

HALLIBURTON

iCem® Service

BONANZA CREEK ENERGY-EBUS

State Antelope 43-13-3HN Production

Job Date: Friday, October 28, 2022

Sincerely,

Meghan Van Zyl

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 **State Antelope 43-13-3HN** cement **Production** 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 42 bbls of cement were 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 Fort Lupton

| | | | | | | | | | | | |
|--|---------------------------|-------------------------------|--------------------------|----------------------------|---|----------------------------------|-------------------------------|----------------------------------|----------------------|----------------------|----------------------------|
| Sold To #: 324725 | | Ship To #: 9142982 | | Quote #: | | Sales Order #: 0908199799 | | | | | |
| Customer: BONANZA CREEK ENERGY-EBUS | | | | | Customer Rep: Same Mares | | | | | | |
| Well Name: STATE ANTELOPE | | | Well #: 43-13-3HN | | | API/UWI #: 123-51731 | | | | | |
| Field: | | City (SAP): GILL | | County/Parish: WELD | | | State: COLORADO | | | | |
| Legal Description: | | | | | | | | | | | |
| Contractor: PATTERSON-UTI ENERGY | | | | | Rig/Platform Name/Num: PATTERSON 345 | | | | | | |
| Job BOM: 7523 7523 | | | | | | | | | | | |
| Well Type: OIL | | | | | | | | | | | |
| Sales Person: HALAMERICA\HX41066 | | | | | Srv Supervisor: Brandon Parker | | | | | | |
| Job | | | | | | | | | | | |
| Formation Name | | | | | | | | | | | |
| Formation Depth (MD) | | Top | | | | Bottom | | | | | |
| Form Type | | | | | | BHST | | | | | |
| Job depth MD | | 11555ft | | | | Job Depth TVD | | 6351 | | | |
| Water Depth | | | | | | Wk Ht Above Floor | | 4 | | | |
| 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 | 1643 | 0 | | |
| Casing | 0 | 5.5 | 4.778 | 20 | | | 0 | 11548 | 0 | | |
| Open Hole Section | | | 8.5 | | | | 1643 | 11555 | 1643 | 6351 | |
| Tools and Accessories | | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | | |
| Guide Shoe | 5.5 | | | | | Top Plug | 5.5 | 1 | citadel | | |
| Float Shoe | 5.5 | 1 | citadel | 11548 | | Bottom Plug | 5.5 | 1 | citadel | | |
| Float Collar | 5.5 | 1 | citadel | 11543 | | SSR plug set | 5.5 | | HES | | |
| Insert Float | 5.5 | | | | | Plug Container | 5.5 | 1 | HES | | |
| Stage Tool | 5.5 | | | | | Centralizers | 5.5 | 215 | scepter | | |
| 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 | Tuned Prime Cement Spacer | TUNED PRIME CEMENT SPACER SYS | | | 50 | bbl | 11.5 | 3.74 | 23.65 | 6 | 1775 |

| 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 |
|---|----------------------|---------------------------|-----|---------|---------------------------|--------------------------------|------------------|-----------------|------------------------|
| 2 | ElastiCem | SBM CEM ELASTICEM™ SYS | 415 | sack | 13 | 1.66 | 8.3 | 9 | 3445 |
| 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 |
| 3 | IsoBond(tm) | SBM CEM FDP-C1371 SYS | 670 | sack | 13 | 1.55 | 7.14 | 9 | 4784 |
| 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 |
| 4 | ElastiCem | SBM CEM ELASTICEM™ SYS | 780 | sack | 13.2 | 1.59 | 7.78 | 9 | 6069 |
| 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 |
| 5 | MMCR Displacement | MMCR Displacement | 256 | bbl | 8.33 | | | 10 | 10765 |
| | | | | | | | | | |
| | | | | | | | | | |
| Comment 639bbbls mix water total used. | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Seq No. | Activity | Date | Time | Dwnhole Density (ppg) | Cmb Pump Rate (bbl/min) | Pump A Pressure (psi) | Cmb Stg Total (bbl) | Comments |
|------------|--|------------|----------|-----------------------------|----------------------------------|-----------------------------|---------------------------|---|
| 1 | Call Out | 10/27/2022 | 18:00:00 | | | | | crew called out to 5.5" production casing with an on location time 0:00 for Civitas Resources |
| 2 | Pre-Convoy Safety Meeting | 10/27/2022 | 21:15:00 | | | | | meeting with crew to discuss safety/hazards associated with traveling |
| 3 | Depart from Service Center or Other Site | 10/27/2022 | 21:30:00 | | | | | convoy to location |
| 4 | Arrive at Location from Service Center | 10/27/2022 | 23:00:00 | | | | | met with Mr. Sam Mares with Civitas and went over job numbers, water sources, cmt volumes and iron placement |
| 5 | Assessment Of Location Safety Meeting | 10/27/2022 | 23:01:00 | | | | | hazard hunt, check location, bulk and water volumes, td 11555, tp 11548, sj 5', fc 11543, sp 1643, surface casing 9.625 36#, production casing 5.5" 20#, wf 9.1ppg, tvd 6351, eob 6904, kop 5920 Citadel top/bottom plugs and fe, cnt 215 |
| 6 | Safety Meeting - Pre Rig-Up | 10/27/2022 | 23:30:00 | | | | | meeting with hes personnel to discuss safety/hazards associated with rigging up |
| 7 | Rig-Up Equipment | 10/27/2022 | 23:35:00 | | | | | rig up iron to red zone, water and bulk |
| 8 | Casing on Bottom | 10/28/2022 | 01:35:00 | | | | | rig landed casing . TRK casing company |
| 9 | Rig-Up Equipment | 10/28/2022 | 01:38:00 | | | | | stab hes plug container so rig could circulate through it |

