

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Black Rock Resources, LLC
Well Name	S-H UNIT 1-24
Doc ID	1615558

All Electric Logs Run

DIL
MEL
SON
POR

BLACK ROCK

— R E S O U R C E S , L L C —

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: SH Unit 1-24
Well Id: 15-109-21625
Location: NE NE NW SE Sec 24 T12S R37W
License Number:
Spud Date: 7/29/2021
Surface Coordinates:
Region:
Drilling Completed: 8/6/2021

Bottom Hole
Coordinates:
Ground Elevation (ft): 3177 K.B. Elevation (ft): 3187
Logged Interval (ft): 3500 To: 4739 Total Depth (ft): 4739
Formation: Topeka-Mississippian
Type of Drilling Fluid: Chemical Mud

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Black Rock Resources
Address: P.O. Box 553
Russell, Ks 67665

GEOLOGIST

Name: Chad Counts
Company: MG Oil Inc.
Address: P.O. Box 162
Russell, Ks 67665

Comments

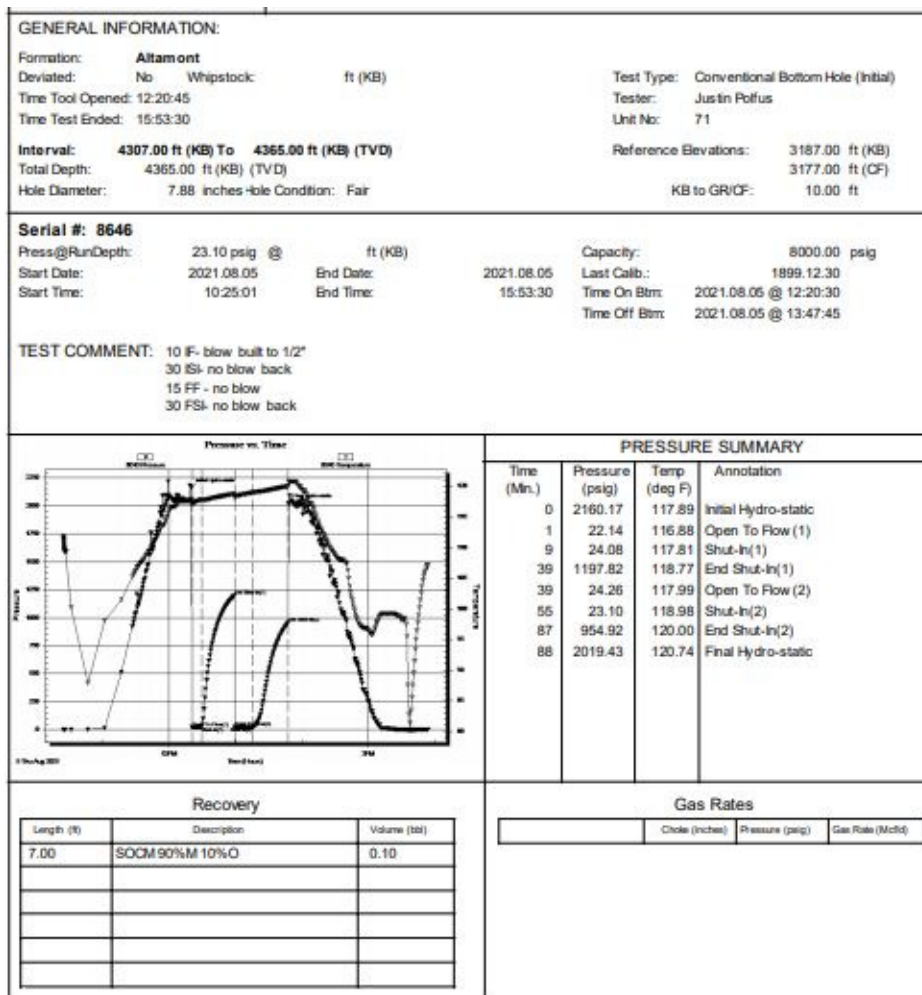
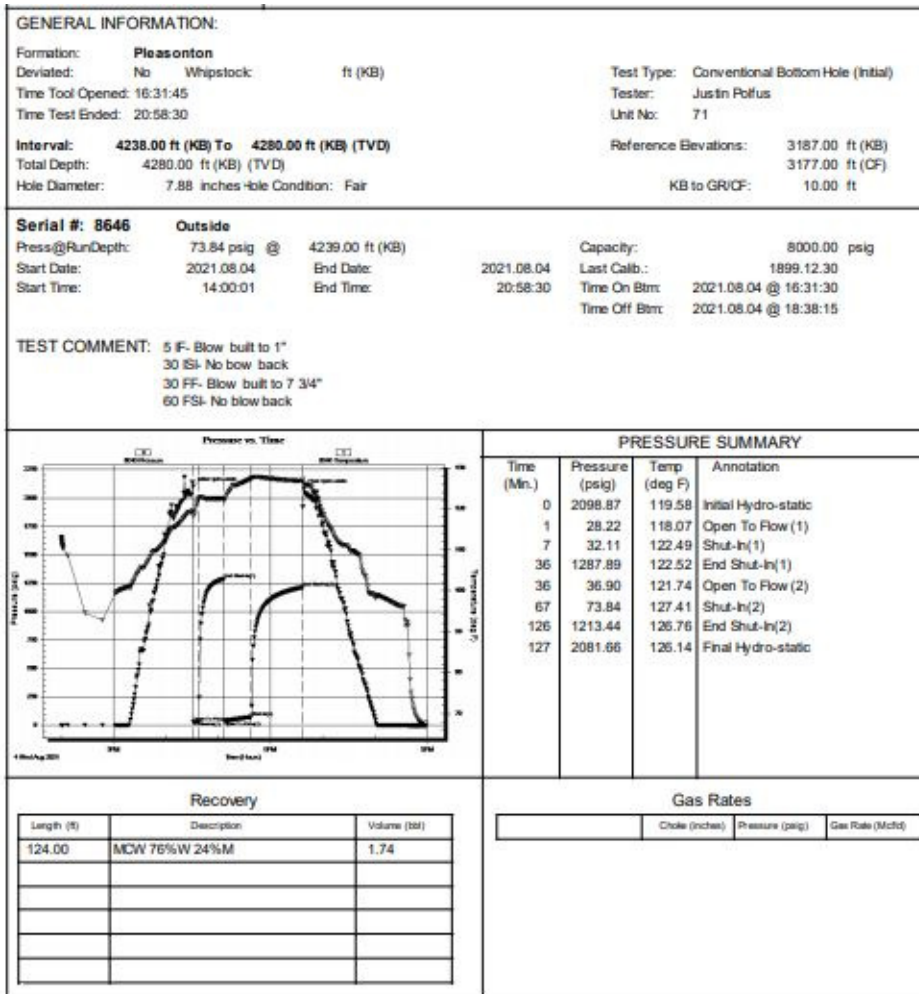
The SH Unit 1-24 was drilled using Southwind Rig #8 drilling tools beginning 7/29/21 and completed 8/6/21.

This location was based on 3D seismic survey targeting structurally trapped reserves in the Topeka, Lansing-Kansas City, and Marmaton. Structurally, the well was much lower than expected, but yet higher than surrounding dry holes.

Owing to the negative drill stem tests, poor log calculations, and sample evaluation, it was agreed by all parties to plug and abandon the SH Unit 1-24.

Respectfully,

Chad Counts



ROCK TYPES



OTHER SYMBOLS

- POROSITY**
 [E] Earthy
 [F] Fenest
 [X] Fracture
 [I] Inter
 [M] Moldic
 [O] Organic
 [P] Pinpoint

