

WEAR NORMAL CONTAMINATION ATTENTION FLUID CONDITION NORMAL

Machine Id CR1221 Component 2 Winch Fluid GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil. Sample is layered with different type/density oil.

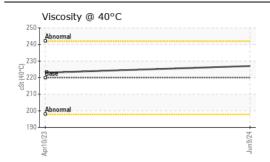
.

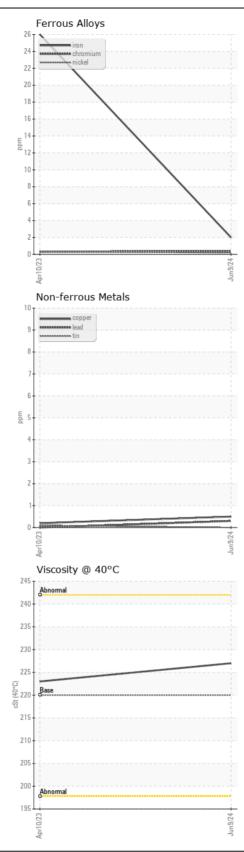
FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0922212	WC0784987	
Sample Date		Client Info		09 Jun 2024	10 Apr 2023	
Machine Age	hrs	Client Info		3207	2157	
Oil Age	hrs	Client Info		1000	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Filter Changed		Client Info		N/A	Changed	
Sample Status				ATTENTION	NORMAL	
Iron		ASTM D5185m	>150	ი ე	26	
Iron	ppm			2	26	
Chromium	ppm	ASTM D5185m	>10	<1	<1	
Nickel	ppm	ASTM D5185m	>10	<1	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	× F	0	0	
Aluminum	ppm	ASTM D5185m	>5	1	<1	
Lead	ppm	ASTM D5185m	>15	<1	0	
Copper	ppm	ASTM D5185m	>80	<1	<1	
Tin	ppm	ASTM D5185m		0	<1	
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE	NONE	
					NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	scalar ppm	*Visual ASTM D5185m	NONE	NONE 1	NONE <1	
Silicon	ppm	ASTM D5185m	>25	1	<1	
Silicon Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>25 >20	1	<1 3	
Silicon Potassium Water	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D6304	>25 >20 >0.2	1 1 NEG	<1 3 NEG	
Silicon Potassium Water Silt	ppm ppm % scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual	>25 >20 >0.2 NONE	1 1 NEG MODER	<1 3 NEG NONE	
Silicon Potassium Water Silt Debris	ppm ppm % scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual	>25 >20 >0.2 NONE NONE	1 1 NEG MODER NONE	<1 3 NEG NONE NONE	
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm % scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual	>25 >20 >0.2 NONE NONE NONE	1 1 NEG MODER NONE NONE	<1 3 NEG NONE NONE NONE	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm % scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual	>25 >20 >0.2 NONE NONE NONE NORML	1 1 NEG MODER NONE NONE	<1 3 NEG NONE NONE NONE NORML	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm % scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>25 >20 >0.2 NONE NONE NONE NORML NORML	1 1 NEG MODER NONE NONE SOLID NORML NEG	<1 3 NEG NONE NONE NORML NORML NEG	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm % scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>25 >20 >0.2 NONE NONE NORML NORML >0.2	1 NEG MODER NONE NONE SOLID NORML NEG	<1 3 NEG NONE NONE NORML NORML NEG <1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm % scalar scalar scalar scalar scalar scalar gppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NORME NORML >0.2 50 	1 NEG MODER NONE NONE SOLID NORML NEG 0 2	<1 3 NEG NONE NONE NORML NORML NEG <1 <1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm % scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>25 >20 >0.2 NONE NONE NORML NORML >0.2	1 NEG MODER NONE SOLID NORML NEG 0 2 0	<1 3 NEG NONE NONE NORML NORML NEG <1 <1 0	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm % scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NORME NORML >0.2 50 	1 NEG MODER NONE NONE SOLID NORML NEG 0 2 0 2	<1 3 NEG NONE NONE NORML NORML NEG <1 <1 0 0	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm % scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NORME NORML >0.2 50 15 15 	1 1 NEG MODER NONE SOLID NORML NEG 0 2 0 2 0 <1 0	<1 3 NEG NONE NONE NORML NORML NEG <1 <1 0 0 0	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm pm % scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NONE NORML >0.2 50 15 50 50 	1 1 NEG MODER NONE SOLID NORML NEG 0 2 0 2 0 <1 0 <1	<1 3 NEG NONE NONE NONE NORML NORML NORML NEG <1 6 0 0 <1 1 1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm pm % scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NORML NORML >0.2 50 50 50 50 50 50 50 	1 1 NEG MODER NONE SOLID NORML NEG 0 2 0 2 0 <1 0 <1 0 <1 0	<1 3 NEG NONE NONE NORML NORML NEG <1 <1 0 0 <1 1 1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium Calcium	ppm pm % scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NORME NORML >0.2 50 50	1 1 NEG MODER NONE SOLID SOLID NEG 0 2 0 2 0 <1 0 <1 0 <1 0 375	<1 3 NEG NONE NONE NORML NORML NEG <1 <1 0 0 <1 1 1 1 1 1028	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium	ppm pm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NORME NORML >0.2 50 15 15 50 50 50 350 100 	1 1 NEG MODER NONE SOLID NORML NEG 0 2 0 <1 0 <1 0 <1 0 <1 0 375 10	<1 3 NEG NONE NONE NORML NORML NEG <1 <1 <1 0 0 <1 1 1 1 1 1028 6	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm pm % scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >25 >20 >0.2 NONE NORME NORML >0.2 50 50	1 1 NEG MODER NONE SOLID SOLID NEG 0 2 0 2 0 <1 0 <1 0 <1 0 375	<1 3 NEG NONE NONE NORML NORML NEG <1 <1 0 0 <1 1 1 1 1 1028	

Contact/Location: MICHAEL LAWSON - BUCGRA





BUCKNER HEAVY LIFT Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0922212 Received : 14 Jun 2024 4732 NC 54 EAST Lab Number : 06210525 Tested : 20 Jun 2024 GRAHAM, NC Unique Number : 11083389 Diagnosed : 20 Jun 2024 - Jonathan Hester US 27253-9215 Test Package : CONST (Additional Tests: KF) Contact: MICHAEL LAWSON Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. michaell@bucknercompanies.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)376-8888 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (336)376-4090

Contact/Location: MICHAEL LAWSON - BUCGRA Page 2 of 2