



GMT Exploration LONG STRING POST JOB REPORT

**Crystal 6-65 22-10 #10HN 05-039-06742
S:22 T:6N R:65W Elbert CO**

CallSheet #: 82115
Proposal #: 60816



LONG STRING Post Job Report

Attention: Trevor Smith | (720) 335-9045 | trevor.smith@iptenergyservices.com

GMT Exploration

1560 BROADWAY, STE 2000 | DENVER, CO 80202

Dear Trevor Smith,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

Jason Creel

Field Engineer Lead | (307) 256-0306 | jason.creel@americacementing.com

Field Office 1716 E Allison Rd, Cheyenne, WY 82007
Phone: (307) 414-0049

Job Details & Summary

Geometry

| Type | Function | OD (in) | ID (in) | Weight (lb/ft) | Top (ft) | Bottom (ft) | Excess (%) |
|-----------|----------|---------|---------|----------------|----------|-------------|------------|
| Casing | Outer | 9.625 | 8.921 | 36 | 0 | 2727 | 0 |
| Open Hole | Outer | | 8.5 | | 2727 | 20335 | 10 |
| Casing | Inner | 5.5 | 4.778 | 20 | 0 | 20324 | 0 |

Equipment / People

| Unit Type | Unit |
|-------------------------|--------------|
| AS Cement Trailer Float | CTF-021 |
| AS Cement Trailer Float | CTF-9054 |
| Field Storage Silo | FSS(CTS)-134 |
| Field Storage Silo | FSS(CTS)-436 |
| Field Storage Silo | FSS(CTS)-460 |
| AS Cement Trailer Float | CTF(FUF)-308 |
| AS Cement Trailer Float | CTF-9566 |
| AS Cement Trailer Float | CTF-018 |
| Field Storage Silo | FSS(CTS)-051 |
| Cement Trailer Float | CTF-002 |
| Cement Trailer Float | CTF-338 |
| Cement Trailer Float | CTF-408 |
| Cement Pump Float | CPF-074 |
| Cement Pump Float | CPF-182 |
| Cement Utility Float | CUF(FIF)-159 |

Timing

| Event | Date/Time |
|-----------------|-----------------|
| Call Out | 6/29/2022 01:00 |
| Depart Facility | 6/29/2022 04:30 |
| On Location | 6/29/2022 08:20 |
| Rig Up Iron | 6/29/2022 08:30 |
| Job Started | 6/29/2022 11:07 |
| Job Completed | 6/29/2022 15:11 |
| Rig Down Iron | 6/29/2022 15:20 |
| Depart Location | 6/29/2022 16:45 |

General Job Information

| Metrics | Value |
|-------------------------|-----------|
| Well Fluid Density | 10 lb/gal |
| Well Fluid Type | OBM |
| Rig Circulation Vol | 1800 bbls |
| Rig Circulation Time | 3 hours |
| Calculated Displacement | 450 bbls |
| Actual Displacement | 450 bbls |
| Total Spacer to Surface | 80 bbls |
| Total CMT to Surface | 60 bbls |
| Well Topped Out | No |

Job Details

| Metrics | Value |
|--------------------------------|-----------|
| Flare Prior to Job | No |
| Flare Prior to Job | 0 units |
| Flare During Job | No |
| Flare During Job | 0 units |
| Flare at End of Job | No |
| Flare at End of Job | 0 units |
| Well Full Prior to Job | Yes |
| Well Fluid Density Into Well | 10 lb/gal |
| Well Fluid Density Out of Well | 10 lb/gal |

Job Details (cont.)

| Metrics | Value |
|---------|--------|
| BHCT | 180 °F |
| BHST | 180 °F |

Water Analysis

| Metrics | Value | Recommended |
|------------------|-----------|-------------|
| Water Source | None | |
| Temperature | 68 °F | 50-80 °F |
| pH Level | 7 | 5.5-8.5 |
| Chlorides | 286 mg/L | 0-3000 mg/L |
| Total Alkalinity | 180 | 0-1000 |
| Total Hardness | 150 mg/L | 0-500 mg/L |
| Carbonates | 0 mg/L | 0-100 mg/L |
| Sulfates | <200 mg/L | 0-1500 mg/L |
| Potassium | 450 mg/L | 0-3000 mg/L |
| Iron | 0 mg/L | 0-300 mg/L |

