

Well Name: SUN-STATE 1

API # 050050657500	Surface Legal Location NWNW Sec 34-T4S-R65W	Field Name	Permit Number	State CO	Well Configuration Type
Ground Elevation (ft) 5,671.00	Casing Flange Elevation (ft)	Orig KB-Ground Distance (ft) 0.00	KB-Casing Flange Distance (ft)	Spud Date	Final Rig Release Date

Job: Abandon Well / &lt;jobsubtyp&gt; , 5/24/2021 08:00, 16193152

Job Category Abandon	Primary Job Type Abandon Well	Secondary Job Type
Start Date 5/24/2021	End Date 6/3/2021	

Objective

Post-Job Summary

Rpt #	Start Date	End Date	24 Hr Summary	Remarks
1.0	5/13/2021	5/14/2021	Mobilize backhoe	
2.0	5/14/2021	5/15/2021	Set 6ft cellar rig. Haul 6 loads top soil t level around well. Haul in 6 loads road base to build access road and approach. Install new gate at access.	
3.0	5/17/2021	5/18/2021		
4.0	5/18/2021	5/19/2021	Haul and place matt boards on access road and location with Strad USA Inc.	
5.0	5/19/2021	5/20/2021	Haul 12 truck loads matt boards to location with Strad USA Inc. and stage on previously set matts. allowing location to dry out.	
6.0	5/20/2021	5/21/2021	Allow location to dry out.	
7.0	5/21/2021	5/22/2021	Haul 3 loads matt boards to location and finish place matt all boards on location with Strad USA Inc.	
8.0	5/22/2021	5/23/2021	Completed wood mat layout on location. Move in camp and set up.	
9.0	5/23/2021	5/24/2021	Cut 8 5/8" casing, weld on slip on collar, and install 11" wellhead. Lay liner for Ensign 122 with Shalestone	
10.0	5/24/2021	5/25/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents or spills reported.</p> <p>Move in Ensign rig 122 with Ensign Trucking, set matting boards for sub and mud tank, center sub over well head, Move in pumps, tanks, Light plant and HPU skid. Set Camps. Rig up, Mud lines, Water lines, Lower Headache Rack, Install Flow Line, Rig up Top Drive and Floor Equipment and Strap and Tally BHA and Drill Pipe. Attempt to tighten wellhead. Raise 5K BOP set in and torque up bolts. Hook up accumulator lines to BOP. Nipple up BOP, pull up flow line, choke line and vibrating lines and install. Fit gas buster to flow line. Install 2 Fischer pumps in cellar. Complete waterline hookup. Function test BOP. PJSM, Pathfinder pressure test I-BOP and TIW valve, Choke manifold to 250 low and 3000 high. While testing make up bit, bit sub and crossover to drill pipe joint to clean out plug under wellhead in run test joint down hole to make up testing sub and hose. Mixing mud. Downtime: Top drive will not move, troubleshoot wiring and fuses! Attempt to washout and push plug down, no go. Trip out for rotating head. Top drive quit working again. Downtime: Top drive will not move, troubleshoot wiring and fuses! Mechanic found wire grounded on the top drive. Break off PDC bit, M/U tricone bit install rotating head. Drill out 10 - 15' cement plug under wellhead washes joint down. Drain and wash out stack. Rig up Pathfinder, set test plug. Test pipe rams, Hydrill, blind rams. HCR valve manual inside back up back up valve. Check valve. 250 Low and 3000 psi high</p>	

