



RITCHIE

EXPLORATION, INC.
Wichita, Kansas

#1 Schartz Trust 32B

679' FNL & 973' FWL

19' N & 17' W of E/2 NW NW Section 32-21S-18W

Pawnee County, Kansas

API# 15-145-21855-0000

Elevation: GL: 2,057', KB: 2,062'

Sample Tops			Ref. Well
Anhydrite	1195	+867	-17
B/Anhydrite	1217	+845	-17
Stotler	3284	-1222	-10
Heebner	3639	-1577	-7
Toronto	3650	-1588	+1
Lansing	3719	-1657	-8
Muncie	3859	-1797	-3
Stark	3949	-1887	-6
Hushpuckney	3984	-1922	-4
BKC	4020	-1958	-4
Marmaton	4039	-1977	-5
Altamont	4058	-1996	-11
Pawnee	4115	-2053	+1
Ft Scott	4145	-2083	+1
Cherokee	4160	-2098	+1
Mississippian	4260	-2198	-12
Viola	4362	-2300	-9
Arbuckle	4384	-2322	+43
RTD	4560	-2498	



CEMENT TREATMENT REPORT

Customer:	Richie Exploration Inc	Well:	Schartz Trust 32B #1	Ticket:	ICT2566
City, State:	Wichita, KS	County:	Pawnee, KS	Date:	10/10/2019
Field Rep:	Johnny	S-T-R:	Sec 32 - T21S - R18W	Service:	Surface Casing

Downhole Information	
Hole Size:	12.25 In
Hole Depth:	1104 ft
Casing Size:	8.625 In
Casing Depth:	1104 ft
Tubing / Liner:	In
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	67.8 bbls

Calculated Slurry	
Weight:	12.0 # / sx
Water / Sx:	15.46 gal / sx
Yield:	2.56 ft ³ / sx
Bbls / Ft.:	0.0735
Depth:	900 ft
Annular Volume:	66.15 bbls
Excess:	120%
Total Slurry:	145.5 bbls
Total Sacks:	315 sx

Product	% / #	#
Class A	100.00	29610
Poz		
Gel		
CaCl	3.00	888
Gypsum	2.00	592
Metso	2.00	592
Kol Seal		
PhenoSeal	0.25	79
Salt (bww)		
Total		31,762

Weight:	14.8 # / sx
Water / Sx:	6.88 gal / sx
Yield:	1.41 ft ³ / sx
Bbls / Ft.:	0.0735
Depth:	230 ft
Annular Volume:	16.905 bbls
Excess:	120%
Total Slurry:	37.2 bbls
Total Sacks:	150 sx

Class A	100.00	14100
Poz		
Gel	2.00	282
CaCl	3.00	423
Gypsum		
Metso		
Kol Seal		
PhenoSeal	0.25	38
Salt (bww)		
Total		14,843

TIME	RATE	PSI	BBLs	REMARKS
17:30				Call out
18:16				Depart yard
20:30				Arrive on locn. Rigging up casing crew
20:36				JSA, discuss moving on, spotting & rig-up of equipment
20:45				Move on, spot & rig-up equipment. Rig start to RIH w/ 8 5/8" casing
21:16				Rig-up complete
22:25				Casing @ setting depth
22:36	4.0	250.0		Circulate & condition hole
23:03	3.0	150.0	5.0	Pump water spacer
23:06		1,500.0		Pressure test
23:10	6.0	430.0	144.0	Mix & pump 316sx lead slurry @ 12.0ppg. Y - 2.56cuft/sk; MR - 15.46g/sk
23:40	3.5	250.0		Mix & pump 150sx tail slurry @ 14.8ppg. Y - 1.41cuft/sk; MR - 6.88g/sk
23:45	3.6	250.0	30.0	Cement returns to surface
23:49			38.0	Stop pumping / Release top plug
23:50	4.0	150.0		Displace w/ water
0:05	2.0	250.0	55.0	Slow rate
0:14		940.0		Bump plug. Final circulating pressure - 350psi
0:16				Bleed off, float holding. 1/4bbl back
0:20				End Job. Wash-up pumps & lines
0:30				JSA, discuss rigging down & racking up equipment
0:35				Rig down & rack up
0:56				JSA, discuss journey management
1:00				Depart locn
				Thanks for calling Hurricane Svcs Inc

CREW		UNIT	SUMMARY		
Cementer:	Scott Green	74	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Michael Rebarchek	266	3.57143 bpm	463 psi	272 bbls
Bulk #1:	Kale Ochs	181 / 266			
Bulk #2:	Nell White	242			



HURRICANE SERVICES INC

Customer Ritchie G. M.	Lease & Well # Schartz Trust 32-B #1	Date 10-18-19
Service District El Dorado, KS	County & State	Job # ICT-2611
Job Type PTA	<input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD	Ticket # ICT-2611
Legals S/T/R New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No		

Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures					
491	Fuzz	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging		
289	Jud	<input type="checkbox"/> H2S Monitor	<input type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection		
189	Wank	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations		
		<input type="checkbox"/> PPE/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	Net Amount
C010	Cement Pump	each	1	750 ⁰⁰	750 ⁰⁰
M010	Heavy Equip Mileage	mile	50 ²	200 ⁰⁰	200 ⁰⁰
M015	LT Equip Mileage	mile	50	100 ⁰⁰	100 ⁰⁰
M020	Tow Mileage	tm	12 ²²	612 ²⁵	612 ²⁵
CPOSS	H-Plug (60/40 4% coil)	SK	190 ¹⁰	2470 ⁰⁰	2430 ⁰⁰
CP120	Flo-seal	lb	50 ⁴⁵		87 ²⁵
					4180 ¹²
					627 ⁰³
					3553 ²²

Customer Section: On the following scale how would you rate Hurricane Services Inc ?		Net: \$0.00
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"/> Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely		Total Taxable \$ - Tax Rate: 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: \$ - Total: \$ -
HSI Representative:		

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 1/4% 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**