

## Machine Id **A-904.1** Component **Hydraulic System** Fluid **HIGH PERFORMANCE LUBBICA**

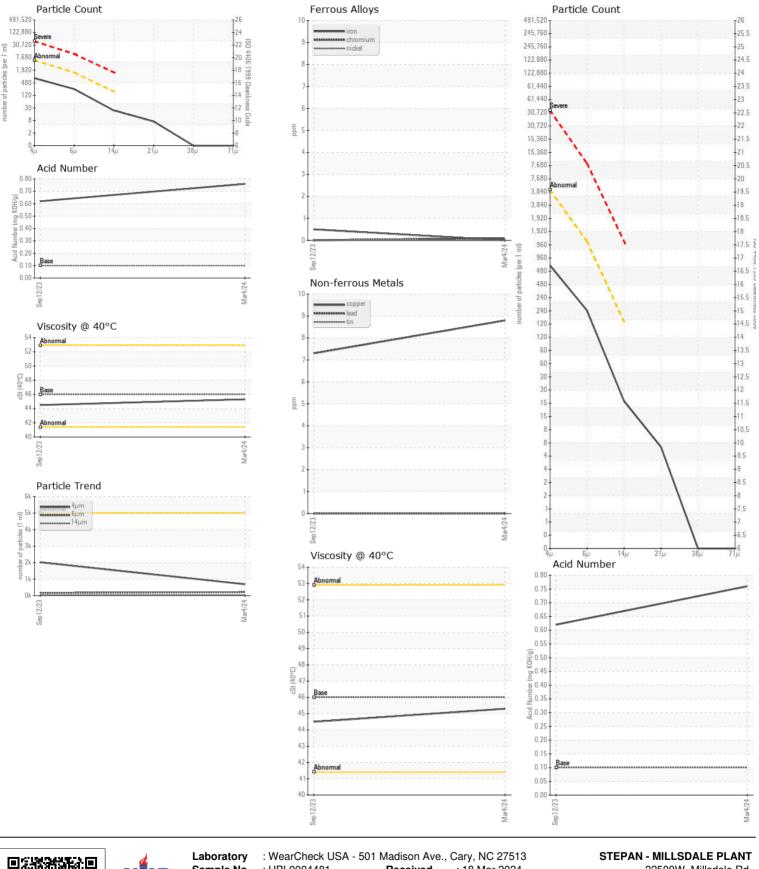
## HIGH PERFORMANCE LUBRICANTS COMPRESSOR LIFE 46 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		HPL0004481	HPL0003014	
Resample at the next service interval to monitor. Please specify the	Sample Date		Client Info		04 Mar 2024	12 Sep 2023	
component make and model with your next sample.	Machine Age	hrs	Client Info		0	0	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Not Changd	Not Changd	
	Filter Changed		Client Info		Not Changd	Not Changd	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>20	0	<1	
WEAN	Chromium	ppm	ASTM D5185m		۰ <1	0	
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m	>10	0	0	
	Silver		ASTM D5185m		0	0	
	Aluminum	ppm ppm	ASTM D5185m	>10	۰ <1	<1	
	Lead		ASTM D5185m		< 1 0	0	
	Copper	ppm	ASTM D5185m		9	7	
	Tin	ppm	ASTM D5185m		9	0	
	Vanadium	ppm ppm	ASTM D5185m	>10	0	0	
	White Metal	scalar	*Visual	NONE	NONE	LIGHT	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
		Scalal	visuai	NONL		NONL	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	<1	<1	
	Potassium	ppm	ASTM D5185m	>20	0	0	
The system cleanliness is acceptable for your target ISO 4406	Water		WC Method	>0.1	NEG	NEG	
cleanliness code. The system and fluid cleanliness is acceptable.	Particles >4µm		ASTM D7647	>5000	695	2019	

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Nickel	ppm	ASTM D5185m	>10	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>10	<1	<1	
Lead	ppm	ASTM D5185m	>10	0	0	
Copper	ppm	ASTM D5185m	>75	9	7	
Tin	ppm	ASTM D5185m	>10	0	0	
Vanadium	ppm	ASTM D5185m		0	0	
White Metal	scalar	*Visual	NONE	NONE	LIGHT	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m	>20	<1	<1	
Potassium	ppm	ASTM D5185m	>20	0	0	
Water		WC Method	>0.1	NEG	NEG	
Particles >4µm		ASTM D7647	>5000	695	2019	
Particles >6µm		ASTM D7647	>1300	213	169	
Particles >14µm		ASTM D7647	>160	20	21	
Particles >21µm		ASTM D7647	>40	6	6	
Particles >38µm		ASTM D7647	>10	0	0	
Particles >71µm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/11	18/15/12	
<b>O</b>			NUCLUE		NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual *Visual	NONE	NONE NONE	NONE	
Debris Sand/Dirt	scalar scalar	*Visual *Visual *Visual	NONE NONE	NONE NONE NONE	NONE NONE	
Debris Sand/Dirt Appearance	scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NORML	NONE NONE NONE NORML	NONE NONE NORML	
Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NORML NORML	NONE NONE NORML NORML	NONE NORML NORML	
Debris Sand/Dirt Appearance	scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NORML	NONE NONE NONE NORML	NONE NONE NORML	
Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NORML NORML	NONE NONE NORML NORML NEG	NONE NORML NORML NEG	
Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar ppm	*Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE NORML NORML	NONE NONE NORML NORML	NONE NORML NORML NEG	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual	NONE NORML NORML	NONE NONE NORML NORML NEG	NONE NORML NORML NEG	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NORML NORML	NONE NONE NORML NORML NEG 1 0	NONE NORML NORML NEG <1 0	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NORML NORML	NONE NONE NORML NORML NEG 1 0 0	NONE NORML NORML NEG <1 0 0	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML	NONE NONE NORML NORML NEG 1 0 0 0	NONE NORML NORML NEG <1 0 0 0	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar scalar ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML	NONE NONE NORML NORML NEG 1 0 0 0 <1	NONE NORML NORML NEG <1 0 0 0 <1	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1	NONE NONE NORML NORML NEG 1 0 0 0 <1 <1	NONE NORML NORML NEG <1 0 0 0 <1 0	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1	NONE NONE NORML NORML NEG 1 0 0 0 <1 <1 <1 14	NONE NORML NORML NEG <1 0 0 0 <1 0 15	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1	NONE NONE NORML NORML NEG 1 0 0 0 <1 <1 <1 14 216	NONE NORML NORML NEG <1 0 0 <1 0 15 203	
Debris Sand/Dirt Appearance Odor Emulsified Water Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 225	NONE NONE NORML NORML NEG 1 0 0 0 <1 <1 <1 14 216 4	NONE NORML NORML NEG <1 0 0 <1 0 15 203 0	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Magnese Magnesium Calcium Phosphorus Zinc Sulfur	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 225 22000	NONE NONE NORML NORML NEG 1 0 0 0 <1 <1 <1 14 216 4 24276	NONE NORML NORML NEG <1 0 0 <1 0 ( 15 203 0 18270	



Sample No. 22500W. Millsdale Rd. : HPL0004481 Received : 18 Mar 2024 Lab Number : 06121557 Elwood, IL Tested : 19 Mar 2024 : 19 Mar 2024 - Wes Davis US 60421 Unique Number : 10930390 Diagnosed Test Package : MOB 2 Contact: Gregory Brooker Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. gbrooker@stepan.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (815)774-5265 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (815)774-5427

Report Id: STEELW [WUSCAR] 06121557 (Generated: 03/19/2024 16:34:51) Rev: 1

Contact/Location: Gregory Brooker - STEELW