

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

United States of America

Date: Saturday, October 29, 2016

### **Burroughs South #13**

Surface

Job Date: Saturday, October 22, 2016

Sincerely,

**Lauren Roberts**

## Legal Notice

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### Disclaimer:

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Burroughs South #13** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

**30 bbl. of cement returned to surface.**

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

**Halliburton [Ft. Lupton]**

*The Road to Excellence Starts with Safety*

|   |                    |                                  |                            |
|---|--------------------|----------------------------------|----------------------------|
| Sold To #: 369404                                 | Ship To #: 3628480 | Quote #:                         | Sales Order #: 0903620800  |
| Customer: EXTRACTION OIL & GAS -                  |                    | Customer Rep: Larry Seigel       |                            |
| Well Name: BURROUGHS SOUTH                        |                    | Well #: 13                       | API/UWI #: 05-123-40739-00 |
| Field: WATTENBERG                                 | City (SAP): AULT   | County/Parish: WELD              | State: COLORADO            |
| Legal Description: SE NE-14-7N-65W-2316FNL-230FEL |                    |                                  |                            |
| Contractor:                                       |                    | Rig/Platform Name/Num: Spud Rig  |                            |
| Job BOM: 7521                                     |                    |                                  |                            |
| Well Type: HORIZONTAL OIL                         |                    |                                  |                            |
| Sales Person: HALAMERICA\HX38199                  |                    | Srvc Supervisor: Nathaniel Moore |                            |

**Job**

|                        |        |  |                   |
|------------------------|--------|--|-------------------|
| Formation Name         |        |  |                   |
| Formation Depth (MD)   | Top    |  | Bottom            |
| Form Type              | BHST   |  |                   |
| Job depth MD           | 1572ft |  | Job Depth TVD     |
| Water Depth            |        |  | Wk Ht Above Floor |
| Perforation Depth (MD) | From   |  | To                |

**Well Data**

| Description       | New / Used | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|-------------------|------------|---------|-------|---------------|--------|-------|-----------|--------------|------------|---------------|
| Casing            |            | 9.625   | 8.921 | 36            |        |       | 0         | 1553         | 0          | 1553          |
| Open Hole Section |            |         | 13.5  |               |        |       | 0         | 1580         | 0          | 1580          |

**Tools and Accessories**

| Type         | Size in | Qty | Make | Depth ft | Type           | Size in | Qty | Make |
|--------------|---------|-----|------|----------|----------------|---------|-----|------|
| Guide Shoe   | 9.625   |     |      | 1572     | Top Plug       | 9.625   | 1   | HES  |
| Float Shoe   | 9.625   |     |      |          | Bottom Plug    | 9.625   |     | HES  |
| Float Collar | 9.625   |     |      |          | SSR plug set   | 9.625   |     | HES  |
| Insert Float | 9.625   |     |      |          | Plug Container | 9.625   |     | HES  |
| Stage Tool   | 9.625   |     |      |          | Centralizers   | 9.625   |     | HES  |

**Fluid Data**

| Stage/Plug #: 1 |             |                   |     |         |                        |                |               |              |                     |  |
|-----------------|-------------|-------------------|-----|---------|------------------------|----------------|---------------|--------------|---------------------|--|
| Fluid #         | Stage Type  | Fluid Name        | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |  |
| 1               | Fresh Water | Fresh Water - Dye | 10  | bbl     | 8.33                   |                |               |              |                     |  |

| Fluid #             | Stage Type  | Fluid Name           | Qty   | Qty UoM | Mixing Density<br>lbm/gal | Yield<br>ft3/sack | Mix Fluid<br>Gal | Rate<br>bbl/min | Total Mix<br>Fluid<br>Gal |  |
|---------------------|-------------|----------------------|-------|---------|---------------------------|-------------------|------------------|-----------------|---------------------------|--|
| 2                   | SwiftCem    | SWIFTCEM (TM) SYSTEM | 550   | sack    | 13.5                      | 1.74              |                  | 5               | 9.2                       |  |
| 9.20 Gal            |             | <b>FRESH WATER</b>   |       |         |                           |                   |                  |                 |                           |  |
| Fluid #             | Stage Type  | Fluid Name           | Qty   | Qty UoM | Mixing Density<br>lbm/gal | Yield<br>ft3/sack | Mix Fluid<br>Gal | Rate<br>bbl/min | Total Mix<br>Fluid<br>Gal |  |
| 3                   | Fresh Water | Fresh Water          | 120.4 | bbl     | 8.33                      |                   |                  |                 |                           |  |
|                     |             |                      |       |         |                           |                   |                  |                 |                           |  |
| Cement Left In Pipe |             | Amount               | 42 ft |         | Reason                    |                   |                  | Shoe Joint      |                           |  |

