$1,760.00 |
| Desco II CF                | 11.34 kg | 9   | \$100.00   | \$900.00   |
| Drispac Super Lo           | 22.68 kg | 11  | \$210.00   | \$2,310.00 |
| Gypsum                     | 25 kg    | 24  | \$11.00    | \$264.00   |
| Hyperdrill AF204RD         | 25 kg    | 2   | \$195.00   | \$390.00   |
| Lignite/Humalite           | 22.68 kg | 8   | \$12.00    | \$96.00    |
| M & D Lube                 | 205 l    | 1   | \$1,400.00 | \$1,400.00 |
| Op-T-Con CS 3001           | 20 L     | 21  | \$135.00   | \$2,835.00 |
| Polyxan                    | 25 kg    | 12  | \$250.00   | \$3,000.00 |
| Sawdust                    | 6.8 kg   | 100 | \$4.75     | \$475.00   |
| Sun Burst Beads            | 22.7 kg  | 10  | \$107.00   | \$1,070.00 |
| Ultra Pac LV               | 22.68 kg | 53  | \$167.00   | \$8,851.00 |
| Ultra Pac R                | 22.68 kg | 9   | \$189.00   | \$1,701.00 |
| Walnut Med                 | 22.68 kg | 15  | \$22.00    | \$330.00   |
| Mud Check                  | each     | 4   | \$500.00   | \$2,000.00 |
| Travel Charge              | km       | 260 | \$1.00     | \$260.00   |

SUBTOTAL: \$28,868.00

5% GST: \$1,443.40

*Thank you for your business.*

**INVOICE TOTAL: \$30,311.40**

If you have any questions regarding this invoice please call 403.237.8900 or email [accounting@mudmaster.ca](mailto:accounting@mudmaster.ca)



**Surge Energy Inc.**  
Delivery Ticket Summary  
AFE: 21DR0826  
CC: 9310-326  
Surface: 05-12-039-02 W4M  
UWI: 103/05-11-039-02 W4M  
Rig: Star Valley 102  
Spud Date: August 15, 2021  
End Date: August 19, 2021  
Invoice:

**Mud Master Drilling Fluid Services Ltd.**  
1000, 639 - 5th Ave SW, Calgary, AB, T2P 0M9  
Phone: 403.237.8900 Fax: 403.265.6199

| Mud Master Summary of Transfer, Delivery and Credit Tickets |                  |                                |                                     |                        |                                      |                                 |                     |
|---|------------------|--------------------------------|-------------------------------------|------------------------|--------------------------------------|---------------------------------|---------------------|
|   | TT-210819-BJM In | Delivery Ticket<br>BLKD-002411 | Transfer Ticket<br>TI-210818-BJM-In | Total Product Received | Transfer Ticket<br>TI-210819-BJM Out | Product Consumption per Tickets | Total for Involving |
| Description   |                  |                                |                                     |                        |                                      |                                 |                     |
| Berite  | 18               | 42                             |                                     | 60                     | -42                                  | 18                              | 396.00              |
| Bleach  | 7                |                                | 7                                   | 14                     | -8                                   | 6                               | 390.00              |
| Calcium Nitrate / Envirofloc                                | 10               | 120                            |                                     | 130                    | -120                                 | 10                              | 440.00              |
| Cautic Potash   | 26               |                                |                                     | 26                     | -10                                  | 16                              | 1,760.00            |
| Deco II CF  | 42               |                                |                                     | 42                     | -33                                  | 9                               | 900.00              |
| Driscac Super Lo  | 11               |                                |                                     | 11                     |                                      | 11                              | 2,310.00            |
| Gypsum  | 36               |                                |                                     | 36                     | -12                                  | 24                              | 264.00              |
| Hyperdrill AF204RD  | 9                |                                |                                     | 9                      | -7                                   | 2                               | 390.00              |
| Hyperfloc CP 911  | 10               |                                |                                     | 10                     | -10                                  | 0                               | 0.00                |
| Lignite / Humalite  | 7                | 42                             |                                     | 49                     | -41                                  | 8                               | 96.00               |
| M&O Lubo  | 2                | 4                              |                                     | 6                      | -5                                   | 1                               | 1,400.00            |
| Op-T-Con CS-3001  | 50               | 64                             |                                     | 114                    | -93                                  | 21                              | 2,835.00            |
| Polyvan   | 8                | 150                            |                                     | 48                     | -36                                  | 12                              | 3,000.00            |
| Sawdust   | 150              |                                |                                     | 300                    | -200                                 | 100                             | 475.00              |
| Sun Burst Beads   | 32               | 42                             |                                     | 74                     | -64                                  | 10                              | 1,070.00            |
| Ultra Pac LV  | 5                | 240                            |                                     | 245                    | -192                                 | 53                              | 8,851.00            |
| Ultra Pac R   | 24               | 80                             |                                     | 104                    | -95                                  | 9                               | 1,701.00            |
| Walnut Med  | 92               | 40                             |                                     | 132                    | -117                                 | 15                              | 330.00              |
| Mud Man Travel Charge/km                                    |                  |                                |                                     |                        |                                      | 260                             | 260.00              |
|   |                  |                                |                                     |                        |                                      |                                 | 26,868.00           |
| Mud Check (c4 hours)  |                  |                                |                                     |                        |                                      | 4                               | 2,000.00            |
|   |                  |                                |                                     |                        |                                      |                                 | 2,000.00            |
| Internal Reference BC                                       |                  | 106686                         |                                     |                        |                                      |                                 |                     |
| Internal Reference DC                                       |                  | 220003083                      |                                     |                        |                                      |                                 |                     |
| Internal Reference SGP                                      |                  |                                |                                     |                        |                                      |                                 |                     |
| Internal Reference M&P                                      |                  | 8179                           |                                     |                        |                                      |                                 |                     |
| Grand Total   |                  |                                |                                     |                        |                                      |                                 | 28,868.00           |

