

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Kennedy 1 Surface

Sincerely,
Meghan Jacobs

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Kennedy 1 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.

Approximately 22bbls 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]

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Cementing Job Summary

The Road to Excellence Starts with Safety

| Sold To #: 369404 | Ship To #: 3593699 | Quote #: | Sales Order #: 0904752330 | | | | | | | |
|--|----------------------|----------------------------------|---------------------------|---------------|------------------------|-----------------------------|---------------|--------------|---------------------|---------------|
| Customer: EXTRACTION OIL & GAS - | | Customer Rep: Sean MacEntire | | | | | | | | |
| Well Name: KENNEDY | Well #: 1 | API/UWI #: 05-123-40308-00 | | | | | | | | |
| Field: WATTENBERG | City (SAP): BERTHOUD | County/Parish: WELD | State: COLORADO | | | | | | | |
| Legal Description: NE NE-18-4N-68W-681FNL-342FEL | | | | | | | | | | |
| Contractor: | | Rig/Platform Name/Num: Cartel 88 | | | | | | | | |
| Job BOM: 7521 7521 | | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | | |
| Sales Person: HALAMERICA\HX38199 | | Srv Supervisor: Luke Kosakewich | | | | | | | | |
| Job | | | | | | | | | | |
| Formation Name | | | | | | | | | | |
| Formation Depth (MD) | Top | Bottom | | | | | | | | |
| Form Type | | BHST | | | | | | | | |
| Job depth MD | 1570ft | Job Depth TVD | 1570 | | | | | | | |
| 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 | 1570 | 0 | 1570 |
| Open Hole Section | | | 13.5 | | | | 0 | 1570 | 0 | 1570 |
| Tools and Accessories | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make | | |
| Guide Shoe | | | | | Top Plug | 9.625 | 1 | HES | | |
| Float Shoe | 9.625 | 1 | | 1570 | Bottom Plug | | | | | |
| Float Collar | 9.625 | 1 | | 1526 | SSR plug set | | | | | |
| Insert Float | | | | | Plug Container | 9.625 | 1 | HES | | |
| Stage Tool | | | | | Centralizers | | | | | |
| Fluid Data | | | | | | | | | | |
| Stage/Plug #: 1 | | | | | | | | | | |
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal | |
| 1 | Spacer | Fresh Water Spacer | 10 | bbl | 8.33 | | | 4 | | |
| Stage/Plug #: 1 | | | | | | | | | | |
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal | |
| 1 | Red Dye Spacer | Red Dye Spacer | 10 | bbl | 8.33 | | | 4 | | |

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Cementing Job Summary

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/mi n | Total Mix Fluid Gal | |
|---|-------------|----------------------|-------|---------|---------------------------|--------------------------------|------------------|---------------------|---------------------------|--|
| 2 | SwiftCem | SWIFTCEM (TM) SYSTEM | 525 | sack | 13.5 | 1.74 | | 5 | 9.2 | |
| 3 | Fresh Water | Fresh Water | 117.9 | bbl | 8.33 | | | | | |
| Cement Left In Pipe | | Amount | 44 ft | | Reason | | | Shoe Joint | | |
| <p>Comment Halliburton bumped the plug 500 psi. over 500 psi. at 3 bpm. Finale pressure was 1,000 psi. Pressured up to 1,500 psi. for a 5 minute casing test. Pressure held. Circulated 22 bbls. of cement to surface. Floats held. Got 2 bbls. of fluid back to the truck.</p> | | | | | | | | | | |

