



IDAHO OIL AND GAS CONSERVATION COMMISSION
SUNDRY NOTICE



NAME OF OPERATOR: Snake River Oil and Gas Date: 11-3-2020

Address: 117 E. Calhoun St. (box 500)

City: Magnolia State: AR Zip Code: 71753 Telephone: 870.234.3080

Contact Name: Nate Caldwell Email Address: caldwell.nathan@weiser-brown.com

Well Permit Number: 11-075-20033 Lease and Well Name (if different): Barlow 1-14

JSWN / API Number: 11-075-20-033 Type of Well: Oil Well [x] Gas Well [x] Other [ ] NGL [ ]

Field and Reservoir (if wildcat, so state): Harmon County: Payette

Well Surface Location: Section: 14 Township: 8N Range: 5W (or block and survey)

(give footage from Section lines): 1598' FSL and 2458' FWL

Latitude/Longitude (Dec Degrees): N44Deg 01'47.4581" W116Deg 54'14.7547" Datum: WGS84 NAD83

NAD27 [x]

Type of Submission: Notice of Intent [x] Subsequent Report [ ] Final Abandonment Notice [ ]

Type of Action: Acidize [ ] Alter Casing [ ] Casing Repair [ ] Change Plans [ ] Convert to Injection [ ]

Deepen [ ] New Construction [ ] Plug and Abandon [ ] Plug Back [ ] Production (Start/Resume) [ ]

Reclamation [ ] Recompletion [ ] Stimulation Test [ ] Temporarily Abandon [ ] Water Disposal [ ]

Water Shut-off [ ] Well Integrity Test [ ] Other [x]

Describe the proposed or completed operation, clearly stating all pertinent details including estimated starting date of the proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach a copy of the Bond under which the work will be performed or provide the Bond No. on file with IDL. Required subsequent reports shall be filed within thirty (30) days following completion of the involved operations. Final Abandonment Notices shall be filed only after operations, and only after all requirements, including reclamation have been completed and the operator has determined that the site is ready for final inspection. Drill out existing plugs. Test cement squeeze j(See procedure). If existing squeeze does not test. See secondary procedure of running 4" liner. There will be no additional production perforations added to the existing in the attached wellbore schematic.

Attach additional information as needed to support the application



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**CERTIFICATE:** I, the undersigned, state that I am the OPERATIONS MANAGER  
of SHAKE RIVER OIL & GAS (company) and that I am  
authorized by said company to make this application and that this application was prepared under my supervision and direction  
and that the facts stated herein are true, correct and complete to the best of my knowledge.

Signature: *Art Whall* Date: 11/3/2020

**FOR IDL USE ONLY:**

Approved by: /signed/ JAT 11/4/2020 Approval Date: \_\_\_\_\_

This Sundry Notice shall be filed with the: Idaho Department of Lands  
Oil and Gas Division  
300 N. 6<sup>th</sup> Street, Suite 103  
Boise, Idaho, 83702

as per IDAPA 20.07.02 and Idaho Code § 47-3.

## Workover Procedure

Well name: Barlow 1-14

County: Payette County, Idaho

API #: 11-075-20033

Field: Harmon

**Objective:** Drill out three (3) shallow sqz's and test same, re-squeeze as necessary. Ideally, it is desired to keep integrity in the current 5 1/2" csg and run 2 7/8" tbg for completion. This will minimize friction and allow for flow rates to be 5 MMCFD or greater (Nodal).

### Current Status:

- Well loaded with 9.7 ppg KCL water.
- KS set at 231' w/ 3 cmt retainers installed w/ 200 sk squeezes under each.
- Pressures
  - SITP 0 psig
  - SICP 0 psig
  - SISCP 0 psig

### Recent Activity:

- 3/15 – 3/18 2018
  - Successfully performed three (3) 200 sk squeezes to shut off shallow gas leak from OH section below surface csg shoe to conductor.
    - Sqz 1 – 1300'
    - Sqz 2 – 1248'
    - Sqz 3 – 1092'

### Well head:

- A Sec: 9 5/8" SOW x 11" 5M
- B Sec: 11" 5M x 7 1/16" TH
- C Sec: 2 9/16" 5M x 2 1/16" 5M wing (3 vertical run 2 9/16" 5M valves, 1 manual wing, ESD and Pos Ck 2 1/16" 5M)

### Reservoir:

Sand MP	BHT	Pr	Max SIP	PGrad	Perf Inteval	KW ppg
3507'	222 deg F a 3500'	1518 psi	1500 psi (dry gas)	0.433 psi/ft	3503-12'	9.6-9.7 ppg

Selected density for WO: 9.7 ppg KCL (density selected in previous workover which balanced the well)

### Tubulars

OD	ID	Drift	Grade	Thread	IYP	CP	JYS	Cap bbls/ft	Type
<u>2.375</u>	<u>1.995</u>	<u>1.901</u>	<u>P-110</u>	<u>CS</u>	<u>15400</u>	<u>16130</u>	<u>143K</u>	<u>0.0039</u>	<u>WS/Prod</u>
<u>2.875</u>	<u>2.441</u>	<u>2.347</u>	<u>J-55</u>	<u>EU 8rd</u>	<u>7260</u>	<u>7680</u>	<u>99K</u>	<u>0.0058</u>	<u>Prod</u>
<u>4.0</u>	<u>3.476</u>	<u>3.351</u>	<u>J-55</u>	<u>SLF</u>	<u>6300</u>	<u>6590</u>	<u>169K</u>	<u>0.0117</u>	<u>Liner</u>
<u>5.5</u>	<u>4.892</u>	<u>4.767</u>	<u>J-55</u>	<u>LTC</u>	<u>5320</u>	<u>4910</u>	<u>247K</u>	<u>0.0232</u>	<u>Prod Csg</u>
<u>2.875</u>	<u>2.259</u>	<u>2.165</u>	<u>P-110</u>	<u>PH6</u>	<u>20560</u>	<u>21040</u>	<u>273K</u>	<u>0.0050</u>	<u>WS</u>

