

/2017

30917

re testing,
iler.

illed with

\$0

\$0

\$10,210

\$10,210

Surge Energy
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/11.
DAY # 2

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:					Location Setup
Upcoming Ops:					Location Setup
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'		Bill Stanley

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	10:00 AM	4	No Activities
10:00 AM	11:00 AM	1	MIRU Texas Permian Anchors to begin setting anchors.
11:00 AM	1:30 PM	2.5	MIRU Basin Wireline to run CBL. RIH at 12:00 hrs. to depth 7,750 ft. and logged 1,000 ft above cement
1:30 PM	5:30 PM	4	Waiting on crane from Completion Equipment Rentals to MIRU well head.
5:30 PM	10:00 PM	4.5	MIRU Completion Equipment Rentals frac stack consisting of 1 7-1/16" 10K manual valve 33 3/4 turns, 1 7-1/16" Hydraulic Master Valve, 7-1/16" 10K Flow Cross with 1 x 3" Wing Valve dressed w/ 3" 1502 and 1 x 3" Wing Valve with 2-1/16" 1502, 1 7-1/16" 10K Manual Valve (Working Valve) on top of flow cross 31 3/4 turns, Completion Equipment Rentals will install goat head and crown valve before frac due to short notice and not having valves ready. Test valve separately to 10K psi. Good test on all valves.
10:00 PM	11:30 PM	1.5	MIRU Wade Co Acid, 1 tri-plex pumps, 1 boost pump, data van, and transport with 1,500 gals 15% HCL. Prime pressure tested lines to 9,800 psi, good test. Tested annulus to 2,500 psi. good test.
11:30 PM	12:00 AM	0.5	Open well and tested casing to 5,000 psi for 5 mins with a pressure loss of 0 psi, good test. Increased pressure for 5 mins with a pressure loss of 2 psi. Increased pressure to 6,000 psi for 5 mins with a pressure loss of 3 psi. Increased pressure to 6,500 psi for 5 mins with a pressure loss of 11 psi. Increased pressure to 7,000 psi for 5 mins with a pressure loss of 6 psi. Increased pressure to activate toe sub. Toe opened at 7,730 psi.
12:00 AM	1:30 AM	1.5	Began to establish an injection rate at 1 bpm, held for 10 bbls, increased rate to 2 bpm, held for 20 bbls, increased rate to 4 bpm, held for 20 bbls into injection pressure spike to 8,450 psi. Shut down and let pressure bleed down, after getting down to 6,500 psi brought rate back on at 1 bpm. Pressure slowly increased back to 8,400 psi. Shut down and bled down to 5,500 psi. Brought rate back on at 1 bpm with same pressure response. Made call to have Wade down and have coil brought in for clean out run and TCP.
1:30 AM	6:00 AM	4.5	SDFN. Working on getting a CT unit

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling	\$1,000	Frac	
Dirt Work		Wireline	\$6,000
Crane		Plugs/ Plug Hands	
Anchors		Water Transfer	
Trucking - Tanks		Supervision	\$1,500
Trucking - Trailer House		Frac Stack	
Trucking - Light Plants		Frac Tanks	\$1,600
Trucking - Porta Pots		Porta Pots	\$40
Trucking - Trash Trailer		Manlift	\$160
Trucking - Manlift		Light Towers	\$300
Trucking - Frac Stack	\$3,120	Trash Trailer	\$20
Trucking - Trailer Water	\$600	Trailer House	\$600
		Acid Job/Toe Prep	\$4,066
		Daily Intangible Costs	\$19,006
		Daily Tangible Costs	
		Cum. Intangible Costs	\$29,216
		Cum. Tangible Costs	
NOTE: All costs are field estimates only.			
		TOTAL DAILY COST	
		TOTAL CUM. COST	

/2017

30917

16" 10K
valve dressed
Equipment
ted each

sed pump and

se to 5,500 psi
i. Increased
a pressure

sed rate to 3
ing pressure
let pressure
co Acid shut

\$0

\$0

\$19,006

\$29,216

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/12
DAY # 3

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:					Location Setup
Upcoming Ops:					Location Setup
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'		Bill Stanley

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	8:00 AM	2	No Activities on location. Working on setting up CT.
8:00 AM	9:00 AM	1	Completion Equipment Rentals began to rig well down to flow cross for CT operations. Water transfer counting
9:00 AM	10:00 AM	1	Choice Completions delivered 50 ball drop plugs with balls, 2 and 2 bridge plugs.
10:00 AM	4:00 PM	6	Set up vendors for clean out and TCP. Step CT providing 2 5/8 unit. Top Notch Tools to provide for clean out and will provide TCP guns AM Pro will provide flow back iron and manifold. I talked with James Idell and we will have water being transferred in tanks shortly in case Terra isn't ready. M J set up for 2 trucks to start dropping location pit level.
4:00 PM	9:00 PM	6	MIRU Am Pro flow back iron and manifold. Support trucks for Coil unit arrived on location. Coil unit travel operation suspend due to darkness.
9:00 PM	11:00 PM	1.5	Crane arrived on location. Spotted and rigged up same. Spotted coil support vehicles.
11:00 AM	1:30 AM	2.5	Rigged up support vehicles for coil. Rigged up and install BOP. Secure location. All service personnel off location.
1:30 AM	6:00 AM	4.5	Wait on Daylight.

COST SUMMARY

Intangible Costs			Tangible Costs	
Water Hauling		Frac		
Dirt Work		Wireline		
Crane		Plugs/ Plug Hands		
Anchors		Water Transfer		
Trucking - Plugs	\$250	Supervision	\$3,000	
Trucking - Flowback iron		Frac Stack		
Trucking - Coil		Frac Tanks	\$1,600	
Trucking - Tools		Porta Pots	\$40	
Trucking - Trash Trailer		Manlift	\$160	
Trucking - Manlift		Light Towers	\$300	
Trucking - Frac Stack	\$2,240	Trash Trailer	\$20	
Trucking - Trailer Water		Trailer House	\$600	
		Coil Tubing Unit		
		Tools	\$2,000	
		Flowback iron	\$2,500	
		Crane		
NOTE: All costs are field estimates only.		Daily Intangible Costs	\$12,710	Daily Tangible Costs
		Cum. Intangible Costs	\$41,926	Cum. Tangible Costs
			TOTAL DAILY COST	
			TOTAL CUM. COST	

/2017

30917

rigging up

nd TCP.API
ave fresh

rations were

tion.

\$0

\$0

\$12,710

\$41,926

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/13
DAY # 4

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:					Location Setup
Upcoming Ops:					Location Setup
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'		BRYAN MALES

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	8AM	2	WAITING ON COIL TUBING
8AM	12PM	4	RIG UP COIL TUBING PICK UP BIT AND MOTOR
12PM	4PM	4	RIH WITH COIL TUBING TO CLEAN OUT TO TOE PUMP RATE 4BPM TAG BOTTOM @ 17417 NO FILL
4PM	7:30 PM	3.5	CIRCULATE 10-10-10 SWEEP START PULLING OUT WITH COIL TUBING
7:30 PM	9:00 PM	1.5	Remove Bit and Motor. Instal TCP guns. Zero depth @ GL. Start in hole with coil
9:00 PM	12:30 AM	3.5	RIH w TCP guns on Coil, Tag TD @ 17,420'
12:30 AM	1:30 AM	1	Drop Ball. Pump 3 BPM for 100 bbls. Slow to 1BPM until ball seated.
1:30 AM	2:00 AM	0.5	Perf 17402-17404 11 shots, 17355 - 17357 10 shots, 17306-17310 10 shots, 17257-17259 9 shots. Did not fe go off. TCP hand said this was common. Wait 10 minutes in case of delayed fire.
2:00 AM	4:30 AM	2.5	Pull out of hole with coil to 6725
4:30 AM	5:30 AM	1	Stop at 4:30 6,725' Inject into zone at different rates. Monitor coil tubing 5 1/2" annulus 1 BPM @ 6,100 2 BPM (broke over @6,400), 3 BPM @ 5200, 4 BPM@5400 Coil pressure would not allow us to continue at 4 BPM. F until total of 75 bbls pumped.
5:30 AM	6:00 AM	0.5	Continue pulling out of hole. Depth @ report time 3,600

COST SUMMARY

Intangible Costs			Tangible Costs	
Water Hauling		Frac		
Dirt Work		Wireline		
Crane		Plugs/ Plug Hands		
Anchors		Water Transfer		
Trucking - Plugs		Supervision	\$3,000	
Trucking - Flowback iron		Frac Stack	\$600	
Trucking - Coil		Frac Tanks	\$1,600	
Trucking - Tools		Porta Pots	\$40	
Trucking - Trash Trailer		Manlift	\$160	
Trucking - Manlift		Light Towers	\$300	
Trucking - Frac Stack		Trash Trailer	\$20	
Trucking - Trailer Water		Trailer House	\$600	
		Coil Tubing Unit	\$72,000	
		Tools	\$2,000	
		Flowback iron	\$2,500	
		Perforating	\$7,500	
		Daily Intangible Costs	\$90,320	Daily Tangible Costs
		Cum. Intangible Costs	\$132,246	Cum. Tangible Costs
NOTE: All costs are field estimates only.				TOTAL DAILY COST
				TOTAL CUM. COST

/2017

30917

el final shots

1 @ 5100
pump 2 bpm

\$0

\$0

\$90,320

\$132,246

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/16
 DAY # 5

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops					Location Setup
Upcoming Ops:					Location Setup
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'		Rocky Vines

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	6:00 PM	12	All freshwater, acid, and flowback tanks are set. Water transfers is rigged up, road crossings installed, and rea Both trailer houses are set up. The man lift, porta pots, trash trailer, and light plants are all set. The Baker cher set, with Stimoil being offloaded now. Third party crane from Allison is on location. Python has moved in 6 pum rig up. Weatherford has rigged up 3 pumpdown pumps coming from the flowback tanks. Wellhead is NU and r Choice plugs and multiple setting sleeves are set on a pallet in front of the trailer.
6:00 PM	6:00 AM	12	SDFN

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling		Frac	
Dirt Work		Wireline	
Crane		Plugs/ Plug Hands	
Anchors		Water Transfer	
Trucking - Plugs	\$250	Supervision	\$1,500
Trucking - Flowback iron		Frac Stack	\$600
Trucking - Coil		Frac Tanks	\$1,600
Trucking - Tools		Porta Pots	\$40
Trucking - Trash Trailer		Manlift	\$160
Trucking - Manlift		Light Towers	\$300
Trucking - Frac Stack	\$1,920	Trash Trailer	\$20
Trucking - Trailer Water		Trailer House	\$600
		Coil Tubing Unit	\$0
		Tools	\$0
		Flowback iron	\$300
		Perforating	\$0
		Daily Intangible Costs	\$7,290
		Daily Tangible Costs	
		Cum. Tangible Costs	
		PREVIOUS CUM. COST	
		TOTAL DAILY COST	
		TOTAL CUM. COST	

NOTE: All costs are field estimates only.

/2017

30917

dy to go.
nical tank is
ps in prep for
eady to go.

\$0

\$0

\$132,246

\$7,290

\$139,536

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/17
 DAY # 6

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Pre Job Rig Up				
Upcoming Ops:	Pre Job Rig Up				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBSD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	9:00 AM	3	MIRU Pyhton. 4 sand movers, 1 T belt, 17 Quintuplex pumps (14 inline), 1 Hydration, 2 Blenders, 1 Davavan, 1 Float, 1 Mainfold, and 1 Boost pump for Acid. 3 X 4" 1002 lines to wellhead, 1 X 3" manual pop-off (On well-side manual pop-off (pump-side), and 2 X 2" manual pop-off (Backside). TSR had frac tank already on location and StimOil for job and Iso filled with Stimlube-W.
9:00 AM	10:00 AM	1	MIRU API Wireline, Perforating truck, 45K Crane, 10K Lubricator package w/ grease unit.
10:00 AM	11:00 AM	1	Catalyst delivered 2 chem floats with CS-39, PayZone 214SI, Payzone 217SI, Payzone 845 BCD-W Biocide and 1 iso with Guar 40/45 for job.
11:00 AM	12:00 PM	1	MIRU Weatherford for pump down. 3 Quintuplex pumps, 1 boost pump, and 1 crane.
12:00 PM	1:00 PM	1	Pyhton had fuel unit used for job delivered and set.
1:00 PM	10:00 PM	9	Python waiting on 2 X 8" hoses and Pop-off and chemical hoses. Performed loop test on blender and hydration on hydration unit. Good test. Bucket tested available additive pumps with hoses on location.
10:00 PM	12:30 AM	2.5	Began pressure test at 23:19 hrs. Bad Test. Found some flanges leaking on frac stack, and some bolts that we Called completions rental to come and re-tourgue frac stack at 00:35 hrs.
12:30 AM	3:00 AM	2.5	Pressure tested Weatherford pump down lines, flow cross, and flowback lines to 8,200 psi. Primary Backside F released at 2,480 psi.; Main Line Pop-off released at 8,012 psi. Good test. Completions rental operator arrived down well head.
3:00 AM	5:00 AM	2	Tested Python Well side 3" manual pop off at 8,434 psi. Pump side 3" manual pop off at 8,451 psi.
5:00 AM	6:00 AM	1	At time of report waiting on good pressure test, good bucket test, and good breaker test results

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling		Frac	\$0
Dirt Work		Wireline	\$0
Crane		Plugs	\$0
Anchors		Water Transfer	\$0
Trucking - Plugs		Supervision	\$3,000
Trucking - Flowback iron		Frac Stack	\$600
Trucking - Coil		Frac Tanks	\$1,600
Trucking - Tools		Porta Pots	\$40
Trucking - Trash Trailer		Manlift	\$160
Trucking - Manlift		Light Towers	\$300
Trucking - Frac Stack		Trash Trailer	\$20
Trucking - Trailer Water		Trailer House	\$600
Trucking - Fork Lift	\$400	Flowback iron	\$300
		Catalyst Chemicals	\$0
		Flotek Chemicals	\$0
		Fork lift	\$275
		Daily Intangible Costs	\$7,295
		Daily Tangible Costs	
		Cum. Tangible Costs	
		PREVIOUS CUM. COST	
		TOTAL DAILY COST	
		TOTAL CUM. COST	

NOTE: All costs are field estimates only.

/2017

30917

1 Chemical
le), 1 X 3"
filled with

, and fill test

are loose.

