James Thum

From:	James Thum				
Sent:	Wednesday, October 02, 2019 2:29 PM				
То:	Diane Kassab; Mitch E. Gore				
Subject:	Re: Idaho - P&A Plan				
Categories:	Operations & Inspections, Application processing				

Thank you Diane. The revisions look ok. Please notify us when you know for certain at least 24 hours in advance of commencing operations.

Thank you,

James

From: Diane Kassab <DKassab@high-mesa.com> Sent: Wednesday, October 2, 2019 10:42:45 AM To: James Thum <jthum@idl.idaho.gov> Subject: RE: Idaho - P&A Plan

Hi James,

Sorry to bother you, but just wanted to be sure we didn't need to provide anything else before we move on location next Tuesday, October 8. We have plugging approvals for all seven wells, however, Mitch had revised a few procedures. Thanks so much.

Diane

281-994-5429

From: James Thum From: James Thum Sent: Monday, September 30, 2019 11:14 AMTo: Mitch E. Gore MGore@high-mesa.com>; Mick Thomas Cc: Diane Kassab DKassab@high-mesa.com>Subject: Re: Idaho - P&A Plan

Hi Mitch,

Thanks for the revisions, I will review them later tonight. The permits to plug are good for one year. The department will require a sundry notice for plugging activity submitted at least 24 hours in advance of commencement of operations with the estimated start date.

Let me know if you have any questions.

Regards,

James

From: Mitch E. Gore

Sent: Monday, September 30, 2019 9:23:55 AM

To: James Thum <jthum@idl.idaho.gov<mailto:jthum@idl.idaho.gov>>; Mick Thomas

<mthomas@idl.idaho.gov<mailto:mthomas@idl.idaho.gov>>

Cc: Diane Kassab <DKassab@high-mesa.com<mailto:DKassab@high-mesa.com>>

Subject: Idaho - P&A Plan

James – Attached are the P&A procedures for the 7 wells we plan to begin plugging next week 10/8/19. A few of them we've discussed already (Island Cap and Tracy Trust), the others should be similar if not the same as previously approved plans.

Do we need to revise the Sundry notifications or can you send us a note back stating that our previous sundries are acceptable with the attached procedures?

I know that James said he'd be out this week, so I've copied Mick Thomas as well.

Thanks

Mitch

P&A Procedure

- Well Name: ML Investments #1-10 (Bridge)
- AFE# AMI0015PA1
- API# 11-075-20007
- Field: Willow Hamilton
- County: Payette CO, ID
- Location: Sec 10 TS 8N Rg 4W

Well Info:

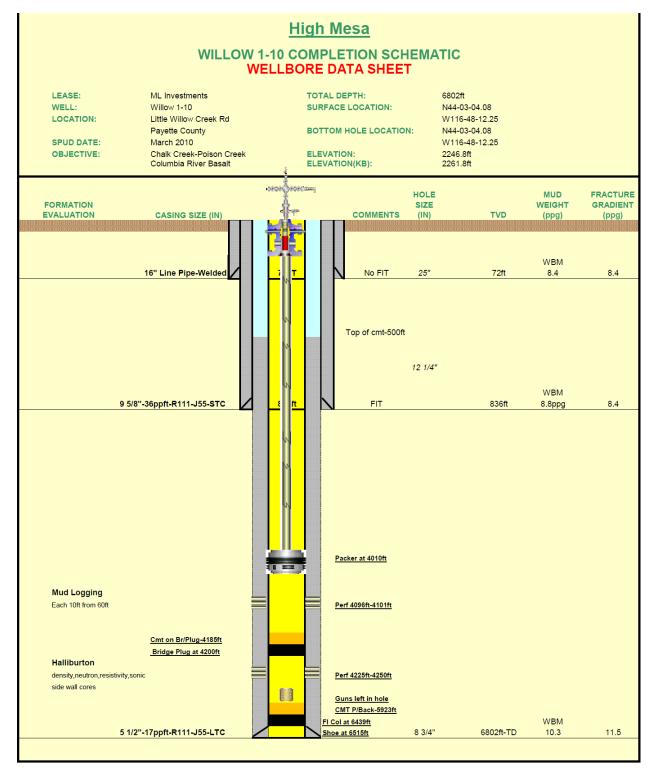
- TD: 6802'
- PBTD 4185'
- Current Perfs (open): 4096' 4101'
- Perfs plugged back: 4225' 4250'
- Prod Csg 5 /2" 17# J-55 LTC set at 6515' Hole size 8.75"
 - o FC at 6439'
 - o FS at 6515'
- Surface Csg 9 5/8" 36# J-55 STC set at 836' Hole size 12.25"
- Tubing 2 7/8" 6.5# J-55 EU 8rd
- Packer at 4010'
- CIBP at 4200' with 15' cmt (TOC at 4185')
- Well status: Shut in
- BHP: 1840 psi (estimate based on normal pressure gradient of 0.433)
- BHT: 220 Deg F +/-

Objective: Plug and abandoned well. Operation will be rigless utilizing wireline unit, cmt truck and lease crew.