TICKET #:

FT-20210819      BJM



1000, 539 - 5th Ave. SW, Calgary, Alberta, T2P 0M9  
Telephone (24hour): (403) 237-8900 Fax: (403) 265-8199

|                  |                 |
|------------------|-----------------|
| AFE / PO NUMBER: | 21DR0826        |
| DATE ISSUED:     | August 19, 2021 |
| WAREHOUSE:       | Blackfalds, Ab  |
| TRUCKER:         | FORMULA POWELL  |
| PHONE:           | (403) 885-5151  |

|                        |                       |
|------------------------|-----------------------|
| WELL NAME:             | Surge 103 Hz Provost  |
| LSD:                   | 5-11-39-2w4m          |
| U.W.I.:                | 103                   |
| OPERATOR / INVOICE TO: | Surge Energy Inc      |
| RIG NUMBER:            | Star Valley Drig #102 |

[illegible]

|                |              |
|----------------|--------------|
| Product Total: | \$ 26,868.00 |
|----------------|--------------|

|                                      |       |
|--------------------------------------|-------|
| Trucking and Product Handling Total: | \$ .. |
|--------------------------------------|-------|

Engineering / Supervision Total: 5 *[Signature]*

Combined Drilling Fluids Total: \$

ISSUED BY:

**Brian Mielke**

RECEIVED IN GOOD ORDER BY:

Shawn Schuster / Wade Zakaluzny

**STAMP / COMMENTS:**

**SURGE ENERGY 103 HZ Provost 5-11-39-2W4**  
**Surface 5-12-39-2W4 (545.5m N, 289.0m E)**  
**UIW 103/05-11-039-02W4/0**  
**License #0500539 AFE 21DR0826**  
**Star Valley 102**  
**Billing.oilfield.clean@gmail.com**  
**Rep: Shawn Schuster 306-830-5903**  
**Rep Wade Zakaluzny 403-928-4882**  
**CODE 9310-326 / DRILLING MUD & CHEMICALS**

1000, 639 - 5th Ave. SW  
Calgary, Alberta  
T2P 0M9

**TRANSFER TICKET**

TT- 210813 BJM - (N)

**Date Shipped:**

**Origin:**

Well Name: Surge 103 Hz Provost  
Location: 8-21-39-2w4m  
U.W.I. 103  
Operator: Surge Energy Inc  
Rig Number: Star Valley Drig #102