| | | | | | | | | |
|----|------------------------|------------|----------|-------|------|--------|--------|--|
| 10 | Circulate Well | 10/28/2022 | 01:45:00 | | | | | start circulation, pumped at 11bpm, psi 800 and pumped 7500 strokes |
| 11 | Pre-Job Safety Meeting | 10/28/2022 | 02:25:00 | 0.00 | 0.00 | -11.96 | 0.00 | meeting with all personnel on location to discuss safety/hazards associated with job, also covered job procedures. all personnel signed jsa |
| 12 | Break Circulation | 10/28/2022 | 02:41:00 | 0.00 | 0.00 | -12.41 | 0.00 | ko rig pumps, rig hes iron |
| 13 | Start Job | 10/28/2022 | 02:52:05 | 7.89 | 0.00 | 14.34 | 0.00 | start recording real time data |
| 14 | Drop Bottom Plug | 10/28/2022 | 02:52:09 | 8.11 | 0.00 | 14.30 | 0.00 | bottom plug pre loaded prior to starting cmt job. plug loaded by Sam Mares with Civitas |
| 15 | Pump Water | 10/28/2022 | 02:52:14 | 8.28 | 0.00 | 14.25 | 0.00 | pumped 3bbls at 3bpm top psi was 330 |
| 16 | Test Lines | 10/28/2022 | 02:54:34 | 8.39 | 0.00 | 157.61 | 0.00 | test eko, 5th gear stall and high psi test 5690. psi held solid 1psi loss/10 seconds. final psi 5682 |
| 17 | Pump Spacer 1 | 10/28/2022 | 03:01:49 | 8.37 | 1.04 | 8.49 | 0.02 | pumped 50bbls of tuned prime, 11.5ppg, 3.74 yield, 23.65 gal/sk pumped at 6bpm and average psi was 300. weight confirmed using pressurized mud scales. calculated all 50bbls of spacer to surface |
| 18 | Pump Cement | 10/28/2022 | 03:10:23 | 11.13 | 6.00 | 283.28 | 42.03 | pumped 122.7bbls of cap cement, 415sks, 13ppg, 1.66 yield, 8.3 gal/sk pumped at 9bpm and average psi was 650. weight confirmed using pressurized mud scales. set time at 70bc 5:18hrs. calculated 46bbls of cap cmt to surface, 77bbls left inside surface casing. MW 3445 |
| 19 | Check Weight | 10/28/2022 | 03:12:59 | 13.01 | 6.01 | 367.82 | 15.60 | |
| 20 | Other | 10/28/2022 | 03:25:04 | 13.01 | 9.32 | 636.50 | 123.56 | slow rate to assure cap silo was mt |
| 21 | Pump Lead Cement | 10/28/2022 | 03:25:40 | 12.88 | 6.52 | 372.75 | 0.11 | pumped 185bbls of latex cmt, 670sks, 13ppg, 1.55 yield, 7.14gal/sk pumped at 9bpm and average psi was 800. weight confirmed using pressurized mud scales. set time |