2.0 Real-Time Job Summary

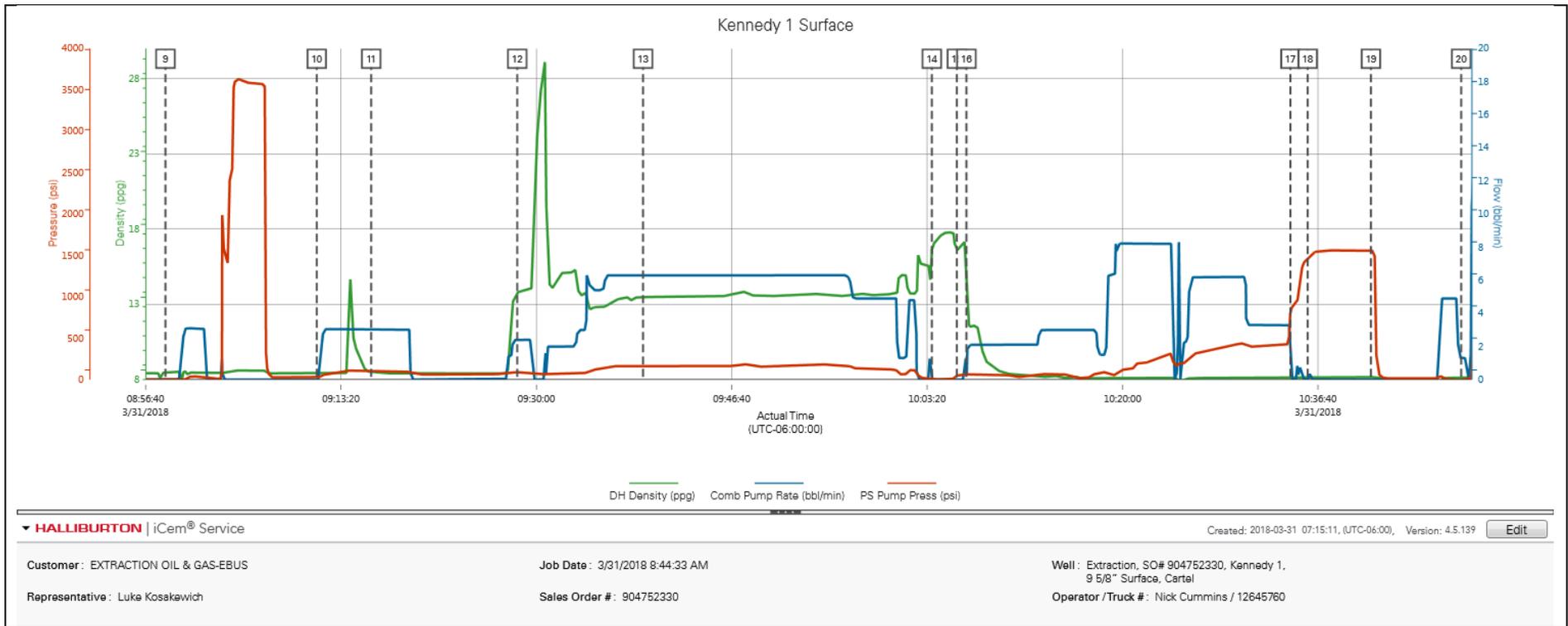
2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density <i>(ppg)</i> | Comb Pump Rate <i>(bbl/min)</i> | PS Pump Press <i>(psi)</i> | Comments |
|-------|----------|--|--|-----------|----------|--------|----------------------------|------------------------------------|-------------------------------|---|
| Event | 1 | Call Out | Call Out | 3/31/2018 | 00:00:00 | USER | | | | Halliburton cement was called for a crew to be on location by 06:00. |
| Event | 2 | Depart Yard Safety Meeting | Depart Yard Safety Meeting | 3/31/2018 | 01:50:00 | USER | | | | My crew held a pre journey safety meeting and JSA. |
| Event | 3 | Depart Shop for Location | Depart Shop for Location | 3/31/2018 | 02:00:00 | USER | | | | Started journey management with dispatch and left the yard. |
| Event | 4 | Arrive at Location from Service Center | Arrive at Location from Service Center | 3/31/2018 | 03:00:00 | USER | | | | C |
| Event | 5 | Other | Other | 3/31/2018 | 04:00:00 | USER | | | | |
| Event | 6 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 3/31/2018 | 07:30:00 | USER | | | | The crew held a pre rig up safety meeting and JSA. |
| Event | 7 | Rig-Up Equipment | Rig-Up Equipment | 3/31/2018 | 08:00:00 | USER | | | | The crew rigged up all lines, hoses and equipment for the job. |
| Event | 8 | Safety Meeting | Safety Meeting | 3/31/2018 | 08:30:00 | USER | | | | All personnel on location held a pre cement job safety meeting and JSA. |
| Event | 9 | Start Job | Start Job | 3/31/2018 | 08:58:22 | COM5 | 8.48 | 0.00 | -1.00 | Pumped 4 bbls. to fill lines and establish circulation. |
| Event | 10 | Pump Spacer 1 | Pump Spacer 1 | 3/31/2018 | 09:11:16 | COM5 | 8.39 | 0.00 | 28.00 | Pumped 10 bbls. of fresh water. |
| Event | 11 | Pump Spacer 2 | Pump Spacer 2 | 3/31/2018 | 09:15:55 | COM5 | 8.51 | 3.00 | 95.00 | Pumped 10 bbls. of fresh water W/ red dye. |
| Event | 12 | Pump Cement | Pump Cement | 3/31/2018 | 09:28:22 | COM5 | 13.80 | 2.40 | 89.00 | Pumped 163 bbls. (525 sks.) of Swiftcem mixed at 13.5 ppg., Yield: 1.74 ft3/sks, 9.2 gal/sks. Density was verified by pressurized scales. |
| Event | 13 | Check Weight | Check weight | 3/31/2018 | 09:39:06 | COM5 | 13.47 | 6.30 | 161.00 | Cement weighed up at 13.5 ppg. Density was verified by pressurized scales. |
| Event | 14 | Shutdown | Shutdown | 3/31/2018 | 10:03:44 | COM5 | 16.64 | 0.00 | 8.00 | Shutdown and washed up on top of the plug. |