- [V] Vuggy
SORTING
 [W] Well
 [M] Moderate
 [P] Poor

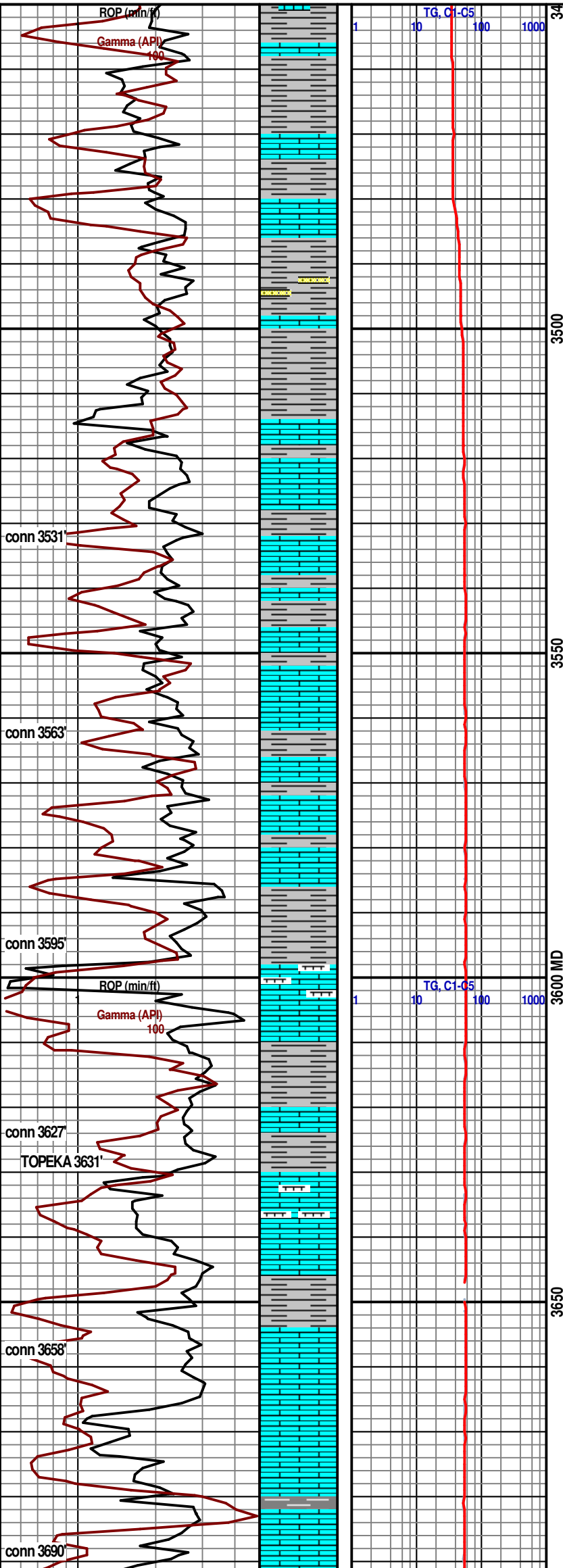
- ROUNDING**
 [R] Rounded
 [r] Subrnd
 [a] Subang
 [A] Angular

- OIL SHOW**
 [O] Even

- [S] Spotted
 [Q] Ques
 [D] Dead

- EVENT**
 [Rft] Rft
 [Sd] Sidewall

- INTERVAL**
 [C] Core
 [D] Dst overlap
 [D] Dst



8/2/21, 1:30pm-Start logging.

3450'-Mud displaced into system.

-3480-3490'-Ls: white-cream, mudstone, micro xln, scat pugs, dense matrix, sl. marl, NSFOC. Shale, gry, calc, sub platy. abndnt Flower Pot.

-3490-3501'-Ls: light grey, argillaceous, micro xln, no vis por, sl. marl, occ. mottled, NSFOC.

-3501-3509'-Ls, grey, arg, micro xln, fair marl, no vis por, occ. mot, NSFOC. Grey shale, calc, firm, platy.

-3509-3517'-Shale, dove grey-green, smooth-sl. gritty, ss stringers, blocky-subplaty, occ. soft. Ls:tan, grey micro xln, arg, no vis por, NFOC.

-3517-3528': Sh: grey-green, dk grey, subplaty-platy, sl. calc., firm. Ls: cream-beige, micro xln, dense, arg, sl marl, no vis por, NSFOC.

-3528-3538': Grey-dk grey sh, firm mot w/ plant material, mod calc, sub platy. Ls: beige, micro xln, no vis por, dns, NSFOC.

-3538-3546': Ls, cm, beige, grey, hvy mottled plant mat, arg, brittle, poor-no vis por, NSFOC. Sh: grey-med grey, subplaty, sl. gritty, firm, calc.

-3546-3556'-Ls: cream-beige, micro xln, mod arg. dense, few grainstone, oolitic, no dissolution, micro xln mtx, no vis por, NSFOC. Grey sh, smooth sub platy.

-3556-3567': Ls: white-cream, micro xln, sl. marl, no vis por, NSFOC. trc grey subplaty shale.

-3567-3580': Ls, grey-brown, occ white a.a., dns, earthy tex, micro xln, no vis por. NSFOC. Sh: grey-dk grey platy, firm, sl carb.

-3580-3590': Sh-lt grey, gritty, calc, mod firm, sub platy-non platy. Ls: cream, grey, micro xln, arg, occ. foss frag, NSFOC

-3590-3598'-Ls: grey-off white, micro xln, no vis por, occ fusulinids, NSFOC. Grey calc shale, firm platy-subplaty.

-3598-3610'-LS: cream-beige, white, micro xln, occ scatt fn xln, poor-no vis por, hvy marl, occ. rr pp vug. NSFOC.

-3610-3621':Ls: white-cream, micro xln-fn xln, hvy mottled w/red shale, brittle, very poor-no vis por, NSFOC.

-3621-3625':Ls: wh-crm, grey, micro xln, occ fn xln, poor-no vis por, occ. mottled w/red shale, NSFOC.

-3625-3634': Ls, white, micro xln-fn xln, occ suggary tex, hvy marl content, few cutting w/spotty edge stain, no show free oil or cut, Grey platy shale, firm, calc.

-3633-3651': Ls, white, cream, micro xln-fn xln, occ. rr scattered pp por, hvy marl, one cutting w/ dead gils stain, no show free oil or odor.

-3651-3657'-Ls: white, grey, fn xln, occ spary, hvy marl, poor vis inxl por, occ. rr pp vug, NSFOC.

-3657-3673'-Ls, cream, grey, micro xln-fn xln, hvy marl, occ rr foss frag, mod arg, no vis por, nsfoc.

-3673'-3679'- Ls-crm, grey, micro-fn xln, occ sct pp vugs, mod brittle, poor conn por, sl-mod marl, NSFOC.

-3679-3688'-Ls-white, cream, vf xln, poor-no vis por, mod marl cont, occ. spary calc, NSFOC.

-3688-3700'-Ls, grey cream, occ. mott w plant matter,

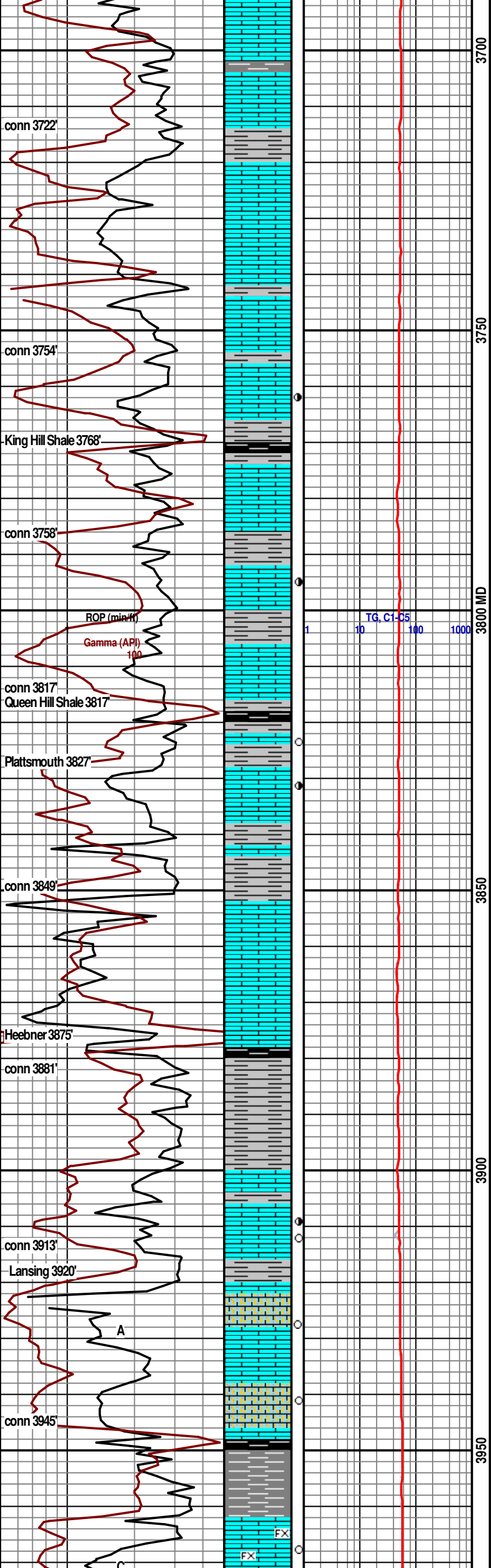
*Close sample box at 3490'

MW 8.9
Vis 68
2# LCM

MW 8.7
Vis 62
2# LCM

MW 8.7
Vis 60
2# LCM

MW 8.7
Vis 57
2# LCM



MW 8.8
Vis 63
1# LCM

-3700-3710'-Ls, crm-white, fine xln-micro xln, poor inxln por, NSFOC.

