

# CEMENT JOB REPORT



|  |  |   |  |   |  |                                  |  |
|--|--|---|--|---|--|----------------------------------|--|
| <b>CUSTOMER</b> EOG Resources Inc.   |  | <b>DATE</b> 09-JUL-10                     |  | <b>F.R. #</b> 1001845852                    |  | <b>SERV. SUPV.</b> RYAN SULLIVAN |  |
| <b>LEASE &amp; WELL NAME</b><br>CRITTER CREEK #18-20H - API 05123314310000 |  | <b>LOCATION</b><br>20-11N-83W             |  | <b>COUNTY-PARISH-BLOCK</b><br>Weld Colorado |  |                                  |  |
| <b>DISTRICT</b><br>Brighton  |  | <b>DRILLING CONTRACTOR RIG #</b><br>DHS 8 |  | <b>TYPE OF JOB</b><br>Surface               |  |                                  |  |

| SIZE & TYPE OF PLUGS   |                                      | LIST-CSG-HARDWARE | PHYSICAL SLURRY PROPERTIES |                |                            |           |                  |            |               |
|--|--------------------------------------|-------------------|----------------------------|----------------|----------------------------|-----------|------------------|------------|---------------|
| Cement Plug, Rubber, Top 9-5/8 in                            | Centralizer, with Pins, 9-5/8 in     |                   | SACKS OF CEMENT            | SLURRY WGT PPG | SLURRY YLD FT <sup>3</sup> | WATER GPS | PUMP TIME HR:MIN | Bbl SLURRY | Bbl MIX WATER |
|  | Float Collar, Auto Fill, 9-5/8 - 8rd |                   |                            |                |                            |           |                  |            |               |
| <b>MATERIALS FURNISHED BY BJ</b>                             |                                      |                   |                            |                |                            |           |                  |            |               |
| Fresh water  |                                      |                   | 0                          | 8.34           | 0                          | 0         | 00:00            | 109.5      | —             |
| Type III + additives   |                                      |                   | 645                        | 14.5           | 1.40                       | 6.82      | 01:30            | 160.8      | 104.56        |
| 15 Bbls fresh water then drilling mud                        |                                      |                   | 0                          | 8.34           | 0                          | 0         | 00:00            | 109.5      | —             |
| Type III + 2% CaCl on side if needed                         |                                      |                   | 100                        | 14.5           | 1.39                       | 6.81      |                  | 24.76      | 16.22         |
| Available Mix Water 250 Bbl. Available Displ. Fluid 250 Bbl. |                                      |                   | <b>TOTAL</b>               |                |                            |           | 404.56           | 120.77     |               |

| HOLE |          |       | TBG-CSG-D.P. |      |      |       | COLLAR DEPTHS |      |       |       |
|------|----------|-------|--------------|------|------|-------|---------------|------|-------|-------|
| SIZE | % EXCESS | DEPTH | SIZE         | WGT. | TYPE | DEPTH | GRADE         | SHOE | FLOAT | STAGE |
| 13.5 | 25       | 1460  | 9.625        | 36   | CSG  | 1460  | —             | 1460 | 1416  | 0     |

| LAST CASING |     |      |       | PKR-CMT RET-BR PL-LINER |       | PERF. DEPTH |     | TOP CONN |        | WELL FLUID     |      |
|-------------|-----|------|-------|-------------------------|-------|-------------|-----|----------|--------|----------------|------|
| SIZE        | WGT | TYPE | DEPTH | BRAND & TYPE            | DEPTH | TOP         | BTM | SIZE     | THREAD | TYPE           | WGT. |
| 16          | 84  | —    | 60    | No packer               | 0     | 0           | 0   | 9.625    | 8RD    | WATER BASED MU | 8.75 |

| DISPL. VOLUME |      | DISPL. FLUID          |      | CAL. PSI  | CAL. MAX PSI | OP. MAX | MAX TBG PSI |          | MAX CSG PSI |          | MIX WATER |
|---------------|------|-----------------------|------|-----------|--------------|---------|-------------|----------|-------------|----------|-----------|
| VOLUME        | UOM  | TYPE                  | WGT. | BUMP PLUG | TO REV.      | SQ. PSI | RATED       | Operator | RATED       | Operator |           |
| 109.5         | BBLs | 15 Bbls fresh water t | 8.34 | 453       | 0            | 0       | 0           | 0        | 2816        | 2816     | Rig tank  |

| Circulation Prior to Job   |  |  |  |
|--|--|--|--|
| Circulated Well: Rig <input checked="" type="checkbox"/> BJ <input type="checkbox"/> |  | Circulation Time: 1  |  |
| Mud Density In: 8.75 LBS/G   |  | Mud Density Out: 8.75 LBS/GAL  |  |
| PV & YP Mud In: 43   |  | PV & YP Mud Out: 43  |  |
| Gas Present: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>     |  | Units: Solids Present at End of Circulation: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> |  |

| Displacement And Mud Removal  |  |  |  |
|---|--|--|--|
| Displaced By: Rig <input type="checkbox"/> BJ <input checked="" type="checkbox"/>   |  | Amount Bled Back After Job: .25 BBLs   |  |
| Returns During Job: <input type="checkbox"/> NONE <input type="checkbox"/> PARTIAL <input checked="" type="checkbox"/> FULL   |  | Method Used to Verify Returns: Visually  |  |
| Cement Returns at Surface: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO  |  | Were Returns Planned at Surface: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES |  |
| Pipe Movement: <input type="checkbox"/> ROTATION <input type="checkbox"/> RECIPROICATION <input checked="" type="checkbox"/> NONE <input type="checkbox"/> UNABLE DUE TO STUCK PIPE     |  |  |  |
| Centralizers: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES   |  | Quantity: 10 Type: <input checked="" type="checkbox"/> BOW <input type="checkbox"/> RIGID            |  |
| Job Pumped Through: <input type="checkbox"/> CHOKE MANIFOLD <input type="checkbox"/> SQUEEZE MANIFOLD <input checked="" type="checkbox"/> MANIFOLD <input type="checkbox"/> NO MANIFOLD |  |  |  |