Pop-off
d to torque

\$0

\$0

\$139,536

\$7,295

\$146,831

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/18
DAY # 7

Lease/Well No:	Cunning Wolf 1903H			AFE No:
Current Ops:	Frac; Plug & Perf			
Upcoming Ops:	Frac; Plug & Perf			
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD: 17,520'
KB	25	30	7,344'	PBTD: 17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD: 7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	2:00 PM	8	Finish getting good pressure test, good bucket test, and good breaker test results before starting frac. Delay on parts and equipment needed maintenance.
2:00 PM	2:15 PM	0.25	Safety meeting.
2:15 PM	5:30 PM	3.25	Stage 1 Frac: SICP: 1,950 psi, Formation broke at psi, while pumping bpm. Pumpdown bbls.Pumped: Total Acid: 95 bbls. Total Slickwater: 8,847 bbls, bbls, Total 15# XLink Gel: 1,629 bbls. Load to recover for this staç bbls. Total load to recover: 10,571 bbls. Containing: Total 100 Mesh: 213,240 lbs, Total 40/70 White167,880 30/50 White59,560 lbs. Proppant pumped this stage: 440,680 lbs. Total proppant pumped: 440,680 lbs. ISIP: with a Frac Gradient of 0.792 psi/ft. Qavg: 79.4 bpm, Pavg: 6,604 psi, Qmax: 81.6 bpm, Pmax: 7,946 psi. ***N opening well Python was unable to read rate from blender in data van. Shut down to fix. Time was 14:16 hrs. R 14:22 hrs. Able to read rate but rate total not counting. Shut down to fix at 2:30 hrs. Pyhton said issue was due channels in software not set properly. Resumed again at 14:38 hrs. StimOil was increased to 1.75 gpt loading ; from customer. Lost pump 5 during 0.75 ppg 40/70 due to packing. When time to start linear gel Python had is gel going held 1.25 ppg due to this. Lost pump 6 during 2.00 ppg 40/70 due to coolant temp. Rate flux during lç stages due to pumps lugging back.
5:30 PM	7:00 PM	1.5	NPT on API due to replacing a vent sub on the lubricator
7:00 PM	10:45 PM	3.75	RIH set stage 2 CBP at 17,235'. Perforated: 17,208'-17,210', 17,159'-17,161', 17,110'-17,112', 17,061'-17,063' shots fired.
10:45 PM	11:30 PM	0.75	NPT on Python trying to get a good pressure test. Leaking union seals.
11:30 PM	2:30 AM	3	Stage 2 Frac: SICP: 1,293 psi, Formation broke at 5,305 psi, while pumping 12 bpm. Pumpdown 677 bbls. Pu 15% HCL Acid: 111 bbls. Total Slickwater: 8,734 bbls, Total 15# XL: 1,915 bbls, Total 15# Linear:264 bbls. Lo for this stage: 11,024 bbls. Total load to recover: 21,595 bbls. Containing: Total 100 Mesh: 213,360 lbs, Total 168,180 lbs, Total 30/50 Garnet: 59,880 lbs. Proppant pumped this stage: 448,283 lbs. Total proppant pumpe lbs. ISIP: 2,725 psi, with a Frac Gradient of 0.809 psi/ft. Qavg: 78.3 bpm, Pavg: 6,074 psi, Qmax: 81.2 bpm, P psi. ***Notes*** Python was able to read, the Boost pump rate for this stage, but rate was fluctuating from 8 bpm to Good rate at pumps and boost pump staged into acid at 85 bbls. Operator watching strapping the acid went ba early, quickley got it back. While on 0.50 ppg of the 100 Mesh sand stage blender screws ran away sending a down hole. Then lined back out at 0.50 ppg concentration. Shortly after that the Rologon software staged up at causing the prop concnctration to jump up to 1 ppg. Meanwhile the FR wasn't running at the right rate. Had Bl operator tach out the FR then quickly switch it to auto. FR lined out possible FR sludge in the line. While on 1.2 Hydration caught air as it was transitioning to the box caught air as it was about to gel up. Lost the box got it be bbls should be discounted back to Periscope due to operator error.
2:30 AM	5:15 AM	2.75	RIH set stage 3 CBP at 17,039'. Perforated: 17,012'-17,014', 16,963'-16,965', 16,914'-16,916', 16,865'-16,867' shots fired.
5:15 AM	6:00 AM	0.75	Python's sand numbers not matching having them double check numbers.

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling	Frac	\$144,000	
Dirt Work	Wireline	\$12,583	
Crane	Plugs	\$4,860	
Anchors	Water Transfer	\$9,700	
Trucking - Plugs	Supervision	\$3,000	
Trucking - Flowback iron	Frac Stack	\$600	
Trucking - Coil	Frac Tanks	\$1,600	
Trucking - Tools	Porta Pots	\$40	
Trucking - Trash Trailer	Manlift	\$160	
Trucking - Manlift	Light Towers	\$300	
Trucking - Frac Stack	Trash Trailer	\$20	

Trucking - Trailer Water		Trailer House	\$600	
Trucking - Fork Lift		Flowback iron	\$300	
Pump down crew	\$8,500	Catalyst Chemicals	\$10,810	
		Flotek Chemicals	\$26,750	
		Fork lift	\$275	
		Daily Intangible Costs	\$224,098	Daily Tangible Costs
				Cum. Tangible Costs
NOTE: All costs are field estimates only.				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

/2017

30917

ue to short

15% HCL
ge: 10,571
lbs, Total
2,829 psi,
lotes*** After
resumed at
to wrong
as requested
sues getting
ast few prop

3'. All

imped: Total
ad to recover
40/70 White:
d: 888,963
max: 7,831

22 bpm.
ick to water
1.25 ppg slug
tomatically
lender
25 ppg white.
ack up 926

7'. All

\$0
\$0
\$146,831
\$224,098
\$370,929

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/19
DAY # 8

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Frac; Plug & Perf				
Upcoming Ops:	Frac; Plug & Perf				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	6:30 AM	0.5	Python's sand numbers not matching having them double check numbers.
6:30 AM	9:00 AM	2.5	Stage 3 Frac: SICP: 1,403 psi, Formation broke at 4,083 psi, while pumping 14 bpm. Pumpdown 488 bbls. Pu 15% HCL Acid: 95 bbls. Total Slickwater: 8,021 bbls, bbls, Total 15# XLink Gel: 1,939 bbls. Load to recover f 10,055 bbls. Total load to recover: 32,138 bbls. Containing: Total 100 Mesh: 213,160 lbs, Total 40/70 White: Total 30/50 White:60,080 lbs. Proppant pumped this stage: 441,820 lbs. Total proppant pumped: 1,330,783 lb 2,993 psi, with a Frac Gradient of 0.846 psi/ft. Qavg: 82.2 bpm, Pavg: 6,334 psi, Qmax: 82.9 bpm, Pmax: 7,56 ***Notes*** Lost pump 3 during 0.50 ppg 100 mesh due to bad fuel filter.
9:00 AM	12:00 PM	3	RIH set stage 4 CBP at 16,843'. Perforated: 16,820'-16,822', 16,767'-16,769', 16,718'-16,720', 16,669'-16,671 fired.
12:00 PM	12:30 PM	0.5	NPT on python to prime and test after maintenance.
12:30 PM	3:00 PM	2.5	Stage 4 Frac: SICP: 1,523 psi, Formation broke at 6,891 psi, while pumping 14 bpm. Pumpdown 368 bbls. Pu 15% HCL Acid: 95 bbls. Total Slickwater: 8,065 bbls, bbls, Total 15# XLink Gel: 1,838 bbls. Load to recover f 9,998 bbls. Total load to recover: 42,504 bbls. Containing: Total 100 Mesh: 212,740 lbs, Total 40/70 White:1 Total 30/50 White:58,400 lbs. Proppant pumped this stage: 440,020 lbs. Total proppant pumped: 1,770,803 lb 3,094 psi, with a Frac Gradient of 0.859 psi/ft. Qavg: 82.2 bpm, Pavg: 6,615 psi, Qmax: 82.7 bpm, Pmax: 7,52 ***Notes*** Good stage pumped as designed.
3:00 PM	5:45 PM	2.75	RIH set stage 5 CBP at 16,647'. Perforated: 16,620'-16,622', 16,571'-16,573', 16,522'-16,524', 16,473'-16,475 shots fired.
5:45 PM	6:15 PM	0.5	NPT on python to prime and test after maintenance.
6:15 PM	9:00 PM	2.75	Stage 5 Frac: SICP: 1,610 psi, Formation broke at 5,269 psi, while pumping 12 bpm. Pump down 359 bbls. Pu 15% HCL Acid: 102 bbls. Total Slickwater: 7,975 bbls, Total 15# XLink Gel: 2,769 bbls. Load to recover for this 10,846 bbls. Total load to recover: 53,709 bbls. Containing: Total 100 Mesh: 212,100 lbs, Total 40/70 White: Total 30/50 White: 60,120 lbs. Proppant pumped this stage: 440,140 lbs. Total proppant pumped: 2,210,943 lb 3,162 psi, with a Frac Gradient of 0.869 psi/ft. Qavg: 79.6 bpm, Pavg: 6,943 psi, Qmax: 81.8 bpm, Pmax: 7,98 ***Notes*** Opened the well at 18:01 hrs. with 1614 psi started coming on rate, Python noticed a bleeder valve had to shut down and shut in the well. Resume treatment at 18:15 hrs. While staging into #15 XL 1.50 ppg. Th apart, FR was already cut, made the decision to bring the linear up to a 4.00 gpt and bumped up the XL to a 1. the system. Once Good XL was achieved resumed treatment. Stage complete. All proppant placed.
9:00 PM	11:00 PM	2	RIH set stage 6 CBP at 16,451'. Perforated: 16,424'-16,426', 16,375'-16,377', 16,326'-16,328', 16,277'-16,279 shots fired.
11:00 PM	11:45 PM	0.75	Completion Rentals greasing the well head.
11:45 PM	2:30 AM	2.75	Stage 6 Frac: SICP: 1,736 psi, Formation broke at 7,404 psi, while pumping 16 bpm. Pump down 387 bbls. Pu 15% HCL Acid: 105 bbls. Total Slickwater: 7,814 bbls, Total 15# XLink Gel: 2,076 bbls. Load to recover for this bbls. Total load to recover: 64,091 bbls. Containing: Total 100 Mesh: 213,260 lbs, Total 40/70 White: 167,98 30/50 White: 60,100 lbs. Proppant pumped this stage: 441,340 lbs. Total proppant pumped: 2,652,283 lbs. ISI with a Frac Gradient of 0.888 psi/ft. Qavg: 79.6 bpm, Pavg: 6,838 psi, Qmax: 80.2 bpm, Pmax: 7,868 psi. ***Notes*** Made a rate adjustment due to a pump losing a valve or spring. Lost a pump due to pressure kick (flush. All proppant placed.
2:30 AM	4:30 AM	2	RIH set stage 7 CBP at 16,248'. Perforated: 16,228'-16,230', 16,179'-16,181', 16,130'-16,132', 16,082'-16,084 shots fired.
4:30 AM	5:00 AM	0.5	NPT on python to prime and test after maintenance.
5:00 AM	6:00 AM	1	Pumping stage 7 at the time of this report.

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling	Frac	\$283,462	
Dirt Work	Wireline	\$12,583	
Crane	Plugs	\$4,860	
Anchors	Water Transfer	\$9,700	
Trucking - Plugs	Supervision	\$3,000	
Trucking - Flowback iron	Frac Stack	\$600	

Trucking - Coil		Frac Tanks	\$1,600	
Trucking - Tools		Porta Pots	\$40	
Trucking - Trash Trailer		Manlift	\$160	
Trucking - Manlift		Light Towers	\$300	
Trucking - Frac Stack		Trash Trailer	\$20	
Trucking - Trailer Water		Trailer House	\$600	
Trucking - Fork Lift		Flowback iron	\$300	
Pump down crew	\$8,500	Catalyst Chemicals	\$21,128	
		Flotek Chemicals	\$60,940	
		Fork lift	\$275	
		Daily Intangible Costs	\$408,067	Daily Tangible Costs
				Cum. Tangible Costs
				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

NOTE: All costs are field estimates only.

/2017

30917

imped: Total
or this stage:
168,580 lbs,
s. ISIP:
30 psi.

l'. All shots

imped: Total
or this stage:
68,880 lbs,
s. ISIP:
28 psi.

5'. All

umped: Total
s stage:
167,920 lbs,
bs. ISIP:
34 psi.
leaking by,
e system fell
50 gpt to help

9'. All

umped: Total
s stage: 9,995
0 lbs, Total
IP: 3,301 psi,
outs while on

1'. All

\$0
\$0
\$370,929
\$408,067
\$778,997

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/20
DAY # 9

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Frac; Plug & Perf				
Upcoming Ops:	Frac; Plug & Perf				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	7:45 AM	1.75	Stage 7 Frac: SICP: 1,898 psi, Formation broke at 5,807 psi, while pumping 15 bpm. Pumpdown 409 bbls. Pu 15% HCL Acid: 105 bbls. Total Slickwater: 8,101 bbls, bbls, Total 15# XLink Gel: 1,802 bbls. Load to recover stage: 10,008 bbls. Total load to recover: 74,508 bbls. Containing: Total 100 Mesh: 213,160 lbs, Total 40/70 White:168,000 lbs, Total 30/50 White:59,840 lbs. Proppant pumped this stage: 441,000 lbs. Total proppant pu 3,093,283 lbs. ISIP: 3,618 psi, with a Frac Gradient of 0.932 psi/ft. Qavg: 80.6 bpm, Pavg: 6,892 psi, Qmax: 8 Pmax: 7,543 psi. ***Notes*** Held 1.25 ppg 40/70 due to gel visc at 5 cp. Once good visc was observed starte staged up.
7:45 AM	10:30 AM	2.75	RIH set stage 8 CBP at 16,054'. Perforated: 16,027'-16,029', 15,978'-15,980', 15,929'-15,931', 15,880'-15,882 shots fired.
10:30 AM	11:30 AM	1	NPT on python to orime and test lines after finishing maintenance.
11:30 AM	2:15 PM	2.75	Stage 8 Frac: SICP: 1,965 psi, Formation broke at 6,580 psi, while pumping 14 bpm. Pumpdown 350 bbls. Pu 15% HCL Acid: 95 bbls. Total Slickwater: 8,051 bbls, bbls, Total 15# XLink Gel: 1,827 bbls. Load to recover f 9,973 bbls. Total load to recover: 84,831 bbls. Containing: Total 100 Mesh: 213,280 lbs, Total 40/70 White:1 Total 30/50 White:56,320 lbs. Proppant pumped this stage: 437,600 lbs. Total proppant pumped: 3,530,883 lb 3,244 psi, with a Frac Gradient of 0.88 psi/ft. Qavg: 80.6 bpm, Pavg: 6,402 psi, Qmax: 82.6 bpm, Pmax: 7,931 ***Notes*** Lost pump 6 during 1.50 ppg 40/70 due to packing.
2:15 PM	4:45 PM	2.5	RIH set stage 9 CBP at 15,858'. Perforated: 15,831'-15,833', 15,782'-15,784', 15,735'-15,737', 15,684'-15,686 shots fired.
4:45 PM	5:45 PM	1	NPT to get good pressure test. Found bottom hyd valve not holding pressure. Got good pressure test from bott valve. Recycled hyd valve 3 times and still unable to get good pressure test. Customer approved to start stage Completions Rentals to come out to grease well and also bring out extra hyd valve in case after grease still car pressure test.
5:45 PM	8:15 PM	2.5	Stage 9 Frac: SICP: 1,841 psi, Formation broke at 5,290 psi, while pumping 15 bpm. Pump down 343 bbls. Pu 15% HCL Acid: 100 bbls. Total Slickwater: 8,003 bbls, Total 15# XLink Gel: 1,958 bbls. Load to recover for this 10,061 bbls. Total load to recover: 95,235 bbls. Containing: Total 100 Mesh: 213,040 lbs, Total 40/70 White: Total 30/50 White: 60,200 lbs. Proppant pumped this stage: 449,437 lbs. Total proppant pumped: 3,980,320 lb 3,209 psi, with a Frac Gradient of 0.875 psi/ft. Qavg: 81.3 bpm, Pavg: 6,439 psi, Qmax: 81.9 bpm, Pmax: 7,74 ***Notes*** Good stage all proppant placed.
8:15 PM	9:15 PM	1	NPT on API having to re-head their line due to it getting pinch in the pulley while getting ready to stab onto the also change out flow tubes, during this time.
9:15 PM	11:30 PM	2.25	RIH set stage 10 CBP at 15,662'. Perforated: 15,635'-15,637', 15,586'-15,588', 15,537'-15,539', 15,488'-15,490 shots fired.
11:30 PM	12:45 AM	1.25	Completion Rentals to Grease hydraulic valve, and test. Tested the valve to 7,300 psi and lost 300 psi within 3 Conducted a negative test with zero pressure. Pressure increased by 200 psi within 30 seconds. RD Frac rise BoP, and flow back iron. Completion Rentals to conduct valve replacement at 00:045 hrs.
12:45 AM	6:00 AM	5.25	NPT on Completeions rentals Nippled down to hydraulic valve and replace valve. Valve replaced and nipped t 04:52 hrs. Rigging back up for frac and wireline operations. At the time of this report.