## Procedure:

### Phase 1: Drill out sqz's and test same

1. MIRU 250-300K mast WOR, 7 1/16" 5K double BOPs with 2 7/8" slip-type rams, 7 1/16" 5M annular, 2 7/8" handling tools, rig tank, pump and crew.
  - a. Stand by – Cmt unit w/ 1000 sks/bulk class G cmt w/ additives.
  - b. Filter unit for rig pump discharge
  - c. ELU – stand by
  - d. Completion tools/pkr and service hand on stand by
    - i. VS1X
    - ii. AS1X or test pkr or combo RBP with test pkr on tandem
  - e. Sqz tools and service hand – stand by
  - f. 1 additional tank for cmt/slop, etc.
  - g. 2.5 - 3.5 Power swivel
  - h. Tool basket with WO bits (2 - 4 5/8" and 2 - 4 3/4" 1.5" ID min) plus subs, rotating csg scraper for 5 1/12" csg and DC's.
  - i. Deliver granular KCL and FW. Target density = 9.7 ppg KCL.
  - j. Deliver 200 bbls FW.
  - k. 2 7/8" 6.5ppf J-55 EU on location (approx. 3400') **STRAP all tbg prior to picking up.**
    - i. Plan to visually inspect threads and floor drift all tbg on location.
  - l. Deliver 7 1/16" 5K frac valve, well head tech with BPV/2-way and tools.
  - m. Deliver HTI mixing plant for work fluid (KCL).
  - n. Deliver 3800' of 2 7/8" 8.7ppf L-80 or P-10 PH-6 WS
    - i. Deliver all handling tools for WS
    - ii. Deliver rabbits for 8.7ppf WS
    - iii. Deliver all X-over subs, stabbing guide, etc.
    - iv. 2 – 2 7/8" 5K TIW's (full opening)
  - o. Confirm WOR has sand/swab line, oil saver lub, and soft cups.
2. Take pressures – SITP / SICP / SISCIP and observe conductor and make note of any gas/fluids coming from same.
3. JSA
4. Confirm tbg / csg is full.
5. Set BPV in hanger.
6. ND 2 9/16" tree (Inspect tree on location – Weatherford WH tech, send to shop as necessary).
7. NU 7 1/16" 5M gate valve.
8. NU 7 1/16" 5M BOPs (double) with blinds, 2 7/8" pipe rams, one set of 2 7/8" slip-type rams, 7 1/16" 5M annular.
9. Pull BPV
10. Set 2-way ck in hanger.
11. Test 7 1/16" 5M gate valve 250 psig low / 3000 psig high.
12. Test BOPs (blinds and rams) 250 psig low / 3000 psig high.
13. Pull test 2 7/8" slip type rams at
14. Test 2 – 2 7/8" 5K TIW's 250 / 3000 psig.
15. Pull 2-way ck from hanger.
16. Test lines and manifold 250 psig low / 3000 psig high.
17. Back out hold down pins.
18. Install 2 7/8" lift pup and PU tbg, remove hanger.
19. Reverse circulate 2 well bores (10 bbls) – EOT at 231'
20. PU additional 2 7/8" tbg and RIH slowly to 1<sup>st</sup> cmt retainer at 1040'.
  - a. Rabbit when picking up singles.
21. Reverse circulate 2 well bores (44 bbls).
22. Test csg to 900 psig for 10 mins.
23. POOH standing back. Lay down 2 7/8" 6.5# kill string.
24. PU 2 7/8" 8.7ppf L or P WS, 4.75" WO bit, rotating scraper, subs and 6 DC's (1.5" ID min) with BPV / flapper on BHA.
  - a. DC's to 3 1/8" or larger at min 25#/ft (fishable externally)
    - i. Running 6 DC's to ensure a pipe heavy scenario before drilling through 3<sup>rd</sup> and final cmt retainer. The CBP integrity is unknown, if fluids have swapped due to a

failed CBP, there could be 1500 psi +/- at 1302'. It is imperative we are pipe heavy at this point. \* See pipe heavy/pipe light calcs attached.

