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NON ROUTINE OPERATION

Slickline Fishing

Presented by : Eldrian Juil

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Job objective

WELL SF-515

1. Fish out 2.313” Lock Mandrel
2. Perform HUD check via 2.2” Wire Finder

Figure 1 – CT managed to retrieve only the 2.313” Fishneck + Expander sleeve

Figure 2 – Representation of fish downhole

Figure 3 – ID of Packing mandrel = 1.372”

Well status – Oil producer but currently closed in.
Well history

2024 IWS: 19 - 22 Apr 2024

- CT RIH and Shift close SSD Z2 3793ft.
- CT RIH Jet BLASTER (nitrified SCO) to 4990ft.
- CT RIH 2.25” LIB, tag at 5007ft, impression of 2.3” Lock mandrel
- CT RIH 2.5” Flow released GS and manage to latch 2.3” Lock mandrel. During 10th Jarring attempts, CT weight drop to normal POOH weight. POOH to surface. Fish not recovered.
- CT RIH 2.5” Flow released GS and not manage to latch 2.3” Lock mandrel, pump 5bbls Gel Pill + jetting. RIH to set down on 2.3” Lock mandrel. POOH to surface and recover 2.313” Fishneck + Expander Mandrel only
- Packing Mandrel ID = 1.372”, OD = 1.557”

Well history

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CT RIH CT NOV Spear (slip 1.25”-1.375”). Tag at 5007ft. Set down 2k

- 1st jar : Over Pull 2k, jar fired 3.48”. Straight pull to 15k lbs, drop to 9800lbs
- RIH back from 4980 to 5007ft, Set Down=2k
- 2nd Jar : OP=2k, jar not fire. Set down again 2k to recork jar
- 3rd Jar : Pick up to 4994ft, no overpull. RIH to set down 2k
- 4th Jar : OP=5k, straight pull to 16k
- 5th Jar : SD=2k. OP=5k, straight pull to 16k. Jar fired 3.0”
- 6th Jar : SD=2k. OP=8k, straight pull to 22k. Jar fired 1.36”
- Pump to flow release from the fish.
- Another 6 attempts, failed to latch Rih 2.2” Bulldog Spear (1.375”-1.5”). Tag at 5007ft. Set down 2k
- CT RIH Power CLEAN nozzle, spot 10bbls gel, CBU, stop N2 and spot 10 bbl of 7.5% of formic acid blend with mutual solvent, start soaking. POOH to safe depth and soak with acid for 3 hours. RIH to top of fish. Displace acid until surface return PH7. Stop N2 + Gas lift. POOH.
- CT RIH 2.25” LIB until 5008ft, no tagging. Continue RIH until 5251.4ft. Set down weight 1000lbs.
- CT RIH CT NOV Spear (slip 1.25”-1.375”), Attempt 4 times to tag TOF at 5255ft. No overpull is observed. Receive town instruction to POOH to surface, PW gradually increased to 11k (2k more than normal pick up weight). CT stop at 4970ft. RIH back and observe snubbing / set down of 1000lbs at 4978ft. Continue to POOH to surface. No recovery.