COST SUMMARY

Intangible Costs			Tangible Costs	
Water Hauling		Frac	\$211,536	
Dirt Work		Wireline	\$9,437	
Crane		Plugs	\$3,645	
Anchors		Water Transfer	\$9,700	
Trucking - Plugs		Supervision	\$3,000	
Trucking - Flowback iron		Frac Stack	\$600	
Trucking - Coil		Frac Tanks	\$1,600	
Trucking - Tools		Porta Pots	\$40	

Trucking - Trash Trailer		Manlift	\$160	
Trucking - Manlift		Light Towers	\$300	
Trucking - Frac Stack		Trash Trailer	\$20	
Trucking - Trailer Water		Trailer House	\$600	
Trucking - Fork Lift		Flowback iron	\$300	
Pump down crew	\$8,500	Catalyst Chemicals	\$14,664	
Grease well head	\$600	Flotek Chemicals	\$44,729	
		Fork lift	\$275	
NOTE: All costs are field estimates only.		Daily Intangible Costs	\$309,706	Daily Tangible Costs
				Cum. Tangible Costs
				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

/2017

30917

imped: Total
for this

imped:
1.2 bpm,
d xl and

2'. All

imped: Total
or this stage:
68,000 lbs,
s. ISIP:
l psi.

3'. All

tom manual
. Called
n't get good

umped: Total
s stage:
168,060 lbs,
bs. ISIP:
10 psi.

well. API will

30'. All

0 seconds.
rs, Wireline

back up at

\$0
\$0
\$778,997
\$309,706
\$1,088,703

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/21
DAY # 10

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Frac; Plug & Perf				
Upcoming Ops:	Frac; Plug & Perf				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBSD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	7:00 AM	1	Rigging frac and pump down crew back up for operations. Prime and test lines on pump down crew and frac. C pump down crew and replacement hyd valve. Frac had leaking iron on their iron.
7:00 AM	10:00 AM	3	NPT on frac to get good pressure test on their iron. Frac had to replace 2- 2x1 valves going to pit and 1- 2x2 valves pop off. Once good pressure test was observed had issues getting good pop off test, swapped out. Reset pop off test. 100 psi.
10:00 AM	12:30 PM	2.5	Stage 10 Frac: SICP: 1,460 psi, Formation broke at 5,762 psi, while pumping 14 bpm. Pumpdown 354 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 8,298 bbls, Total 15# XLink Gel: 1,983 bbls. Load to recover for this 10,376 bbls. Total load to recover: 105,965 bbls. Containing: Total 100 Mesh: 212,940 lbs, Total 40/70 White lbs, Total 30/50 White: 60,120 lbs. Proppant pumped this stage: 441,220 lbs. Total proppant pumped: 4,421,535,529 psi, with a Frac Gradient of 0.92 psi/ft. Qavg: 82.2 bpm, Pavg: 6,835 psi, Qmax: 82.9 bpm, Pmax: 7,549 psi. ***Notes*** Pad was extended by 355 bbls due to frac having issues with suction flow meter glitching causing flow flux. Once lined out stage was resumed as designed.
12:30 PM	2:00 PM	1.5	Wireline called safety stand down due to lighting in the area. Will resume once wireline approves.
2:00 PM	4:00 PM	2	RIH set stage 11 CBP at 15,466'. Perforated: 15,443'-15,445', 15,390'-15,392', 15,341'-15,343', 15,292'-15,294' shots fired.
4:00 PM	5:30 PM	1.5	NPT on frac to prime and test. During priming pumps frac had bolt for tub paddles break. Shut down to replace and resume prime up noticed that the suction and flow meters were not adding up. Set up to have loop test done down hole.
5:30 PM	8:00 PM	2.5	Stage 11 Frac: SICP: 1,880 psi, Formation broke at 5,086 psi, while pumping 15 bpm. Pump down 326 bbls. P 15% HCL Acid: 106 bbls. Total Slickwater: 8,259 bbls, Total 15# XLink Gel: 1,913 bbls. Load to recover for this 10,278 bbls. Total load to recover: 116,569 bbls. Containing: Total 100 Mesh: 213,200 lbs, Total 40/70 White lbs, Total 30/50 White: 60,020 lbs. Proppant pumped this stage: 441,220 lbs. Total proppant pumped: 4,862,734,435 psi, with a Frac Gradient of 0.907 psi/ft. Qavg: 80.3 bpm, Pavg: 6,539 psi, Qmax: 80.8 bpm, Pmax: 7,822 psi. ***Notes*** As acid was started noticed that the densitometers were reading acid at a .75 ppg conc. Then drop acid to 0 ppg conc. Python checked all valves found a water valve still open, once it was closed desired percentage of acid was achieved. Treater could not get a hold of the hydration operator, gel was started late. pumped 217 bbls extra during the 15# XL stages. All proppant placed.
8:00 PM	8:15 PM	0.25	NPT on API double checking tool string voltage prior to running in the hole.
8:15 PM	9:45 PM	1.5	RIH set stage 12 CBP at 15,270'. Perforated: 15,243'-15,245', 15,194'-15,196', 15,145'-15,147', 15,096'-15,098' shots fired.
9:45 PM	10:30 PM	0.75	NPT on Python finishing up pump maintenance; prime up and pressure test.
10:30 PM	3:00 AM	4.5	Started stage 12 at 10:22 hrs. While on 1 ppg of the 100 Mesh, FR was lost, Pressure quickly increased, and sand was cut. Meanwhile, the rate was being dropped in 5 and 2 bbl increments. Able to maintain rate about 53 bpm and around 7700 psi. Python kicked on the backup FR pump while they were trying to get the primary FR pump up. Blender operator noticed large amounts of FR boogers coming out. Python was able to get the FR going again pressure decreased and rate was increased back to 80 bpm at 6400 psi. resumed sand at 0.25 ppg 100 Mesh stepped up to 0.75 ppg. While on 0.75 ppg concentration. Python notified us that the FR pump began to gum up. Made the decision to cut sand, and go to flush. Shut Down at 23:52 hrs. Python cleaned out the FR pumps, and the FR in the tank at 00:30 hrs. to hopefully achieve a better flow rate of the FR. At 01:35 hrs. The treater notified consultant that they had a chemical spill of about 300 gals of the StimLube W (FR), due to a Chem lock failure connected to the discharge side of the chemical pump. Possibly, from the vibrations of the pump added with the boogers that were going through the pump as it was being circulated. Individual that was running the blender was properly relieved, and left his post. leaving it unsupervised. M & J trucking has been dispatched with a vac truck to clean the spill. Resume treatment at 03:03 hrs.

3:00 AM	5:00 AM	2	Stage 12 Frac: SICP: 2,106 psi, Formation broke at 4,774 psi, while pumping 14 bpm. Pump down 333 bbls. F Total 15% HCL Acid: 95 bbls. Total Slickwater: 11,067 bbls, Total 15# XLink Gel: 1,919 bbls. Load to recover f 13,081 bbls. Total load to recover: 129,983 bbls. Containing: Total 100 Mesh: 213,200 lbs, Total 40/70 White lbs, Total 30/50 White: 60,020 lbs. Proppant pumped this stage: 441,220 lbs. Total proppant pumped: 5,303,9 3,518 psi, with a Frac Gradient of 0.918 psi/ft. Qavg: 80.1 bpm, Pavg: 6,763 psi, Qmax: 81.6 bpm, Pmax: 8,04 ***Notes*** Open well at 03:03 hrs. with 2,040 psi. resume treatment. Primary FR pump is inoperable, using t pump, which is not currently being plotted on Pythons screen, Etech will be attempting to set it up on the plots. of extra bbls pumped was 2,493 bbls. Lost packing on Pump #15. Prior to staging up to the 2 ppg 30/50. All pr placed.
5:00 AM	6:00 AM	1	Currently RIH with wireline for stage 13 at the time of this report.

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling/ Vaccum	\$500	Frac	\$210,865
Dirt Work		Wireline	\$6,292
Crane		Plugs	\$2,430
Anchors		Water Transfer	\$9,700
Trucking - Plugs		Supervision	\$3,000
Trucking - Flowback iron		Frac Stack	\$600
Trucking - Coil		Frac Tanks	\$1,600
Trucking - Tools		Porta Pots	\$40
Trucking - Trash Trailer		Manlift	\$160
Trucking - Manlift		Light Towers	\$300
Trucking - Frac Stack		Trash Trailer	\$20
Trucking - Trailer Water		Trailer House	\$600
Trucking - Fork Lift		Flowback iron	\$300
Pump down crew	\$8,500	Catalyst Chemicals	\$15,666
Grease well head	\$600	Flotek Chemicals	\$48,326
		Fork lift	\$275
		Daily Intangible Costs	\$309,774
			Daily Tangible Costs
			Cum. Tangible Costs
			PREVIOUS CUM. COST
			TOTAL DAILY COST
			TOTAL CUM. COST

NOTE: All costs are field estimates only.

/2017

30917

Good test on

valve isolating
off at 8,444

Pumped: Total
stage:
s: 168,160
40 lbs. ISIP:
7 psi.
chemicals to

4'. All

1 bolt. After
before going

Pumped:
for this stage:
s: 168,000
60 lbs. ISIP:
7 psi.
pumped down to
was going
prior to

8'. All

screws were
l pressure
and running.
and
and stair
up again.
d circulated
ed the night
that was
ie FR
as not
k to clean up

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/22
DAY # 11

Lease/Well No:	Cunning Wolf 1903H			AFE No:
Current Ops:	Frac; Plug & Perf			
Upcoming Ops:	Frac; Plug & Perf			
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD: 17,520'
KB	25	30	7,344'	PBTD: 17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD: 7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	7:15 AM	1.25	RIH set stage 13 CBP at 15,074'. Perforated: 15,047'-15,049', 14,998'-15,000', 14,949'-14,951', 14,900'-14,902' shots fired.
7:15 AM	10:30 AM	3.25	NPT on frac to prime and test lines after finishing maintenance. FR pumps were cleaned properly and hooked primed up before starting stage due to frac not getting this done properly during wireline.
10:30 AM	1:00 PM	2.5	Stage 13 Frac: SICP: 1,838 psi, Formation broke at 6,002 psi, while pumping 15 bpm. Pumpdown 343 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,961 bbls, Total 15# XLink Gel: 1,863 bbls. Load to recover for this bbls. Total load to recover: 140,245 bbls. Containing: Total 100 Mesh: 213,000 lbs, Total 40/70 White: 168,030/50 White: 59,720 lbs. Proppant pumped this stage: 440,720 lbs. Total proppant pumped: 5,744,600 lbs. ISI with a Frac Gradient of 0.921 psi/ft. Qavg: 80.3 bpm, Pavg: 6,519 psi, Qmax: 80.7 bpm, Pmax: 7,627 psi. ***N stage no issues.
1:00 PM	3:15 PM	2.25	RIH set stage 14 CBP at 14,878'. Perforated: 14,851'-14,853', 14,802'-14,804', 14,753'-14,755', 14,708'-14,710' shots fired.
3:15 PM	3:45 PM	0.5	NPT on frac to prime and test lines after finishing maintenance.
3:45 PM	6:15 PM	2.5	Stage 14 Frac: SICP: 2,095 psi, Formation broke at 5,881 psi, while pumping 15 bpm. Pumpdown 290 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 8,135 bbls, Total 15# XLink Gel: 1,841 bbls. Load to recover for this bbls. Total load to recover: 150,606 bbls. Containing: Total 100 Mesh: 213,520 lbs, Total 40/70 White: 168,030/50 White: 60,400 lbs. Proppant pumped this stage: 441,920 lbs. Total proppant pumped: 6,186,520 lbs. ISI with a Frac Gradient of 0.882 psi/ft. Qavg: 81.9 bpm, Pavg: 6,570 psi, Qmax: 82.8 bpm, Pmax: 7,876 psi. ***Notes*** When swapping to acid frac went to wrong tank delaying the start of acid until on correct tank. Pad extended by 40 bbls due to blender operator having issues with FR in auto. Had swap to manual and line then resolve issue. Held the 1.25 ppg 40/70 White an extra 227 bbls due to python unable to get a viscosity sample sample 10 visc. 9.2 pH. Good stage all proppant placed
6:15 PM	8:00 PM	1.75	RIH set stage 15 CBP at 14,682'. Perforated: 14,655'-14,657', 14,606'-14,608', 14,557'-14,559', 14,508'-14,510' shots fired.
8:00 PM	8:45 PM	0.75	Completion rentals to grease the well
8:45 PM	9:00 PM	0.25	NPT on Python; Open well at 20:54 hrs. Tried to start injection test only able to get 5 bpm. Shut Down at 20:58 assess the situation. Resume treatment at 21:02 hrs.
9:00 PM	11:30 PM	2.5	Stage 15 Frac: SICP: 2,140 psi, Formation broke at 6,364 psi, while pumping 15 bpm. Pumpdown 307 bbls. P 15% HCL Acid: 96 bbls. Total Slickwater: 7,985 bbls, Total 15# XLink Gel: 1,742 bbls. Load to recover for this stage: 160,736 bbls. Total load to recover: 160,736 bbls. Containing: Total 100 Mesh: 198,360 lbs, Total 40/70 White: 168,530/50 White: 60,000 lbs. Proppant pumped this stage: 426,880 lbs. Total proppant pumped: 6,613,400 lbs. ISI with a Frac Gradient of 0.922 psi/ft. Qavg: 80. bpm, Pavg: 6,878 psi, Qmax: 80.3 bpm, Pmax: 7,876 psi. ***Notes*** Tried to start injection test only able to get 5 bpm. Shut Down at 20:58 hrs. to assess the situation. treatment at 21:02 hrs. Notified by Python that Sand Mover #1 had a major hole in its radiator. Which held 213,000 Mesh that was going to run for this stage. Sand Mover #3 has 198,360 lbs. of 100 Mesh that will be ran in. Which will have 96% of the designed proppant pumped for this stage. While on Pad, after the acid, the Blender notified the datavan that he was unable to maintain rate above 75 bpm. Python found a clean up line that was in the blender to catch air. valve was closed and able to get the rate back up to 80 bpm. pumped an additional 75 that time. Lost Pump #9 due to packing. Good stage, all proppant placed.
11:30 PM	1:00 AM	1.5	RIH set stage 16 CBP at 14,480'. Perforated: 14,459'-14,461', 14,410'-14,412', 14,361'-14,363', 14,312'-14,314' shots fired.
1:00 AM	1:30 AM	0.5	NPT on Python, To prime up, set seats, and pressure test.
1:30 AM	4:00 AM	2.5	Stage 16 Frac: SICP: 2,250 psi, Formation broke at 5,052 psi, while pumping 15 bpm. Pumpdown 293 bbls. P 15% HCL Acid: 90 bbls. Total Slickwater: 8,013 bbls, Total 15# XLink Gel: 1,898 bbls. Load to recover for this bbls. Total load to recover: 171,030 bbls. Containing: Total 100 Mesh: 213,620 lbs, Total 40/70 White: 168,030/50 White: 60,260 lbs. Proppant pumped this stage: 441,880 lbs. Total proppant pumped: 7,055,280 lbs. ISI with a Frac Gradient of 0.906 psi/ft. Qavg: 81. bpm, Pavg: 6,608 psi, Qmax: 81.5 bpm, Pmax: 7,924 psi. ***Notes*** While on 1.50 ppg 100 Mesh, FR pump began to fluctuate, Python is trying to adjust the pumps ac lined out. Good stage all proppant placed.