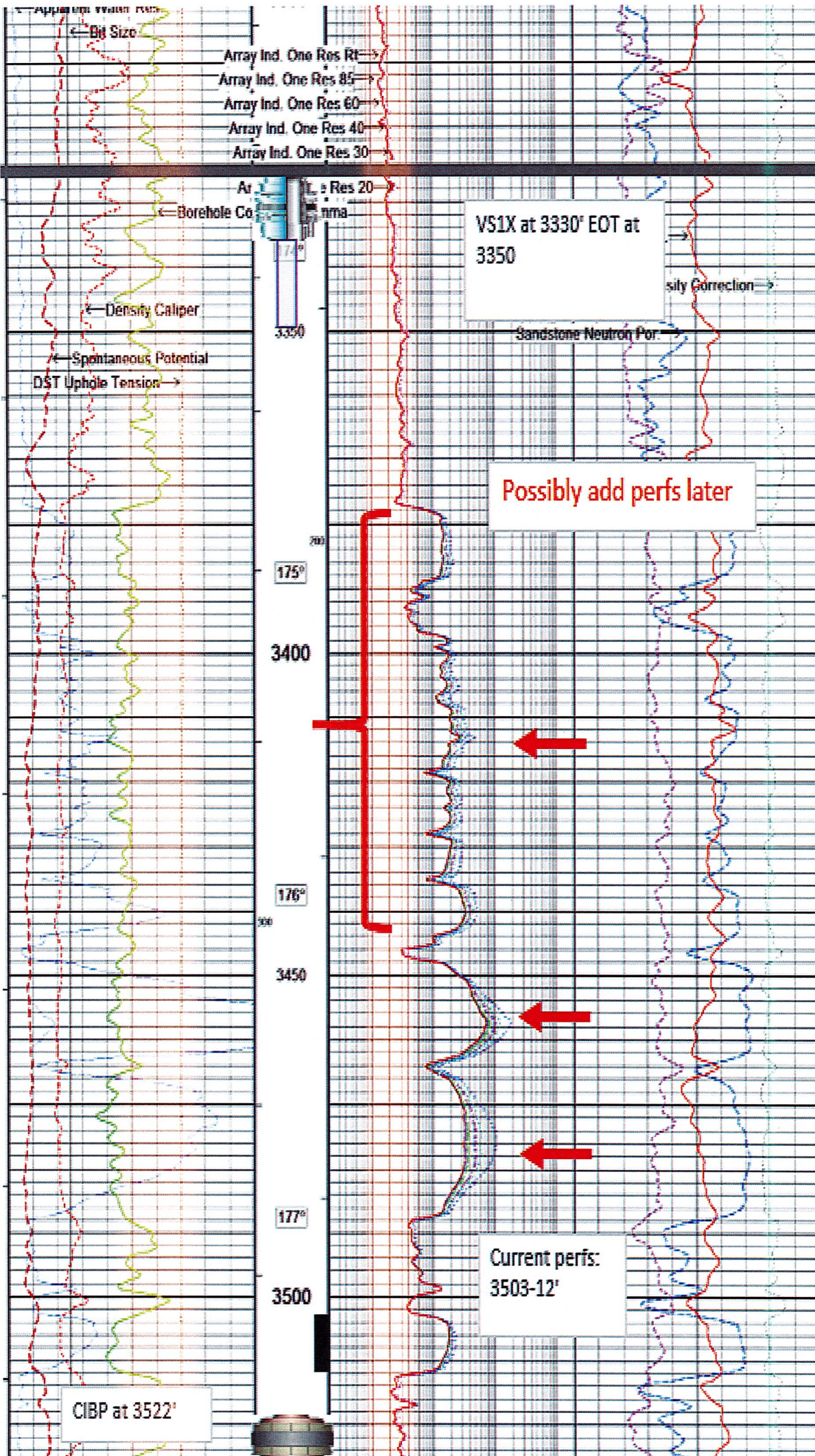
- b. Rabbit and caliper BHA and DC's/subs.
25. TIH and tag up with 1<sup>st</sup> cmt retainer at 1040 (WLM)'.
  26. Reverse out 1 BU (6 bbls).
    - a. Confirm string weight prior to drilling through plug.
  27. RU power swivel.
  28. Install mesh screen under return line in order to evaluate nature of returns and calc volume of cmt drilled.
  29. Drill out 1<sup>st</sup> cmt retainer and cmt at 1040'.
    - a. Reverse circulate while drilling and monitor cuttings/returns, reciprocate several times from 1040' – 1100'.
    - b. Look for break through after going through perfs at 1092-94'.
    - c. Note: Elevation = 12.5' Confirm height from slips to GL and add appropriate distance to get to 12.5' elevation.
    - d. Keep PP below 500 psig when reversing.
  30. After drilling up cmt retainer and cmt, continue washing down slowly to 2<sup>nd</sup> cmt retainer at 1220' (WLM).
  31. Reverse 2 BU.
  32. Close pipe rams and test sqz to 900 psig for 10 mins.
  33. Drill out 2<sup>nd</sup> cmt retainer at 1220'.
    - a. Reverse circulate while drilling and monitor cuttings/returns, reciprocate several times from 1220' – 1284'.
    - b. Look for break through after going through perfs at 1248' – 50'.
    - c. Keep PP below 500 psig when reversing.
  34. After drilling up cmt retainer and cmt, continue washing down slowly to 3<sup>rd</sup> cmt retainer at 1284'.
  35. Reverse 2 BU.
  36. Close pipe rams and test sqz to 900 psig for 10 mins.
  37. Drill out 3<sup>rd</sup> cmt retainer from 1284'.
    - a. Reverse circulate while drilling and monitor cuttings/returns, reciprocate several times from 1284' to 1320'.
    - b. Look for break through after going though perfs 1300-02'.
    - c. Keep PP below 500 psig when reversing.
  38. Continue washing down to 1375' +/-.
  39. Close pipe rams and test sqz to 900 psig for 10 mins.
    - a. NOTE: IF the 3<sup>rd</sup> sqz tests successfully, skip to step 40.
    - b. If the 3<sup>rd</sup> sqz does NOT test, run diagnostics to determine the location of the leak (CBP or 3<sup>rd</sup> set of sqz perfs).
      - i. Being that the plug is of composite material (90%), it is likely that the plug has failed and therefore the 3<sup>rd</sup> set of sqz perfs may not show a test due to fluids leaking to the production perfs at 3503' – 12'. In the event we cannot get a good test on the 3<sup>rd</sup> sqz after drilling up the cmt retainer, plan the following supp procedure:
        1. Continue TIH to CBP at 3350' and circulate well bore with 9.7 PPG KCL.
        2. TOOH.
        3. PU AS1X or test pkr and TIH to 1400' +/-.
        4. Set pkr and test backside to 900 psig for 10 mins.
        5. Assuming a good test, POOH lay down pkr.
        6. IF sqz does not test after multiple attempts, test CBP down tbg and confirm integrity of CBP. Then plan to perform injection test into 3<sup>rd</sup> set of sqz perfs 1300-02'. POOH.
        7. PU cmt retainer and re-sqz perfs at 1300-02' (injection test will determine volume and additives, etc).
        8. WOC. Drill out and re-test same.
    - c. If any of the sqz's do not test, plan to re-sqz at a min of one time and re-test same.
  40. Continue TIH to CBP at 3350'.
    - a. Rabbit all singles being picked up.
  41. Reverse out 2 BU (19 bbls). Confirm 9.7 ppg In/Out.