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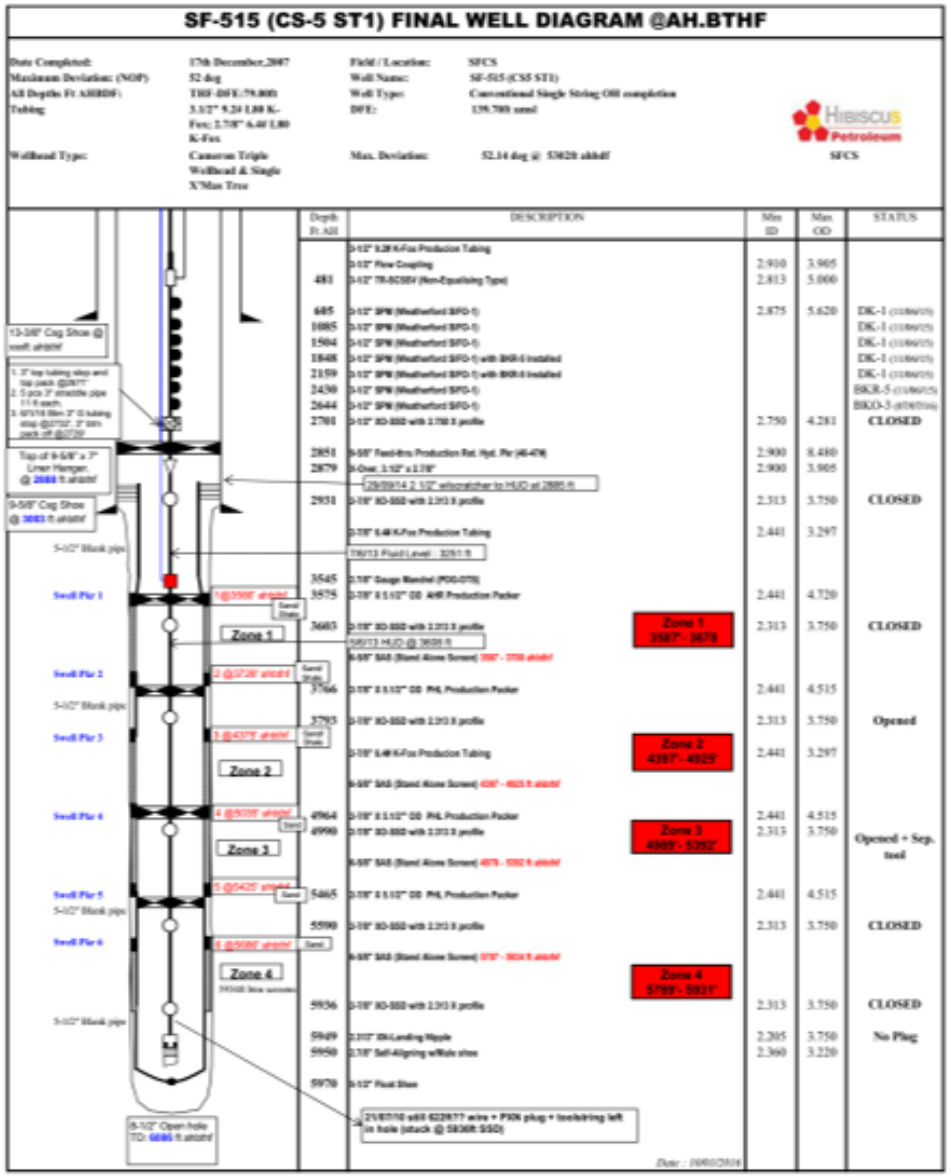
APPENDIX 1: WELL SCHEMATIC (SF-515)



Well Schematic – SF-515

SF-515 Well Diagram

OPERATIONS OUTLINE

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Step	Job description	Estimated duration days	Remark
1	Slickline rig up	0.25	
2	SL Tubing Clearance Check / LIB	0.25	
3	SL fish out Lock mandrel	2.0	
4	SL HUD check / LIB to top of fish or HUD	0.25	
5	Contingency	1.0	
TOTAL DURATION (DAYS)		2.75	
TOTAL DURATION (DAYS) + CONTINGENCIES		3.70	

General Rig Up Procedure – Slickline

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- Obtain Permit to Work and conduct Toolbox Meeting between Hibiscus Wells CSR, Hibiscus Production Operator, IWS Project Supervisor, DESB Riggers, SLB coiled tubing and DB slickline crews.
- Record the FTHP, SITHP, FTHT and SITHT prior to commence with the operations.
- Perform lifting operations for the slickline platform equipment from the vessel to the platform and re-position the equipment on the platform.
- Ensure the well is shut in and prepare for rig up activity. Two tested surface barriers are required for rigging up and down.
- Transfer control of the SSV and SCSSV from the COM / Wellhead Control Panel to the Slickline's Single Well Control Panel (SWCP).