4:00 AM	6:00 AM	2	RIH set stage 17 CBP at 14,290'. Perforated: 14,263'-14,265', 14,214'-14,216', 14,165'-14,167', 14,116'-14,118'

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling/ Vaccum		Frac	\$268,763
Dirt Work		Wireline	\$12,583
Crane		Plugs	\$4,860
Anchors		Water Transfer	\$9,700
Trucking - Plugs		Supervision	\$3,000
Trucking - Flowback iron		Frac Stack	\$600
Trucking - Coil		Frac Tanks	\$1,600
Trucking - Tools		Porta Pots	\$40
Trucking - Trash Trailer		Manlift	\$160
Trucking - Manlift		Light Towers	\$300
Trucking - Frac Stack		Trash Trailer	\$20
Trucking - Trailer Water		Trailer House	\$600
Trucking - Fork Lift		Flowback iron	\$300
Pump down crew	\$8,500	Catalyst Chemicals	\$22,537
Grease well head	\$600	Flotek Chemicals	\$56,006
		Fork lift	\$275
NOTE: All costs are field estimates only.		Daily Intangible Costs	\$390,444
			Daily Tangible Costs
			Cum. Tangible Costs
			PREVIOUS CUM. COST
			TOTAL DAILY COST
			TOTAL CUM. COST

/2017

30917

02. All

back up and

umped: Total
stage: 9,919
00 lbs, Total
IP: 3,543 psi,
lotes*** Good

10. All

umped: Total
stage: 10,071
00 lbs, Total
IP: 3,257 psi,

was
auto to
. Good

10. All

hrs. to

umped: Total
age: 9,823
20 lbs, Total
IP: 3,550 psi,

Resume
3,620 lbs of
its place.
r operator
open causing
bbls during

14. All

umped: Total
stage: 10,001
00 lbs, Total
IP: 3,434 psi,

ordingly. FR

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/23
DAY # 12

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Frac; Plug & Perf				
Upcoming Ops:	Frac; Plug & Perf				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	8:00 AM	2	NPT on frac to finish offloading and mixing acid. After done acid titrated at 15%.
8:00 AM	10:45 AM	2.75	Stage 17 Frac: SICP: 1,942 psi, Formation broke at 6,218 psi, while pumping 15 bpm. Pumpdown 284 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 8,229 bbls, Total 15# XLink Gel: 1,943 bbls. Load to recover for this 10,267 bbls. Total load to recover: 181,581 bbls. Containing: Total 100 Mesh: 213,500 lbs, Total 40/70 White lbs, Total 30/50 White: 60,680 lbs. Proppant pumped this stage: 442,180 lbs. Total proppant pumped: 7,497,4 4,077 psi, with a Frac Gradient of 0.995 psi/ft. Qavg: 79. bpm, Pavg: 6,881 psi, Qmax: 80.9 bpm, Pmax: 7,910 ***Notes*** Had to extend pad by 292 bbls due to frac having trouble starting the CS-39 and Scale 214 limiting 55 gal of each was ran started prop as designed. Lost pump 1 during 0.75 ppg due to fuel filters. Lost pump 14 ppg 100 mesh due to pressure transducer failing. All prop placed
10:45 AM	1:15 PM	2.5	RIH set stage 18 CBP at 14,094'. Perforated: 14,067'-14,069', 14,018'-14,020', 13,969'-13,971', 13,920'-13,922' shots fired.
1:15 PM	1:45 PM	0.5	NPT on frac to prime and test lines after maintenance.
1:45 PM	4:15 PM	2.5	Stage 18 Frac: SICP: 2,395 psi, Formation broke at 4,496 psi, while pumping 15 bpm. Pumpdown 254 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,934 bbls, Total 15# XLink Gel: 1,985 bbls. Load to recover for this 10,014 bbls. Total load to recover: 191,849 bbls. Containing: Total 100 Mesh: 213,100 lbs, Total 40/70 White lbs, Total 30/50 White: 60,040 lbs. Proppant pumped this stage: 441,180 lbs. Total proppant pumped: 7,938,6 3,902 psi, with a Frac Gradient of 0.971 psi/ft. Qavg: 81.1 bpm, Pavg: 6,541 psi, Qmax: 81.5 bpm, Pmax: 7,440 ***Notes*** Pump 9 lost power during 1.00 ppg 40/70. Frac restarted pump back up and brought back online. Frac during last part of stage will clean lines and pumps in between stages.
4:15 PM	6:15 PM	2	RIH set stage 19 CBP at 13,898'. Perforated: 13,875'-13,877', 13,822'-13,824', 13,773'-13,775', 13,724'-13,726' shots fired.
6:15 PM	7:15 PM	1	NPT on frac, to finish pump maintenance, prime up and test lines.
7:15 PM	9:30 PM	2.25	Stage 19 Frac: SICP: 2,183 psi, Formation broke at 4,378 psi, while pumping 15 bpm. Pumpdown 240 bbls. P 15% HCL Acid: 97 bbls. Total Slickwater: 7,962 bbls, Total 15# XLink Gel: 1,812 bbls. Load to recover for this 9,948 bbls. Total load to recover: 201,960 bbls. Containing: Total 100 Mesh: 213,020 lbs, Total 40/70 White: 168,1 30/50 White: 61,340 lbs. Proppant pumped this stage: 442,460 lbs. Total proppant pumped: 8,381,100 lbs. ISI with a Frac Gradient of 0.924 psi/ft. Qavg: 81.1 bpm, Pavg: 6,656 psi, Qmax: 81.7 bpm, Pmax: 7,965 psi. ***Notes*** While on 0.50 ppg 100 Mesh had to make rate adjustments due to a pump having low fuel pressure the 3 ppg 30/50 kicked on the B/U FR pump. Python is trying to get it lined out.
9:30 PM	11:15 PM	1.75	RIH set stage 20 CBP at 13,702'. Perforated: 13,675'-13,677', 13,626'-13,628', 13,577'-13,579', 13,528'-13,530' shots fired.
11:15 PM	11:45 PM	0.5	NPT on Frac having to grease ground valves and prime up and test
11:45 PM	2:30 AM	2.75	Stage 20 Frac: SICP: 2,313 psi, Formation broke at 6,497 psi, while pumping 15 bpm. Pump down 271 bbls. P Total 15% HCL Acid: 95 bbls. Total Slickwater: 7,968 bbls, Total 15# XLink Gel: 1,885 bbls. Load to recover fo 9,948 bbls. Total load to recover: 212,179 bbls. Containing: Total 100 Mesh: 213,740 lbs, Total 40/70 White: Total 30/50 White: 60,680 lbs. Proppant pumped this stage: 442,420 lbs. Total proppant pumped: 8,823,520 lb 3,792 psi, with a Frac Gradient of 0.956 psi/ft. Qavg: 80.7 bpm, Pavg: 6,886 psi, Qmax: 81. bpm, Pmax: 7,927 3,146 psi., 10 Min.: 2,978 psi., 15 Min.: 2,877 psi. ***Notes*** Have troubles with boost from the acid transfer pump, Python is working on lining it out. Possibly fr volume being low. Shut down due loss of discharge pressure on the boost pump went to the other acid tank an treatment. Good stage all proppant placed.
2:30 AM	4:15 AM	1.75	RIH set stage 21 CBP at 13,506'. Perforated: 13,481'-13,483', 13,430'-13,432', 13,381'-13,383', 13,332'-13,334' shots fired.
4:15 AM	5:00 AM	0.75	Competition Rentals greasing the well.
5:00 AM	6:00 AM	1	Pumping stage 21 at the time of this report.

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling/ Vaccum	Frac	\$272,527	
Dirt Work	Wireline	\$12,583	
Crane	Plugs	\$4,860	

Anchors		Water Transfer	\$9,700	
Trucking - Plugs		Supervision	\$3,000	
Trucking - Flowback iron		Frac Stack	\$600	
Trucking - Coil		Frac Tanks	\$1,600	
Trucking - Tools		Porta Pots	\$40	
Trucking - Trash Trailer		Manlift	\$160	
Trucking - Manlift		Light Towers	\$300	
Trucking - Frac Stack		Trash Trailer	\$20	
Trucking - Trailer Water		Trailer House	\$600	
Trucking - Fork Lift		Flowback iron	\$300	
Pump down crew	\$8,500	Catalyst Chemicals	\$22,507	
Grease well head	\$600	Flotek Chemicals	\$56,310	
		Fork lift	\$275	
		Daily Intangible Costs	\$394,481	Daily Tangible Costs
				Cum. Tangible Costs
				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

NOTE: All costs are field estimates only.

/2017

30917

'umped: Total
stage:
s: 168,000
60 lbs. ISIP:
9 psi. Once
rate. Once
during 1.50

22'. All

'umped: Total
stage:
s: 168,040
40 lbs. ISIP:
9 psi.
FR rate flux

26'. All

'umped: Total
stage: 9,871
00 lbs, Total
IP: 3,564 psi,
e. Lost FR on

30'. All

'umped:
r this stage:
168,000 lbs,
bs. ISIP:
r psi. 5 Min.:

om the tank
id resumed

34'. All

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/24
DAY # 13

Lease/Well No:		Cunning Wolf 1903H			AFE No:
Current Ops:		Frac; Plug & Perf			
Upcoming Ops:		Frac; Plug & Perf			
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	7:45 AM	1.75	Stage 21 Frac: SICP: 2,240 psi, Formation broke at 6,000 psi, while pumping 15 bpm. Pumpdown 255 bbls. P 15% HCL Acid: 96 bbls. Total Slickwater: 7,901 bbls, Total 15# XLink Gel: 1,944 bbls. Load to recover for this bbls. Total load to recover: 222,375 bbls. Containing: Total 100 Mesh: 213,160 lbs, Total 40/70 White: 168,530/50 White: 60,180 lbs. Proppant pumped this stage: 441,920 lbs. Total proppant pumped: 9,265,440 lbs. ISI with a Frac Gradient of 0.928 psi/ft. Qavg: 80.5 bpm, Pavg: 6,547 psi, Qmax: 81.4 bpm, Pmax: 7,819 psi. ***N issues with StimOil pump during 100 mesh stage. Frac resolved during stage. Lost pump 6 due to packing. FR after going to xl. Frac swapped pump to manual and ramped up briefly to ensure line was clear of any debris, FR and StimOil lines and pumps in between stages due to issues.
7:45 AM	9:45 AM	2	RIH set stage 22 CBP at 13,316'. Perforated: 13,283'-13,285', 13,235'-13,237', 13,185'-13,187', 13,140'-13,142 shots fired.
9:45 AM	10:45 AM	1	Waiting on StimOil to finish offloading. Unit showed up 45 min late and had issues getting going once backed in finished offloading and good strap started stage.
10:45 AM	1:15 PM	2.5	Stage 22 Frac: SICP: 2,088 psi, Formation broke at 5,995 psi, while pumping 15 bpm. Pumpdown 223 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,886 bbls, Total 15# XLink Gel: 1,938 bbls. Load to recover for this bbls. Total load to recover: 232,517 bbls. Containing: Total 100 Mesh: 213,000 lbs, Total 40/70 White: 168,030/50 White: 59,900 lbs. Proppant pumped this stage: 440,920 lbs. Total proppant pumped: 9,706,360 lbs. ISI with a Frac Gradient of 0.955 psi/ft. Qavg: 80.6 bpm, Pavg: 6,548 psi, Qmax: 81.1 bpm, Pmax: 7,527 psi. ***N issues good stage.
1:15 PM	3:15 PM	2	RIH set stage 23 CBP at 13,114'. Perforated: 13,087'-13,089', 13,038'-13,040', 12,989'-12,991', 12,940'-12,942 shots fired.
3:15 PM	3:30 PM	0.25	NPT on frac to prime and test lines.
3:30 PM	6:00 PM	2.5	Stage 23 Frac: SICP: 2,150 psi, Formation broke at 6,591 psi, while pumping 15 bpm. Pumpdown 212 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,875 bbls, Total 15# XLink Gel: 1,936 bbls. Load to recover for this bbls. Total load to recover: 242,635 bbls. Containing: Total 100 Mesh: 213,040 lbs, Total 40/70 White: 168,030/50 White: 60,060 lbs. Proppant pumped this stage: 441,100 lbs. Total proppant pumped: 10,147,460 lbs. ISI psi, with a Frac Gradient of 0.925 psi/ft. Qavg: 80.8 bpm, Pavg: 6,403 psi, Qmax: 81.2 bpm, Pmax: 7,608 psi. ***Notes*** Good stage no issues, all proppant placed.
6:00 PM	7:45 PM	1.75	RIH set stage 24 CBP at 12,914'. Perforated: 12,891'-12,893', 12,842'-12,844', 12,793'-12,795', 12,742'-12,744 shots fired.
7:45 PM	8:15 PM	0.5	NPT on frac to prime and test lines. Swap out 3" valve underneath pop-off
8:15 PM	9:00 PM	0.75	NPT on water transfer: While on 0.25 ppg 100 Mesh water transfer notified Python that they lost a pump, screw and flushed the well bore 324 bbls. Shut Down at 20:59 hrs. Resume treatment at 21:28 hrs.
9:00 PM	11:30 PM	2.5	Stage 24 Frac: SICP: 2,097 psi, Formation broke at 5,960 psi, while pumping 15 bpm. Pumpdown 221 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 8,481 bbls, Total 15# XLink Gel: 1,946 bbls. Load to recover for this bbls. Total load to recover: 253,378 bbls. Containing: Total 100 Mesh: 213,200 lbs, Total 40/70 White: 168,530/50 White: 60,540 lbs. Proppant pumped this stage: 442,240 lbs. Total proppant pumped: 10,589,700 lbs. ISI psi, with a Frac Gradient of 0.922 psi/ft. Qavg: 80.5 bpm, Pavg: 6,503 psi, Qmax: 81.1 bpm, Pmax: 7,931 psi. ***Notes*** While on 0.25 ppg 100 Mesh, water transfer notified Python they lost a pump. Screws were cut well Flushed with 324 bbls. Resume at 21:28 hrs. While on 3 ppg 30/50 getting ready to stage into flush, blender of screws too early got it back quickly and continued on until prop ran out. Good stage all proppant placed.
11:30 PM	1:00 AM	1.5	RIH set stage 25 CBP at 12,722'. Perforated: 12,695'-12,697', 12,646'-12,648', 12,597'-12,599', 12,548'-12,550 shots fired.
1:00 AM	1:30 AM	0.5	NPT on frac swapping out isolation valves, prime up and test.
1:30 AM	4:00 AM	2.5	Stage 25 Frac: SICP: 2,067 psi, Formation broke at 4,510 psi, while pumping 15 bpm. Pumpdown 218 bbls. P 15% HCL Acid: 96 bbls. Total Slickwater: 7,836 bbls, Total 15# XLink Gel: 1,922 bbls. Load to recover for this bbls. Total load to recover: 263,450 bbls. Containing: Total 100 Mesh: 213,600 lbs, Total 40/70 White: 168,030/50 White: 60,880 lbs. Proppant pumped this stage: 442,500 lbs. Total proppant pumped: 11,032,200 lbs. ISI psi, with a Frac Gradient of 0.901 psi/ft. Qavg: 80.8 bpm, Pavg: 6,166 psi, Qmax: 81.3 bpm, Pmax: 7,974 psi. ***Notes*** All proppant placed, good stage
4:00 AM	5:45 AM	1.75	RIH set stage 26 CBP at 12,520'. Perforated: 12,499'-12,501', 12,450'-12,452', 12,401'-12,403', 12,349'-12,351 shots fired.
5:45 AM	6:00 AM	0.25	Frac prime and test lines