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11.0	5/25/2021	5/26/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents 1 spills reported 5 gallons mud on containment.</p> <p>Test Blind Rams, Choke Line &amp; Mud Lines to 250psi 5min, 3000psi 10 min. Install wear bushing and lock in same. P/U BHA: 7 7/8" PDC Bit (Ultrerra 516M, .77 TFA) 6 1/2" Mud motor, NM Pony collar, 2 NMDC Install MWD. Wash and Ream from 114' tag Cement at 185', drill cement to 195', circ. clean, Pressure test casing 200psi for 10 min, attempt to test to 1000psi, lost pressure after 300psi bled off to 25psi. Drill cement from 195' to 225' Wash to 1138' Hole start to pack off, lay down 1 joint. Pump and ream until hole cleaned up at 1138' Wash and ream from 1,138' to 1730, Drill cement from 1730' to 1,757'. TOP OF CEMENT 1730'. Hole started unloading cement, coal and gravel lost returns at 1,757' establish circulation at pump idle at the top of joint working drill string while bring rate back to normal, circulate and work drill string while cleaning hole. Drill cement from 1757" to 1850' adding lcm while drilling. Condition mud &amp; circulate send 2 – 20 bbl. high viscosity sweeps with lcm. Trip out of the hole to BHA. Lay down Ensign Directional MWD and mud motor. Pull wear bushing. PJSM, make up TRK - CRT, make up 7" FlushMax casing shoe and float. Run 7" 26lb FlushMax casing.</p>	
12.0	5/26/2021	5/27/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents or spills reported. Run 7" 26#, FlushMax II casing to 844'. Circ. and condition mud while Rig up Schlumberger cementers (Held PJSM with all personnel involved) PJSM: SLB cementers, Rig Crew and CPR Personal install 7" Cement Head, Lines, and line restraints. MIRU Schlumberger Cementers. Test lines to 2,000 psi. Cement 7" Intermediate casing. Pump 20 bbl. water spacer. Shut down drop bottom plug, Pump Class C Tail Slurry: 455 sks, 118 bbl., 14.2 ppg 1.46. yield, 7.38 gal/sks. Shut down, Drop Top plug. Total displacement fresh water 31 bbl. Bump plug calculated. FCP was 330 psi. After shutting down, pressure held at 1200 psi for 5 minutes. Floats held. and got 1/4 bbl. back. Good returns, 42 bbl. cement to surface. CIP 5/26/21 @10:30 Hrs. Rig Down SLB Cementers. Wait on Cement. for 6 hours, Strap 120 Jts. 4" XT 39 drill pipe. Back out Landing joint, L/D Landing joint and CRT. N/D BOPs Remove 11" 5K Wellhead and Pup Joint. Cement on 7" fell down hole 23' Wait on quick Crete for top job. Do top job as well. Nipple up 7-1/16 x 11" wellhead on 7" casing. Install BOP and nipple up. Pressure test BOP, make up full opening safety valve to drill pipe and test plug and set. Test Annular, pipe rams, low 5 min 250psi and 3000 psi high for 10 minutes. Test casing to 1000 high for 10 minutes. Install wear bushing. Pick up and make up BHA, 6-1/8" Ultrerra U513 bit, 4-3/4" mud motor, MWD tool, (1) 4-3/4 Monel (pony) UBHO, NMDC # 1 (MWD) NMDC # 2, Cross over sub-XT-39 to 3-1/2 IF. Trip in the hole Shallow test MWD tool BHA + 1 HWDP. Continue to run in hole picking up 8 HWDP total of 9 HWDP, and single drill pipe to ~ 801' float collar. Tagged up on cement stringers at 781'. Drill cement stringers and cement float collar, 800 feet.</p>	<p>Quail's drift for the XT39 is stuck in a joint of heavy weight drill pipe. HWDP pins and box end tool joint were tight to drift. 120 jts of 4" XT39 and 9 joints of heavy weight have been drifted.</p>