- Close Crown Valve. Bleed off pressure above the Crown Valve through the tree cap needle valve and perform inflow test for 15 minutes.
- Close Upper Master Valve. Bleed off flowline and perform inflow test on Upper Master Valve for 15 minutes.
- Bleed off flowline and close the Flow Wing Valve (FWV) and Flow Line Valve (FLV). SEAH Production Operator to ensure and confirm the FWV and FLV are fully closed.
- Function test TRSCSSV. Record pressure and hydraulic volume being pumped when pressure up. Confirm and report hydraulic fluid return volume. Isolate the control line pressure from wellhead panel and disconnect the tubing. Hook-up the hydraulic pressure supply line from DB SWCP. Push SSV button at wellhead panel to confirm SSV closing readiness.
- Rig up slickline lower PCE stack including a pumping tee on the wellhead.
- Rig up pumping line from the co-flexip hose to the slickline PCE pumping tee.
- Attach Chain block onto the scaffolding tower pad eyes.
- Lay down and make up Upper PCE section on main deck as per PCE Stack Up. Attach lubricator clamp's sling onto the chain block. Manually hoist the chain block until the lubricator sections is fully upward.
- Pressure test slickline PCE stack up to wellhead at low pressure test of 500 psi for 5 minutes and high pressure test of 1,000 psi for 15 minutes.
- Once satisfactory pressure test achieved, bleed off the pressure and prepare to proceed as per the procedures.

Well intervention instruction

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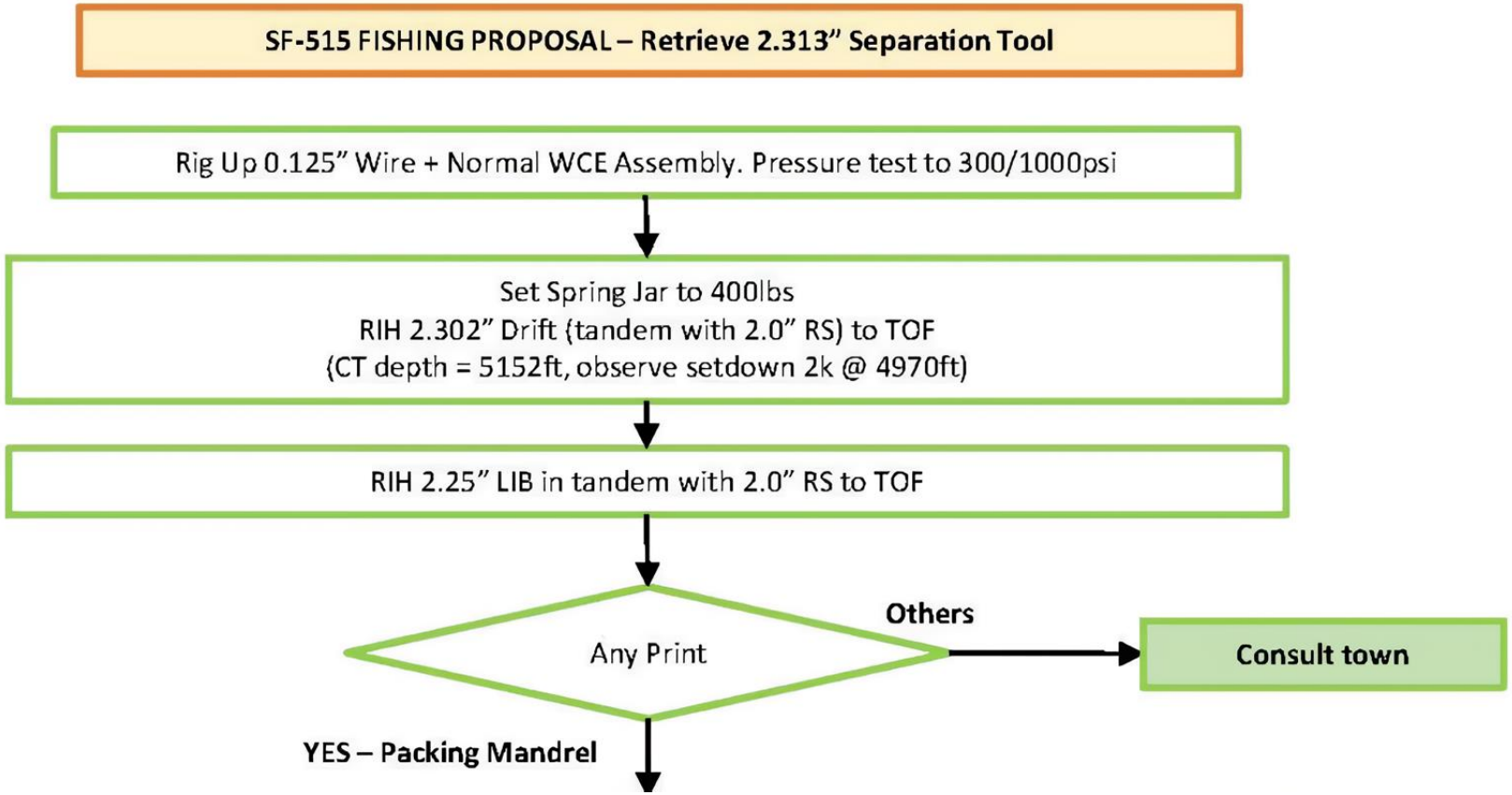