-3710-3719'-Ls: cream-white, grey, occ. arg, microfn xln, occ. r pp por, sl. marl, r foss frag, NSFOC.

-3719-3731': Ls: cream-beige, sl. arg, fn-nicr xln., poor-no vis inxl por, NSFOC. Grey sh: lt grey, sl. gritty, blocky, calcareous, mod firm.

-3731-3740': Ls: cream-beige, brittle, micro xln-fn xln, very poor inxl por, sl. marl, NSFOC. Grey shale: subplaty, firm, mod calc.

-3740-3749': Ls-crm white, micro-fn xln, very dnse, no vis inxl por, occ. fossil frag. Grey sh: subplaty, firm calcs.

-3749-3758'-Ls: crm-beige, micro xln, dense, mod marl, no vis por, NSFOC. Gry shale: gritty, blocky, calcareous, very firm.

-3758-3768'-Ls: crm-beige, micro xln-fn xln, no vis inxln por, 2-3 cuttinf w/scatt pp vugs and dk oil stn in pores, one cutting wheavy black free oil amng sct pore throats, very poor inxln por, no odor.

-3768-3778'-Ls: cream, white, grey, mod arg, occ mott plant mat, no vis por, one cutting w/ sl trc oil a/a, NSFOC. Trc black pty shale, mod carb.

-3778-3788': Ls: cream, white, grey, sl. arg, micro xln, poor-no vis por, occ. r scat vug, NSFOC.

-3788-3797'-Ls: cream, beige, white, micro xln, r scattered pp por in dns matrix, few cuttings w/ spotty heavy oil stain, vssfo in poorly conn vugs, no odor.

-3797-3811' Ls: crm, white, grey, sl arg, r sct pp vug, sl. oil stain, vssfo, no odor (A/A). Sh: grey-med grey, calcareous, blocky-sub platy.

-3811-3819'-Ls: cream, white, beige, mocr xln, sl. arg, poor-no vis por, NSFOC. Trc black sh, platy, carb, very firm.

-3819-3826'-Ls: cream, grey, micro xln, arg, tight, one cutting sucrosic, scattered pp vugs, fair heavy gravity oil stain, ssfo-fsfo, no odor.

-3826-3837': Ls, grey, crem, fn xln, mod marl cont, very poor inxl por, 2-3 cutting w/patchy uneven stain, vssfo.

-3837-3845'-Ls: cream, white, micro xln, mod marl, no vis por, occ. mottled, sl. arg, NSFOC. Grey sh: subplaty, firm, sl. calc.

-3845-3849': LS A/A

-3849-3865': Ls: grey cream, micro xln-vf xln, hvy white marl content, dense, poor vis por, occ. shell frag, NSFOC.

-3865-3882'-Ls: grey-brown, cream, fn xln, occ sparry, mod marl cont, brittle, poor vis inxl por, NSFOC. Trc black shale: mod carb, very platy, firm, calc.

-3882-3890'-Ls: grey-brown, argillaceous, micro xln, no vis por, NSFOC. Good report black shale, very platy, firm, mod calc.

-3890-3898' shale: dove grey, grey brown, non calc, very soft smooth-sl gritty, blocky.

-Toronto porosity:Ls white-cream, trc fn xln sparry calc, mostly dense/tight with r scat pp vugs, very poor no vis inxl por, mod marl, few cuttings trace stain (1 ssfo) in scat pp por, poor app conn, trc free oil, no odor.

-3912-3920'-Ls, cream, micro xln-vfn xln, poor-no vis pos dens, NSFOC. Shale, grey soft, non calc, non platy.

-3920-3930'-Ls: oomoldic ls: 250-350microns, well std, very poor inter connected por, no vis show Severla Ls: white, micro xln, scattered pp porosity, sl oil stain, ssfo, no odor.

-3930-3940': Ls: white cream, micro xln-fn xln, poor inxl-oomoldic por, mostly very dense, NSFOC.

-3940-3949': Oolitic-oomoldic ls, 200-450micron, very poorly std, occ oomoldic, very poor intraclast por, 99% barren, few cutting with heavy gr oil stain, vssfo, no odor,

-3949-3961': Sh: grey, firm, calc, sub platy. Black shale: firm, blady/platy, mod carb, firm, sl. calc.

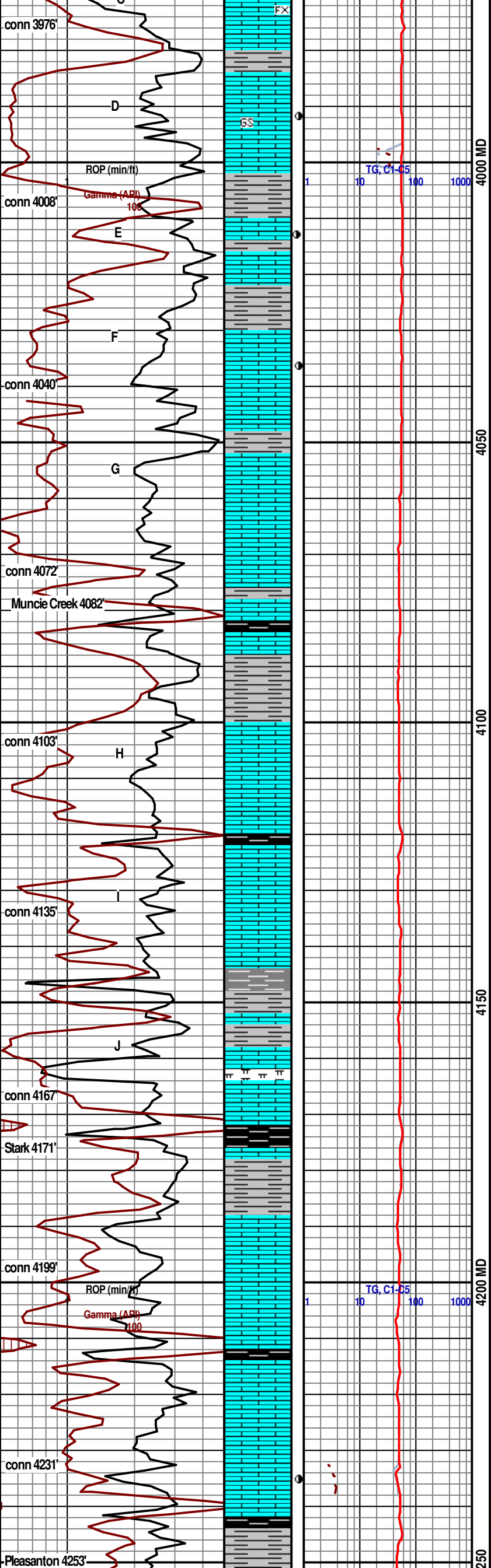
-3961-3964'-Ls: crm-white, micro xln, very dense, mod marl, no vis por, NSFOC. Trc shale a/a.

C porosity: ls, vf xln, sparry calcite, very friable, very r

Mud Co check
MW 9.0
Vis 67
Filtrate 8.0
Chlorides: 3500ppm
1# LCM
4.8% Solids

CFS@3912 30-60"

MW 9.0
Vis 57
1# LCM



spotte stain, NSFOC. Very few cuttings have scattered vuggy por in micritic matrix with heavy black oil stain in pores, very poor connected por, ssfo, one oil globule in tray, no odor. Significant amount white chert.

CFS@3977' 30"-60"

D Porosity: Ls, most micro xln dense, cherty, abndt fusulinids, NSFOC. 1-2 cutting of vfn xln, w/ sctd pp vugs, spotty sat, nsfo, no odor.
-3990-4000'- Ls, cream-white, fn xln-micro xln, occ. spary calcite, occ oolitic, very poor in xln/vuggy por, mod marl, rare spotty stain and sat, scattered, 2 oil droplets on cup, questionable odor.

MW 9.0
Vis 59
1# LCM

-4000-4010- Ls: cream-white, micro xln, dense, poor vis inxl por, few cuttings with patchy oil stain, dead oil, vssfo, no odor.

-4010-4018'-E porosity: Ls white, micro xln, scattered r pp vuggy porosity, hvy black oil sat in vugs, poor connectivity, hvy stain after dry, ssfo. Oil appears flaky

-4018-4029'-Ls: cream, micro xln, dense, occ. fossil frag, trc show a/a, trc free oil, no odor. Shale, grey, subplaty, firm, calc.

-4029-4039' F Porosity-Ls, white, grey, sl arg, very poor-fair intraparticl por, 2 cuttings w/ scattered 200micron vugs, poor-fair oil sat, questionable odor.

MW 9.1
Vis 52
3# LCM

-4039-4049-Ls-grey, cream, micro xln, NSFOC. Abndt grey shale.