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13.0	5/27/2021	5/28/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents, one spill reported. Union on hose was loose. Drill 7" Shoe Track From (F.C 801', Shoe 844') and cement T/ 970' Trip in hole T/1215', attempt to circ. Packing-off., POOH to 984' Wash and Ream from 984' to 1850' Drill Cement plug from 1850' -1922' WOB 2-4klbs, 300 GPM, SPP 1125 psi, RPM 30-50, Torque on bottom 3-4 kft-lbs. Service Rig. Drill Cement plug from 1922' - 2000' (78' - (1-1/2 hrs.) 52' per hour. WOB 2-4klbs, 300 GPM, SPP 1125 psi, RPM 50, Torque on bottom 3-4 kft-lbs. Wash &amp; Ream Original Hole F/2000 T/ 2735' (735' - (10.5 hrs.) 70' per hour. WOB 2-8klbs, 300 GPM, SPP 1350 psi, RPM 30 - 65, Torque on bottom 3-6 kft-lbs. Pumped 10 bbl. High viscosity sweep. SPR'S@2202' Mud wt. 9.6 ppg Vis 38, Pump #1 SPM 55, 289 psi. - Pump #2 SPM 58, 509 psi. Service Rig, Grease swivel packing, HPU driveline, pump clutches and pillow blocks check bolt on pillow block is tight. SPR'S@2735' Mud wt. 9.9 ppg Vis 42, Pump #1 SPM 55, 289 psi. - Pump #2 SPM 58, 509 psi. Wash &amp; Ream Original Hole F/2735 T/2860'. (125' - (1 hrs.) 125' per hour. WOB 2-8klbs, 300 GPM, SPP 1387 psi, RPM 30-65, Torque on bottom 3-6 kft-lbs.</p>	Ensign Directional missed a survey at 2211 ft. The remote observer called 124' after the fact.
14.0	5/28/2021	5/29/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents or spills reported. Wash &amp; Ream Original Hole F/2860 T/3641'. (781' - (8.5 hrs.) 91.9' per hour. WOB 6-8klbs, 300 GPM, SPP 1750 psi, RPM 55-60, Torque on bottom 3-6 kft-lbs. Rig Service Wash &amp; Ream Original Hole F/3641' T/4675'. (1034' - (13 hrs.) 79.5' per hour. WOB 6-9klbs, 300 GPM, SPP 18570 psi, RPM 55-65, Torque on bottom 3-7 kft-lbs. SPR's / 4393' / Mud Wt. 9.6 ppg. / Viscosity 34 / Pump 1 55, SPM 363 psi / Pump 2, 58 SPM, 702 psi. Service Rig, Grease swivel packing, HPU driveline, pump clutches and pillow blocks check bolt on pillow blocks for tightness. Wash &amp; Ream Original Hole F/4675' T/4715'. (40' - (1.5 hrs.) 26.6' per hour. WOB 6-10klbs, 300 GPM, SPP 1750 psi, RPM 55-65, Torque on bottom 3-7 kft-lbs.</p>	
15.0	5/29/2021	5/30/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents or spills reported.  Wash &amp; Ream Original Hole F/4715' T/5303'. (588' - (9.5hrs.) 61.9' per hour. WOB 6-8klbs, 300 GPM, SPP 1800 psi, RPM 55-65, Torque on bottom 3-7 kft-lbs.  Rig Service  Wash &amp; Ream Original Hole F/5303' T/5965'. (662' - (13 hrs.) 50.92' per hour. WOB 6-9klbs, 300 GPM, SPP 1750 psi, RPM 55-65, Torque on bottom 3-7 kft-lbs.  SPR'S 5838' Mud Wt. 9.8 ppg. Viscosity 38, P1 @55 strokes 426 psi. P2 @58 strokes 763 psi.  Service Rig, Grease swivel packing, HPU driveline, pump clutches and pillow blocks check bolt on pillow blocks for tightness.  Wash &amp; Ream Original Hole F/5965' T/6027'. (62' - (1.5 hrs.) 41.33' per hour. WOB 6-10.5klbs, 300 GPM, SPP 1929 psi, RPM 55-65, Torque on bottom 3-7 kft-lbs.</p>	