| | | | | | | | | | | |
|-------|----|--|--|-----------|----------|------|-------|------|---------|--|
| Event | 15 | Drop Top Plug | Drop Top Plug | 3/31/2018 | 10:05:52 | COM5 | 16.54 | 0.00 | 50.00 | Dropped the top plug, which was witnessed by the customer. |
| Event | 16 | Pump Displacement | Pump Displacement | 3/31/2018 | 10:06:41 | COM5 | 14.56 | 1.30 | 62.00 | Pumped 118 bbls. of fresh water for displacement. |
| Event | 17 | Bump Plug | Bump Plug | 3/31/2018 | 10:34:19 | COM5 | 8.15 | 0.00 | 805.00 | Bumped the plug 500 psi. over 500 psi. at 3 bpm. Finale pressure was 1,000 psi. Got 22 bbls. of cement to surface. |
| Event | 18 | Other | Other | 3/31/2018 | 10:35:47 | COM5 | 8.16 | 0.00 | 1448.00 | Pressured up to 1,500 psi. for a 5 minute casing test. |
| Event | 19 | Check Floats | Check Floats | 3/31/2018 | 10:41:11 | USER | 8.16 | 0.00 | 1560.00 | Bled off pressure to check floats. Floats held. Got 2 bbls. of fluid back to the truck. |
| Event | 20 | End Job | End Job | 3/31/2018 | 10:48:53 | COM5 | 8.11 | 1.30 | -8.00 | Washed pumps and lines until clean. |
| Event | 21 | Pre-Rig Down Safety Meeting | Pre-Rig Down Safety Meeting | 3/31/2018 | 11:00:00 | USER | | | | Halliburton cement crew held a pre rig down safety meeting and JSA. |
| Event | 22 | Rig-Down Equipment | Rig-Down Equipment | 3/31/2018 | 11:10:00 | USER | | | | Rigged down all lines, hoses and equipment. |
| Event | 23 | Depart Location Safety Meeting | Depart Location Safety Meeting | 3/31/2018 | 11:30:00 | USER | | | | Held a pre journey safety meeting with the crew. |
| Event | 24 | Depart Location for Service Center or Other Site | Depart Location for Service Center or Other Site | 3/31/2018 | 11:40:00 | USER | | | | Held a pre journey safety meeting with the crew. |

3.0 Attachments

3.1 Kennedy 1 Surface – Job Chart with Events



3.2 Kennedy 1 Surface – Job Chart without Events