COST SUMMARY

Intangible Costs				Tangible Costs	
Water Hauling/ Vacuum		Frac	\$331,116		
Dirt Work		Wireline	\$15,729		
Crane		Plugs	\$6,075		
Anchors		Water Transfer	\$9,700		
Trucking - Plugs		Supervision	\$3,000		
Trucking - Flowback iron		Frac Stack	\$600		
Trucking - Coil		Frac Tanks	\$1,600		
Trucking - Tools		Porta Pots	\$40		
Trucking - Trash Trailer		Manlift	\$160		
Trucking - Manlift		Light Towers	\$300		
Trucking - Frac Stack		Trash Trailer	\$20		
Trucking - Trailer Water		Trailer House	\$600		
Trucking - Fork Lift		Flowback iron	\$300		
Pump down crew	\$8,500	Catalyst Chemicals	\$24,383		
Grease well head	\$600	Flotek Chemicals	\$67,977		
		Fork lift	\$275		
NOTE: All costs are field estimates only.		Daily Intangible Costs	\$470,976	Daily Tangible Costs	
				Cum. Tangible Costs	
				PREVIOUS CUM. COST	
				TOTAL DAILY COST	
				TOTAL CUM. COST	

/2017

30917

umped: Total
stage: 9,941
80 lbs, Total
IP: 3,588 psi,
lotes*** Had
: rate flux
rac will clean

12'. All

in. Once

'umped: Total
stage: 9,919
20 lbs, Total
IP: 3,783 psi,
lotes*** No

12'. All

'umped: Total
stage: 9,906
00 lbs, Total
SIP: 3,570

14'. All

vs were cut

'umped: Total
stage: 10,522
00 lbs, Total
SIP: 3,550

nt to flush.
operator cut

50'. All

'umped: Total
stage: 9,854
20 lbs, Total
SIP: 3,393

51'. All

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/25
DAY # 14

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops	Frac; Plug & Perf				
Upcoming Ops:	Frac; Plug & Perf				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	8:30 AM	2.5	Stage 26 Frac: SICP: 2,092 psi, Formation broke at 6,190 psi, while pumping 15 bpm. Pumpdown 209 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,791 bbls, Total 15# XLink Gel: 1,952 bbls. Load to recover for this bbls. Total load to recover: 273,497 bbls. Containing: Total 100 Mesh: 213,340 lbs, Total 40/70 White: 168,030/50 White: 60,540 lbs. Proppant pumped this stage: 441,960 lbs. Total proppant pumped: 11,474,160 lbs. 15 psi, with a Frac Gradient of 0.931 psi/ft. Qavg: 79.9 bpm, Pavg: 6,370 psi, Qmax: 80.3 bpm, Pmax: 7,902 psi. After swapping back to fresh water from acid frac had butterfly valve on back of pump 8 not closing properly causing spike. Frac got valve to close and will replace in between stages.
8:30 AM	10:45 AM	2.25	RIH set stage 27 CBP at 12,379'. Perforated: 12,349'-12,351', 12,303'-12,305', 12,254'-12,256', 12,205'-12,207' shots fired.
10:45 AM	11:00 AM	0.25	NPT on frac to prime and test lines.
11:00 AM	1:30 PM	2.5	Stage 27 Frac: SICP: 2,190 psi, Formation broke at 3,803 psi, while pumping 15 bpm. Pumpdown 227 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,874 bbls, Total 15# XLink Gel: 1,942 bbls. Load to recover for this bbls. Total load to recover: 283,635 bbls. Containing: Total 100 Mesh: 213,000 lbs, Total 40/70 White: 168,530/50 White: 59,420 lbs. Proppant pumped this stage: 440,940 lbs. Total proppant pumped: 11,915,100 lbs. 15 psi, with a Frac Gradient of 0.904 psi/ft. Qavg: 80.2 bpm, Pavg: 6,002 psi, Qmax: 80.5 bpm, Pmax: 7,597 psi. During 0.75 ppg 40/70 frac had fr catch air swapped pump to manual and got to line out. All prop placed good :
1:30 PM	3:30 PM	2	RIH set stage 28 CBP at 12,182'. Perforated: 12,156'-12,158', 12,107'-12,109', 12,059'-12,061', 12,009'-12,011' shots fired.
3:30 PM	4:15 PM	0.75	Grease well
4:15 PM	7:00 PM	2.75	Stage 28 Frac: SICP: 1,820 psi, Formation broke at 6,211 psi, while pumping 15 bpm. Pumpdown 174 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,901 bbls, Total 15# XLink Gel: 1,879 bbls. Load to recover for this bbls. Total load to recover: 293,684 bbls. Containing: Total 100 Mesh: 212,980 lbs, Total 40/70 White: 168,030/50 White: 60,220 lbs. Proppant pumped this stage: 441,200 lbs. Total proppant pumped: 12,356,300 lbs. 15 psi, with a Frac Gradient of 0.858 psi/ft. Qavg: 79.4 bpm, Pavg: 5,833 psi, Qmax: 80.2 bpm, Pmax: 7,874 psi. ***Notes*** Extended pad by 83 bbls due to hydration operator losing box, once box was good resumed stage. answer as to why hydration had issues. Lost fr during 1.50 ppg swapped to back up pump to resolve. Began to discharge pressure in the tail end of the flush. Mechanic will look at the issue after the stage.
7:00 PM	8:45 PM	1.75	RIH set stage 29 CBP at 11,987'. Perforated: 11,960'-11,962', 11,911'-11,913', 11,862'-11,864', 11,813'-11,815' shots fired.
8:45 PM	11:15 PM	2.5	Stage 29 Frac: SICP: 1,922 psi, Formation broke at 5,289 psi, while pumping 15 bpm. Pumpdown 161 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,757 bbls, Total 15# XLink Gel: 1,989 bbls. Load to recover for this bbls. Total load to recover: 303,686 bbls. Containing: Total 100 Mesh: 213,600 lbs, Total 40/70 White: 168,530/50 White: 60,280 lbs. Proppant pumped this stage: 442,380 lbs. Total proppant pumped: 12,798,680 lbs. 15 psi, with a Frac Gradient of 0.866 psi/ft. Qavg: 81.1 bpm, Pavg: 5,806 psi, Qmax: 81.6 bpm, Pmax: 8,053 psi. ***Notes*** All proppant placed, good stage.
11:15 PM	1:00 AM	1.75	RIH set stage 30 CBP at 11,790'. Perforated: 11,764'-11,766', 11,715'-11,717', 11,667'-11,669', 11,617'-11,619' shots fired.
1:00 AM	1:30 AM	0.5	NPT on frac to prime and test lines.
1:30 AM	4:00 AM	2.5	Stage 30 Frac: SICP: 1,920 psi, Formation broke at 7,093 psi, while pumping 15 bpm. Pumpdown 162 bbls. P 15% HCL Acid: 91 bbls. Total Slickwater: 7,822 bbls, Total 15# XLink Gel: 1,978 bbls. Load to recover for this bbls. Total load to recover: 313,739 bbls. Containing: Total 100 Mesh: 213,714 lbs, Total 40/70 White: 172,530/50 White: 60,240 lbs. Proppant pumped this stage: 446,494 lbs. Total proppant pumped: 13,245,174 lbs. 15 psi, with a Frac Gradient of 0.874 psi/ft. Qavg: 81. bpm, Pavg: 6,376 psi, Qmax: 81.5 bpm, Pmax: 8,134 psi. ***Notes*** While on 2 ppg 40/70 White 15# XL, Pump #3 was taken off line due to valves and seats. Sand Mc opened the wrong sand compartment, while pumping 2 ppg 30/50 White. Pumped 4,000 lbs extra of 40/70 White proppant placed.
4:00 AM	5:45 AM	1.75	RIH set stage 31 CBP at 11,595'. Perforated: 11,568'-11,570', 11,519'-11,521', 11,470'-11,472', 11,421'-11,423' shots fired.
5:45 AM	6:00 AM	0.25	Frac prime and test lines at time of report

COST SUMMARY

Intangible Costs			Tangible Costs	
Water Hauling/ Vacuum		Frac	\$332,411	
Dirt Work		Wireline	\$15,729	
Crane		Plugs	\$6,075	
Anchors		Water Transfer	\$9,700	
Trucking - Plugs		Supervision	\$3,000	
Trucking - Flowback iron		Frac Stack	\$600	
Trucking - Coil		Frac Tanks	\$1,600	
Trucking - Tools		Porta Pots	\$40	
Trucking - Trash Trailer		Manlift	\$160	
Trucking - Manlift		Light Towers	\$300	
Trucking - Frac Stack		Trash Trailer	\$20	
Trucking - Trailer Water		Trailer House	\$600	
Trucking - Fork Lift		Flowback iron	\$300	
Pump down crew	\$8,500	Catalyst Chemicals	\$24,602	
Grease well head	\$600	Flotek Chemicals	\$68,984	
		Fork lift	\$275	
NOTE: All costs are field estimates only.		Daily Intangible Costs	\$473,497	Daily Tangible Costs
				Cum. Tangible Costs
				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

/2017

30917

'umped: Total
stage: 9,838
80 lbs, Total
SIP: 3,615
Notes
using rate to

07'. All

'umped: Total
stage: 9,911
20 lbs, Total
SIP: 3,416
Notes
stage.

11'. All

'umped: Total
stage: 9,875
00 lbs, Total
SIP: 3,083

Frac had no
lose

15'. All

'umped: Total
stage: 9,841
00 lbs, Total
SIP: 3,143

19'. All

'umped: Total
stage: 9,891
40 lbs, Total
SIP: 3,202

over operator
ite. All

23'. All

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/26
DAY # 15

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Frac; Plug & Perf				
Upcoming Ops:	Frac; Plug & Perf				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	8:30 AM	2.5	Stage 31 Frac: SICP: 2,045 psi, Formation broke at 4,250 psi, while pumping 15 bpm. Pumpdown 151 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,915 bbls, Total 15# XLink Gel: 1,984 bbls. Load to recover for this bbls. Total load to recover: 323,884 bbls. Containing: Total 100 Mesh: 212,360 lbs, Total 40/70 White: 168,030/50 White: 60,020 lbs. Proppant pumped this stage: 440,380 lbs. Total proppant pumped: 13,685,554 lbs. 15 psi, with a Frac Gradient of 0.928 psi/ft. Qavg: 80.1 bpm, Pavg: 5,949 psi, Qmax: 80.5 bpm, Pmax: 7,509 psi. Good stage no issues.
8:30 AM	10:30 AM	2	RIH set stage 32 CBP at 11,399'. Perforated: 11,372'-11,374', 11,324'-11,326', 11,274'-11,276', 11,225'-11,227' shots fired.
10:30 AM	11:15 AM	0.75	NPT on frac to prime and test lines.
11:15 AM	1:45 PM	2.5	Stage 32 Frac: SICP: 2,175 psi, Formation broke at 6,830 psi, while pumping 15 bpm. Pumpdown 141 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,907 bbls, Total 15# XLink Gel: 1,926 bbls. Load to recover for this bbls. Total load to recover: 333,953 bbls. Containing: Total 100 Mesh: 213,080 lbs, Total 40/70 White: 168,030/50 White: 60,010 lbs. Proppant pumped this stage: 441,090 lbs. Total proppant pumped: 14,126,644 lbs. 15 psi, with a Frac Gradient of 0.895 psi/ft. Qavg: 80. bpm, Pavg: 6,097 psi, Qmax: 80.4 bpm, Pmax: 7,526 psi. * Issues with FR pump during 1.50 ppg 40/70. Had frac swap from auto manual and line out to resolve issue. All good stage.
1:45 PM	3:30 PM	1.75	RIH set stage 33 CBP at 11,203'. Perforated: 11,176'-11,178', 11,127'-11,129', 11,078'-11,080', 11,029'-11,031' shots fired.
3:30 PM	4:45 PM	1.25	Grease well
4:45 PM	5:00 PM	0.25	Frac prime and test lines
5:00 PM	7:30 PM	2.5	Stage 33 Frac: SICP: 2,039 psi, Formation broke at 3,978 psi, while pumping 15 bpm. Pumpdown 137 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,940 bbls, Total 15# XLink Gel: 1,887 bbls. Load to recover for this bbls. Total load to recover: 344,012 bbls. Containing: Total 100 Mesh: 213,000 lbs, Total 40/70 White: 168,030/50 White: 60,000 lbs. Proppant pumped this stage: 441,000 lbs. Total proppant pumped: 14,567,644 lbs. 15 psi, with a Frac Gradient of 0.838 psi/ft. Qavg: 80.2 bpm, Pavg: 5,989 psi, Qmax: 80.5 bpm, Pmax: 7,857 psi. ***Notes*** All proppant placed good stage.
7:30 PM	9:00 PM	1.5	RIH set stage 34 CBP at 11,006'. Perforated: 10,980'-10,982', 10,932'-10,934', 10,882'-10,884', 10,833'-10,835' shots fired.
9:00 PM	9:15 PM	0.25	NPT on frac to prime and test lines.
9:15 PM	11:45 PM	2.5	Stage 34 Frac: SICP: 1,994 psi, Formation broke at 3,922 psi, while pumping 15 bpm. Pumpdown 139 bbls. P 15% HCL Acid: 98 bbls. Total Slickwater: 7,804 bbls, Total 15# XLink Gel: 1,959 bbls. Load to recover for this bbls. Total load to recover: 354,012 bbls. Containing: Total 100 Mesh: 213,340 lbs, Total 40/70 White: 167,230/50 White: 60,400 lbs. Proppant pumped this stage: 440,940 lbs. Total proppant pumped: 15,008,584 lbs. 15 psi, with a Frac Gradient of 0.882 psi/ft. Qavg: 81.5 bpm, Pavg: 5,892 psi, Qmax: 81.8 bpm, Pmax: 8,038 psi. ***Notes*** While on 2 ppg 40/70 White lost the primary FR chemical pump Python quickly went to the back up started it, while the primary was being adjusted and reprimed. Primary pump back on line.
11:45 PM	1:30 AM	1.75	RIH set stage 35 CBP at 10,811'. Perforated: 10,784'-10,786', 10,738'-10,740', 10,686'-10,688', 10,637'-10,639' shots fired.
1:30 AM	2:00 AM	0.5	NPT on frac to prime and test lines. FR off loading into ISO
2:00 AM	2:30 AM	0.5	FR ISO tank being off loaded, waiting for it to finish prior to starting stage 35
2:30 AM	5:00 AM	2.5	Stage 35 Frac: SICP: 2,102 psi, Formation broke at 6,456 psi, while pumping 15 bpm. Pumpdown 133 bbls. P 15% HCL Acid: 103 bbls. Total Slickwater: 7,867 bbls, Total 15# XLink Gel: 1,901 bbls. Load to recover for this bbls. Total load to recover: 364,016 bbls. Containing: Total 100 Mesh: 213,220 lbs, Total 40/70 White: 168,530/50 White: 60,420 lbs. Proppant pumped this stage: 442,200 lbs. Total proppant pumped: 15,450,784 lbs. 15 psi, with a Frac Gradient of 0.887 psi/ft. Qavg: 80.3 bpm, Pavg: 5,924 psi, Qmax: 80.6 bpm, Pmax: 8,076 psi. ***Notes*** Acid operator strapped the acid wrong and closed the tanks early then realized his mistake and rec tank. All proppant placed, good stage.
5:00 AM	6:00 AM	1	RIH with wireline for stage 36