**Destination:**

Well Name: Surge 103 Hz Provost  
Location: 8-21-39-2w4m  
U.W.I. 103  
Operator: Surge Energy Inc  
Rig Number: Star Valley Drig #102

106

| PRODUCT             | QUANTITY | UNIT WEIGHT | TOTAL WEIGHT |
|---------------------|----------|-------------|--------------|
| Barite              | 18       | 40.0 kg     | 720 kg       |
| Bleach              | 7        | 20.0 kg     | 140 kg       |
| Calcium Nitrate     | 10       | 36.4 kg     | 363.6 kg     |
| Caustic Potash      | 26       | 25.0 kg     | 650 kg       |
| Caustic Soda        |          | 22.7 kg     | kg           |
| Desco II            | 42       | 11.3 kg     | 476.28 kg    |
| Gypsum              | 36       | 25.0 kg     | 900 kg       |
| Humalite / Lignite  | 7        | 45.5 kg     | 318.15 kg    |
| Hyperdrill AF 204RD | 9        | 25.0 kg     | 225 kg       |
| M&D Lube            | 2        | 175.0 kg    | 350 kg       |
| Nut Shell M         | 92       | 22.7 kg     | 2086.56 kg   |
| OptiCon             | 50       | 20.0 kg     | 1000 kg      |
| Poly Xan            | 8        | 25.0 kg     | 200 kg       |
| Sawdust             | 150      | 7.3 kg      | 1095 kg      |
| Sunburst Beads      | 32       | 22.7 kg     | 726.4 kg     |
| Ultra Pac Lo        | 5        | 25.0 kg     | 125 kg       |
| Ultra Pac Reg       | 24       | 25.0 kg     | 600 kg       |
| Drispac Super Lo    | 11       | 22.7 kg     | 249.48 kg    |

**TOTAL WEIGHT:** 10225.47 kg

Issued by:

Brian Mielke

Received / Released by:

Shawn Schuster / Wade Zakaluzny

DTV



Mud Master Drilling Fluid Services  
#1000, 639 - 5 Avenue S.W.  
Calgary, AB T2P0M9  
Phone: (403) 237-8900  
Fax: (403) 265-6199  
24 Hr Emergency Phone: (403) 237-8900

**DELIVERY TICKET****BLKD-002411**

Posted: 16-Aug-21

**SOLD TO**

Surge Energy Inc.  
#2100, 635 - 8 Avenue S.W.  
Calgary, AB T2P 3M3

**SHIP TO**

Surge Energy Inc.  
Star Valley #102  
4-11-39-2W4  
Surge 106 Hz Provost

| DATE SHIPPED | REFERENCE TICKET | PO / AFE | ORDERED BY | WAREHOUSE                   |
|--------------|------------------|----------|------------|-----------------------------|
| 15-Aug-21    |                  |          | Brian M    | Blackfalds - Formula Powell |

| CODE | QUANTITY | DESCRIPTION                  | UNIT WEIGHT | TOTAL WEIGHT |
|------|----------|------------------------------|-------------|--------------|
|      | 42       | BARITE 41 (40kg) 42/PALLET   | 40.00       | 1,680.00     |
|      | 10       | ENVIROBAG (FP)               | 0.00        | 0.00         |
|      | 120      | ENVIROFLOC (36.28KG)         | 36.28       | 4,353.60     |
|      | 42       | HUMALITE (LIGNITE) (22.68kg) | 22.68       | 952.56       |
|      | 10       | HYPERFLOC CP 911 (25kg)      | 25.00       | 250.00       |
|      | 4        | M&D LUBE (208L) DRUM         | 208.00      | 832.00       |
|      | 64       | OP-T-CON CS-3001 (20L)       | 22.68       | 1,451.52     |
|      | 22       | PALLETS (22.7kg)             | 22.70       | 499.40       |
|      | 2        | PLANKS                       | 0.00        | 0.00         |
|      | 40       | POLYXAN (25kg)               | 25.00       | 1,000.00     |
|      | 150      | SAWDUST (7.3KG)              | 7.30        | 1,095.00     |
|      | 14       | SHRINKWRAPS (FP)             | 0.00        | 0.00         |
|      | 42       | SUN BURST DP (22.68 KG)      | 22.68       | 952.56       |
|      | 240      | ULTRA PAC LV (22.68kg)       | 22.68       | 5,443.20     |
|      | 80       | ULTRA PAC R (22.68kg)        | 22.68       | 1,814.40     |
|      | 40       | WALNUT MEDIUM (22.68kg)      | 22.68       | 907.20       |