Procedure:

- 1. MIRU wellhead tech and grease unit.
- 2. Check SITP / SICP and record same.
- 3. Grease all valves and work same to ensure all gates seal and can hold pressure.
- 4. MIRU WLU, 5K pressure control Cmt pump truck and vac truck with Freshwater, flow back tank and lines.
- 5. Test lines 500/2000 psi.
- 6. Load/top off annulus with 8.34 ppg FW and test same 300 psig.
- 7. Establish injection rate into perfs.
- 8. Mix 20 sk slurry and sqz perfs displace with 23.2 bbls FW. Plug #1
- 9. MU GR on WL.
- 10. RIH to 4000'. POOH.
- 11. MU CIBP and RIH.
- 12. Set CIBP at 3995'. Plug #2
- 13. Pressure test CIBP to 500 psig.
- 14. MU 1 11/16" RTG 6 SPF 60 deg phased (short pen gun for circulating).
- 15. RIH w/ RTG. Pressure up tbg to 100 psig and perforate tbg at 3990'-92' (5' above CIBP).
- 16. POOH with RTG.
- 17. Break circulation long way and take returns to tank (2 wellbore volumes at 2-3 BPM).
- 18. Mix Cmt slurry minimum 84 bbls 400 sks (actual volume and yield TBD)
 - a. Cement Recipe TBD Will be in accordance with API Bulletin E3 per IDL Rules and Regs
 - b. Anticipate a slurry of Class H Cmt at 1.06 yield 15.6 ppg w/ retarders/LWL additives.
- 19. Pump slurry down tbg and take full returns up annulus, spotting entire slurry inside tbg and annulus from 0' 3992' (Full balanced plug inside wellbore). Plug #3
- 20. CWI and SD pumps. Monitor SICP and SITP. Leave well SI overnight (12 hrs)
- 21. RD cementing unit and WLU. MOL.
- 22. Dig bell hole around well head and cellar.
- 23. Remove cellar.
- 24. Check SITP/SICP and blow down same to 0 psig Monitor tbg and csg and confirm no flow.
- 25. Cut window in 9 5/8" csg at 6' below ground level.
- 26. Cut 5 ½" csg and 2 7/8" tbg from window and let drop.
- 27. ND prod tree.
- 28. Make full cut on 9 5/8" (Z pattern) and remove A and B section of well head (make cut flush with 16" conductor 6' below surface.
- 29. Suck out or blow out water from 16" cond and 9 5/8" csg.
- 30. Mix and pour in 5 sks cmt from 6' to 11'. Plug #4
- 31. Weld 16" plate on conductor.
- 32. MOL.

Current WBS



Proposed WBS

		Hi	gh Mesa						
WILLOW 1-10 COMPLETION SCHEMATIC WELLBORE DATA SHEET									
Proposed P&A WBS									
LEASE:	ML Investments		TOTAL DEPTH:	6802					
WELL:	Willow 1-10		SURFACE LOCATION:		03-04.08				
LOCATION:	Little Willow Creek Rd				6-48-12.25 03-04.08				
SPUD DATE:	Payette County March 2010		BOTTOM HOLE LOCATIO		6-48-12.25				
OBJECTIVE:	Chalk Creek-Poison Creek Columbia River Basalt		ELEVATION: ELEVATION(KB):	2246 2261	.8ft				
Sqz perfs,Set CIBP at 3995'. Perf tbg and circulate in 400 sk plug from 3992 to surface.									
FORMATION				HOLE		MUD WEIGHT	FRACTURE GRADIENT		
EVALUATION	CASING SIZE (IN)		COMMENTS	(IN)	TVD	(ppg)	(ppg)		
			And Course And Courses		8" SC 6' below surfa				
		14	5 sk plug from 6' Install 16" plate a		/2" x 9 5/8" annulus	and 16" x 9 5/8" WBM	annulus		
	16" Line Pipe-Welded		No FIT	25"	72ft	8.4	8.4		
Plug #1 30 sks - sqz perfs with 20									
4101 - 4010 (91' plug)	,	11	2 7/8" 6.5Tbg						
Plug #2 CIBP at 3995' (inside tbg))								
Plug #3 400 sk plug from 3990 to									
Tbg volume 23 bbls 110 sks annu	CONSISTENT REPORTS				t - noted that CBL	showed TOC			
Plug #4 Surface plug 5 sks 6' to 1	17		Returns to surfa	l was used (2 sta	age cmt job).				
			Returns to sund	12 1/4"					
		1							
						WBM			
9 5	5/8"-36ppft-R111-J55-STC	εt	FIT		836ft	8.8ppg	8.4		
		M 1							
Circulate in plug from 39		M							
Tbg volume 23.10 bbls 11 Tbg/CSg annulus volume									
rbg/C-5g annulus volume	6 I DDIS 290 SKS CITIL								
		M 1							
Pe	rf tbg at 3990'-92								
CIE	3P at 3995'	*							
Sqz perf with 20 sks cmt			Packer at 4010ft						
Leave 10 sks cmt inside	csg from 4101' - 4010' (91' plug)	(1 H);							
Mud Logging									
Mud Logging Each 10ft from 60ft			Borf 40065 44045						
Each runt from ourt			Perf 4096ft-4101ft						
	Cmt on Br/Plug-4185ft								
	Bridge Plug at 4200ft								
Halliburton									
density,neutron,resistivity,	sonic	=	Perf 4225ft-4250ft						
side wall cores		ÊÌ	Come la fi la hab						
		6.0	<u>Guns left in hole</u> <u>CMT P/Back-5923ft</u>						
			<u>CMT P/Back-5923π</u> FI Col at 6439ft			WBM			
5 1	/2"-17ppft-R111-J55-LTC		Shoe at 6515ft	8 3/4"	6802ft-TD	10.3	11.5		

Procedure modification requested and approved 10/24/2019:

James – Just a follow up to my call earlier on the ML 1-10 variance.

Last 24 hrs:

- Sqz'd perfs
- Set CIBP inside 2 7/8" tbg at 3995' and tested to 500 psig.
- SDFN
- RIH with 1 9/16" perf gun and set down at 3798' (192' high to proposed perf depth of 3990').
- Called IDL Received approval to perf at 3798'.

Will spot plug from 3798' – Surface.

Mitch Gore – HMH