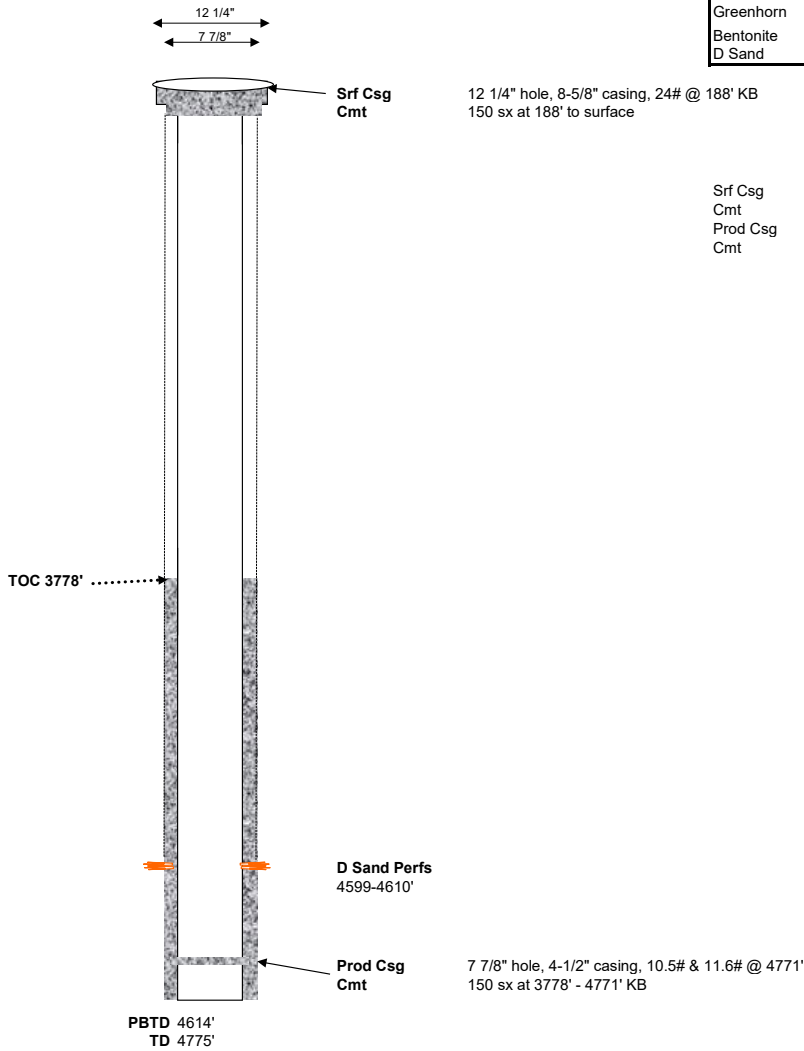


Western Operating Company

| General Well Info | | | |
|-------------------|----------------|---------|--------------|
| Well Name: | Knutzen #1 | Field: | Redwing |
| Diagram Date: | 1/21/2025 | County: | Washington |
| Srf Location: | SWNE 3 2N52W 6 | State: | CO |
| Spud Date: | 3/23/1968 | API #: | 05-121-08081 |
| GL Elev: | 4609' | | |
| Formation Tops | | | |
| Zone | Depth | Zone | Depth |
| Niobrara | 3712' | J Sand | 4654' |
| Carlile | 4155' | | |
| Greenhorn | 4305' | | |
| Bentonite | 4475' | | |
| D Sand | 4565' | | |



Srf Csg 12 1/4" hole, 8-5/8" casing, 24# @ 188' KB
Cmt 150 sx at 188' to surface
Prod Csg 7 7/8" hole, 4-1/2" casing, 10.5# & 11.6# @ 4771'
Cmt 150 sx at 3778' - 4771' KB

| TOC Calculation | | |
|------------------|----------|---------|
| 15# cement | 1.51 | cuft/sx |
| slurry density | 150 | sx |
| Volume of cement | 226.5 | cuft |
| Piping | 4.385 | ft/cuft |
| Cement height | 993.2025 | ft |
| Casing Set Depth | 4771 | ft |
| Calculated TOC | 3778 | ft |