Circulation

| Lost Circulation Experienced |
|------------------------------|
| No |

Job Execution Information

| Fluid | Product | Function | Density (lb/gal) | Yield (ft ³ /sk) | Water Rq. (gal/sk) | Water Rq. (gal/bbl) | Volume (sks) | Volume (bbl) | Designed Top (ft) |
|-------|------------------------|-------------------|------------------|-----------------------------|--------------------|---------------------|--------------|--------------|-------------------|
| 1 | EZ Spacer II | Spacer | 12.00 | | | | | 28.00 | 0 |
| 2 | EZ Spacer II | Spacer | 11.50 | | | | | 26.00 | 0 |
| 3 | EZ Spacer II | Spacer | 11.00 | | | | | 26.00 | 0 |
| 4 | ACem P100.3.1C | Lead | 12.50 | 2.21 | 12.54 | | 900.00 | 354.00 | 0 |
| 5 | ACem P50.6.02C | Tail | 13.50 | 1.51 | 7.49 | | 2105.00 | 567.81 | 7658 |
| 6 | Retarded Water + Chems | Displacement | 8.35 | | | 41.81 | | 10.00 | 19840 |
| 7 | Displacement | DisplacementFinal | 8.34 | | | 41.91 | | 440.00 | 0 |

Job Fluid Details

| Fluid | Type | Fluid | Product | Function | Conc. | Uom |
|-------|--------|----------------|--------------------|-----------------|--------|---------|
| 1 | Spacer | EZ Spacer II | FLY ASH (POZZOLAN) | Extender | 256.50 | lb/bbl |
| 1 | Spacer | EZ Spacer II | GW-86 | Viscosifier | 1.20 | lb/bbl |
| 1 | Spacer | EZ Spacer II | R-31 | Retarder | 0.50 | lb/bbl |
| 1 | Spacer | EZ Spacer II | R-7C | Retarder | 2.00 | lb/bbl |
| 1 | Spacer | EZ Spacer II | Surfactant, S-801c | Surfactant | 1.00 | gal/bbl |
| 2 | Spacer | EZ Spacer II | FLY ASH (POZZOLAN) | Extender | 256.50 | lb/bbl |
| 2 | Spacer | EZ Spacer II | GW-86 | Viscosifier | 1.20 | lb/bbl |
| 2 | Spacer | EZ Spacer II | R-31 | Retarder | 0.50 | lb/bbl |
| 2 | Spacer | EZ Spacer II | R-7C | Retarder | 2.00 | lb/bbl |
| 2 | Spacer | EZ Spacer II | Surfactant, S-801c | Surfactant | 1.00 | gal/bbl |
| 3 | Spacer | EZ Spacer II | FLY ASH (POZZOLAN) | Extender | 256.50 | lb/bbl |
| 3 | Spacer | EZ Spacer II | GW-86 | Viscosifier | 1.20 | lb/bbl |
| 3 | Spacer | EZ Spacer II | R-31 | Retarder | 0.50 | lb/bbl |
| 3 | Spacer | EZ Spacer II | R-7C | Retarder | 2.00 | lb/bbl |
| 3 | Spacer | EZ Spacer II | Surfactant, S-801c | Surfactant | 1.00 | gal/bbl |
| 4 | Lead | ACem P100.3.1C | ASTM TYPE III | Cement | 100.00 | % |
| 4 | Lead | ACem P100.3.1C | BENTONITE | Viscosifier | 4.00 | %BWOB |
| 4 | Lead | ACem P100.3.1C | EC-2 | BondEnhancer | 3.00 | %BWOB |
| 4 | Lead | ACem P100.3.1C | FL-24 | FluidLoss | 0.30 | %BWOB |
| 4 | Lead | ACem P100.3.1C | FP-24 | Defoamer | 0.30 | %BWOB |
| 4 | Lead | ACem P100.3.1C | GW-86 | Viscosifier | 0.20 | %BWOB |
| 4 | Lead | ACem P100.3.1C | IntegraSeal POLI | LostCirculation | 0.13 | lb/sk |
| 4 | Lead | ACem P100.3.1C | STATIC FREE | Other | 0.01 | lb/sk |