at 70bc 5:07hrs. calculated top of lead cmt at 1608.14ft.
MW 4784

| | | | | | | | | |
|----|-------------------|------------|----------|-------|------|---------|--------|---|
| 22 | Check Weight | 10/28/2022 | 03:27:52 | 13.00 | 8.95 | 818.15 | 19.24 | |
| 23 | Slow Rate | 10/28/2022 | 03:46:00 | 12.98 | 7.44 | 755.38 | 184.65 | slow rate from 9bpm to 6bpm to assure lead silo was mt |
| 24 | Pump Tail Cement | 10/28/2022 | 03:47:26 | 12.92 | 6.37 | 423.37 | 0.53 | pumped 220.9bbbls of tail cmt, 780sk, 13.2ppg, 1.59 yield, 7.78 gal/sk pumped at 9bpm and average psi was 630. weight confirmed using pressurized mud scales. set time at 70bc is 6:44hrs. calculated top of tail cmt at 6136.48ft. MW 6069 |
| 25 | Check Weight | 10/28/2022 | 03:50:47 | 13.21 | 8.99 | 644.38 | 29.41 | |
| 26 | Slow Rate | 10/28/2022 | 04:12:56 | 13.20 | 9.17 | 676.04 | 230.11 | slow rate from 9bpm to 5bpm to assure tail silo was mt, to assure lines are clear and to maintain 13.2ppg density |
| 27 | Shutdown | 10/28/2022 | 04:14:32 | 12.86 | 6.44 | 319.08 | 240.40 | done pumping cmt. |
| 28 | Clean Lines | 10/28/2022 | 04:19:52 | 8.78 | 0.00 | 44.57 | 0.00 | closed three valves on hes manifold to well. cleaned lines and pump to 4sided tank below rig stairs. pumped 25bbbls to clean lines and pump |
| 29 | Shutdown | 10/28/2022 | 04:30:39 | 8.31 | 0.00 | 56.60 | 38.66 | offline |
| 30 | Drop Top Plug | 10/28/2022 | 04:32:27 | 8.36 | 0.00 | 7.30 | 0.00 | top plug pre loaded while hes was washing lines and pumps. loaded by Civitas company rep Sam Mares and witnessed by HES supervisor |
| 31 | Pump Displacement | 10/28/2022 | 04:32:33 | 8.36 | 1.74 | 16.44 | 0.03 | calculated disp. fc st at 11543ft x .0222 =256.3bbbls. 10 gallons mmcr in the first 20bbbls of displacement |
| 32 | Other | 10/28/2022 | 04:35:00 | 8.39 | 8.81 | 555.10 | 18.28 | displacement caught cmt (19bbbls in) |
| 33 | Slow Rate | 10/28/2022 | 04:57:53 | 8.51 | 9.68 | 2807.29 | 244.01 | slow rate at 236bbbls, 10bpm 2800psi to 4bpm, 2150psi |

| | | | | | | | | |
|----|--|------------|----------|-------|-------|---------|--------|---|
| 34 | Bump Plug | 10/28/2022 | 05:01:51 | 8.45 | 3.88 | 2645.58 | 259.46 | plug bumped at calculated volume 256.3bbls, psi 2150 and ko pumps at 2650, psi climbed to 2970 and held solid, confirmed by Mr. Sam Mares |
| 35 | Check Floats | 10/28/2022 | 05:03:54 | 8.49 | 0.00 | 2955.76 | 0.00 | citadel floats held 3bbls back to the pump truck, verified by Mr. Sam Mares |
| 36 | End Job | 10/28/2022 | 05:05:07 | 5.70 | 0.00 | 2.26 | 0.00 | job complete |
| 37 | Resume | 10/28/2022 | 05:06:00 | 8.24 | 0.00 | 0.29 | 0.00 | clean hes hts |
| 38 | Pump Water | 10/28/2022 | 05:13:01 | 8.19 | 2.49 | 20.22 | 0.20 | pumped 40bbls to flush stack/used 100lbs sugar |
| 39 | Spacer Returns to Surface | 10/28/2022 | 05:18:00 | 8.40 | 8.22 | 252.19 | 37.17 | rig took back 50bbls of tuned prime spacer |
| 40 | Cement Returns to Surface | 10/28/2022 | 05:20:00 | 0.16 | 9.91 | 9.32 | 54.34 | rig took back 42bbls of cap cmt |
| 41 | Pre-Rig Down Safety Meeting | 10/28/2022 | 05:21:00 | 0.20 | 16.23 | 8.98 | 64.41 | meeting to discuss safety/hazards associated with rigging down |
| 42 | Rig-Down Equipment | 10/28/2022 | 05:22:00 | -0.11 | 0.00 | 4.07 | 0.00 | |
| 43 | Depart Location for Service Center or Other Site | 10/28/2022 | 06:30:00 | | | | | |
| 44 | Other | 10/28/2022 | 06:31:00 | | | | | Thank You for Choosing Halliburton Cement. Parker and Crew. (970)397-4969 |

3.0 Attachments

3.1 Real Time iCem Job Chart