Well intervention instruction

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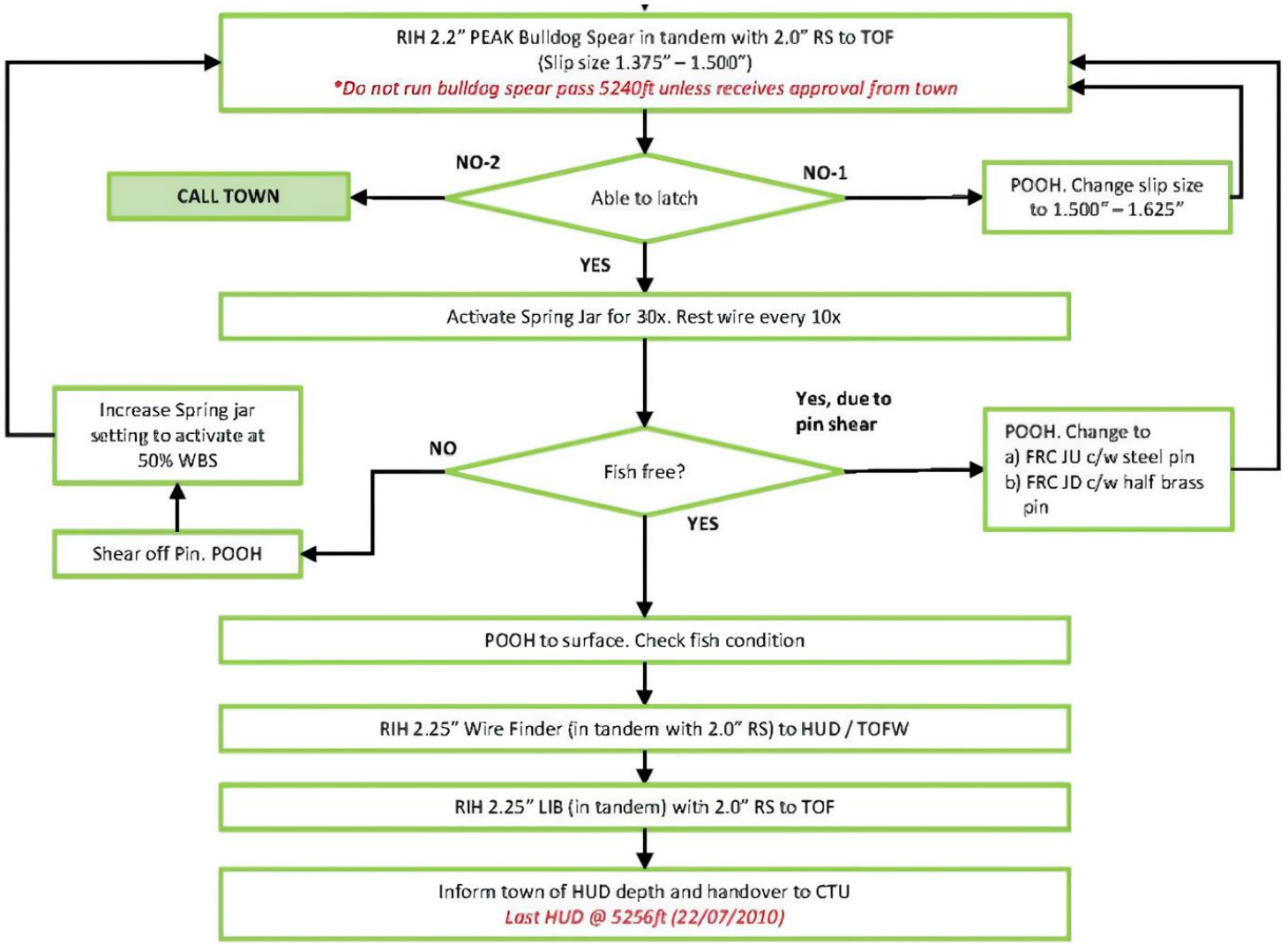