| Fluid | Type | Fluid | Product | Function | Conc. | Uom |
|-------|-------------------|------------------------|--------------------|-----------------|-------|---------|
| 4 | Lead | ACem P100.3.1C | XCem-916 | Retarder | 0.50 | %BWOB |
| 5 | Tail | ACem P50.6.02C | CLASS G | Cement | 50.00 | % |
| 5 | Tail | ACem P50.6.02C | FLY ASH (ROCKIES) | Extender | 50.00 | % |
| 5 | Tail | ACem P50.6.02C | BENTONITE | Viscosifier | 4.00 | %BWOB |
| 5 | Tail | ACem P50.6.02C | FL-66 | FluidLoss | 0.20 | %BWOB |
| 5 | Tail | ACem P50.6.02C | FP-24 | Defoamer | 0.30 | %BWOB |
| 5 | Tail | ACem P50.6.02C | GW-86 | Viscosifier | 0.10 | %BWOB |
| 5 | Tail | ACem P50.6.02C | IntegraSeal PHENO | LostCirculation | 1.50 | lb/sk |
| 5 | Tail | ACem P50.6.02C | STATIC FREE | Other | 0.01 | lb/sk |
| 5 | Tail | ACem P50.6.02C | XCem-402 | Dispersant | 0.20 | %BWOB |
| 5 | Tail | ACem P50.6.02C | XCem-916 | Retarder | 0.20 | %BWOB |
| 6 | Displacement | Retarded Water + Chems | BIOCIDE,BIOC11139W | Biocide | 0.01 | gal/bbl |
| 6 | Displacement | Retarded Water + Chems | ResCare CS-2 | ClayProtection | 0.08 | gal/bbl |
| 6 | Displacement | Retarded Water + Chems | SR-61L | Retarder | 0.10 | gal/bbl |
| 7 | DisplacementFinal | Displacement | BIOCIDE,BIOC11139W | Biocide | 0.01 | gal/bbl |
| 7 | DisplacementFinal | Displacement | ResCare CS-2 | ClayProtection | 0.08 | gal/bbl |

Job Logs

| Line | Event | Date (MM/DD/YY) | Time (HH:MM) | Density (lb/gal) | Pump Rate (bpm) | Pump Volume (bbls) | Pipe Pressure (psi) | Comment |
|------|--------------------|-----------------|--------------|------------------|-----------------|--------------------|---------------------|---|
| 1 | Callout | 6/29/2022 | 01:00 | | | | | Customer calls with an RTS of 9:00 on 6/29/22 |
| 2 | Arrive On location | 6/29/2022 | 08:20 | | | | | Arrive on location, casing on bottom rig circulating |
| 3 | Spot Trucks | 6/29/2022 | 08:25 | | | | | |
| 4 | Rig Up | 6/29/2022 | 08:30 | | | | | Rig up water, bulk, and treating lines to the stand pipe |
| 5 | Safety Meeting | 6/29/2022 | 10:20 | | | | | Pre-job safety meeting with AC crew, rig crew, and company man |
| 6 | Rig Up | 6/29/2022 | 10:45 | | | | | Rig up treating line to the cement head |
| 7 | Fill Lines | 6/29/2022 | 11:07 | 8.34 | 4 | 5 | 500 | Fill lines with 5 bbls of fresh water |
| 8 | Pressure Test | 6/29/2022 | 11:10 | 8.34 | 0 | 0 | 5700 | |
| 9 | Pump Spacer | 6/29/2022 | 11:15 | 12 | 4 | 28 | 600 | Pump 28 bbls of spacer @12 ppg |
| 10 | Pump Spacer | 6/29/2022 | 11:25 | 11.5 | 4 | 26 | 600 | Pump 26 bbls of spacer @11.5 ppg |
| 11 | Pump Spacer | 6/29/2022 | 11:31 | 11 | 4 | 26 | 550 | Pump 26 bbls of spacer @11 ppg |
| 12 | Drop Bottom Plug | 6/29/2022 | 11:38 | | | | | Shut down drop bottom plug |
| 13 | Pump Lead Cement | 6/29/2022 | 11:43 | 12.5 | 10 | 354 | 700 | Pump 900 sks of Lead cement @12.5 ppg |
| 14 | Pump Tail Cement | 6/29/2022 | 12:24 | 13.5 | 8 | 568 | | Pump 2105 sks of tail cement @13.5 ppg |
| 15 | Drop Plug | 6/29/2022 | 13:59 | | | | | Shut down, wash pumps and lines, and drop plug |
| 16 | Pump Displacement | 6/29/2022 | 14:03 | 8.34 | 10 | 0 | 600 | Pump fresh water displacement (1st 10 bbls retarded water) |
| 17 | Pump Displacement | 6/29/2022 | 14:05 | 8.34 | 10 | 10 | 700 | Fresh water + chems |
| 18 | Pump Displacement | 6/29/2022 | 14:14 | 8.34 | 10 | 100 | 2000 | Fresh water + chems |
| 19 | Pump Displacement | 6/29/2022 | 14:29 | 8.34 | 6 | 200 | 2700 | Fresh water + chems |
| 20 | Spacer To Surface | 6/29/2022 | 14:46 | 8.34 | 8 | 310 | 3000 | Getting spacer to surface, divert returns to cement tanks |
| 21 | Cement to Surface | 6/29/2022 | 14:57 | 8.34 | 8 | 390 | 3200 | Start getting good cement to surface (60 bbls of cement to surface) |
| 22 | Drop Rate | 6/29/2022 | 15:02 | 8.34 | 4 | 430 | 2000 | Drop rate to land the plug |
| 23 | Land Plug | 6/29/2022 | 15:06 | 8.34 | 4 | 450 | 3200 | Land plug FCP was 2200, bumped up to 3200 |
| 24 | Check Floats | 6/29/2022 | 15:11 | 8.34 | 0 | 0 | | Floats held 5.5 bbls back |
| 25 | Rig Down | 6/29/2022 | 15:20 | | | | | |
| 26 | Leave Location | 6/29/2022 | 16:45 | | | | | |