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling/ Vaccum		Frac	\$330,831
Dirt Work		Wireline	\$12,583
Crane		Plugs	\$4,860
Anchors		Water Transfer	\$9,700
Trucking - Plugs		Supervision	\$3,000
Trucking - Flowback iron		Frac Stack	\$600
Trucking - Coil		Frac Tanks	\$1,600
Trucking - Tools		Porta Pots	\$40
Trucking - Trash Trailer		Manlift	\$160
Trucking - Manlift		Light Towers	\$300
Trucking - Frac Stack		Trash Trailer	\$20
Trucking - Trailer Water		Trailer House	\$600
Trucking - Fork Lift		Flowback iron	\$300
Pump down crew	\$8,500	Catalyst Chemicals	\$23,822
Grease well head	\$600	Flotek Chemicals	\$71,143
		Fork lift	\$275
		Daily Intangible Costs	\$468,934
NOTE: All costs are field estimates only.			Daily Tangible Costs
			Cum. Tangible Costs
			PREVIOUS CUM. COST
			TOTAL DAILY COST
			TOTAL CUM. COST

/2017

30917

'umped: Total
stage: 9,994
00 lbs, Total
SIP: 3,592
Notes

27'. All

'umped: Total
stage: 9,928
00 lbs, Total
SIP: 3,354
Notes*
prop placed

31'. All

'umped: Total
stage: 9,922
00 lbs, Total
SIP: 2,936

35'. All

'umped: Total
stage: 9,861
00 lbs, Total
SIP: 3,259

o pump, and

39'. All

'umped: Total
s stage: 9,871
60 lbs, Total
SIP: 3,290

opened the

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/27
DAY # 16

Lease/Well No:	Cunning Wolf 1903H			AFE No:
Current Ops:	Frac; Plug & Perf			
Upcoming Ops:	Frac; Plug & Perf			
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD: 17,520'
KB	25	30	7,344'	PBTD: 17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD: 7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	6:30 AM	0.5	RIH set stage 36 CBP at 10,615'. Perforated: 10,588'-10,590', 10,539'-10,541', 10,490'-10,492', 10,441'-10,443' shots fired.
6:30 AM	7:00 AM	0.5	NPT for frac to prime and test lines.
7:00 AM	9:30 AM	2.5	Stage 36 Frac: SICP: 2,133 psi, Formation broke at 4,728 psi, while pumping 15 bpm. Pumpdown 130 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,814 bbls, Total 15# XLink Gel: 1,978 bbls. Load to recover for this bbls. Total load to recover: 374,033 bbls. Containing: Total 100 Mesh: 213,100 lbs, Total 40/70 White: 168,230/50 White: 60,320 lbs. Proppant pumped this stage: 441,680 lbs. Total proppant pumped: 15,892,464 lbs. K psi, with a Frac Gradient of 0.9 psi/ft. Qavg: 80.3 bpm, Pavg: 5,875 psi, Qmax: 80.8 bpm, Pmax: 7,311 psi. *** rate dropped during 1.00 ppg 40/70. Ramped up in manual to line out. All prop placed Good stage
9:30 AM	11:15 AM	1.75	RIH set stage 37 CBP at 10,419'. Perforated: 10,393'-10,395', 10,343'-10,345', 10,294'-10,296', 10,245'-10,247' shots fired.
11:15 AM	11:45 AM	0.5	NPT on frac to swap out ground valve and prime and test lines.
11:45 AM	2:15 PM	2.5	Stage 37 Frac: SICP: 2,139 psi, Formation broke at 6,349 psi, while pumping 15 bpm. Pumpdown 120 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,793 bbls, Total 15# XLink Gel: 1,959 bbls. Load to recover for this bbls. Total load to recover: 384,000 bbls. Containing: Total 100 Mesh: 213,080 lbs, Total 40/70 White: 168,030/50 White: 60,000 lbs. Proppant pumped this stage: 441,162 lbs. Total proppant pumped: 16,333,626 lbs. K psi, with a Frac Gradient of 0.921 psi/ft. Qavg: 81. bpm, Pavg: 5,988 psi, Qmax: 82.6 bpm, Pmax: 7,714 psi. * Acid read high on denso. Frac re zeroed before starting prop.
2:15 PM	4:00 PM	1.75	RIH set stage 38 CBP at 10,223'. Perforated: 10,196'-10,198', 10,147'-10,149', 10,098'-10,100', 10,049'-10,051' shots fired.
4:00 PM	4:30 PM	0.5	Grease well
4:30 PM	5:00 PM	0.5	NPT for frac to prime and test lines.
5:00 PM	7:30 PM	2.5	Stage 38 Frac: SICP: 2,092 psi, Formation broke at 5,973 psi, while pumping 15 bpm. Pumpdown 105 bbls. P 15% HCL Acid: 95 bbls. Total Slickwater: 7,838 bbls, Total 15# XLink Gel: 2,017 bbls. Load to recover for this bbls. Total load to recover: 394,055 bbls. Containing: Total 100 Mesh: 213,620 lbs, Total 40/70 White: 168,630/50 White: 70,660 lbs. Proppant pumped this stage: 452,920 lbs. Total proppant pumped: 16,786,546 lbs. K psi, with a Frac Gradient of 0.905 psi/ft. Qavg: 80.7 bpm, Pavg: 6,149 psi, Qmax: 81.5 bpm, Pmax: 6,715 psi. ***Notes*** Lost pump 9 during 0.50 ppg 100 mesh due to packing. Treater lost where he was at on sand and 10k lbs of proppant. All proppant placed good stage.
7:30 PM	8:00 PM	0.5	NPT on wireline having issues stabbing lubricator on the well.
8:00 PM	8:45 PM	0.75	RIH set stage 39 CBP at 10,027'. Perforated: 10,003'-10,005', 9,951'-9,953', 9,902'-9,904', 9,853'-9,855'. A
8:45 PM	9:15 PM	0.5	NPT on Frac trying to start stage 39 they had a clogged discharge line (full of sand) on the acid boost pump. h: out with water before starting.
9:15 PM	11:30 PM	2.25	Stage 39 Frac: SICP: 2,237 psi, Formation broke at 5,429 psi, while pumping 15 bpm. Pumpdown 106 bbls. P 15% HCL Acid: 87 bbls. Total Slickwater: 7,782 bbls, Total 15# XLink Gel: 1,932 bbls. Load to recover for this bbls. Total load to recover: 403,962 bbls. Containing: Total 100 Mesh: 213,080 lbs, Total 40/70 White: 168,830/50 White: 55,000 lbs. Proppant pumped this stage: 436,880 lbs. Total proppant pumped: 17,223,426 lbs. K psi, with a Frac Gradient of 0.902 psi/ft. Qavg: 80.5 bpm, Pavg: 5,965 psi, Qmax: 81.1 bpm, Pmax: 7,986 psi. ***Notes*** All proppant placed, good stage.
11:30 PM	12:30 AM	1	RIH set stage 40 CBP at 9,835'. Perforated: 9,804'-9,806', 9,755'-9,757', 9,706'-9,708', 9,659'-9,661'. All sl
12:30 AM	1:00 AM	0.5	NPT on frac to prime up and test lines.
1:00 AM	3:30 AM	2.5	Stage 40 Frac: SICP: 2,353 psi, Formation broke at 5,618 psi, while pumping 15 bpm. Pumpdown 98 bbls. Pu 15% HCL Acid: 95 bbls. Total Slickwater: 7,829 bbls, Total 15# XLink Gel: 1,907 bbls. Load to recover for this bbls. Total load to recover: 413,891 bbls. Containing: Total 100 Mesh: 213,720 lbs, Total 40/70 White: 168,330/50 White: 55,100 lbs. Proppant pumped this stage: 437,200 lbs. Total proppant pumped: 17,660,626 lbs. K psi, with a Frac Gradient of 0.885 psi/ft. Qavg: 79.9 bpm, Pavg: 5,788 psi, Qmax: 81. bpm, Pmax: 8,036 psi. ***Notes*** All proppant placed, Good stage.
3:30 AM	4:30 AM	1	RIH set stage 41 CBP at 9,635'. Perforated: 9,608'-9,610', 9,559'-9,561', 9,510'-9,512', 9,461'-9,463'. All sl
4:30 AM	4:45 AM	0.25	NPT on frac to prime up and test lines.

4:45 AM	6:00 AM	1.25	Currently Pumping stage 41 at the time of this report.	
COST SUMMARY				
Intangible Costs			Tangible Costs	
Water Hauling/ Vaccum		Frac	\$331,176	
Dirt Work		Wireline	\$18,875	
Crane		Plugs	\$7,290	
Anchors		Water Transfer	\$19,200	
Trucking - Plugs		Supervision	\$3,000	
Trucking - Flowback iron		Frac Stack	\$600	
Trucking - Coil		Frac Tanks	\$1,600	
Trucking - Tools		Porta Pots	\$40	
Trucking - Trash Trailer		Manlift	\$160	
Trucking - Manlift		Light Towers	\$300	
Trucking - Frac Stack		Trash Trailer	\$20	
Trucking - Trailer Water		Trailer House	\$600	
Trucking - Fork Lift		Flowback iron	\$300	
Pump down crew	\$8,500	Catalyst Chemicals	\$24,501	
Grease well head	\$600	Flotek Chemicals	\$67,108	
		Fork lift	\$275	
			Daily Intangible Costs	\$484,145
NOTE: All costs are field estimates only.				Daily Tangible Costs
				Cum. Tangible Costs
				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

/2017

30917

13'. All

lumped: Total
stage: 9,887
60 lbs, Total
SIP: 3,389
Notes*** FR

17'. All

lumped: Total
stage: 9,847
82 lbs, Total
SIP: 3,540
Notes***

51'. All

lumped: Total
stage: 9,950
40 lbs, Total
SIP: 3,426

ran an extra

All shots fired.

had to flush it

lumped: Total
stage: 9,801
00 lbs, Total
SIP: 3,405

shots fired.

lumped: Total
stage: 9,831
80 lbs, Total
SIP: 3,278

shots fired.

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/28
DAY # 17

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Frac; Plug & Perf				
Upcoming Ops:	Frac; Plug & Perf				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	7:15 AM	1.25	Stage 41 Frac: SICP: 2,261 psi, Formation broke at 6,292 psi, while pumping 15 bpm. Pumpdown 87 bbls. Pu 15% HCL Acid: 91 bbls. Total Slickwater: 7,866 bbls, Total 15# XLink Gel: 1,965 bbls. Load to recover for this bbls. Total load to recover: 423,900 bbls. Containing: Total 100 Mesh: 213,760 lbs, Total 40/70 White: 168,430/50 White: 60,000 lbs. Proppant pumped this stage: 442,220 lbs. Total proppant pumped: 18,102,846 lbs. 18.5 psi, with a Frac Gradient of 0.891 psi/ft. Qavg: 80.1 bpm, Pavg: 5,897 psi, Qmax: 81.5 bpm, Pmax: 7,898 psi. Frac having issues with Primary FR pump. During start of pad. All prop placed good stage
7:15 AM	9:00 AM	1.75	RIH set stage 42 CBP at 9,435'. Perforated: 9,412'-9,414', 9,363'-9,365', 9,314'-9,316', 9,265'-9,267'. All sl
9:00 AM	11:30 AM	2.5	Stage 42 Frac: SICP: 2,160 psi, Formation broke at 5,829 psi, while pumping 15 bpm. Pumpdown 70 bbls. Pu 15% HCL Acid: 95 bbls. Total Slickwater: 7,809 bbls, Total 15# XLink Gel: 1,968 bbls. Load to recover for this bbls. Total load to recover: 433,842 bbls. Containing: Total 100 Mesh: 213,740 lbs, Total 40/70 White: 168,130/50 White: 60,460 lbs. Proppant pumped this stage: 442,340 lbs. Total proppant pumped: 18,545,186 lbs. 18.5 psi, with a Frac Gradient of 0.866 psi/ft. Qavg: 79.6 bpm, Pavg: 5,783 psi, Qmax: 80.7 bpm, Pmax: 7,780 psi. Lost pump 2 during 3.00 ppg 30/50 due to packing. All prop placed good stage.
11:30 AM	1:15 PM	1.75	RIH set stage 43 CBP at 9,243'. Perforated: 9,216'-9,218', 9,167'-9,169', 9,118'-9,120', 9,069'-9,071'. All sl
1:15 PM	1:45 PM	0.5	NPT on frac to prime and test lines.
1:45 PM	2:45 PM	1	Waiting on StimOil to finish offloading.
2:45 PM	5:15 PM	2.5	Stage 43 Frac: SICP: 1,973 psi, Formation broke at 6,653 psi, while pumping 15 bpm. Pumpdown 64 bbls. Pu 15% HCL Acid: 95 bbls. Total Slickwater: 7,793 bbls, Total 15# XLink Gel: 2,030 bbls. Load to recover for this bbls. Total load to recover: 443,824 bbls. Containing: Total 100 Mesh: 215,900 lbs, Total 40/70 White: 168,030/50 White: 60,340 lbs. Proppant pumped this stage: 444,300 lbs. Total proppant pumped: 18,989,486 lbs. 18.5 psi, with a Frac Gradient of 0.918 psi/ft. Qavg: 80.8 bpm, Pavg: 5,990 psi, Qmax: 81.5 bpm, Pmax: 7,832 psi. Lost pump 14 during 1.50 ppg 100 mesh due to packing. All prop placed good stage
5:15 PM	6:15 PM	1	RIH set stage 44 CBP at 9,047'. Perforated: 9,020'-9,022', 8,971'-8,973', 8,926'-8,928', 8,873'-8,875'. All sl
6:15 PM	7:00 PM	0.75	Completion Rentals greasing the well.
7:00 PM	9:30 PM	2.5	Stage 44 Frac: SICP: 2,160 psi, Formation broke at 3,605 psi, while pumping 15 bpm. Pumpdown 51 bbls. Pu 15% HCL Acid: 96 bbls. Total Slickwater: 7,621 bbls, Total 15# XLink Gel: 1,967 bbls. Load to recover for this bbls. Total load to recover: 453,559 bbls. Containing: Total 100 Mesh: 213,220 lbs, Total 40/70 White: 168,630/50 White: 60,240 lbs. Proppant pumped this stage: 442,080 lbs. Total proppant pumped: 19,431,566 lbs. 18.5 psi, with a Frac Gradient of 0.844 psi/ft. Qavg: 79.4 bpm, Pavg: 5,581 psi, Qmax: 80.6 bpm, Pmax: 8,029 psi. ***Notes*** Lost the hopper during 3 ppg operator tried to get it back up, all proppant placed good stage.
9:30 PM	11:00 PM	1.5	RIH set stage 45 CBP at 8,851'. Perforated: 8,824'-8,826', 8,775'-8,777', 8,726'-8,728', 8,677'-8,679'. All sl
11:00 PM	1:30 AM	2.5	Stage 45 Frac: SICP: 2,136 psi, Formation broke at 7,073 psi, while pumping 15 bpm. Pumpdown 60 bbls. Pu 15% HCL Acid: 108 bbls. Total Slickwater: 7,972 bbls, Total 15# XLink Gel: 1,927 bbls. Load to recover for this 10,007 bbls. Total load to recover: 463,626 bbls. Containing: Total 100 Mesh: 213,060 lbs, Total 40/70 White: 168,630/50 White: 60,460 lbs. Proppant pumped this stage: 441,380 lbs. Total proppant pumped: 19,872,315 psi, with a Frac Gradient of 0.867 psi/ft. Qavg: 80.9 bpm, Pavg: 5,787 psi, Qmax: 81.3 bpm, Pmax: 8,111 ***Notes*** Due to pressure in the beginning of the stage pad was increased until pressure decreased, to be a rate up to start sand. All proppant placed.
1:30 AM	2:30 AM	1	RIH set stage 46 CBP at 8,655'. Perforated: 8,628'-8,630', 8,580'-8,582', 8,530'-8,532', 8,481'-8,483'. All sl
2:30 AM	5:00 AM	2.5	Stage 46 Frac: SICP: 2,295 psi, Formation broke at 6,895 psi, while pumping 15 bpm. Pumpdown 47 bbls. Pu 15% HCL Acid: 95 bbls. Total Slickwater: 7,599 bbls, Total 15# XLink Gel: 1,979 bbls. Load to recover for this bbls. Total load to recover: 473,346 bbls. Containing: Total 100 Mesh: 213,770 lbs, Total 40/70 White: 168,630/50 White: 60,400 lbs. Proppant pumped this stage: 442,770 lbs. Total proppant pumped: 20,315,716 lbs. 18.5 psi, with a Frac Gradient of 0.893 psi/ft. Qavg: 81.2 bpm, Pavg: 5,992 psi, Qmax: 81.6 bpm, Pmax: 7,962 psi. ***Notes*** Had issues with the Primary FR pump swapped to back up until the primary pump was rolling again proppant placed good stage.
5:00 AM	6:00 AM	1	RIH set stage 47 CBP at 8,459'. Perforated: 8,432'-8,434', 8,383'-8,385', 8,334'-8,336', 8,285'-8,287'. All sl
			At time of report wireline POOH

