

Proposed P&A Procedure

Well Name: MCKEE 12-21

API 05-123-14667	Original KB Elevation (ft) 4,765	Ground Elevation (ft) 4,754	Total Depth (ftKB) 7,113.0	Current PBTD (mKB)
Section 21	Township 6	Range 64	County/Parish WELD	State/Province COLORADO

Casing Strings

Csg Des	MD (ftKB)	Run Date	Prop Run?	Cut/Pull Date	Proposed Cut/Pull?	Depth Cut/Pull (ftKB)	OD (in)	ID (in)	Grade	Len (ft)
Surface	308.0		No		No		8 5/8	8.10		297.00
PRODUCTION	7,113.0		No	12/28/2001	No	5,202.0	4 1/2	4.00		7,102.00

Tubing Strings

Des	Set Depth (ftKB)	Run Date	Prop Run?	String Location	Pull Date	Prop Pull?	Cut/Pull Date	Proposed Cut/Pull?	Depth Cut/Pull (ftKB)

Perforations

Zone	Type	Date	Prop?	Top (ftKB)	Btm (ftKB)
NIOBRARA, ORIGINAL HOLE	Perforated	10/31/1995	No	6,794.00	6,804.00
NIOBRARA, ORIGINAL HOLE	Perforated	10/31/1995	No	6,934.00	6,980.00

Other In Hole

Des	Run Date	Prop Run?	Prop Pull?	Top (ftKB)	Btm (ftKB)

Cement Stages

Des	Type	Prop?	End Date	Top (ftKB)	Btm (ftKB)
Cement Plug	Plug	Yes		11.0	800.0
Surface Casing Cement	Casing	No	8/11/1990	11.0	308.0
Production Casing Cement	Casing	No	8/14/1990	6,325.0	7,113.0
Cement Plug	Plug	No	12/28/2001	6,470.0	6,700.0
Cement Plug	Plug	No	12/28/2001	995.0	1,095.0
Shoe Plug	Plug	No	12/28/2001	155.0	375.0
Cement Plug	Plug	No	12/28/2001	11.0	68.0
Stub Plug	Plug	Yes		4,950.0	5,202.0
Cement Plug	Plug	Yes		2,750.0	3,000.0

P&A PROCESS

Type Abandon	Sub Type WBI	Start Date 5/12/2017	Engineer David Hughes	Cell Phone 513-787-8747
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PROCESS STEPS

Type	Comment
1)	Survey and locate abandoned well, mark with stake and take location photos
2)	Excavate to expose top of surface casing
3)	Weld 2" collar to top of 8 5/8" surface casing cap. Make up to collar, pneumatic drill with non-sparking bit. Drill out cap venting possible trapped gas.
4)	Once verified that no gas exists beneath top of surface casing plate, cut off surface casing below plate with torch, dress up smooth.
5)	Butt weld 8 5/8" casing to dressed cut, bringing threaded end of casing to ground level.
6)	Make up to 8 5/8" casing, one 8 5/8" collar and 8 5/8" starter well head
7)	NU flange adaptor and 5K BOP, test BOP.
8)	NU and RIH with 6 1/8" cone bit, PU 2 7/8" drill collars, 2 7/8" 6.5# tubing, and TIW valve
9)	Drill out first cement plug inside surface casing (TOC @ surface) and second plug down to 258', roll hole clean.
10)	Pressure test surface casing to 200 psi. If pressure bleeds off, set RBP and test again. **If test fails, contact office.**
11)	After pressure test of surface casing, continue to drill out second cement plug
12)	Assume pressure under surface casing shoe, roll hole with kill fluid until well dead, or blow down.
13)	Continue RIH, cleaning out with drilling mud or water to 995'
14)	Drill out third cement plug from 995' to 1095'
15)	Assume pressure under plug, roll hole with kill fluid until well dead, or blow down.
16)	Continue RIH, cleaning out with drilling mud or water to 5202' (top of production casing)
17)	TOOH with cone bit, drill collars, and 2 7/8" tubing.
18)	PU and RIH with mule shoe and 2 7/8" tubing to 5202'
19)	RU cement crew and pump 100 sxs of 15.8ppg Class G "neat" cement stub plug to 4950'
	Interval Start Interval End Length (ft) Vol. Factor (ft^3/ft) Volume (ft^3) Yield (ft^3/sk) Cement (sxs)
	5202 4950 252 0.4418 111 1.15 97
20)	Pump 100 sxs of 15.8ppg Class G "neat" cement courtesy plug from 3000' to 2750'
	Interval Start Interval End Length (ft) Vol. Factor (ft^3/ft) Volume (ft^3) Yield (ft^3/sk) Cement (sxs)
	3000 2750 250 0.4418 110 1.15 96
21)	POOH with 2 7/8" tubing. Wait 4 hrs, and tag TOC.

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PROCESS STEPS

Type	Comment							
22)	Pump 210 sxs of 15.8ppg Class G "neat" cement from 800' to 250'							
	Interval Start	Interval End	Length (ft)	Vol. Factor (ft^3/ft)	Volume (ft^3)	Yield (ft^3/sk)	Cement (sxs)	
	800	308	492	0.4418	217	1.15	189	
	308	250	58	0.3576	21	1.15	18	
							207	
23)	POOH with 2 7/8" tubing. Wait 4 hrs, and tag TOC.							
24)	Pump 75 sxs of 15.8ppg Class G "neat" cement from 250' to surface							
	Interval Start	Interval End	Length (ft)	Vol. Factor (ft^3/ft)	Volume (ft^3)	Yield (ft^3/sk)	Cement (sxs)	
	250	0	250	0.3576	89	1.15	78	
25)	POOH with 2 7/8" tubing. Wait 4 hrs, and tag TOC. If cement has fallen, top off back to surface							
26)	Let cement set over night, verify cement has not settled and is still at surface. RDMO							
27)	Excavate around wellhead to 8' below grade, cut off 8 5/8" casing, weld on cap							
28)	Backfill hole and reclaim surface to original conditions							
Type		Sub Type		Start Date		Engineer		Cell Phone
PROCESS STEPS								
Type	Comment							