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Rpt #	Start Date	End Date	24 Hr Summary	Remarks
16.0	5/30/2021	5/31/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents or spills reported.</p> <p>Wash &amp; Ream Original Hole F/6027' T/6654'. (627' - (10.5 hrs.) 59.7' per hour. WOB 6-10klbs, 300 GPM, SPP 2075 psi, RPM 55-65, Torque on bottom 4-7 kft-lbs.</p> <p>Service Rig.</p> <p>Wash &amp; Ream Original Hole F/6654' T/7281'. (627' - (11hrs.) 57' per hour. WOB 6-10klbs, 300 GPM, SPP 2115 psi, RPM 55-65, Torque on bottom 4-7 kft-lbs.</p> <p>Rig Service.</p> <p>SPR'S @ 7187' Mud WT 9.8 ppg. Viscosity 39, P1 55 strokes @ 461 psi. / P2 58 strokes @ 861 psi.</p> <p>Wash &amp; Ream Original Hole F/7281' T/7408'. (127' - (1.5 hrs.) 84.6' per hour. WOB 6-10klbs, 300 GPM, SPP 2154 psi, RPM 55-65, Torque on bottom 4-7 kft-lbs.</p>	
17.0	5/31/2021	6/1/2021	<p>Sun State 1 P&amp;A Well 1 of 1 No accidents incidents or spills reported.</p> <p>Wash &amp; Ream Original Hole F/7408' T/7810'. (402' - (7.0 hrs.) 57.4' per hour. WOB 6-12klbs, 300 GPM, SPP 2200 psi, RPM 55-65, Torque on bottom 4-7 kft-lbs.</p> <p>Circulate, pump 30 bbl. High viscosity sweep. Wellbore static.</p> <p>Trip out of the hole to BHA. Laydown BHA break bit and motor inspect same.</p> <p>Clean rig floor, install rotating head. Pre trip inspection. Raise and load pipe racks.</p> <p>Trip in 249 joints 4" 14.00# S135 R2 XT-39 drill pipe to 7800'.</p> <p>Circulate 2 bottoms up, @ 7800'. Mud is thick viscosity is high condition mud.</p> <p>Plug # 1. 7800 – 7590' 210' plug. Fill lines with 5 bbl. of fresh water. Pressure test 500 psi low and 2500 high. Pump 17.5 bbl. 12.0 ppg MUDPUSH Express, followed by Niobrara plug 19 bbl., 50% excess. 15.8 ppg cement. Yield 1.53 ft/sks, followed by 2.5 bbl. 12.0 ppg MUDPUSH Express. Displace with 70 bbl. Of 9.8 ppg mud. Calculated 79 bbl. displacement. Pressure built up unable to pull fluid with C pumps from 70 bbl. 0.0 bbl. per minute to .0. Rig down circulating swedge. Pull 25 joints drill pipe at 30 seconds per joint to 7020. Pipe dry after breaking off cement swedge.</p>	Notified COGCC Inspector Susan Sherman via phone and email of Ensign 122 change rig move to RUSH 4-65 29-30 4CH date changed from 5-31-21 to 6-02-21 or 6-03-21