COST SUMMARY			
Intangible Costs		Tangible Costs	
Water Hauling/ Vaccum		Frac	\$397,667
Dirt Work		Wireline	\$15,729
Crane		Plugs	\$6,075
Anchors		Water Transfer	\$19,200
Trucking - Plugs		Supervision	\$3,000
Trucking - Flowback iron		Frac Stack	\$600
Trucking - Coil		Frac Tanks	\$1,600
Trucking - Tools		Porta Pots	\$40
Trucking - Trash Trailer		Manlift	\$160
Trucking - Manlift		Light Towers	\$300
Trucking - Frac Stack		Trash Trailer	\$20
Trucking - Trailer Water		Trailer House	\$600
Trucking - Fork Lift		Flowback iron	\$300
Pump down crew	\$8,500	Catalyst Chemicals	\$29,812
Grease well head	\$600	Flotek Chemicals	\$81,857
		Fork lift	\$275
		Daily Intangible Costs	\$566,335
NOTE: All costs are field estimates only.			Daily Tangible Costs
			Cum. Tangible Costs
			PREVIOUS CUM. COST
			TOTAL DAILY COST
			TOTAL CUM. COST

/2017

30917

imped: Total
stage: 9,922
60 lbs, Total
SIP: 3,322
Notes

hots fired.

imped: Total
stage: 9,872
40 lbs, Total
SIP: 3,145
Notes

hots fired.

imped: Total
stage: 9,918
60 lbs, Total
SIP: 3,515
Notes

hots fired.

imped: Total
stage: 9,684
20 lbs, Total
SIP: 2,979

hots fired.

imped: Total
s stage:
s: 167,860
.946 lbs. ISIP:
5 psi.
ble to bring

hots fired.

imped: Total
stage: 9,673
00 lbs, Total
SIP: 3,339

n. All

hots fired.

Pump down crew	\$8,500	Catalyst Chemicals	\$15,184	
Nipple down to flow cross	\$2,240	Flotek Chemicals	\$43,379	
		Fork lift	\$275	
NOTE: All costs are field estimates only.		Daily Intangible Costs	\$303,837	Daily Tangible Costs
				Cum. Tangible Costs
				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

/2017

30917

imped: Total
stage: 9,798
00 lbs, Total
SIP: 4,035
Notes

hots fired.

agreed to

imped: Total
stage: 9,976
44 lbs, Total
SIP: 3,554
Notes

ed.

hots fired.

imped: Total
stage: 9,925
44 lbs, Total
SIP: 3,340

Reason for

\$0
\$0
\$4,647,289
\$303,837
\$4,951,126

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/30
DAY # 19

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Drill Out				
Upcoming Ops:	Drill Out				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	8:00 AM	2	No Activites
8:00 AM	8:30 AM	0.5	MIRU AmPro flow back. Am Pro has 1 3" line of flow cross to dual sided plug catcher followed by dual sided manifold with 1 line ti flow back tanks and 1 line to pit.
8:30 AM	9:00 AM	0.5	MIRU Nighthawk mixing plant. TSR delivered 6 totes of FR and 10 buckets of Pipe on Pipe.
9:00 AM	9:30 AM	0.5	Baker Tools on location. Tools were calbratied,inspected, and a drift check was performed. BHA consisting of Weld on connection, 2.88 O.D Dual BP Valve, 2.88 OD Jar, 2.88 O.D Hydraulic Disconnect, 2.88 O.D Circ Su Screen Sub, 2.88 O.D Hydropull, 2.88 O.D Xtreme AD Motor, 3.10 O.D Crossover, 4.50 O.D JZ Bit. Tool Leng
9:30 AM	1:30 PM	4	MIRU Titan 2 5/8 Coil. Titan has 1 (80T) crane, 1 pump truck, 1 N2 pump, 1 hyd trailer, and 1 2 5/8 reel unit.
1:30 PM	6:15 PM	4.75	Attached BHA and function tested motor on surface at 3 bpm at 2,000 Circ Pressure, 3.5 bpm at 2,700, and 4 3,500. Nippled up to well. Pressure Tested all lines to 8,350 psi. RIH w/ CT.
6:15 PM	7:30 PM	1.25	Conducted weight check at 26,000 lbs. Hydraulic 28000 lbs. 6,962' RIH - 77 fpm.
7:30 PM	9:00 PM	1.5	Tagged plug #1 @ 8,081' , at 20:03 hrs wh: 1,725 psi, cp: 3,800 psi. pumping 3.5 bpm in 4 bpm out, Pull up int 6,982 ft., to fix the de-boostor on the reel. To get an accurate reading. Resume RIH 20:45. Tagged plug #1 @ 21:01 hrs. wh: 1,814 psi, cp: 3,714 psi, pumping 3.5 bpm in 4 bpm out, through plug in 13 minutes, wh: 1,481 p psi. Sent 10/10/10 sweep. RIH for plug #2
9:00 PM	9:45 PM	0.75	Tagged plug #2 @ 8,278' , at 21:30 hrs wh: 1,300 psi, cp: 3,400 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,400 psi, cp: 3,519 psi. Sent 10/10/10 sweep. RIH for plug #3
9:45 PM	10:30 PM	0.75	Tagged plug #3 @ 8,474' , at 22:20 hrs wh: 1,300 psi, cp: 3,450 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,300 psi, cp: 3,450 psi. Sent 10/10/10 sweep. RIH for plug #4
10:30 PM	11:30 PM	1	Tagged plug #4 @ 8,667' , at 23:04 hrs wh: 1,400 psi, cp: 3,450 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,350 psi, cp: 3,423 psi. Sent 10/10/10 sweep. RIH for plug #5
11:30 PM	12:00 AM	0.5	Tagged plug #5 @ 8,866' , at 23:55 hrs wh: 1,300 psi, cp: 3,400 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,300 psi, cp: 3,400 psi. Sent 10/10/10 sweep. RIH for plug #6
12:00 AM	1:00 AM	1	Tagged plug #6 @ 9,066' , at 00:55 hrs wh: 1,450 psi, cp: 3,600 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,450 psi, cp: 3,600 psi. Sent 10/10/10 sweep. RIH for plug #7
1:00 AM	1:45 AM	0.75	Tagged plug #7 @ 9,257' , at 01:32 hrs wh: 1,300 psi, cp: 3,600 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,300 psi, cp: 3,600 psi. Sent 10/10/10 sweep. RIH for plug #8
1:45 AM	2:30 AM	0.75	Tagged plug #8 @ 9,455' , at 02:17 hrs wh: 1,250 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #9
2:30 AM	3:15 AM	0.75	Tagged plug #9 @ 9,651' , at 02:49 hrs wh: 1,300 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, stauled o through plug in 21 minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #10
3:15 AM	3:45 AM	0.5	Tagged plug #10 @ 9,866' , at 03:33 hrs wh: 1,300 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through p minutes, wh: 1,250 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #11
3:45 AM	4:15 AM	0.5	Tagged plug #11 @ 10,029' , at 04:11 hrs wh: 1,300 psi, cp: 3,700 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,300 psi, cp: 3,700 psi. Sent 10/10/10 sweep. RIH for plug #12
4:15 AM	5:00 AM	0.75	Tagged plug #12 @ 10,262' , at 04:55 hrs wh: 1,400 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,800 psi. Sent 10/10/10 sweep. RIH for plug #13
5:00 AM	5:30 AM	0.5	Tagged plug #13 @ 10,464' , at 05:33 hrs. wh: 1,400 psi, cp: 4,000 psi. PU start short trip.
5:30 AM	6:00 AM	0.5	PU to KOP at the time of this report.

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling/ Vaccum	\$3,700	Coil Tubing	\$28,290
Dirt Work		Tool Hand/ Equipment	\$7,710
Crane		Water Transfer	
Anchors		Supervision	\$3,000
Trucking - Plugs		Frac Stack	\$600
Trucking - Flowback iron		Frac Tanks	\$1,600
Trucking - Coil		Porta Pots	\$40
Trucking - Tools		Manlift	\$160
Trucking - Trash Trailer		Light Towers	\$300
Trucking - Manlift		Trash Trailer	\$20
Trucking - Frac Stack		Trailer House	\$600
Trucking - Trailer Water		Flowback iron	\$3,185
Trucking - Fork Lift		TSR Chemicals	\$2,860
		Fork lift	\$275

		Mixing Plant/ Chemicals	\$10,084		
NOTE: All costs are field estimates only.		Daily Intangible Costs	\$62,424	Daily Tangible Costs	
				Cum. Tangible Costs	
				PREVIOUS CUM. COST	
				TOTAL DAILY COST	
				TOTAL CUM. COST	

/2017

30917

annual chole

: 2.88 OD
b, 2.88 O.D
th: 29.4'

bpm at

to vertical
8,081 at
osi, cp: 3,549

lug in 20

lug in 7

lug in 19

lug in 5

lug in 5

lug in 20

lug in 13

ut, PU 10'

plug in 17

plug in 11

plug in 13

\$0
\$0
\$4,951,126
\$62,424
\$5,013,550

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 5/31
DAY # 20

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Drill Out				
Upcoming Ops:	Drill Out				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	7:15 AM	1.25	Short trip to 7,000' complete RIH to plug #13
7:15 AM	8:00 AM	0.75	Tagged plug #13 @ 10,464', at 8:03 hrs wh: 1,600 psi, cp: 3,600 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,600 psi, cp: 3,600 psi. Sent 10/10/10 sweep. RIH for plug #14
8:00 AM	8:45 AM	0.75	Tagged plug #14 @ 10,650', at 8:49 hrs wh: 1,350 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #15
8:45 AM	9:30 AM	0.75	Tagged plug #15 @ 10,847', at 9:38 hrs wh: 1,300 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,700 psi. Sent 10/10/10 sweep. RIH for plug #16
9:30 AM	10:30 AM	1	Tagged plug #16 @ 11,043', at 10:23 hrs wh: 1,600 psi, cp: 3,600 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,500 psi, cp: 3,700 psi. Sent 10/10/10 sweep. RIH for plug #17
10:30 AM	11:00 AM	0.5	Tagged plug #17 @ 11,244', at 10:58 hrs wh: 1,500 psi, cp: 3,700 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,500 psi, cp: 3,600 psi. Sent 10/10/10 sweep. RIH for plug #17
11:00 AM	11:30 AM	0.5	Tagged plug #18 @ 11,439', at 11:29 hrs wh: 1,600 psi, cp: 3,700 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,500 psi, cp: 3,800 psi. Sent 10/10/10 sweep. RIH for plug #19
11:30 AM	12:00 PM	0.5	Stopped at 11,516' Coil had pump rate starting to flux. Swapped sides on pumps and resumed RIH at 12:07 hr
12:00 PM	12:15 PM	0.25	Tagged plug #19 @ 11,639', at 12:20 hrs wh: 1,500 psi, cp: 3,700 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,500 psi, cp: 3,800 psi. Sent 10/10/10 sweep. RIH for plug #19
12:15 PM	1:00 PM	0.75	Tagged plug #20 @ 11,830', at 12:48 hrs wh: 1,500 psi, cp: 3,700 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,500 psi, cp: 3,600 psi. Sent 10/10/10 sweep. RIH for plug #21
1:00 PM	1:30 PM	0.5	Tagged plug #21 @ 12,025', at 13:25 hrs wh: 1,500 psi, cp: 3,900 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,500 psi, cp: 3,900 psi. Sent 10/10/10 sweep. RIH for plug #22
1:30 PM	2:15 PM	0.75	Tagged plug #22 @ 12,220', at 14:16 hrs wh: 1,500 psi, cp: 3,900 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,500 psi, cp: 3,600 psi. Sent 10/10/10 sweep. RIH for plug #23
2:15 PM	3:00 PM	0.75	Tagged plug #23 @ 12,406', at 14:53 hrs wh: 1,400 psi, cp: 3,600 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #23
3:00 PM	3:30 PM	0.5	Tagged plug #24 @ 12,617', at 15:35 hrs wh: 1,400 psi, cp: 3,600 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #25
3:30 PM	4:00 PM	0.5	Tagged Plug #25 @ 12,720', running short trip to 6,950 ft.
4:00 PM	6:45 PM	2.75	Short trip to 6,950' complete RIH to plug #25
6:45 PM	8:45 PM	2	Tagged plug #25 @ 12,764', at 20:42 hrs wh: 1,200 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #26
8:45 PM	9:30 PM	0.75	Tagged plug #26 @ 12,953', at 21:24 hrs wh: 1,400 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #27
9:30 PM	10:30 PM	1	Tagged plug #27 @ 13,154', at 22:18 hrs wh: 1,400 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #28
10:30 PM	11:15 PM	0.75	Tagged plug #28 @ 13,355', at 23:12 hrs wh: 1,300 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #29
11:15 PM	12:00 AM	0.75	Tagged plug #29 @ 13,546', at 23:59 hrs wh: 1,350 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,350 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #30
12:00 AM	1:30 AM	1.5	Tagged plug #30 @ 13,738', at 01:30 hrs wh: 1,400 psi, cp: 3,800 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #31
1:30 AM	3:15 AM	1.75	Tagged plug #31 @ 13,943', at 03:02 hrs wh: 1,300 psi, cp: 3,600 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,300 psi, cp: 3,800 psi. Sent 10/10/10 sweep. RIH for plug #32
3:15 AM	4:00 AM	0.75	Tagged plug #32 @ 14,131', at 03:57 hrs wh: 1,300 psi, cp: 3,700 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,300 psi, cp: 3,800 psi. Sent 10/10/10 sweep. RIH for plug #33
4:00 AM	4:45 AM	0.75	Tagged plug #33 @ 14,328', at 04:34 hrs wh: 1,400 psi, cp: 3,700 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,700 psi. Sent 10/10/10 sweep. RIH for plug #34
4:45 AM	5:45 AM	1	Tagged plug #34 @ 14,517', at 05:38 hrs wh: 1,400 psi, cp: 3,550 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #35
5:45 AM	6:00 AM	0.25	RIH to plug 35 at time of report

