Proposed P&A Procedure

Well Name: TIMMERMAN 44-18

API	Original KB Elevation (ft)	Ground Elevation (ft)	Total Depth (ftKB)	Current PBTD (ftKB)
05-123-19066	4,879	4,869	6,706.0	
Section	**Township**	**Range**	**County/Parish**	**State/Province**
18	9	58	WELD	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)
Liner	255.0	11/16/2018	Yes		No		7	6.46		245.00
Surface	291.0	2/4/1988	No		No		8 5/8	8.10		281.00

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)

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)
Surface Casing Cement	Casing	No	2/4/1996	10.0	291.0
Balance Plug	Plug	No	2/10/1996	6,500.0	6,581.0
Shoe Plug	Plug	No	2/10/1996	270.0	340.0
Cement Plug	Plug	No	2/10/1996	10.0	17.0
Balance Plug	Plug	Yes		2,750.0	3,000.0
Cement Plug	Plug	Yes		255.0	1,200.0
Liner Cement	Casing	Yes		10.0	255.0
Cement Plug	Plug	Yes		11.0	255.0

P&A PROCESS

Type	Sub Type	Start Date	Engineer	Cell Phone
Abandon	WBI		Hunter Dunham	281-253-6272

PROCESS STEPS

Type	Comment
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 7 7/8" cone bit, PU 6 1/4" drill collars, 4" workstring, and TIW valve
9)	Drill out first cement plug inside surface casing (TOC @ surface). Continue RIH to next plug (TOC @ 270'). Roll hole clean.
10)	POOH. RIH 7" flushjoint inner liner to +/-255' **Land 10ft off existing TOC
12)	PU 6 1/4" cone bit, 6 1/4" drill collars, and 4" workstring. Drillout shoe plug, assuming 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 3000'
14)	TOOH with cone bit, drill collars, and workstring
15)	PU and RIH mule shoe, drill collars, and workstring to 3000'.
16)	Roll hole clean with 2X hole volume Interval Start: 6000 / Interval End: 0 / Length (ft): 6000 / Vol. Factor (ft^3/ft): 0.4418 / Volume (ft^3): 1226 / 2X Hole Volume (bbl): 472 / 2X Hole Volume (gal): 20,000
17)	Pump 100sx of 15.8ppg Class G neat cement from 3000' to 2750' Interval Start: 3000 / Interval End: 2750 / Length (ft): 250 / Vol. Factor (ft^3/ft): 0.4418 / Volume (ft^3): 110 / Yield (ft^3/sk): 1.15 / Cement (sxs): 96
18)	Pull up to 1200' and pump 420sx of 15.8ppg Class G neat cement to surface Interval Start: 1200 / Interval End: 291 / Length (ft): 909 / Vol. Factor (ft^3/ft): 0.3382 / Volume (ft^3): 307 / Yield (ft^3/sk): 1.15 / Cement (sxs): 321 Interval Start: 291 / Interval End: 0 / Length (ft): 291 / Vol. Factor (ft^3/ft): 0.3576 / Volume (ft^3): 104 / Yield (ft^3/sk): 1.15 / Cement (sxs): 90 Cement (sxs): 411
19)	POOH with workstring. Wait 4 hrs, and tag TOC. If cement has fallen, top off back to surface
20)	Let cement set over night, verify cement has not settled and is still at surface. RDMO
21)	Excavate around wellhead to 8' below grade, cut off 8 5/8" casing, weld on cap
22)	Backfill hole and reclaim surface to original conditions

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