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18.0	6/1/2021	6/2/2021	<p>Insert nerf pipe wiper ball in drill pipe, break circulation, and circulate bottoms up at 7020 at 300Gpm at 1150psi (a trace of cement on bottoms up. Trip out Hole to 3125' Circ. @ 3125' while wait on SLB crew 175gpm at 225psi, SLB Crew on location at 16:00 hrs., continue circ, r/u cementers, and held PJSM, check flow well static. Plug # 2. 3125' - 2875' 250' plug. Fill lines with 5 bbl. Of fresh water. Pressure test to 500 psi low and 2500 psi high. Pump 27.2 bbl. 12.0 ppg MUD PUSH Express, followed by 30 bbl., 100% excess. 15.8 ppg cement. Yield 1.16 ft/sks, followed by 2.5 bbl. 12.0 ppg MUD PUSH Express. Displace calculated, 28.1 bbl. Of 9.8 ppg mud. Pressure started climbing to 400 psi, at 18.4 bbl. away shut off triplex. Went on C pump only .9 bbl. per minute to .4 bbl. per minute. Static. Pull out of the hole laying down dp at 30 in the plug and 45 out of plug seconds per joint, for 35 joints to 2033'. Insert nerf pipe wiper ball in drill pipe, break circulation. Good returns. Bottoms up cement was seen on shakers. Bypass to catch tanks, cement and mud push contaminated mud clabbered up and quit flowing to catch tanks. Losing circulation down hole. Tripping out 10 joints at a time to find a place where circulation could be reestablished. At 399' circulation was established. Trip in the hole washing down joints. Tagged abandonment Plug # 2 at 2287" with 5 K down. Trip out to 2033' for Plug # 3. Circulate and condition mud 2033'. Plug # 3. 2033'-1693' 340' plug. Wellbore static before plug procedure. Fill lines with 5 bbl. Of fresh water. Pressure test to 500 psi low and 2500 psi high. Pump 27.5 bbl. 12.0 ppg MUD PUSH Express, followed by 18.6 bbl., 50 % excess. 15.8 ppg cement. Yield 1.16 ft/sks, followed by 2.5 bbl. 12.0 ppg MUD PUSH Express. Displace with 15.3 bbl. Of 9.8 ppg mud. At 7 bbl. away went to C pump only 3.7 bbl. per minute to 1. bbl. per minute. at 68 psi. Pull out hole laying down drill pipe at 30 seconds per joint, for 32 joints to 1033'. WOC</p>	
19.0	6/2/2021	6/3/2021	<p>WOC, Circulate condition mud at 1033'. 175 gpm at 25psi. Trip in hole and tag plug #3 @ 1670' with 5K. Trip out hole to 1595', circulate bottoms up, Check Flow Well Static. Plug # 4. 1595' - 1125' 470' plug. Wellbore static before plug procedure. Fill lines with 5 bbl. Of fresh water. Pressure test to 500 psi low and 2500 psi high. Pump 17.5 bbl. 8.3ppg Fresh Water Spacer, followed by 42.5 bbl., 50 % excess. 15.8 ppg cement. Yield 1.16 ft/sks, followed by 2.5 bbl. 8.3ppg Fresh Water Spacer. Displace with 9 bbl. Of 9.8 ppg mud. At 2 bbl. away went to C pump only 3.6 bbl. per minute to 1. bbl. per minute. at 68 psi. CIP @ 11:15 AM. Trip out hole to 400'. WOC, circulate@ 400'. Trip out hole, while W.O.C. Nipple down bop and set out on mat. Remove 7-1/16" screw on wellhead with 7" LTC wellhead joint. Trip in Hole to 400'. Wait on cement Circulate bottoms up condition mud. Trip in hole and tag Plug #4 at 1452' with 5K. Circulate and condition mud at 1436'. Good mud to shakers. PJSM with Schlumberger and Ensign crew. Rig up cementers Pump Plug # 5. Plug # 5. 1436' - 958' 478' plug. Wellbore static. Fill lines with 5 bbl. Of fresh water. Pressure test to 500 psi low and 2500 psi high. Pump 6.8 bbl. Fresh Water Spacer, followed by 208 sks cement 42.9 bbl., 0 % excess. 15.8 ppg cement. Yield 1.16 ft/sks, followed by 2.5 bbl. 8.3ppg Fresh Water Spacer Displace with 8 bbl. Of 9.8 ppg mud. Went to C pump right away 3.7 bbl. per minute to 2.1 bbl. per minute. at 68 psi. CIP @ 19:55 hours. Trip out of the hole 35 joints to 344'. WOC 6 hours, circulate 174 gpm at 0 psi, OEDP. Trip in hole and tag Plug #5 at 995' with 5K. Circulate @971'. PJSM Rig up cementers. Plug # 6. 971' to surface. Wellbore static before plug. Fill lines with 5 bbl. Of fresh water. Pressure test to 500 psi low and 2500 psi high. Pump 5bbl. Fresh Water Spacer, followed by 213 sks cement 44 bbl., 0 % excess. 15.8 ppg cement. Yield 1.16 ft/sks. Trip out of the hole 31 joints to surface', WOC</p>	

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20.0	6/3/2021	6/4/2021	<p>Wait on Cement.</p> <p>Trip in hole tag Cement at 179ft. (166 ft from GL), Pooh.</p> <p>Run 1" grout string and R/U Schlumberger</p> <p>Top out plug from 166' to surface, 166' plug. Wellbore static before plug procedure.</p> <p>Pump 32 sks G cement 6.5 bbl., 0 % excess. 15.8 ppg cement. Yield 1.16 ft/sks. CIP 10:50 am.</p> <p>Clean Mud Pitts with Freedom Drilling Services, Rig down Rig Floor and Prep to L/D Derrick, L/D Derrick, Blow Down all Surface lines, R/D and Prep for Move,</p> <p>Rig Release at 16:00 hrs. 6-03-2021</p>	
21.0	6/5/2021	6/6/2021	Load and haul of k-rails	
22.0	6/9/2021	6/9/2021	Held a pre job safety meeting with all involved personnel. Addressed any safety concerns prior to starting any tasks. FLIR arrived after 7" was cut level with 8-5/8" and noticed small migration. Cancelled capping of well. SDFD.	
23.0	6/11/2021	6/12/2021	Weld on well cap, pull cellar ring and backfill.	
24.0	6/12/2021	6/13/2021	Reclaimin access road	
25.0	6/14/2021	6/15/2021	Seed approach at Yale Ave	
26.0	6/16/2021	6/17/2021	Re-install permanant wildlife fencing	
27.0	6/23/2021	6/24/2021	De-mob tractor and box blade	