**CARRIER**

Formula Powell (BF)  
PO Box 568  
4300 South Street  
Blackfalds, AB T0M 0J0

| PLACARDS REQUIRED          | TRAINING CERTIFICATE | TOTAL WEIGHT (kg) |
|----------------------------|----------------------|-------------------|
| CLASS: None                |                      | 21,231.44         |
| DRIVER Ewan Burnett Enterp | SHIPPER              | RECEIVER          |

**SPECIAL INSTRUCTIONS:**

RENTAL SWAP, also ADD Garbage Bin to LOAD

Van/Hiboy #: C0145

Reprinted: 16-Aug-2021 8:01:20 am

Written By: Sean Zloty

1000, 639 - 5th Ave. SW  
Calgary, Alberta  
T2P 0M9

**DELIVERY TICKET**

DT- 210818 BJM ~ /N.

**Date Shipped:**

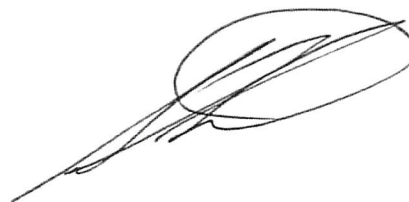
**Origin:**

Well Name: Surge 103 Hz Provost  
Location: 5-11-39-2w4m  
U.W.I. 103  
Operator: Surge Energy Inc  
Rig Number: Star Valley Drig #102

**Destination:**

Well Name: Mud Master Drilling Fluids  
Location: Calgary AB  
U.W.I.  
Operator:  
Rig Number:

| PRODUCT                 | QUANTITY | UNIT WEIGHT | TOTAL WEIGHT |
|-------------------------|----------|-------------|--------------|
| 1 Barite                |          | 40.0 kg     | kg           |
| ✓ 2 Bleach              | 7        | 20.0 kg     | 140 kg       |
| ✓ 3 Calcium Nitrate     |          | 36.4 kg     | kg           |
| ✓ 4 Caustic Potash      |          | 25.0 kg     | kg           |
| ✓ 5 Caustic Soda        |          | 22.7 kg     | kg           |
| ✓ 6 Desco II            |          | 11.3 kg     | kg           |
| ✓ 7 Gypsum              |          | 25.0 kg     | kg           |
| ✓ 8 Humalite / Lignite  |          | 45.5 kg     | kg           |
| ✓ 9 Hyperdrill AF 204RD |          | 25.0 kg     | kg           |
| ✓ 10 M&D Lube           |          | 175.0 kg    | kg           |
| ✓ 11 Nut Shell M        |          | 22.7 kg     | kg           |
| ✓ 12 OptiCon            |          | 20.0 kg     | kg           |
| ✓ 13 Poly Xan           |          | 25.0 kg     | kg           |
| ✓ 14 Sawdust            |          | 7.3 kg      | kg           |
| ✓ 15 Sunburst Beads     |          | 22.7 kg     | kg           |
| ✓ 16 Ultra Pac Lo       |          | 25.0 kg     | kg           |
| ✓ 17 Ultra Pac Reg      |          | 25.0 kg     | kg           |



**TOTAL WEIGHT:** 140 kg

Issued by:

Received / Released by:

Brian Mielke

Shawn Schuster / Wade Zakaluzny



210818

DT ✓

1000, 639 - 5th Ave. SW  
Calgary, Alberta  
T2P 0M9

**TRANSFER TICKET**

TT- 210819 BJM - 005

**Date Shipped:**

**Origin:**

Well Name: Surge 103 Hz Provost  
Location: 5-11-39-2w4m  
U.W.I.: 103  
Operator: Surge Energy Inc  
Rig Number: Star Valley Drlg #102