42. POOH. Make proper fill ups while POOH.
43. Inspect BHA and bit. Replace same if necessary.

#### Phase 2 – Drill out CBP and run completion

1. TBIH w/ 4.75" WO bit, 3-4 DC's, and rotating csg scraper, tag up with CBP at 3350'.
2. RU power swivel.
3. Drill out CBP and wash down to rat hole at 3522' WLM thru perfs (3503-12') pushing any trash and plug debris into rat hole below perfs. Space out scraper to stay above perfs.
  - a. PU to 3450'.
  - b. Circulate long way and maintain 9.7 ppg In/Out (adjust fluid density as necessary to keep well in balance).
  - c. Monitor well for flow.
4. With static well POOH laying down WS (slowly, do not swab well)
  - a. Circulate and condition well with 9.7 ppg KCL water (adjust same if necessary).
  - b. Monitor fill ups while POOH.
5. RU ELU, 5K pressure control (have gamma ray tools)
6. RIH w/ 4.7" GR/CCL to 3400' and log up.
7. MU 2 7/8" x 5 1/2" VS1X 5K pkr – rabbit and caliper all components.
  - a. 2 7/8" pump out plug set for 2500-3000 psi differential.
  - b. 2 7/8" x 6' pup jt
  - c. 2.313" X profile
  - d. 2 7/8" x 6' pup jt
  - e. VS1X Pkr w/ on/off tool stinger.
8. Test lub against frac valve 500 / 3000 psig.
9. RIH w/ BHA, CCL.
10. Tie-into Pioneer RBL 2/8/18.
11. Set VS1X pkr at 3330' (do not set in collar)
12. POOH w/ setting tool.
13. MU on/off tool skirt.
14. RIH w/ 2 7/8" 6.5 ppg J-55 EU 8rd tbg and on/off tool – rabbiting all joints!
15. Tag up with on/off tool stinger.
16. Displace backside with 9.7ppg KCL with pkr fluid reversing.
17. Space out same.
18. Land out tbg and hanger in TH bowl leaving 5K lbs down on pkr.
19. Volume test tbg to 2250 psig (against pump out plug). Will set shear pins on pump out plug at 1000 psi higher than test pressure.
20. Bleed off slowly.
21. Run in pins and test backside to 500 psig for 10 mins.
22. Bleed off slowly.
23. Install BPV in hanger.
24. ND 7 1/16" 5K frac valve and 7 1/16" 5K BOPs.
25. NU 2 9/16" 5K tree.
26. Pull BPV.
27. Install 2-way ck.
28. Test hanger void 250/5000 psig.
29. Shell test tree 250 psig / 3000 psig.
30. Pull 2-way ck.
31. RU on tbg and pressure up to 3200 psi +/- and pump out plug, let fall to rat hole.
32. JSA – Discuss flow back operations.
33. RIH w/ swab and begin swabbing well in to rig tank (250-300' pulls staying conservative).
34. LWTR – 23 bbls.
35. Clean well up to rig tank to 1000-1200 psig FTP and 500-1000 mcf/d gas rate.
36. SWI at wing, upper master and crown.
37. RD WOR and all equipment. MOL
38. Release all rentals.
39. Turn well over to SROG Prod Dept.

Log section w/ Pkr depth



Current WBS

**SROG**  
 Barlow 1-14  
 Payette County, Idaho  
 11-075-20033  
 Current WBS

GL: 2,164'

RKB: 12.5' (1.5' above GL)