COST SUMMARY			
Intangible Costs		Tangible Costs	
Water Hauling/ Vacuum	\$9,816	Coil Tubing	\$45,000
Dirt Work		Tool Hand/ Equipment	\$7,710
Crane		Water Transfer	
Anchors		Supervision	\$3,000
Trucking - Plugs		Frac Stack	\$600
Trucking - Flowback iron		Frac Tanks	\$1,600
Trucking - Coil		Porta Pots	\$40
Trucking - Tools		Manlift	\$160
Trucking - Trash Trailer		Light Towers	\$300
Trucking - Manlift		Trash Trailer	\$20
Trucking - Frac Stack		Trailer House	\$600
Trucking - Trailer Water		Flowback iron	\$3,185
Trucking - Fork Lift		TSR Chemicals	\$2,860
Pump down crew		Fork lift	\$275
Nipple down to flow cross		Mixing Plant/ Chemicals	\$10,084
		Daily Intangible Costs	\$85,250
NOTE: All costs are field estimates only.			Daily Tangible Costs
			Cum. Tangible Costs
			PREVIOUS CUM. COST
			TOTAL DAILY COST
			TOTAL CUM. COST

/2017

30917

plug in 7

plug in 12

plug in 12

plug in 12

plug in 11

plug in 9

s.

plug in 4

plug in 5

plug in 15

plug in 15

plug in 7

plug in 5

plug in 3

plug in 7

plug in 5

plug in 8

plug in 4

plug in 7

plug in 9

plug in 9

plug in 14

plug in 6

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 6/1/
DAY # 21

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Drill Out				
Upcoming Ops:	Drill Out				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	6:30 AM	0.5	Tagged plug #35 @ 14,718', at 06:31 hrs wh: 1,300 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #36
6:30 AM	7:15 AM	0.75	Tagged plug #36 @ 14,913', at 07:12 hrs wh: 1,300 psi, cp: 3,500 psi. pumping 3.5 bpm in 4 bpm out, through minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #37
7:15 AM	8:00 AM	0.75	Tagged plug #37 @ 15,111', at 07:49 hrs wh: 1,300 psi, cp: 3,500 psi. Running short trip to 7,000'
8:00 AM	10:30 AM	2.5	At 8,100' flow back lost returns on 3" line. Swapped to e line and began to flow back. Shortly after swapping to e line. Found both sides of tree had clogged off from sand an plug parts.
10:30 AM	2:00 PM	3.5	Got both sides cleaned out and recirculated at depth before finishing short trip to ensure clean well bore.
2:00 PM	3:30 PM	1.5	Short trip complete RIH to plug # 37
3:30 PM	7:30 PM	4	Tagged plug #37 @ 15,108', at 19:26 hrs wh: 1,200 psi, cp: 3,300 psi. pumping 3.5 bpm in 3.5 bpm out, through minutes, wh: 1,200 psi, cp: 3,300 psi. Sent 10/10/10 sweep. RIH for plug #38
7:30 PM	8:15 PM	0.75	Tagged plug #38 @ 15,311', at 20:15 hrs wh: 1,200 psi, cp: 3,500 psi. pumping 3.5 bpm in 3.5 bpm out, through minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #39
8:15 PM	9:00 PM	0.75	Tagged plug #39 @ 15,499', at 21:01 hrs wh: 1,200 psi, cp: 3,500 psi. pumping 3.5 bpm in 3.5 bpm out, through minutes, wh: 1,200 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #40
9:00 PM	10:00 PM	1	Tagged plug #40 @ 15,694', at 21:50 hrs wh: 1,300 psi, cp: 3,500 psi. pumping 3.5 bpm in 3.5 bpm out, through minutes, wh: 1,300 psi, cp: 3,500 psi. Sent 10/10/10 sweep. RIH for plug #41
10:00 PM	11:45 PM	1.75	At 22:20 pulled heavy sent a 10-20-10 lowered fluid rate. Bit stuck, no returns of plug pieces. Titan made a call they could pull. Pulled to 20k lbs. tubing pulled free making. Making a short trip to 6500' then RIH. Wp: 1200, c during this issue.
11:45 PM	3:30 AM	3.75	PU into the vertical to 6,917' at 03:29 hrs. While trying to get flowback lines unclogged.
3:30 AM	5:15 AM	1.75	Got both sides cleaned out and recirculated at depth before finishing short trip to ensure clean well bore.
5:15 AM	6:00 AM	0.75	Stopped in the curve at 8,170' at 05:53 PU into vertical chase the sweep up that just hit the tool at this time.

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling/ Vaccum	\$12,000	Coil Tubing	\$55,560
Dirt Work		Tool Hand/ Equipment	\$7,710
Crane		Water Transfer	
Anchors		Supervision	\$3,000
Trucking - Plugs		Frac Stack	\$600
Trucking - Flowback iron		Frac Tanks	\$1,600
Trucking - Coil		Porta Pots	\$40
Trucking - Tools		Manlift	\$160
Trucking - Trash Trailer		Light Towers	\$300
Trucking - Manlift		Trash Trailer	\$20
Trucking - Frac Stack		Trailer House	\$600
Trucking - Trailer Water		Flowback iron	\$3,185
Trucking - Fork Lift		TSR Chemicals	\$2,860
Pump down crew		Fork lift	\$275
Nipple down to flow cross		Mixing Plant/ Chemicals	\$10,084
		Daily Intangible Costs	\$97,994
		Daily Tangible Costs	
		Cum. Tangible Costs	
		PREVIOUS CUM. COST	
		TOTAL DAILY COST	
		TOTAL CUM. COST	

NOTE: All costs are field estimates only.

2017

30917

plug in 7

plug in 7

st returns on

gh plug in 5

gh plug in 5

gh plug in 5

gh plug in 5

l to see what
p: 6,200

\$0

\$0

\$5,098,800

\$97,994

\$5,196,794

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 6/2/
DAY # 22

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Drill Out				
Upcoming Ops:	Drill Out				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	6:30 AM	0.5	Short trip complete RIH to plug #41.
6:30 AM	12:15 PM	5.75	Tagged plug #41 @ 15,876', at 12:17 hrs wh: 1,300 psi, cp: 3,300 psi. pumping 3.8 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 4,000 psi. Sent 10/10/10 sweep. RIH for plug #42
12:15 PM	1:45 PM	1.5	Tagged plug #42 @ 16,068', at 13:47 hrs wh: 1,400 psi, cp: 4,000 psi. pumping 3.8 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 4,000 psi. Sent 10/10/10 sweep. RIH for plug #43
1:45 PM	2:45 PM	1	Tagged plug #43 @ 16,268', at 13:41 hrs wh: 1,400 psi, cp: 4,200 psi. pumping 3.8 bpm in 4 bpm out, through minutes, wh: 1,400 psi, cp: 4,300 psi. Sent 10/10/10 sweep. RIH for plug #44
2:45 PM	5:30 PM	2.75	Tagged plug #44 @ 16,472', at 17:28 hrs wh: 1,000 psi, cp: 3,800 psi. pumping 3.8 bpm in 4 bpm out, through minutes, wh: 1,000 psi, cp: 3,800 psi. Sent 10/10/10 sweep. RIH for plug #45 as well as a 20 bbls slug of Beka.
5:30 PM	7:00 PM	1.5	Start short trip to top of the curve
7:00 PM	10:45 PM	3.75	Stopped at 6950' while surging the line, wp: dropped but was to maintain and bring it back up with the surges. capacity sweeps prior to running in the hole.
10:45 PM	11:30 PM	0.75	Short trip complete RIH to plug #45.
11:30 PM	6:00 AM	6.5	Currently at 15,969' at 4 ft/min. still trying to get to plug #45.

COST SUMMARY

Intangible Costs			Tangible Costs	
Water Hauling/ Vaccum	\$10,000	Coil Tubing	\$51,035	
Dirt Work		Tool Hand/ Equipment	\$7,710	
Crane		Water Transfer		
Anchors		Supervision	\$3,000	
Trucking - Plugs		Frac Stack	\$600	
Trucking - Flowback iron		Frac Tanks	\$1,600	
Trucking - Coil		Porta Pots	\$40	
Trucking - Tools		Manlift	\$160	
Trucking - Trash Trailer		Light Towers	\$300	
Trucking - Manlift		Trash Trailer	\$20	
Trucking - Frac Stack		Trailer House	\$600	
Trucking - Trailer Water		Flowback iron	\$3,185	
Trucking - Fork Lift		TSR Chemicals	\$2,860	
Pump down crew		Fork lift	\$275	
Nipple down to flow cross		Mixing Plant/ Chemicals	\$10,084	
		Daily Intangible Costs	\$91,469	Daily Tangible Costs
				Cum. Tangible Costs
				PREVIOUS CUM. COST
				TOTAL DAILY COST
				TOTAL CUM. COST

NOTE: All costs are field estimates only.

Periscope Operating
DAILY WORKOVER / COMPLETION REPORT

DATE: 6/3/
 DAY # 23

Lease/Well No:	Cunning Wolf 1903H				AFE No:
Current Ops:	Drill Out				
Upcoming Ops:	Drill Out				
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:	17,520'
KB	25	30	7,344'	PBTD:	17,427'
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:	7,856'
Production Casing	5-1/2" 23# L-80	90	7,943'	Bill Stanley / Shannon Thomas	

DAILY ACTIVITY

TIME			OPERATION
FROM	TO	HRS	
6:00 AM	8:45 AM	2.75	RIH to plug # 45
8:45 AM	2:15 PM	5.5	At 8:45 hrs coil stopped at 16,467'. Call was made to engineer and engineer recommended that evolube be brought out. Evolube was setup as requested to be brought out. While waiting on chemical coil would pull up 100' and RIH to make depth as requested. At 14:15 hrs. The Evo lube suppose to be brought out was actually Xtreme Lube which was already being ran. Call was made to POOH.
2:15 PM	7:45 PM	5.5	Coil POOH. At surface at 18:55 hrs. off the well head at 19:22 hrs. Visually checked the BHA everything looked good.

COST SUMMARY

Intangible Costs		Tangible Costs	
Water Hauling/ Vacuum	\$7,500	Coil Tubing	\$38,700
Dirt Work		Tool Hand/ Equipment	\$7,710
Crane		Water Transfer	
Anchors		Supervision	\$3,000
Trucking - Plugs		Frac Stack	\$600
Trucking - Flowback iron		Frac Tanks	\$1,600
Trucking - Coil		Porta Pots	\$40
Trucking - Tools		Manlift	\$160
Trucking - Trash Trailer		Light Towers	\$300
Trucking - Manlift		Trash Trailer	\$20
Trucking - Frac Stack		Trailer House	\$600
Trucking - Trailer Water		Flowback iron	\$3,185
Trucking - Fork Lift		TSR Chemicals	\$2,860
Pump down crew		Fork lift	\$275
Nipple down to flow cross		Mixing Plant/ Chems	\$10,084
		Daily Intangible Costs	\$76,634
NOTE: All costs are field estimates only.		Daily Tangible Costs	
		Cum. Tangible Costs	
		PREVIOUS CUM. COST	
		TOTAL DAILY COST	
		TOTAL CUM. COST	

2017

30917

ought out.
to try and
rich was

and good. RD

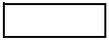
\$0

\$0

\$5,288,264

\$76,634

\$5,364,898



Periscope Operating
DAILY WORKOVER / COMPLETION RE

Lease/Well No:	Cunning Wolf 1903H			
Current Ops	Drill Out			
Upcoming Ops:	Drill Out			
Marker Joints:	6,966', 10,783'-13,972'	KOP	6,939'	TD:
KB	25	30	7,344'	PBTD:
Intermediate Casing	9-5/8" 40# HCL-80	60	7,722'	TVD:
Production Casing	5-1/2" 23# L-80	90	7,943'	

DAILY ACTIVITY

TIME			OPERATI
FROM	TO	HRS	
8:00 AM	10:00 AM	2	WHP @ 1,400 psi - MIRU API Wireline & 5k Lub.
10:00 AM	12:30 PM	2.5	RIH with 5.5" GR down to 7,100' (clear) POOH with wireline.
12:30 PM	3:00 PM	2.5	RIH with 5.5 CBP (solid) set @ 7,005'. POOH with wireline.
3:00 PM	5:00 PM	2	RDMO wireline and 5k lub.
5:00 PM	8:00 PM	3	Unload and rack 7,000' of 2-7/8" production tbg & 15,535' of 2- the morning. After inspection of WSU noticed that it was not big in the morning also.

COST SUMMARY

Intangible Costs			
Water Hauling/ Vaccum	\$1,200	Wireline	\$7,500
Work Over Rig	\$4,500	Tool Hand/ Equipment	\$2,000
Reverse Unit & Equipment	\$5,504	Tubing	\$2,000
Anchors		Supervision	\$1,400
Trucking - Plugs		Frac Stack	\$600
Trucking - Flowback iron		Frac Tanks	\$0
Trucking - Coil		Porta Pots	\$40
Trucking - Tools		Manlift	\$160
Trucking - Trash Trailer		Light Towers	\$0
Trucking - Manlift		Trash Trailer	\$20
Trucking - Frac Stack		Trailer House	\$300
Trucking - Trailer Water		Flowback iron	\$0
Trucking - Fork Lift		TSR Chemicals	\$0
Pump down crew		Fork lift	\$275
Nipple down to flow cross		Mixing Plant/ Chems	\$0
		Daily Intangible Costs	\$25,499

NOTE: All costs are field estimates only.