| Plugs   |  |   |  |
|---|--|---|--|
| Number of Attempts by BJ: 0   |  | Competition: 0  |  |
| Wiper Balls Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES   |  | Quantity:   |  |
| Plug Catcher Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES  |  | Parabow Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES |  |
| Was There a Bottom: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES |  | Top of Plug: 0 FT Bottom of Plug: 0 FT  |  |

| Squeezes (Update Original Treatment Report for Primary Job)                       |  |   |  |
|---|--|---|--|
| BLOCK SQUEEZE <input type="checkbox"/>  | SHOE SQUEEZE <input type="checkbox"/>  | TOP OF LINER SQUEEZE <input type="checkbox"/> | PLANNED <input type="checkbox"/> UNPLANNED <input checked="" type="checkbox"/> |
| Liner Packer: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES | Bond Log: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES PSI Applied: 0 Fluid Weight: 0 LBS/GAL |   |  |

| Casing Test (Update Original Treatment Report for Primary Job) |                    |                                |  |
|--|--------------------|--------------------------------|--|
| Casing Test Pressure: 0 PSI                                    | With 0 LBS/GAL Mud | Time Held: 00 Hours 00 Minutes |  |

| Shoe Test (Update Original Treatment Report for Primary Job) |  |   |  |
|--|--|---|--|
| Depth Drilled out of Shoe: 0 FT                              |  | Target EMW: 0 LBS/GAL Actual EMW: 0 LBS/GAL   |  |
| Number of Times Tests Conducted: 0                           |  | Mud Weight When Test was Conducted: 0 LBS/GAL |  |

**EXPLANATION:** TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: None

# CEMENT JOB REPORT



## Problems Before Job (I.E. Running Casing, Circulating Well, ETC)

Before cementing, rig crew did not want to chain down head until requested by customer. Did a poor job at first, had to encourage them to do it properly two more times.

## Problems During Job (I.E. Lost Returns, Equipment Failure, Bulk Delivery, Foaming, ETC)

Problems getting cement from bulk truck, had to shut-down several times to batch-up to weight. Plug got stuck in head before displacement, had to remove cap to push plug down. Could not get mud from rig, had to switch back to water for remainder of displacement. Did not bump plug, pumped calculated displacement plus half of shoe joint capacity and shut-down at customer request.

## Problems After Job (I.E. Gas at Surface, Float Equipment Failed, ETC)

None

| PRESSURE/RATE DETAIL                                      |                             |   |                                       |                                |                            | EXPLANATION  |   |
|---|-----------------------------|---|---------------------------------------|--------------------------------|----------------------------|--|---|
| TIME<br>HR:MIN.   | PRESSURE - PSI              |   | RATE<br>BPM                           | Bbl. FLUID<br>PUMPED           | FLUID<br>TYPE              | SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/> |   |
|   | PIPE                        | ANNULUS   |                                       |                                |                            | TEST LINES   | 4566 PSI  |
|   |                             |   |                                       |                                |                            | CIRCULATING WELL - RIG   | <input checked="" type="checkbox"/> BJ <input type="checkbox"/> |
| 08:10   | 0                           | 0   | 0                                     | 0                              | N/A                        | Pre-rig up safety meeting  |   |
| 09:05   | 0                           | 0   | 0                                     | 0                              | N/A                        | Pre-job safety meeting   |   |
| 10:03   | 1467                        | 0   | 0                                     | 0                              | WATER                      | Low pressure test  |   |
| 10:06   | 4566                        | 0   | 0                                     | 0                              | WATER                      | High pressure test   |   |
| 10:08   | 94                          | 0   | 6                                     | 15                             | WATER                      | Freshwater   |   |
| 10:15   | 110                         | 0   | 4.8                                   | 165                            | CEMENT                     | Batch-up and pump 645 sx of Type III + 1% CaCl + 0.25 lbs/sk Cello Flake @ 14.5 ppg                      |   |
| 11:23   | 0                           | 0   | 0                                     | 0                              | N/A                        | Drop plug  |   |
| 11:40   | 90                          | 0   | 7.2                                   | 80                             | WATER                      | Displace - Used freshwater only, could not get mud from rig. Approved by customer.                       |   |
| 12:00   | 400                         | 0   | 4.8                                   | 15                             | WATER                      | Rate and pressure change   |   |
| 12:05   | 433                         | 0   | 2.4                                   | 16                             | WATER                      | Rate and pressure change   |   |
| 12:16   | 555                         | 0   | 0                                     | 111                            | N/A                        | Shut-down @ 111 bbls per customer request  |   |
| BUMPED<br>PLUG<br>Y <input checked="" type="checkbox"/> N | PSI TO<br>BUMP<br>PLUG<br>0 | TEST<br>FLOAT<br>EQUIP.<br><input checked="" type="checkbox"/> Y <input type="checkbox"/> N | BBL.CMT<br>RETURNS/<br>REVERSED<br>15 | TOTAL<br>BBL.<br>PUMPED<br>291 | PSI<br>LEFT ON<br>CSG<br>0 | SPOT<br>TOP OUT<br>CEMENT<br>Y <input checked="" type="checkbox"/> N                                     | Service Supervisor Signature:<br>                               |

X Deeplee



BJ Services JobMaster Program Version 3.20  
Job Number: 1001645852  
Customer: EOG Resources  
Well Name: Critter Creek #16-20H