Fishing operation (Day Shift)

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Job description	Tool string configuration
• RIH 2.302” drift + 1.1/2” rope socket + 2” RS pulling tool (steel pin) to TOFW at 5240 ft. (WLD). POOH. On surface drift clean • Recorded every 1000ft P/W, R/W, H/W.	• 1.1/2” Rope Socket (1ft. 3ins) + 1.1/2” Swivel Joint (1ft) + 1.1/2” x 5ft normal Stem + 1.1/2” Knuckle Joint (1 ft) + 1.1/2” Spring Jar (400lbs) (4ft) + 1.1/2” Link Jar (open 5ft 5ins) (17 ft 8 ins open position)
• RIH 2.25” LIB 1.1/2” R/socket + with tandem 2” RS (steel pin) to TOF at 5240 ft. Tapped down once. POOH. On surface clear impression of flow tube on the LIB.	• 1.1/2” Rope Socket (1ft. 3ins) + 1.1/2” Swivel Joint (1ft) + 1.1/2” x 5ft normal Stem + 1.1/2” Knuckle Joint (1 ft) + 1.1/2” Spring Jar (400lbs) (4ft) + 1.1/2” Link Jar (open 5ft 5ins) (17 ft 8 ins open position)
• RIH 2.2” Bulldog spears (Brass pin) + 1.1/2” rope socket + RS pulling tool (steel pin) to TOF at 5240 ft. Tapped down twice. Encountered overpull. Activated spring jar 1 times to 900lbs. Manually jarring up 5 times 800lbs. Tools came free. With p/w: 300lbs. On surface observed RS steel pin sheared. 2.2” bulldog spears left in hole. 5240 ft @ R/w: 70lbs, P/w: 330lbs, H/w: 180lbs.	• 1.1/2” Rope Socket (1ft. 3ins) + 1.1/2” Swivel Joint (1ft) + 1.1/2” x 5ft normal Stem + 1.1/2” Knuckle Joint (1 ft) + 1.1/2” Spring Jar (400lbs) (4ft) + 1.1/2” Link Jar (open 5ft 5ins) (17 ft 8 ins open position)

Fishing Operation (Day Shift)