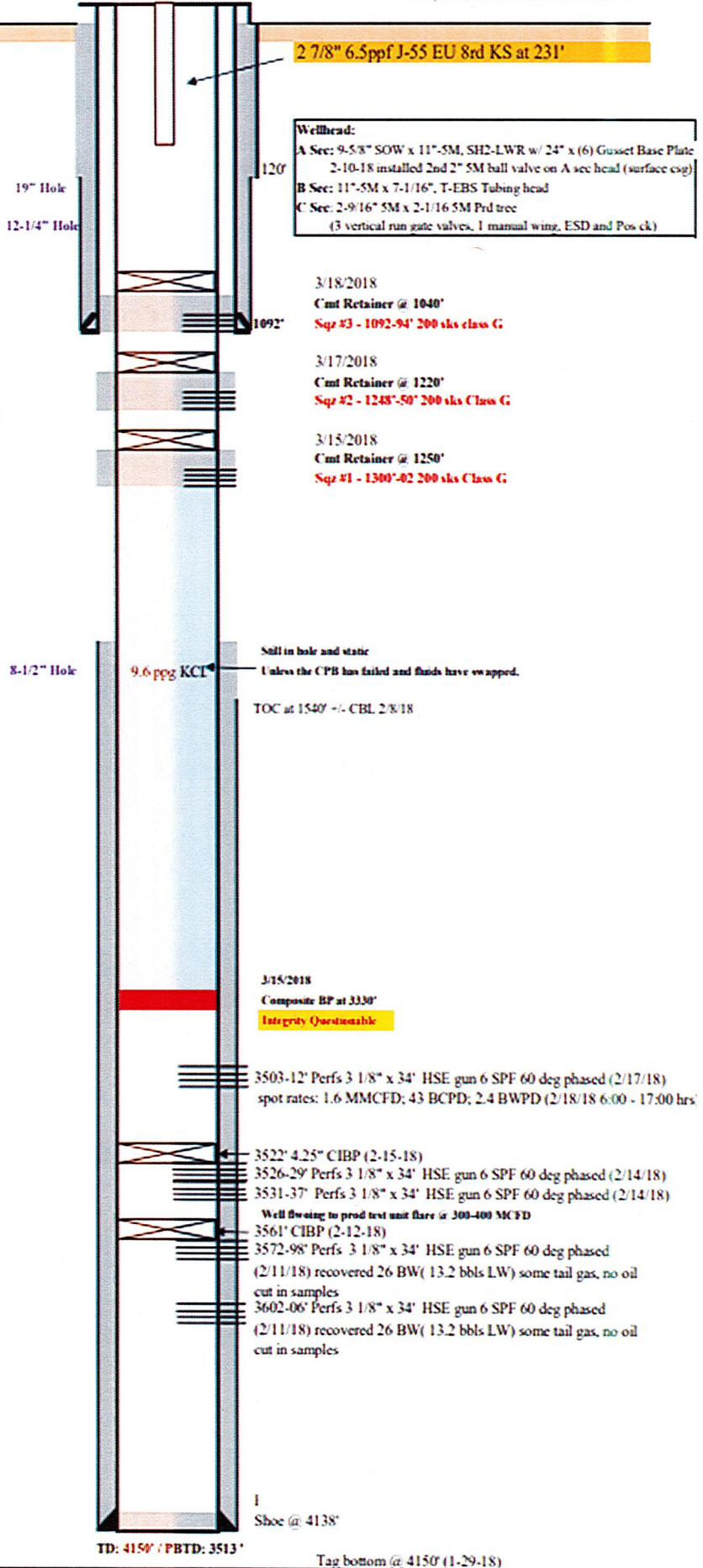
All depths reference RKB unless otherwise noted

Logs:  
 Run #1: Spectral GR, Sonic Dipmeter  
 Run #2: Triple combo (1-26-18)

Conductor:  
 16", 0.250" wall (15.500" ID) @ 120' (Pre-set)  
 Cement: (as noted on proposed WBS detail for ex wk rpt.)  
 200 ex (273 cu-ft), class "A" cement (200% excess)

Surface:  
 26 jbs 9-5/8", 40.0 #, K-55, NYC (K-335" ID) @ 1192'  
 Cement:  
 Lead: 248 ex (137 bbls) RC Excessite Plus @ 11.0 ppg, yield= 3.11  
 cf/ex and Tail: 80 ex (19 bbls) RC Surface Tail @ 14.8 ppg, yield=  
 1.36 cf/ex. Displace w/ 9.1 ppg mud; bump plug w/ 750 psi (500 psi  
 over FFP); 40 bbls (75 ex) cement to surface. Run 1" thg down  
 annulus to 80' and top out with tail cement.

5-1/2", 17#, K-55, LTC 4138'  
 Cement  
 M&P Lead: 430 ex (131.7 bbls) RC Lead w/ 0.25 #/ex Polyflakes +  
 0.10% Bactericide @ 13.0 ppg, yield= 1.72 cf/ex; Tail: 400 ex (94.0  
 bbls) RC Tail w/ 0.25 #/ex Polyflake, 0.2% RC-49 gas migration  
 control + 0.10% Bactericide @ 14.2 ppg, yield= 1.36 cf/ex. Full  
 returns throughout job. 65 ex good cut to surface.





Pipe heavy / Pipe Light Calcs

Pipe Heavy / Light Calcs

String length	1302	
Depth	1302	
Pipe wt #/ft	8.7 lbs/ft	
WS length	1116 feet	
WS weight (no DC's)	9709.2 lbs	
# DC jts	6	
DC string length	186	
Weight of DC's	4650 Lbs	
Total SW (DC's + WS)	14359.2 lbs - force down	
Max pressure at break thru	1500 psi	
Effective SW - with 0.85 buoyancy	12,205 lbs	
Buoyancy Factor	0.85	9.7 ppg KCL
2 7/8" tbg CSA	6.488515625	
Force upward on pipe with 1500 psi from below	9732.773438 lbs pushing up	
	2,473	If positive - pipe heavy
	125%	

## Contingency Plan – Run 4” liner

In the event that the shallow squeezes do not test, it is recommended to run a 4” liner section from surface to a pre-determined temporary PBSD (CIBP) above existing production perfs.

Running a 4” OD liner section will allow adequate clearance between the existing 5 ½” 17# production casing. The selected tubing string will then change to 2 3/8” (either true flush jt or a 2-step type CS hydril) from 2 7/8” which the 4” liner will accommodate. The 2 3/8” will be fishable (if necessary) both by spearing and externally catching. If CS type connections are run inside the 4”, only the pipe body (2 3/8” will be fishable externally via overshot catch, etc. Collars/Boxes would have to be burned over if it was required to wash down over a longer section.

### Summary Procedure:

Note: After a failed test on one or more squeezes (including potential resqueezes), move forward with running 4” liner to 3,350’ +/-.