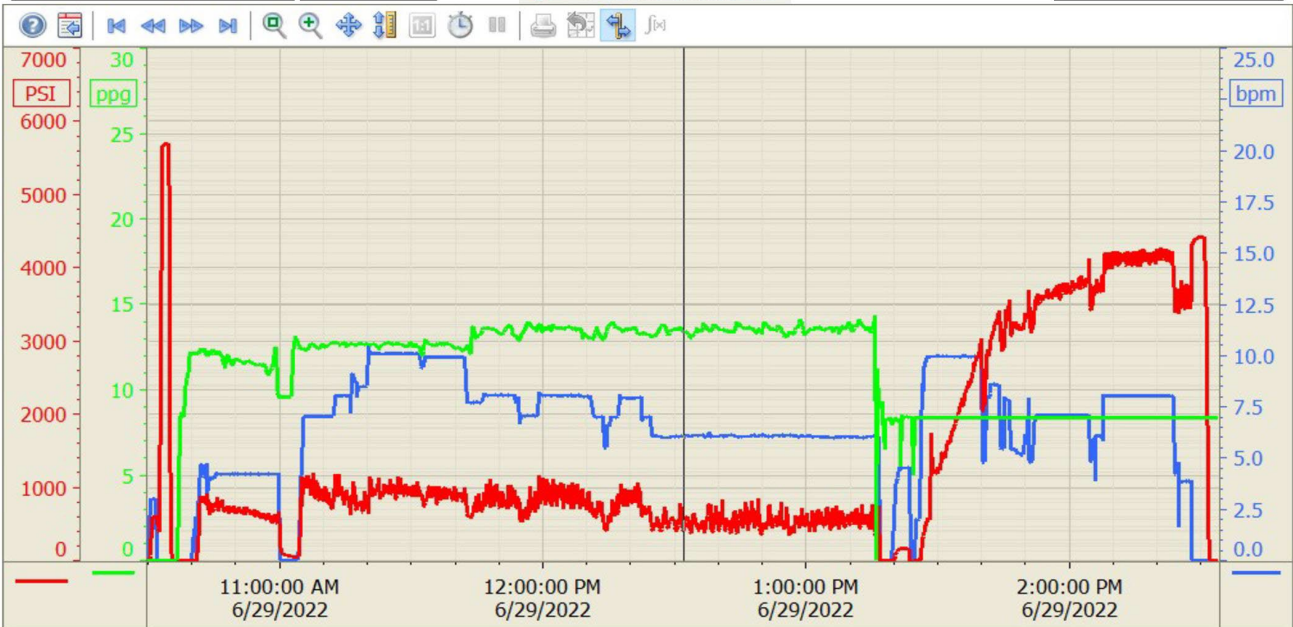
Pump Diagrams

Summary Trend

GMT 6-65 22-10 10f



Lease: Crystal



6/29/2022 3:48:10 PM