**Destination:**

Well Name: Surge 102 Hz Provost  
Location: 5-11-39-2w4m  
U.W.I.: 102  
Operator: Surge Energy Inc  
Rig Number: Star Valley Drlg #102

| PRODUCT               | QUANTITY        | UNIT WEIGHT | TOTAL WEIGHT |
|-----------------------|-----------------|-------------|--------------|
| 1 Barite              | 42              | 40.0 kg     | 1680 kg      |
| 2 Bleach              | 8               | 20.0 kg     | 160 kg       |
| 3 Calcium Nitrate     | 120             | 36.4 kg     | 4363.2 kg    |
| 4 Caustic Potash      | 10              | 25.0 kg     | 250 kg       |
| 5 Caustic Soda        |                 | 22.7 kg     | kg           |
| 6 Desco II            | 33              | 11.3 kg     | 374.22 kg    |
| 7 Gypsum              | 12              | 25.0 kg     | 300 kg       |
| 8 Humalite / Lignite  | 41              | 45.5 kg     | 1863.45 kg   |
| 9 Hyperdrill AF 204RD | 17 Typo - S/B 7 | 25.0 kg     | 425 kg       |
| 10 M&D Lube           | 5               | 175.0 kg    | 875 kg       |
| 11 Nut Shell M        | 117             | 22.7 kg     | 2653.56 kg   |
| 12 OptiCon            | 93              | 20.0 kg     | 1860 kg      |
| 13 Poly Xan           | 36              | 25.0 kg     | 900 kg       |
| 14 Sawdust            | 200             | 7.3 kg      | 1460 kg      |
| 15 Sunburst Beads     | 64              | 22.7 kg     | 1452.8 kg    |
| 16 Ultra Pac Lo       | 192             | 25.0 kg     | 4800 kg      |
| 17 Ultra Pac Reg      | 95              | 25.0 kg     | 2375 kg      |
| 18 Drispac Super Lo   |                 | 22.7 kg     | kg           |
| 19 Hyperdrill CP 911  | 10              | 25.0 kg     | 250 kg       |

**TOTAL WEIGHT:** 26042.23 kg

Issued by:

Brian Mielke

Received / Released by:

Shawn Schuster / Wade Zakaluzny

DI ✓

**DRILLING FLUIDS REPORT (WBM)**  
**REPORT NUMBER: 2**

WELL NAME: Surge 103 Hz Provost  
 U.W.I.L: 103  
 OPERATOR: Surge Energy Inc  
 OPERATOR REP: Shawn Schuster / Wade Zakaluzny  
 PHONE NUMBER: (306) 830-5903  
 RIG NUMBER: Star Valley Drig #102  
 RIG MANAGER: Daryl Johnson  
 PHONE NUMBER:

B.H.L.: 5-11-39-2w4m  
 LSD: 5-12-39-2w4m  
 DATE: August 16, 2021  
 SPUD DATE: August 15, 2021  
 DAYS FROM SPUD: 1  
 WAREHOUSE: BLACKFALDS, AB  
 TRUCKER: Formula Powell  
 PHONE: (403) 885-5151



1000, 639 - 5th Ave. SW, Calgary, Alberta, T2P 0M9  
 Telephone (24hour): (403) 237-8900 Fax: (403) 265-6199