-4049-4058'- Ls, oolitic, vf carb grainstone, very poor vis ingl por, grains measure 125-175microns, NSFOC. no odor.

-4058-4070: Ls: Cream, micro xln, occ. pp vug, sl. marl, fair incl por, NSFOC.

-4070-4080: Ls, cream, tan, micro xln-fn xln, dense, no vis por, NSFOC.

-4080-4088: Ls, cream-tan, micro xln, poor vis inxl por, hvy marl, NSFOC. Trc blk sh, platy, mod firm, sl. calc, carb.

-4088-4095'-Ls: cream, grey, micro xln, sl argillaceous, occ. fossil frag, no vis por, NSFOC. Sh. dove grey, calcareous, blocky very firm.

CFS@4058' 20-40-60"

-4095-4104-Ls: cream, micro xln, hvy marl cont, trc white-grey chert, no vis por, NSFOC. Trc green platy shale.

-4104-4115: Ls cream, micro xln, occ. oolitic, no dissolution w/ micro xln matrix, very dense, hvy marl, no vis por, NSFOC. Variety shales.

-4115-4122': Black shale: firm platy, very carb, sl. cal. Ls: white-cream, sl arg, micro xln, occ. fossil fragment (shells), no vis por, NSFOC.

-4122-4127: Ls grey-cream, micro xln, no vis inxl por, sl. cherty, NSFOC. One cutting with vuggy porosity in micritic lime, dead oil stain lining pores, NSFO.

-4127-4136': Ls, grey-brown, micro xln, mod arg, no vis por, sl. cherty (trans white), NSFOC.

-4136-4145':Ls cream, micro xln, no vis inxl por, very dense, NSFOC.

-4145-4154'-Med grey shale, sl. calc, brittle, subplaty. Ls: cream grey, arg, micro xln, abdn fossil frag, NSFOC.

MW 9.1
Vis 66
2# LCM

-4154-4166'- Limestone, fn-micro xln, very poor-no vis por, only cutting to represent break is brittle ls full of marl. No show free oil or cut.

-4166-4177'-Gd report black shale, very carb, platy, firm, sl calc. Ls: cream, micro xln, dense, sl. marl, occ. foss frag, NSFOC.

-4177-4186'- Shale, lt grey-grey, soft-firm, non platy-subplaty. LS: grey, arg, micro xln, no vis por, NSFOC.

-4186-4195-Ls: grey-cm, white, micro xln-fn xln, poor-no vis por, mod marl cont, dns, NSFOC.

-4195-4206'- Ls: cream, grey, beige, micro xln-fn xln, few scattered bioclast, no vis por, NSFOC.

-4206-4215-Blk sh: very platy, firm, mod carb, sl calc. Ls: grey-cream, micro-fn xln, occ poorly std grainstone, no dissolution, no vis por, sl cherty, NSFOC.

Mud Co check
MW 9.2
Vis 63
Filtrate 8.8
Chlorides: 4400ppm
1# LCM
5.9% Solids

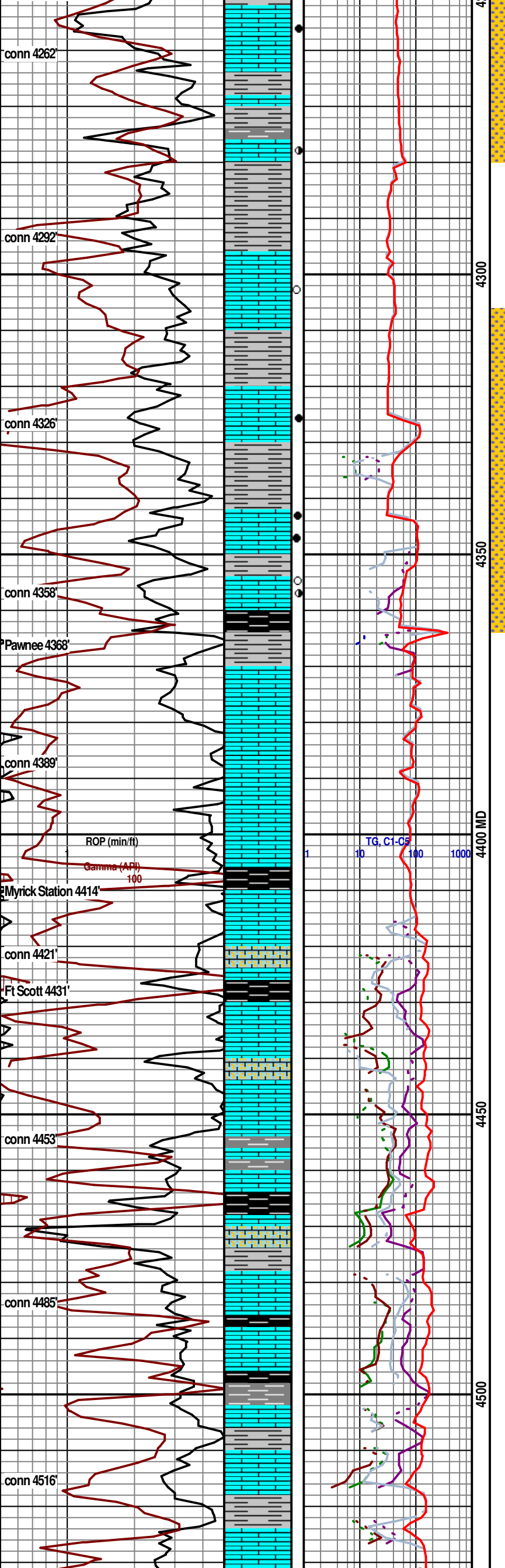
-4215-4226'-Ls: grey-fn xln, mottled, argillaceous, micro-fn xln, poor-no vis por, NSFOC. Fair report black shale A/A

-4226-4238'-2 cuttings, Ls: white, fn xln, scattered pp vuggy por, poor connectivity, fair stain and saturation in vugs, q. odor, one oil droplet in tray.

-4238-4247': Blk shale: brittle, platy, carbonaceous, mod firm,

Pleasanton porosity: Ls, white, fn xln, spary calcite, fair inxl por and vugs, scattered vugqv por, fair stain/sat some flaky

CFS @ 4262' 20-40-60



oil, few oil globules in cup, fast streaming cut, fair odor.

Limestone: grey, dense, no vis por, arg, NSFOC.

Pleasanton Porosity 2: Ls, white-light grey, fn xln, occ. sct vugs, poor inxl port, spotty oil stain and sat, faint oil odor, fair oil cut.

-4280-4290-sh: grey, turquoise, green, dark grey, brown, palty, few gritty/sandy. Ls: Grey, cream, micro xln, no vis por, arg, NSFOC.

-4290-4297'-sh: lt grey-grey, gritty, blocky, sl calc, non platy. LS A/A

-4297-4304'-Ls: grey, micro xln, arg, svl pyrite inclusions, no vis por, very dense, NSFOC. Several shales A/A. Trc ss: grey, vfg, well std, shaly, no vis por, w md, w. cons, no vis por.

-4304-4315': Ls, grey, brown, cream, micro xln, no vis por, occ mtd w/ red shale, 2-3 cuttings w/xln overgrowth and spotty oil stain, NSFOC. Significant amt shale.

-4315-4324'-Ls: cream, grey, micro xln, dense, no vis por, NSFOC. Abdnt grey shale.

Altamont A: white, oolitic grainstone & fos hash, fair intra granular por, scattered vugs, sev cuttings with recrystallization, even oil stain and saturation, fair-good show free oil, good odor, fast cut.

Altamont B: grainstone, scattered, fossil hash with fair secondary porosity (less than above), scattered pp vugs, few cuttings partial micritic matrix, fair show free oil, fast cut, fair odor.

Altamont C: Oolitic grainstone, poorly sorted, ooids measure 250-750 microns, poor-fair secondary porosity, very few vugs/intergranular por., sso on crush, very spotted stain, faint odor.

-4365-4373'-Ls: cream, white, micro xln, no vis por, r dead oil stain along frac, NSFO. Sample contains several cuttings from trip.

-4373-4383'-Ls: grey, micro xln, very dense, no vis por. Abdnt grey translucent chert. NSFOC.

-4383-4390'-Ls: grey, micro xln, no vis por, dense, NSFOC. Fair amt chert, (grey, translucent) and pyrite inclusions.

-4390-4400'-Ls: buff, grey, beige, micro xln, no vis por, abdnt off white-grey translucent chert, NSFOC.

-4400-4410'-Ls: grey, cream, micro xln, no vis por, cherty, grey opaque, white trans, few shell frag, NSFOC.

-4410-4420': Ls: buff-grey, micro xln, very dense, cherty, r foss frag, NSFOC.