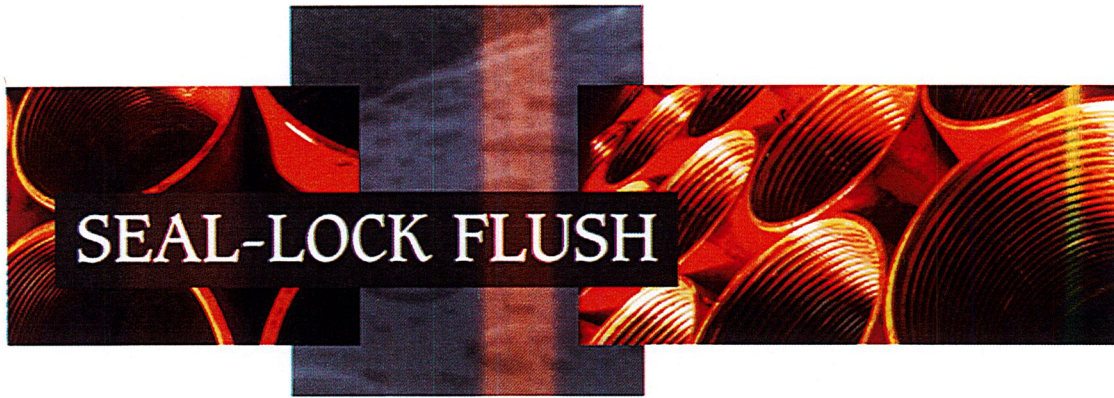
### 4” Casing Specs

OD inches	Wt ppf	Grade	Thread	ID inches	Drift inches	IYP psi	CP psi	Tensile lbs
4.0	11	J-55	Hunting SLF	3.476	3.351	6,300	6,590	169K

1. Assuming the existing CBP was not drilled out/pushed to bottom in previous steps plan to:
  - PU 4.75” bit rotating scraper/DC’s/subs – RIH with bit and 2 7/8” WS to 3350’ and reverse out 2-3 BU. Drill out existing CBP at 3350’ and tag bottom at 3522’ (keep scraper above perfs).
2. Confirm well is static. POOH slowly monitoring fill ups.
3. RU ELU.
4. RIH with CBP and set at 3350’ +/- (Plug will serve as bottom to 4” liner, simplifies drilling out later in operation with only one plug to drill out – not stacking plugs to drill out with undersized tools and risk of spinning).
5. RIH with test pkr to 3300’ and set, test BP to 2000 psig for 10 mins. Release pkr and POOH laying down WS. Shut down rig operations – Order all parts and components for running 4” liner.
  - a. WOR, Cmt unit, WL all will be left on location at NO Charge.
6. ND BOPs, ND 7 1/16” gate valve, ND 7 1/16” 5M x 11” 5M TH (Use torque wrenches)
7. NU NEW 11” 5M x 11” 5M C-21 head for hanging off 4” csg. Test secondary seal area 500/3000 psig.
8. NU BOPs, 7 1/16” 5M gate valve, NU 7 1/16” 5M x 11” 5M rental spool. (Service existing 7 1/16” 5M TH – Remove secondary seal o-rings and replace with new bushing for 4” csg stub).
9. Change out pipe rams to 4”.
10. Test BOPs 250 / 3000 psig – Use 4” test mandrel with oversized collar.
11. RU 4” handling tools and 4” pipe rams. RU torque turn and thread rep for Hunting SLF.
  - a. Follow running procedures dictated by certified thread rep (Hunting).
    - i. Using proper stabbing guide
    - ii. Proper thread dope
    - iii. Optimal MU torque – 1400 ft-lbs MU torque
12. PU NEW 4” 11.0 ppf J-55 SLF casing
  - a. 4” shoe track
    - i. Strap all 4” csg, tools, pups, subs. Rabbit all tubulars and components!!!!
    - ii. 4” float shoe
    - iii. 1 jt 4” Csg
    - iv. 4” float collar
  - b. Approx 110 jts 4” 11.0 ppf J-55 SLF casing
13. Begin RIH with 4” casing
  - a. Fill up 4” casing with 9.7 ppg KCL every 20 jts and break circulation 1 BU.
14. Continue RIH to CIBP at 3350’. PU 2-3’.
15. Break circulation and ensure full returns to surface and full functionality thru float equipment.
16. ND 11” 5M x 7 1/16” 5M rental spool, ND BOPs.