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Job description	Tool sting configuration
• RIH 2.2” FRC jar up pulling tool (steel pin) to latch bulldog spears at 5240 ft. Tapped down once. Encountered overpull. Activated spring jar 20 times at 1100lbs. Rest wire for 15 min. Observed spring jar failed to fired. Jarring up manually 25 times at 1200lbs. Tool no movement. Rest wire 15 min. Flag wire. Jarring up manually 50 times at 1200lbs. Tool no movement and no movement on the flag. Jarring up manually 50 times and jarring down. Tool no movement and no movement on the flag. Continued prolong jarring up and tool no movement and no movement on the flag. 5240 ft @ R/w: 120lbs, P/w: 320lbs, H/w:140lbs.	• 1.1/2” Rope Socket (1ft. 3ins) + 1.1/2” Swivel Joint (1ft) + 1.1/2” x 5ft normal Stem + 1.1/2” Knuckle Joint (1 ft) + 1.1/2” Spring Jar (400lbs) (4ft) + 1.1/2” Link Jar (open 5ft 5ins) (17 ft 8 ins open position)

Fishing Operation (Night Shift)

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Job description	Tool sting configuration
• Continued jarring up manually 2.2” FRC Jar up pulling tool (steel pin) to bulldog spears at 5240 ft. 25 times at 1200lbs. Tool no movement. Rest wire 15 min. Flag wire. Jarring up manually 50 times at 1200lbs. Tool no movement and no movement on the flag. Jarring up manually 60 times and jarring down. Tool no movement and no movement on the flag. Continued prolong jarring up and tool no movement and no movement on the flag. **5240 ft @ R/w: 120lbs, P/w: 320lbs, H/w: 140lbs.**	• 1.1/2” Rope Socket (1ft. 3ins) + 1.1/2” Swivel Joint (1ft) + 1.1/2” x 5ft normal Stem + 1.1/2” Knuckle Joint (1 ft) + 1.1/2” Spring Jar (400lbs) (4ft) + 1.1/2” Link Jar (open 5ft 5ins) (17 ft 8 ins open position)
• **Rest wire for ½ an hour.** • Continued jarring up 50 times manually at 1200lbs. Observed tool slowly moving up from 5240 ft but unable to pass thru at depth 4970ft.	

Fishing Operation (Night Shift)

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Job description	Tool string configuration
• Continued jarring up manually 70 times at 1200lbs. Tool no movement. • Rest wire ½ an hour. Flag wire. • Jarring up manually 20 times at 1200lbs. • No movement on the tool and flag wire. • Jarring up manually 30 times to shear the FRC pulling tool / jarring down to shear the bulldog spear pulling tool. • No movement on the tool and the flag wire. • Continued prolong jarring up and still no movement on the both tool and flag wire.	• 1.1/2” Rope Socket (1ft. 3ins) + 1.1/2” Swivel Joint (1ft) + 1.1/2” x 5ft normal Stem + 1.1/2” Knuckle Joint (1 ft) + 1.1/2” Spring Jar (400lbs) (4ft) + 1.1/2” Link Jar (open 5ft 5ins) (17 ft 8 ins open position)
• **Continued jarring up 70 times manually at 1200lbs. Observed tool slowly moving up from 4970 ft, while pooh power pack shut down due to high water temperature. Last depth at 4663 ft.**	

Fishing Operation (Night Shift)

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Job description	
• Informed and discussed with PS onsite to rest the power pack until the power pack water temperature decrease. • Rest power pack for 2hours. • Top up coolant.	
• Continued jarring up 70 times manually at 1200lbs. Observed tool free. P/w: 600lbs • While pass thru the x-over at 2879ft observed p/w decreased from 600lbs to 220lbs. Continued to POOH.	

- On surface recovered fish. (separation tool, bulldog spear and FRC JU pulling tool)
- Found separation tool packing damaged bottom(5pcs) top (4 pcs)

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Challenges I face

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- Rig up and rig down. (Congested area)
- Power pack shut down.
- Lighting. (for 24hours operation)
- Slip size
- Sand
- Deviation
- Spring Jar fail

Toolstring design
- Hunting
- Otis

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Thank you