-4420-4430': Ls, oolitic grainstone: very dense, no vis por, ooids well std, NSFOC. Black shale: firm, platy, hvy carb

-4430-4440'-Ls: grey brown, micro xln, v dense, hard, no vis por, NSFOC.

-4440-4450'-Ls: grey brown, oolitic grainstone, oolites well std, 350microns, no dis, cyto matrix, NSFOC.

-4450-4458': Ls: cream grey, micro xln, arg, no vis por, r fos frag, sl. cherty, NSFOC.

-4458-4467': Ls: cream-grey, micro xln, very dense, occ fusulinids, one cutting w/ very s. ded oil str, NSFO, Svl blk and grey shale.

-4467-4480': poor smpl quality, Ls: grey micro xln, arg, dens, no vis por, trc, oolitic grainstone, no dis, fn xln matrix, few free ooids dark grey up to 1000microns, friable, poor ingl por, NSFOC.

-4480-4487'-Ls: cream, grey, mod arg, micro xln, no vis por, trc oolitic ls, no dis. Trc grey opaque chert. Blk shale, firm, platy, mod carb.

-4487-4497'-Ls: cream-white, micro xln-fn xln, sev friable/brittle, poor-no vis por, abdnt pyrite, NSFOC. Blk shale: firm carb, platy, sl. calc. Several other shales.

-4497-4508'-very poor smpl (pulverized): Ls, white, fn xln, poor-no vis por, NSFOC. Various shales.

-4508-4517'-Ls: white-cream, micro xln, occ. fossil frag, no vis por, NSFOC. Grey sh, silty, brittly blocky, sl. calc.

-4517-4523'-Ls: cream, micro-fn xln, poor-no vis por, abdnt pyrite inclusions, NSFOC. Gry-green shale, smooth-sl gritty, blocky-sub platy.

*Correct depth 2' up hole

DST #1
Pleasanton
4238-4330'
5-30-30-60
IFP:28-32psi
ISIP:1287psi
FFP:36-74
FSIP:1213psi
Rec:124'MCW (76%W)

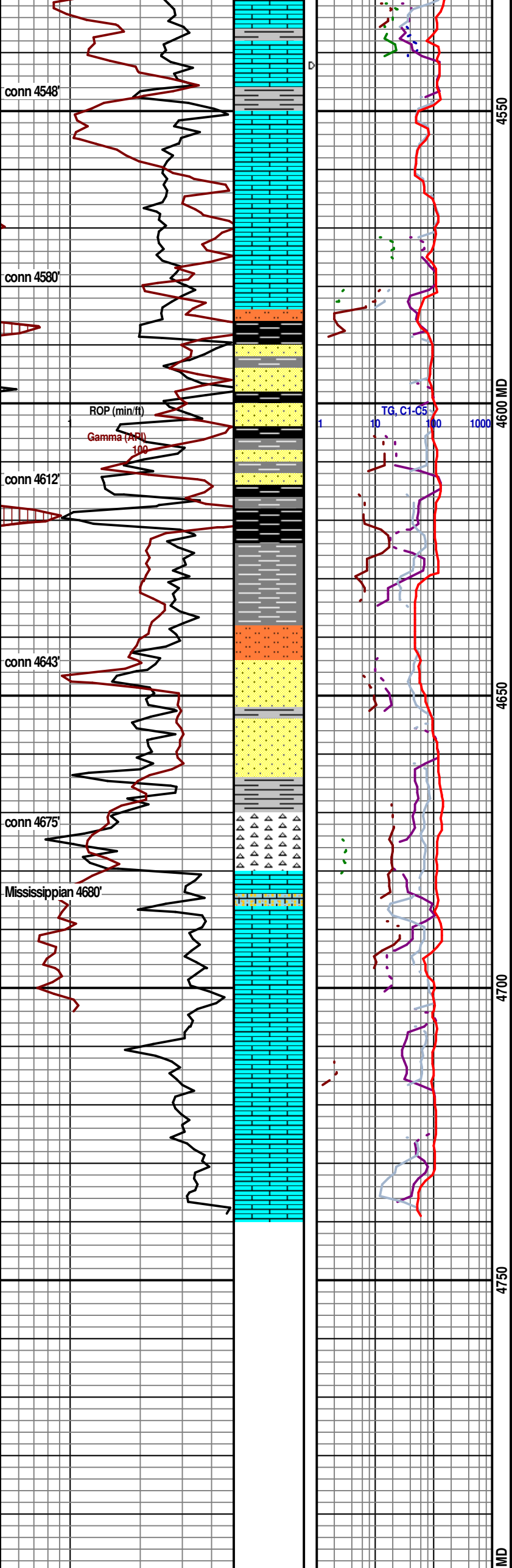
MW 9.2
Vis 63
1# LCM

Mud Co check
MW 9.2
Vis 64
Filtrate 9.6
Chlorides: 5500ppm
1# LCM
58% Solids

DST #2
Altamont
4307-4365'
10-30-15-30
IFP 22-24
ISIP 1197
FFP 24-23
FSIP 954
Rec 7' SOCM (10% O)

reduce weight on bit to 3 (was 42k)

Mud Co check
MW 9.4
Vis 54
Filtrate 9.6
Chlorides: 6000ppm



4523-4356'-Ls: cream-grey, micro xln-fn xln, occ partial oolitic, arg, ver poor-no vis por, NSFOC.

-4536-4544': Ls, grey-grey brown, micro xln-fn xln, occ partial oolitic, arg, ver poor-no vis por, NSFOC.

-4546-4552'-Ls: grey-beige, micro xln, fn xln, poor-no vis por, mod arg, few cuttings w/dead oil stain on fractures, no free oil or odor.

-4552-4564': Ls grey-dk grey, micro-fn xln, v arg, several shell frag, no vis por, few cuttings w/ dead edge stain, no show free oil.

-4564-4576'-LS A/A

-4576-4586': LS a/a. Silstone, white, vfg-silt, no vi por, friable, well std, very clayey, NSFOC. *Very small sample.

-4586-4596': No sample due to MW. All samples carried to pit.

-4596-4608': Black shale: firm, blady platy, mof carbonaceous. Trc ss, white, vfg, no vis ingl por, NSFOC.

-4608-4618': Trc dark brown ls, arg, micro xln, no vis por, abdn fossil frags. Blk shale a/a. Blue green shale-lt grey, soft smooth, gummy, non platy, occ. sl silty.

-4618-4624': Black shale, platy, firm, carb, non calc. Grey-green shale a/a. Trc dark brown limestone, abndt fossil frag, no vis por, NSFOC.

-4624-4636-10% SS: white, vfg, well std, well cons, frosted grains, well md, poor vis ingl por, NSFOC. Gray and black shale A/A. Abndt pyrite.

-4640-4644'-A/A

-4644-4650:SS: white-grey, fg, well std, sub md., well cons, poor ingl por, NSFOC. Green-grey shale, very platy, non silty. Black shale, firm sl calc, carb.

-4644-4655':SS: white grey a/a. Few with med grain size well std, poor ingl por.. Few very shaly, limited to no ingl por. abundant pyrite, NSFOC.

-4655-4672'-Chert, orange, opaque-occ translucents, banded. SS: white: fg, weel std, poor ingl por, well cons, NSFOC. Trc limestone: cream, micro xln, dense, no vis por, NSFOC.

-4672-4686'-Ls: Cream, tan, micro xln-fn xln, poor inxl por, occ r pp vug, NSFOC. SS: white-off white, vfg well cons, well std, poor vis pors, NSFOC. Green shale, waxy, platy, smooth.

-4686-4700'-Ls: grey-cream, micro xln-fn xln, occ v fn grain oolitic ls, no dis, r pp vug, NSFOC. Trace orange opaque chert.

-4686-4705- Ls: cream-grey, micro xln, smooth tex, no vis por, fair amnt marl, various colored chert (orange off white, grey), NSFOC.

-4705-4715-Ls, cream, light brown, micro xln, no vis por, occ vf sparry calcite, dense, no vis por, trc chert, NSFOC.

-4715-4727' Ls: grey, cream, micro xln, dense, no vis por, NSFOC.

-4727-4739': Ls: grey, cream, micro xln, no vis por, NSFOC.