| HYDRAULICS ANALYSIS  |           |              |                 |                   |         |            |               |                      |              | PRESSURE LOSS                  |          | PUMP DATA        |           | #1             | #2 |
|--|-----------|--------------|-----------------|-------------------|---------|------------|---------------|----------------------|--------------|--------------------------------|----------|------------------|-----------|----------------|----|
| Interval   | Hole (mm) | Wash (vol %) | Hole (Adjusted) | OD (mm)           | ID (mm) | Length (m) | A.Vel.(m/min) | C.Vel.(m/min)        | Flow Profile | Ann.kPa                        | Pipe.kPa | Make             | Gritmax   | Emsco          |    |
| HWDP   | 205       |              | 205.00          | 102               | 63      | 116        | 70            | 76                   | TRANS        | 26                             | 898      | Model            | 1300      | F-1000         |    |
| HWDP   | 200       | 10.00%       | 209.76          | 102               | 63      | 460        | 66            | 75                   | TRANS        | 92                             | 3553     | Liner (mm)       | 139.7     | 139.7          |    |
| DP   | 200       | 10.00%       | 209.76          | 102               | 83      | 380        | 66            | 75                   | TRANS        | 76                             | 872      | Stroke (mm)      | 304.8     | 254            |    |
| BHA  | 200       | 10.00%       | 209.76          | 156               | 83      | 40         | 112           | 102                  | TURB         | 41                             | 92       | Output (L/stk)   | 14.01     | 11.67          |    |
|  |           |              |                 |                   |         |            |               |                      |              |                                |          | SPM              | 64        | 72             |    |
|  |           |              |                 |                   |         |            |               |                      |              |                                |          | Output (m³/min)  | 1.737     |                |    |
|  |           |              |                 |                   |         |            |               |                      |              |                                |          | Pressure (kPa)   | 12800     |                |    |
|  |           |              |                 |                   |         |            |               |                      |              |                                |          | Press.loss @ bit | kPa       | 1201           |    |
|  |           |              |                 |                   |         |            |               |                      |              |                                |          | ECD @ TD         | kg/m³     | 1103           |    |
| FLUID MANAGEMENT AND VOLUME SUMMARY (VOLUMES IN m³)  |           |              |                 |                   |         |            |               |                      |              | CASING DESIGN                  |          | DEVIATION SURVEY |           |                |    |
| ACTIVE SYSTEM  |           |              |                 |                   |         |            |               |                      |              | Type                           | OD(mm)   | ID(mm)           | Set @ (m) |                |    |
| Tank Volume: 36.0  |           |              |                 |                   |         |            |               |                      |              | Surf                           | 219      | 206              | 116       |                |    |
| Hole Volume: 34.2  |           |              |                 |                   |         |            |               |                      |              | Inter                          |          |                  |           |                |    |
| Annular Volume: 25.7   |           |              |                 |                   |         |            |               |                      |              | Inter                          |          |                  |           |                |    |
| Pipe Capacity: 4.1   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Total Active: 65.7   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| FLUID ADDITIONS  |           |              |                 |                   |         |            |               |                      |              | FLUID LOSSES                   |          |                  |           |                |    |
| Previous Additions:  |           |              |                 |                   |         |            |               |                      |              | Previous Losses:               |          |                  |           |                |    |
| Daily Additions:   |           |              |                 |                   |         |            |               |                      |              | Daily Hole Losses:             |          |                  |           |                |    |
| Total Additions:   |           |              |                 |                   |         |            |               |                      |              | Daily Surf. Losses:            |          |                  |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | Daily Total Losses:            |          |                  |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | Accum. Int. Losses:            |          |                  |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | TOTAL PRESSURE LOSS (kPa)      |          | 8849             |           |                |    |
| SOLIDS CONTROL EQUIPMENT DESCRIPTION   |           |              |                 |                   |         |            |               |                      |              | HRS                            |          |                  |           |                |    |
| Shaker #1 Derrick SCREENS  |           |              |                 |                   |         |            |               |                      |              | 230                            |          | 230              |           | 230            |    |
| Shaker #2 Derrick SCREENS  |           |              |                 |                   |         |            |               |                      |              | 230                            |          | 230              |           | 230            |    |
| Shaker #3 SCREENS  |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Shaker #4 SCREENS  |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Centrifuge #1 Precision  |           |              |                 |                   |         |            |               |                      |              | OF(kg/m³)                      |          | 1060             |           | UF(kg/m³) 1740 |    |
| Centrifuge #2 Precision  |           |              |                 |                   |         |            |               |                      |              | OF(kg/m³)                      |          | 1060             |           | UF(kg/m³) 1740 |    |
|  |           |              |                 |                   |         |            |               |                      |              | OF(kg/m³)                      |          |                  |           | UF(kg/m³)      |    |
|  |           |              |                 |                   |         |            |               |                      |              | OF(kg/m³)                      |          |                  |           | UF(kg/m³)      |    |