17. Drop slips and packing. Make rough cut on 4" csg.
18. Remove cut piece of 4" csg.
19. Make final cut on 4" csg and dress of same.
20. NU 11" 5M x 7 1/16" 5M TH and slip onto 4" csg stub. Test secondary seal 500/3000 psig.
21. NU 7 1/16" 5M gate valve with 7 1/16" 5M x 3" or 4" 1502 connection.
22. RU cmt unit, 5K lines. Tie in lines to 1502 on 7 1/16" gate valve.
23. Test lines 500/3000 psig.
24. Line out return line (2" outlet valve) from 11" 5M x 11" 5M C-21 head to slop tank.
25. Break circulation down 4" csg to 4" x 5 1/2" annulus and ensure full returns.
26. Mix 150 sks (20% over annular capacity) class G cmt with additives (actual spacer vol and recipe to TBD).
27. Pump slurry and drop wiper plug.
28. Displace slurry to backside with 38.5 bbl 9.7 ppg KCL water and bump plug with approx. 1100 psi. Taking returns to slop tank (add sugar to keep cmt gelled up in tank).
29. Open 4" csg to tank and check floats.
30. Wash lines.
31. WOC 24 hrs
32. Deliver 120 jts of NEW 2 3/8" 4.7 CS tbg with full set of pups.
33. NU BOPs with 2 3/8" handling tools and rams.
34. Test pipe rams 250/3000 psi
35. PU 2 3/8" tbg, 3.25" WO bit, rotating scraper, subs and DC's.
36. RIH and wash through residual cmt/debris to FC at 3320' +/- reversing.
37. Drill out cmt from 3320' to 3345' reversing pumping sweeps. POOH.
38. RU ELU and run CBL to 3345'+/-. Evaluate bond.
39. Close pipe rams and test 4" csg 2000 psi for 20 mins. Bleed off slowly.
40. RBIH with 3.25" bit (no scraper), subs, DC's, and drill out FS reversing and confirming returns are shoe material, break thru (BP will be 2-3 below shoe).
41. Test 4" EOL to 2000 psig for 10 mins against BP.
42. Drill out bridge plug at 3350' reversing. Break through and work through EOL several times for easier entry/exit.
43. Continue RIH to rat hole cleaning, pushing plug components to bottom at 3522' ELM (10' of rat hole).
44. POOH slowly back through EOL. Circulate 2-3 wellbores and monitor well before POOH.
45. POOH making proper fill ups, standing back.
46. RU ELU
47. Run completion – measure/caliper and rabbit all components prior to RIH.
  - a. PU BHA – 2 3/8" x 4" VS1X pkr with on/off tool assy, 1.43" profile, WLEG, 2 3/8" pump out plug.
  - b. RIH with completion BHA on eline
  - c. Set pkr at approx. 3340' with 15' BHA, leaving 5' of tail pipe outside of liner (smoother WL re-entry vs pulling up thru EOL).
  - d. EOT 3355' +/-.
48. RIH with approx. 108 jts 2 3/8" 4.7ppf J-55 CS tbg (Rabbiting all jts) to 3330' +/-.
49. Circulate in pkr fluid.
50. Space out, latch up with on/off tool landing tbg hanger in bowl (leave 3K-5K down on pkr)
51. Run in pins.
52. Test backside to 500 psi for 20 mins (external on/off tool test).
53. Volume test tbg to 2000 psi for 10 mins.
54. Set BPV in hanger.
55. ND BOPs / NU existing 2 9/16" 5M tree.
56. Test hanger void 500/3000 psi.
57. JSA – Discuss swabbing operations and flow back.
58. RU on tbg and pump out plug in tail pipe with approx. 3700 psi.
59. Monitor well.
60. RIH with swab and begin swabbing well in (take 250-300' bites initially as conservative approach).
61. Clean well up to rig tank to 1000-1200 psig [FTP 500 -1000](#) mcf/LWTR 16.7 bbls.
62. SWI. Turn over to SROG production dept. Release all rentals and equipment. MOL.

## Connection Data – Hunting SLF (True Flush)



### Flush OD for Optimum Clearance

Integral connection with a flush OD provides maximum clearance for slim hole applications.

### Hooked Threadform for Enhanced Tensile and Bending Applications

The patented hooked threadform is optimized for pipe wall thickness and virtually eliminates thread jumpout failures. Additionally, the threadform resists pin/box disengagement under bending loads making it an excellent choice for horizontal applications.

### Gas-Tight Sealing

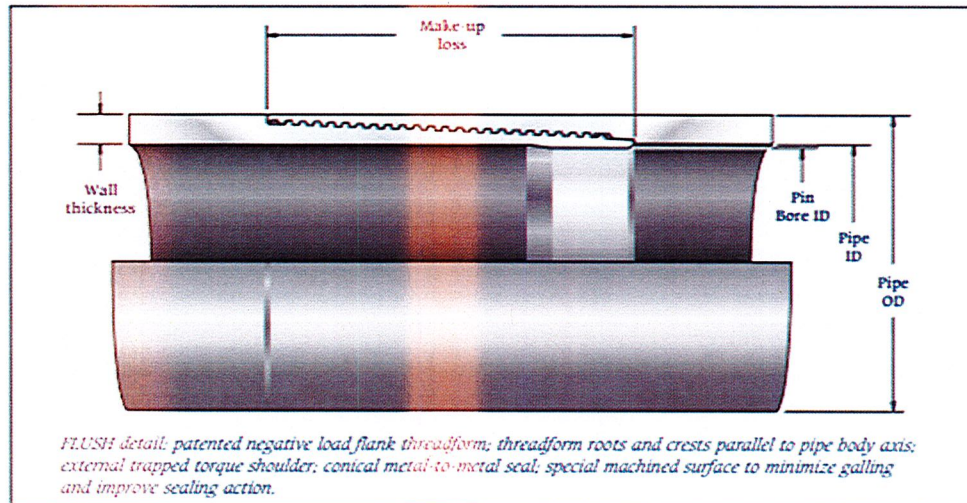
A flank metal-to-metal seal provides a pressure rating equal to the API minimum internal pressure rating for the pipe body.

### Relief Groove Design

Relief grooves machined in both the box and the pin help to eliminate problems associated with hydraulic dope entrapment. Pressure build-up from trapped lubricant is minimized so that sufficient contact loads are achieved at the flank metal-to-metal seal.

### Positive Torque Shoulder

External torque shoulder provides a visual make-up indicator and positive torque stop.



## SEAL-LOCK FLUSH CONNECTION DATA

SIZE	Pipe					Connection						Optimum Torque				
	NOMINAL WEIGHT IN. LB/FT	PLAIN END WEIGHT LB/FT	WALL THICKNESS IN.	INSIDE DIAMETER IN.	API DRIFT DIAMETER IN.	THREADS/ INCH	OUTSIDE DIAMETER IN.	MINIMUM PIN BORE DIAMETER IN.	MAKE-UP LOSS IN.	CROSS SECTION AREA SQ. IN.	TENSILE EFFICIENCY %	J/K-55 FT-LB	L/N-80 FT-LB	T-95 FT-LB	P-110 FT-LB	Q-125 FT-LB
2 3/4	6.40	6.16	.217	2.441	2.347	8	2.875	2.375	2.119	.869	48	700	800	1,000	1,100	1,200
3 1/2	9.20	8.81	.254	2.992	2.867	8	3.500	2.912	3.319	1.501	58	1,000	1,300	1,500	1,600	1,800
4	11.00	10.46	.262	3.476	3.351	8	4.000	3.391	3.438	1.786	58	1,400	1,700	1,900	2,200	2,400
	11.60	11.34	.286	3.428	3.303	8	4.000	3.343	3.639	2.070	62	1,400	1,700	1,900	2,200	2,400