Connec. Occupm
1# LCM
7.4% Solids

MW 9.4
Vis 55
1# LCM

MW 9.4
Vis 56
1# LCM

Rotary TD:4739'



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Rock
1029 E 7th
Russell KS, 67665
ATTN: Chad Counts

SH Unit 1-24

Job Ticket: 67039

DST#: 2

Test Start: 2021.08.05 @ 10:25:00

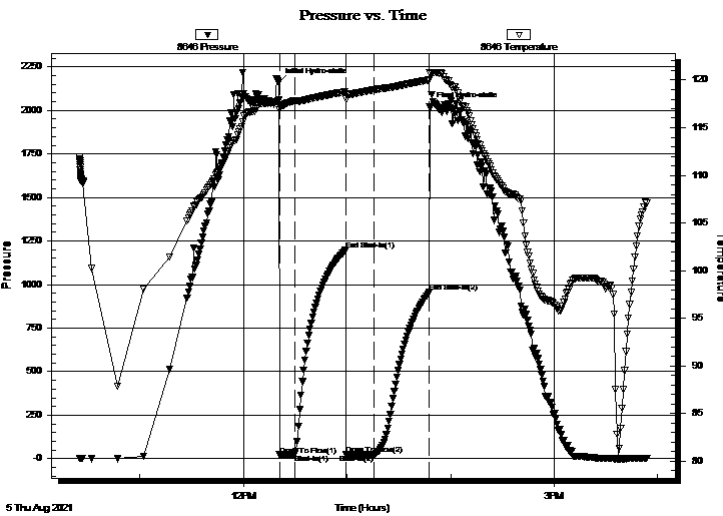
GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:20:45
 Time Test Ended: 15:53:30
 Interval: **4307.00 ft (KB) To 4365.00 ft (KB) (TVD)**
 Total Depth: 4365.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Justin Polfus
 Unit No: 71
 Reference Elevations: 3187.00 ft (KB)
 3177.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8646

Press@RunDepth: 23.10 psig @ ft (KB) Capacity: 8000.00 psig
 Start Date: 2021.08.05 End Date: 2021.08.05 Last Calib.: 1899.12.30
 Start Time: 10:25:01 End Time: 15:53:30 Time On Btm: 2021.08.05 @ 12:20:30
 Time Off Btm: 2021.08.05 @ 13:47:45

TEST COMMENT: 10 IF- blow built to 1/2"
 30 IS- no blow back
 15 FF - no blow
 30 FS- no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2160.17	117.89	Initial Hydro-static
1	22.14	116.88	Open To Flow (1)
9	24.08	117.81	Shut-In(1)
39	1197.82	118.77	End Shut-In(1)
39	24.26	117.99	Open To Flow (2)
55	23.10	118.98	Shut-In(2)
87	954.92	120.00	End Shut-In(2)
88	2019.43	120.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
7.00	SOCM 90%M 10%O	0.10

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Rock

1029 E 7th
Russell KS, 67665

ATTN: Chad Counts

SH Unit 1-24

Job Ticket: 67039

Test Start: 2021.08.05 @ 10:25:00

DST#: 2

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 64.00 sec/qt

Water Loss: 9.59 in³

Resistivity: ohm.m

Salinity: 5500.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	SOCM 90%M 10%O	0.098

Total Length: 7.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

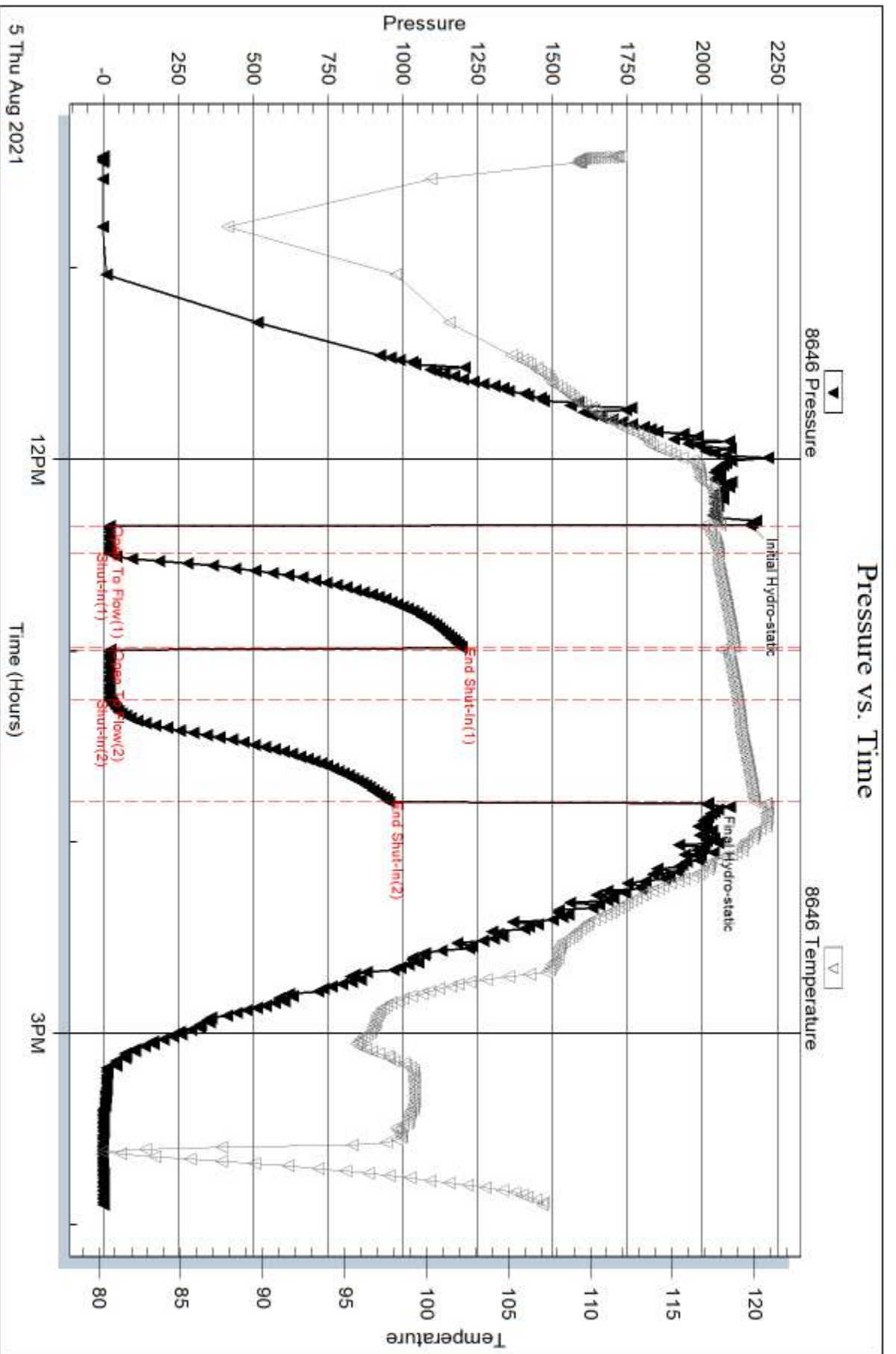
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