| WELL DESIGN:   |           |              |                 |                   |         |            |               |                      |              | HORIZONTAL                     |          |                  |           |                |    |
| CURRENT WELL INTERVAL:   |           |              |                 |                   |         |            |               |                      |              | BUILD                          |          |                  |           |                |    |
| CURRENT FORMATION:   |           |              |                 |                   |         |            |               |                      |              | SPARKY (SS)                    |          |                  |           |                |    |
| CURRENT ACTIVITY:  |           |              |                 |                   |         |            |               |                      |              | DRILLING AHEAD - BUILD SECTION |          |                  |           |                |    |
| ACTIVE SYSTEM FLUID TYPE:  |           |              |                 |                   |         |            |               |                      |              | PAC POLYMER                    |          |                  |           |                |    |
| FLUID PROPERTIES CHECK:  |           |              |                 |                   |         |            |               |                      |              | #1                             |          | #2               |           | #3             |    |
| PRESENT DEPTH  |           |              |                 |                   |         |            |               |                      |              | mTVD                           |          | 729              |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | mMD                            |          | 996              |           |                |    |
| TIME SAMPLE TAKEN  |           |              |                 |                   |         |            |               |                      |              | 15:00                          |          |                  |           |                |    |
| SAMPLE POINT   |           |              |                 |                   |         |            |               |                      |              | SHAKER                         |          |                  |           |                |    |
| FLOWLINE TEMPERATURE   |           |              |                 |                   |         |            |               |                      |              | deg.C                          |          | 37               |           |                |    |
| FUNNEL VISCOSITY   |           |              |                 |                   |         |            |               |                      |              | s/L                            |          | 44               |           |                |    |
| FLUID DENSITY  |           |              |                 |                   |         |            |               |                      |              | kg/m³                          |          | 1070             |           |                |    |
| PRESSURE GRADIENT  |           |              |                 |                   |         |            |               |                      |              | kPa/m                          |          | 10.50            |           |                |    |
| pH   |           |              |                 |                   |         |            |               |                      |              | 9                              |          |                  |           |                |    |
| RHEOMETER READINGS   |           |              |                 |                   |         |            |               |                      |              | 600 rpm                        |          | 40               |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 300 rpm                        |          | 26               |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 200 rpm                        |          | 20               |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 100 rpm                        |          | 14               |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 60 rpm                         |          |                  |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 30 rpm                         |          |                  |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 6 rpm                          |          | 5                |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 3 rpm                          |          | 2                |           |                |    |
| GEL STRENGTHS  |           |              |                 |                   |         |            |               |                      |              | 10 sec. (Pa)                   |          | 1.5              |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 10 min. (Pa)                   |          | 2.5              |           |                |    |
|  |           |              |                 |                   |         |            |               |                      |              | 30 min. (Pa)                   |          | 4                |           |                |    |
| PV @ 36 deg.C  |           |              |                 |                   |         |            |               |                      |              | mPa's                          |          | 14               |           |                |    |
| YP @ 36 deg.C  |           |              |                 |                   |         |            |               |                      |              | Pa                             |          | 6.0              |           |                |    |
| n  |           |              |                 |                   |         |            |               |                      |              |                                |          | 0.621            |           |                |    |
| k  |           |              |                 |                   |         |            |               |                      |              | Poise                          |          | 2.761            |           |                |    |
| API FLUID LOSS   |           |              |                 |                   |         |            |               |                      |              | mL/30 min                      |          | 5.8              |           |                |    |
| FILTER CAKE THICKNESS  |           |              |                 |                   |         |            |               |                      |              | mm                             |          | 1.6              |           |                |    |
| SAND   |           |              |                 |                   |         |            |               |                      |              | %                              |          |                  |           |                |    |
| OIL  |           |              |                 |                   |         |            |               |                      |              | %                              |          |                  |           |                |    |
| WATER RETORT   |           |              |                 |                   |         |            |               |                      |              | %                              |          | 95.7             |           |                |    |