30 bbl cement to surface

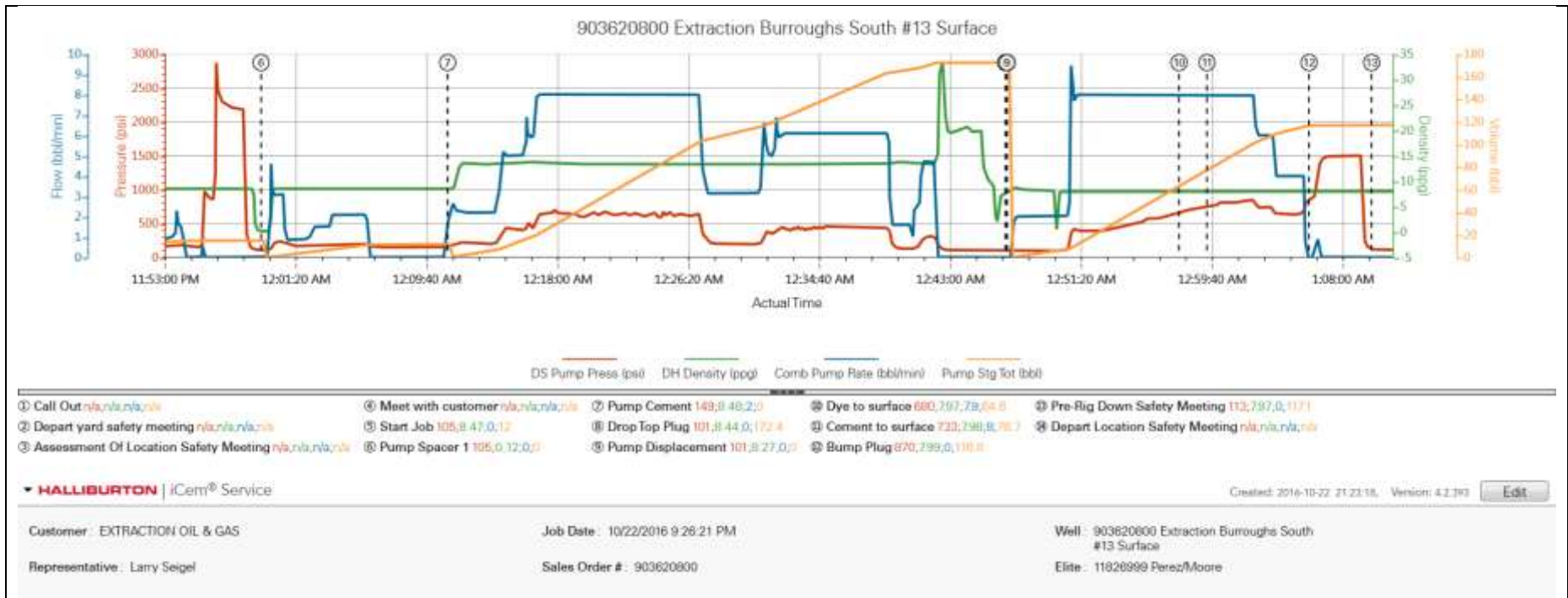
## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

| Type  | Seq. No. | Activity                              | Graph Label                           | Date       | Time     | Source | Comments  |
|-------|----------|---------------------------------------|---------------------------------------|------------|----------|--------|---|
| Event | 1        | Call Out                              | Call Out                              | 10/22/2016 | 16:00:00 | USER   | OL time 2100. Verify Equipment and materials                          |
| Event | 2        | Depart Yard Safety Meeting            | Depart yard safety meeting            | 10/23/2016 | 19:00:00 | USER   |   |
| Event | 3        | Assessment Of Location Safety Meeting | Assessment Of Location Safety Meeting | 10/23/2016 | 20:30:00 | USER   | Rig running casing. Spot equipment and rig up                         |
| Event | 4        | Other                                 | Meet with customer                    | 10/23/2016 | 20:40:00 | USER   | TD 1580'. TP 1572'. SJ 45' 13.5" open hole. 9.625" 36# J-55 casing.   |
| Event | 5        | Start Job                             | Start Job                             | 10/23/2016 | 23:50:07 | COM1   | Establish circulation/fill lines                                      |
| Event | 6        | Pump Spacer 1                         | Pump Spacer 1                         | 10/23/2016 | 23:59:17 | COM1   | 10 bbl dyed water   |
| Event | 7        | Pump Cement                           | Pump Cement                           | 10/23/2016 | 00:11:10 | COM1   | 550 sks/170 bbl 1.74 ft3/sk 9.2 gal/sk 13.5 ppg                       |
| Event | 8        | Drop Top Plug                         | Drop Top Plug                         | 10/23/2016 | 00:46:41 | COM1   | Wash-up on top of the plug  |
| Event | 9        | Pump Displacement                     | Pump Displacement                     | 10/23/2016 | 00:46:48 | COM1   | 118 bbl water displacement  |
| Event | 10       | Other                                 | Dye to surface                        | 10/23/2016 | 00:57:44 | COM1   | 70 bbl into displacement  |
| Event | 11       | Other                                 | Cement to surface                     | 10/23/2016 | 00:59:31 | COM1   | 30 bbl cement back  |
| Event | 12       | Bump Plug                             | Bump Plug                             | 10/23/2016 | 01:06:01 | COM1   | 650 psi final pump pressure. Pressured up to 1500 psi for casing test |
| Event | 13       | Pre-Rig Down Safety Meeting           | Pre-Rig Down Safety Meeting           | 10/23/2016 | 01:10:00 | USER   |   |
| Event | 14       | Depart Location Safety Meeting        | Depart Location Safety Meeting        | 10/23/2016 | 02:00:00 | USER   |   |

3.0 Attachments

3.1 Case 1-Custom Results.png



3.2 Case 1-Custom Results (1).png