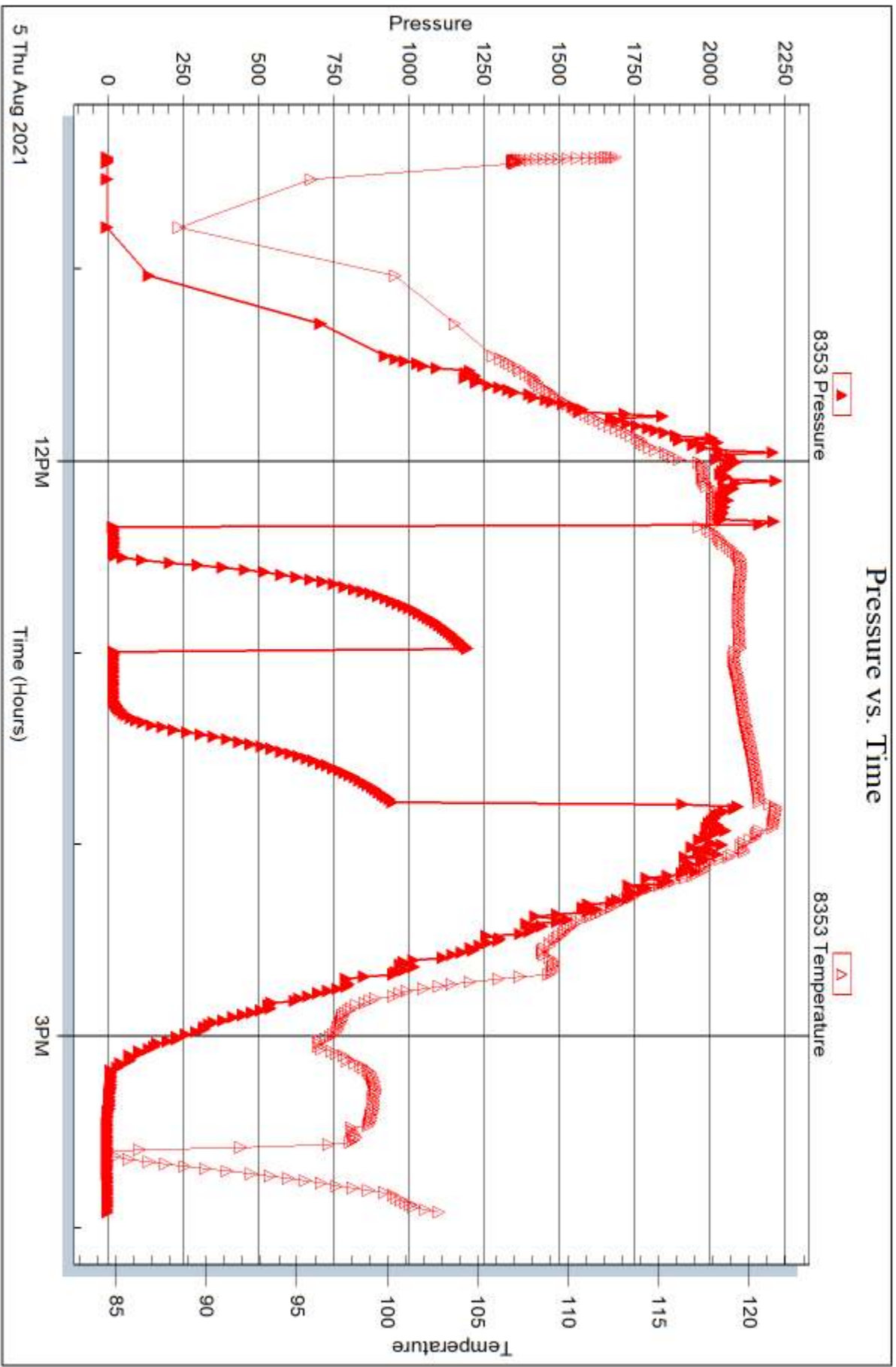
Serial #: 8353

Inside

Black Rock

SH Unit 1-24

DST Test Number: 2

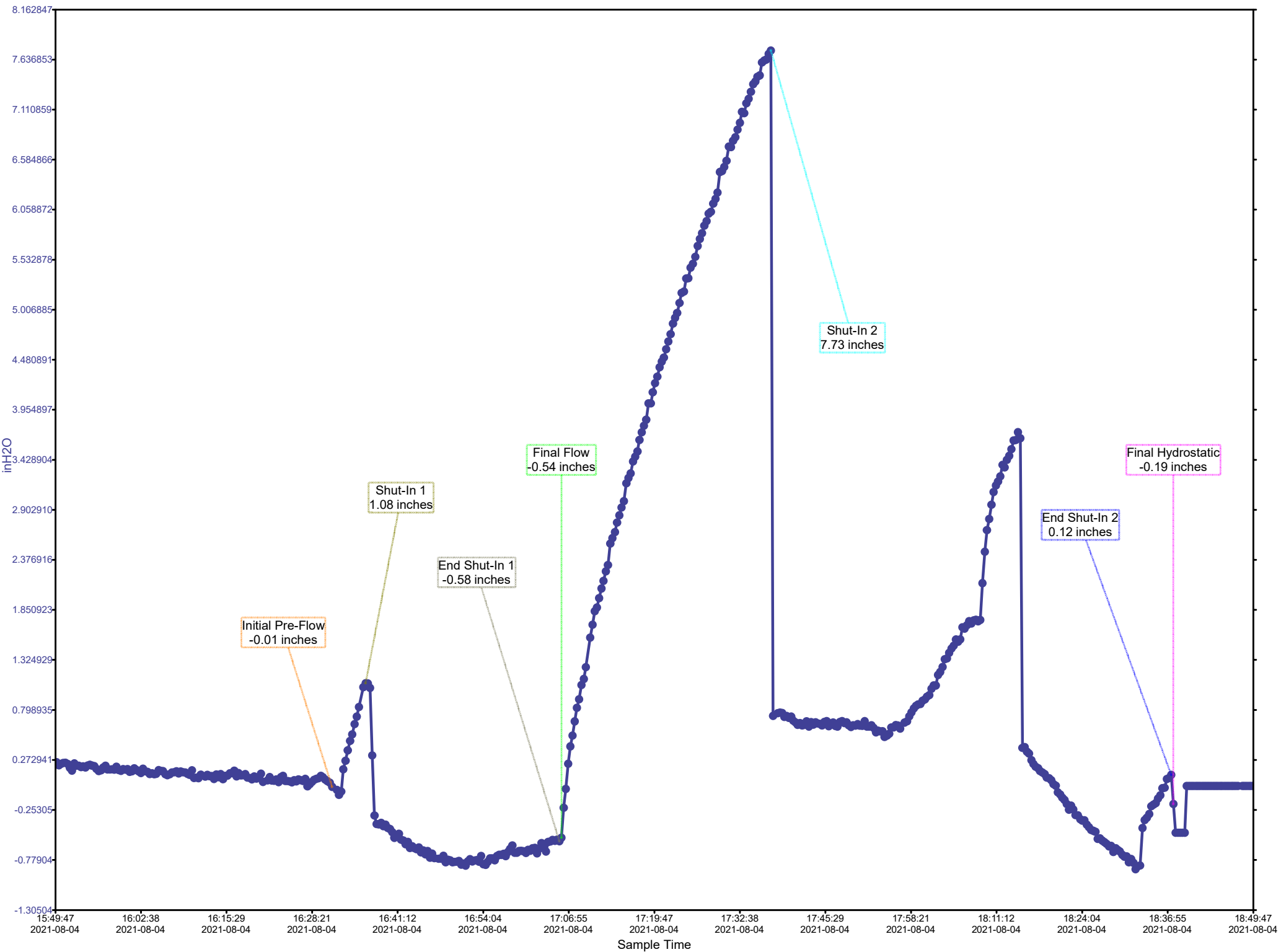


Trilobite Testing, Inc

Ref. No: 67039

Printed: 2021.08.05 @ 17:10:08

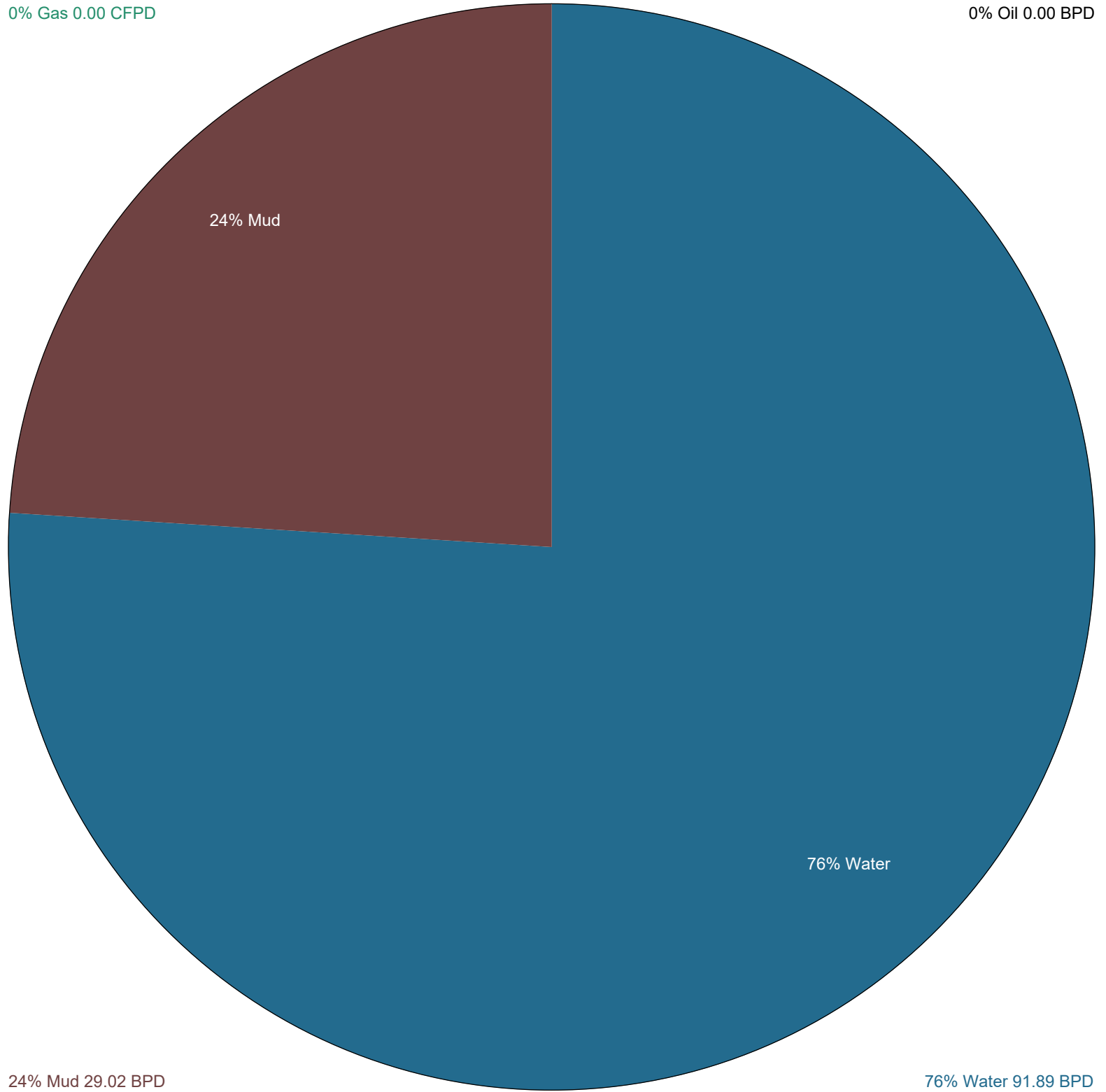
Black Rock Resources - S-H Unit #1-24 - DST #1