| TOTAL SOLIDS   |           |              |                 |                   |         |            |               |                      |              | %                              |          | 4.3              |           |                |    |
| MBT  |           |              |                 |                   |         |            |               |                      |              | kg/m³                          |          | 21.0             |           |                |    |
| HIGH GRAVITY SOLIDS  |           |              |                 |                   |         |            |               |                      |              | % by volume                    |          |                  |           |                |    |
| HIGH GRAVITY SOLIDS  |           |              |                 |                   |         |            |               |                      |              | kg/m³                          |          |                  |           |                |    |
| LOW GRAVITY SOLIDS   |           |              |                 |                   |         |            |               |                      |              | % by volume                    |          | 4.30             |           |                |    |
| LOW GRAVITY SOLIDS   |           |              |                 |                   |         |            |               |                      |              | kg/m³                          |          | 111.80           |           |                |    |
| DRILLED SOLIDS   |           |              |                 |                   |         |            |               |                      |              | kg/m³                          |          | 90.80            |           |                |    |
| ALKALINITY   |           |              |                 |                   |         |            |               |                      |              | Pf                             |          | mL               |           | 0.10           |    |
|  |           |              |                 |                   |         |            |               |                      |              | Mf                             |          | 0.50             |           |                |    |
| HYDROXYL ION   |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          |                  |           |                |    |
| CARBONATE ION  |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          | 120              |           |                |    |
| BICARBONATE ION  |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          | 368              |           |                |    |
| Pm ALKALINITY  |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          |                  |           |                |    |
| FREE LIME  |           |              |                 |                   |         |            |               |                      |              | kg/m³                          |          |                  |           |                |    |
| TOTAL HARDNESS   |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          | 60               |           |                |    |
| CALCIUM ION  |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          | 60               |           |                |    |
| MAGNESIUM ION  |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          |                  |           |                |    |
| CHLORIDES ION  |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          | 1100             |           |                |    |
| POTASSIUM ION  |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          |                  |           |                |    |
| FILTRATE DENSITY (for brine/sulfate)   |           |              |                 |                   |         |            |               |                      |              | S.G.                           |          |                  |           |                |    |
| Make Up Water pH   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Make Up Water Alkalinity   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Make Up Water Ca++   |           |              |                 |                   |         |            |               |                      |              | mg/L                           |          |                  |           |                |    |
| PHPA Excess  |           |              |                 |                   |         |            |               |                      |              | kg/m3                          |          |                  |           |                |    |
| Amine Excess   |           |              |                 |                   |         |            |               |                      |              | L/m3                           |          | 0.50             |           |                |    |
| RIG TIME BREAKDOWN   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| 1 RIG UP AND TEAR DOWN   |           | 10           |                 | DEVIATION SURVEY  |         | 19         |               | STUCK / FISHING      |              | 28                             |          |                  |           |                |    |
| 2 DRILL ACTUAL   |           | 11           |                 | WIRELINE LOGS     |         | 20         |               | DIRECTIONAL WORK     |              | 29                             |          |                  |           |                |    |
| 3 REAMING  |           | 12           |                 | RUN CASE & CEMENT |         | 21         |               | SAFETY MEETING       |              | 30                             |          |                  |           |                |    |
| 4 CORING   |           | 13           |                 | WAIT ON CEMENT    |         | 22         |               | MIX LCM              |              |                                |          |                  |           |                |    |
| 5 CONDITION MUD & CIRC   |           | 14           |                 | NIPPLE UP B.O.P.  |         | 23         |               | TIGHT HOLE / WASH    |              |                                |          |                  |           |                |    |
| 6 TRIPS  |           | 15           |                 | TEST B.O.P.       |         | 24         |               | CIRC GAS / WELL FLOW |              |                                |          |                  |           |                |    |
| 7 RIG SERVICE  |           | 16           |                 | DRILLSTEM TEST    |         | 25         |               | MISC                 |              |                                |          |                  |           |                |    |
| 8 REPAIR RIG   |           | 17           |                 | PLUG BACK         |         | 26         |               | Other                |              |                                |          |                  |           |                |    |
| 9 CUT OFF DRILLING LINE  |           | 18           |                 | SQUEEZE CEMENT    |         | 27         |               |                      |              |                                |          |                  |           |                |    |
| TOTAL HOURS  |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Cumulative Drilling Hours:   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Total N.P.T.   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
| Field Representative: Brian Mielke   |           |              |                 |                   |         |            |               |                      |              |                                |          |                  |           |                |    |
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Thanks