Proposed WBS - No liner

**SROG**  
**Barlow 1-14**  
**Payette County, Idaho**  
**11-075-20033**  
**Proposed WBS - No 4" Liner**

GL: 2,164'

RKB: 12.5' (1.5' above GL)

All depths reference RKB unless otherwise noted

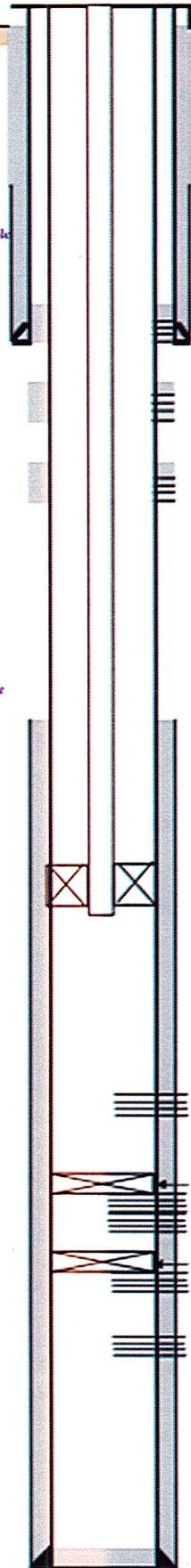
Logs:  
 Run #1: Spectral GR, Sonic, Dipmeter  
 Run #2: Triple combo (1-26-18)

Conductor:  
 16", 0.250" wall (15,500' ID) @ 120' (Pre-set)  
 Cement: (as noted on proposed WBS detail not in wk rpt.)  
 200 cc (27) cu-ft, class "A" cement (200% excess)

Surface:  
 26 jts 9'-5.8", 40.0 #, K-55, SIC (0005" ID) @ 1192'  
 Cement:  
 Lead: 248 cc (137 bbls) RC Ecosolite Plus @ 11.0 ppg, yield= 3.11  
 cf/cc and Tail: 80 cc (19 bbls) RC Surface Tail @ 14.8 ppg, yield=  
 1.36 cf/cc. Displace w/ 9.1 ppg mud; barre plug w/ 750 psi (500  
 psi over FFP). 40 bbls (75 cc) cement to surface. Run 1" fig down  
 annulus to 80' and top out with tail cement.

9.7 ppg KCL with pkr fluid on backside

5-1/2", 17#, K-55, LTC 4138'  
 Cement  
 M&P Lead: 430 cc (131.7 bbls) RC Lead w/ 0.25 #/cc Polyflakes +  
 0.10% Baerenside @ 13.0 ppg; yield= 1.72 cf/cc; Tail: 400 cc (94.0  
 bbls) RC Tail w/ 0.25 #/cc Polyflake, 0.2% RC -49 gas migration  
 control + 0.10% Baerenside @ 14.2 ppg; yield= 1.36 cf/cc. Full  
 returns throughout job. 65 cc good cert to surface.



**Wellhead:**  
 A Sec: 9-5/8" SOW x 11"-5M, SH2-LWR w/ 24" x (6) Gasket Base Plate  
 2-10-18 installed 2nd 2" 5M ball valve on A sec head (surface cog)  
 B Sec: 11"-5M x 7-1/16", T-EBS Tubing head  
 C Sec: 2-9/16" 5M x 2-1/16 5M Prod tree  
 (3 vertical run gate valves, 1 manual wing, ESD and Pos ck)

3/18/2018  
**Cmt Retainer @ 1040'**  
**Sqr #3 - 1092-94' 200 sbs class G**  
 3/17/2018  
**Cmt Retainer @ 1220'**  
**Sqr #2 - 1248'-50' 200 sbs Class G**  
 3/15/2018  
**Cmt Retainer @ 1250'**  
**Sqr #1 - 1300'-02 200 sbs Class G**

Run approx 3300' of 2 7/8" 6.50 L-55 LUB Red fig and standard size VS1X  
 pkr and profiles, etc. - Assuming there is a successful hydrotest on all three  
 (3) sq's (901 pgs).

TOC at 1540' +/- CBL 2/8/18

2 7/8" x 5 1/2" Set VS1X at 3330'  
 EOT 3345' +/-

3503-12' Perfs 3 1/8" x 34' HSE gun 6 SPF 60 deg phased (2/17/18)  
 spot rates: 1.6 MMCFD; 43 BCPD; 2.4 BWPD (2/18/18 6:00 - 17:00 hrs)

3522' 4.25" CIBP (2-15-18)  
 3526-29' Perfs 3 1/8" x 34' HSE gun 6 SPF 60 deg phased (2/14/18)  
 3531-37' Perfs 3 1/8" x 34' HSE gun 6 SPF 60 deg phased (2/14/18)

**Well flowing to prod test unit flare @ 300-400 MCFD**  
 3561' CIBP (2-12-18)  
 3572-98' Perfs 3 1/8" x 34' HSE gun 6 SPF 60 deg phased  
 (2/11/18) recovered 26 BW( 13.2 bbls LW) some tail gas, no oil  
 cut in samples  
 3602-06' Perfs 3 1/8" x 34' HSE gun 6 SPF 60 deg phased  
 (2/11/18) recovered 26 BW( 13.2 bbls LW) some tail gas, no oil  
 cut in samples

1  
 Shoe @ 4138'

TD: 4150' / PBTD: 3513'

Tag bottom @ 4150' (1-29-18)

Proposed WBS – With 4” Liner

**SROG**  
 Barlow 1-14  
 Payette County, Idaho  
 11-075-20033  
**Proposed WBS - With 4” Liner**