Calculated Recovery Analysis - Black Rock Resources - S-H Unit #1-24 - DST #1

0% Gas 0.00 CFPD

0% Oil 0.00 BPD



24% Mud

76% Water

24% Mud 29.02 BPD

76% Water 91.89 BPD

PAID



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:
BLACKROCK RESOURCES LLC
1029 E 7TH ST
PO BOX 553
RUSSELL, KS 67665-0553

Invoice Date: 8/11/2021
Invoice #: 0354580
Lease Name: S-H Unit
Well #: 1-24 (New)
County: Logan, Ks
Job Number: WP1650
District: Oakley

Date/Description	HRS/QTY	Rate	Total
7/29/21-Surface	0.000	0.000	0.00
H-325	195.000	17.600	3,432.00
Light Eq Mileage	30.000	1.760	52.80
Heavy Eq Mileage	30.000	3.520	105.60
Ton Mileage	276.000	1.320	364.32
Depth Charge 0'-500'	1.000	880.000	880.00
Total			4,834.72

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!

**CEMENT TREATMENT REPORT**

Customer: Black Rock Resources	Well: S-H Unit #1-24	Ticket: WP 1650
City, State: Oakley Ks	County: Logan	Date: 7/29/2021
Field Rep: Doug Roberts	S-T-R: 24-12S-37W	Service: Surface

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	12 1/4 in	Blend:	H-325	Blend:	
Hole Depth:	270 ft	Weight:	14.8 ppg	Weight:	ppg
Casing Size:	8 5/8 in	Water / Sx:	6.9 gal / sx	Water / Sx:	gal / sx
Casing Depth:	270 ft	Yield:	1.41 ft ³ / sx	Yield:	ft ³ / sx
Tubing / Liner:	in	Annular Bbls / Ft.:	0.0735 bbs / ft.	Annular Bbls / Ft.:	bbs / ft.
Depth:	ft	Depth:	ft	Depth:	ft
Tool / Packer:		Annular Volume:	0.0 bbls	Annular Volume:	0 bbls
Tool Depth:	ft	Excess:	125%	Excess:	
Displacement:	16.0 bbls	Total Slurry:	49.0 bbls	Total Slurry:	0.0 bbls
		Total Sacks:	195 sx	Total Sacks:	0 sx

TIME	RATE	PSI	BBLs	BBLs	REMARKS
3:45 p.m.			-	-	Arrive
3:50p.m.				-	Safety meeting
3:55p.m.				-	Rigged up
6:00p.m.				-	Run casing
7:20p.m.				-	Circulate hole
7:29p.m.	2.5	150.0	5.0	5.0	H2O ahead
7:31p.m.	4.9	300.0	32.0	37.0	Mixed cement H-325 195 sx @ 14.8 ppg
7:41p.m.	4.0	250.0	16.0	53.0	Displace H2O
7:45p.m.				53.0	Plug down
7:48p.m.				53.0	Wash up
7:54p.m.				53.0	Rig down
8:08p.m.					Depart location
					5 BBL of cement to pit

CREW		UNIT	SUMMARY		
Cementer:	Jesse Jones	29	Average Rate	Average Pressure	Total Fluid
Pump Operator:	John Polley	208	3.8 bpm	233 psi	53 bbls
Bulk #1:	Kale Ochs	242			
Bulk #2:					



paid
PAID

HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:
BLACK ROCK RESOURCES LLC
1029 E 7TH ST
PO BOX 553
RUSSELL, KS 67665-0553

Invoice Date: 8/7/2021
Invoice #: 0354730
Lease Name: S-H Unit
Well #: 1-24
County: Logan, Ks
Job Number: WP1694
District: Pratt

Date/Description	HRS/QTY	Rate	Total
PTA	0.000	0.000	0.00
H-Plug	255.000	11.440	2,917.20
Light Eq Mileage	30.000	1.760	52.80
Heavy Eq Mileage	30.000	3.520	105.60
Ton Mileage	330.000	1.320	435.60
Depth Charge 1001'-2000'	1.000	1,320.000	1,320.00
Wooden plug 8 5/8"	1.000	149.600	149.60

Net Invoice	4,980.80
Sales Tax:	273.34
Total	5,254.14

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!

Services, Inc.
 St., Suite #200
 67202



Customer	Black Rock Resources	Lease & Well #	S-H Unit 1-24			Date	8/7/2021
Service District	Oakley KS	County & State	Logan KS	Legals S/T/R	24-12S-37W	Job #	
Job Type	PTA	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> No
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures					
208	Jimmie	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging		
194/254	Spencer	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection		
		<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input checked="" type="checkbox"/> Specific Job Sequence/Expectations		
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations		
		<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below			
Comments							

Product/Service Code	Description	Unit of Measure	Quantity			Net Amount
CP055	H-Plug	sack	255.00			\$2,917.20
M015	Light Equipment Mileage	mi	30.00			\$52.80
M010	Heavy Equipment Mileage	mi	30.00			\$105.60
M020	Ton Mileage	tm	330.00			\$435.60
D012	Depth Charge: 1001'-2000'	job	1.00			\$1,320.00
FE290	8 5/8" Wooden Plug	ea	1.00			\$149.60

Customer Section: On the following scale how would you rate Hurricane Services Inc.?		Net:	\$4,980.80
Based on this job, how likely is it you would recommend HSI to a colleague?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.	Sale Tax: \$ -
Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely		Total:	\$ 4,980.80
		HSI Representative: <i>Jimmie Cottrell</i>	

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X _____ **CUSTOMER AUTHORIZATION SIGNATURE**



CEMENT TREATMENT REPORT

Customer: **Black Rock Resources**
 City, State: _____
 Field Rep: _____

Well: **S-H Unit 1-24**
 County: **Logan KS**
 S-T-R: **24-12S-37W**

Ticket: **WP 1694**
 Date: **8/7/2021**
 Service: **PTA**

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	ft
Casing Size:	in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	bbls

Calculated Slurry - Lead	
Blend:	H-Plug
Weight:	13.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.42 ft ³ / sx
Annular Bbls / Ft.:	0.0406 bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	64.5 bbls
Total Sacks:	255 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
1000A			-	-	ON LOCATION
1005A			-	-	SAFETY MEETING/GET PLUGGING INFO
1010A			-	-	RIG UP
1017A	3.0	150.0	5.0	5.0	H2O AHEAD
1020A	5.0	150.0	12.6	17.6	CEMENT 50 SX H-PLUG @ 2530 FT
1024A	4.0	100.0	32.6	50.2	DISPLACE H2O
				50.2	
1115A	3.0	150.0	5.0	55.2	H2O AHEAD
1117A	5.0	150.0	25.2	80.4	CEMENT 100 SX H-PLUG @ 1580 FT
1124A	5.0	100.0	16.0	96.4	DISPLACE H2O
				96.4	
1210P	3.0	125.0	5.0		H2O AHEAD
1212P	4.0	125.0	12.6		CEMENT 50 SX H-PLUG @ 320 FT
1218P	4.0	75.0	1.3		DISPLACE H2O
1231P	2.0	50.0	2.5		CEMENT 10 SX H-PLUG @ 40 FT
1235P	2.0	50.0	7.5		CEMENT 30 SX H-PLUG MOUNDHOLE
1240P	2.0	50.0	3.8		CEMENT 15 SX H-PLUG RATHOLE
1246P					WASH UP
100P					RIG DOWN
120P					LEFT LOCATION

CREW		UNIT
Cementer:	Jimmie	208
Pump Operator:	Spencer	194/254
Bulk #1:		
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
3.5 bpm	106 psi	129 bbls