

FRED MAYER 6-15

| Existing Features | |
|-------------------|----|
| KB | 10 |

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| Surface csg shoe at | 620 |
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| Bottom of Foxhills (FHM) | 750 |
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| Sussex Top | 4120 |
| Not producing Sussex w/in 1 mile | |
| Sussex Base | 4200 |

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|-------------------------------|------|
| Shannon Base | 4578 |
| Producing Shannon w/in 1 mile | |

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|-----------|------|
| TOC (CBL) | 5996 |
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| Niobrara Top | 6819 |
| Perf Top | 6882 |
| Perf Bottom | 6884 |

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|-------------|------|
| Codell | 7084 |
| Perf Top | 7092 |
| Perf Bottom | 7102 |

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| PBMD | 7185 |
| 4 1/2" 11.6# CSG | 7206 |

| Proposed Additions for P&A | |
|----------------------------|-----------------|
| 80 | CIBP 8 5/8" 24# |
| 420 | Top of cement |

Cement Blend: Type III w/cello flake and CaCl₂ as necessary, mixed at 14.8 ppg and 1.33 cuft/sk.

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| 950 | Casing stub |
| 1050 | Bottom of cement |

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| 3760 | TOC |
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| 3920 | Squeeze perms |
| 3950 | CICR |

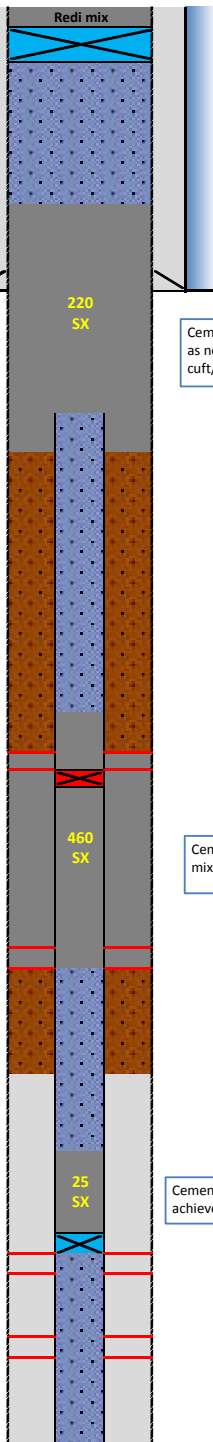
Cement Blend: "G" w/ 0.4% CD-32, 0.4% ASA-301, mixed at 15.8 ppg and 1.15 cuft/sk.

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|------|---------------|
| 4780 | Squeeze perms |
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| 6410 | TOC |
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Cement Blend: "G" w/silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 to achieve 2:30 pump time. Mix at 15.8 ppg and 1.38 cuft/sk.

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|------|------------------|
| 6810 | CIBP 3 1/2" 9.3# |
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| API# | 05-123-17928 | | | |
|-------------------|----------------|-------|-------------------|------------------------------|
| Wins: | 74111 | | | |
| Equipment | Specs. | Depth | Capacity (bbl/ft) | Capacity ft ³ /ft |
| Surface Casing | 8 5/8" 24# | 620 | 0.0637 | 0.3576 |
| Production Casing | 4 1/2" (11.6#) | 7206 | 0.0155 | 0.0873 |
| Tubing Size | 2 3/8" (4.7#) | 7060 | 0.0039 | 0.02171 |
| Hole Size (TOP) | 9 | N/A | 0.0787 | 0.4418 |
| Annulus (TOP) | 9 | N/A | 0.0590 | 0.3313 |
| Annulus (SU/SH) | 10 | N/A | 0.0775 | 0.4350 |
| Hole Size (NB) | N/A | N/A | N/A | N/A |

| Cement Calculations | | | | |
|---------------------|----------|----------|--------|---|
| Section | Volume | Cement | Excess | |
| Open Hole | 174.95 | 131.54 | 20% | Top Plug 9 in. OH (Caliper on file) |
| Surface casing | 71.52 | 53.77 | | |
| Annulus | 39.76 | 29.90 | | |
| FX Total | 286.23 | 215.21 | 220 | 293 |
| Open Hole | | | 20% | 529 |
| Production casing | 89.046 | 77.4313 | | |
| Annulus | 448.8878 | 390.3372 | | |
| SX Total | 537.93 | 467.7685 | 460 | 529 |
| Open Hole | | | | 35 |
| Production | 34.92 | 25.30 | | |
| NB Total | 34.92 | 25.30 | 25 | |

| Cement Yield | 1.33 | 1.15 | 1.38 |
|--------------|------|-------|------|
| FX | | SX/SH | NB |

| Legend | |
|--------|---------------------------|
| | Existing cement with CBL |
| | New cement |
| | Assumed cement w/ no CBL |
| | Cast Iron Cement Retainer |
| | Cast Iron Bridge Plug |
| | Mud |
| | Water + Biocide |
| | DV Tool |