

# **OIL ANALYSIS REPORT**

Sample Rating Trend

# WATER

Area **S-460 [9155]** Machine Id KAESER 1531 - FERMILAB Component Compressor

# DIAGNOSIS

A Recommendation

Oil and filter 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 a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil.

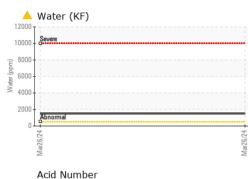
### Fluid Condition

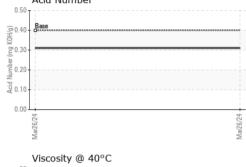
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

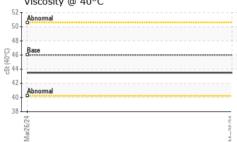
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		UDI06144373		
Sample Date		Client Info		26 Mar 2024		
Machine Age	hrs	Client Info		5596		
Oil Age	hrs	Client Info		2260		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>3	<1		
Titanium	ppm	ASTM D5185m	>3	<1		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>10	2		
Lead	ppm	ASTM D5185m	>10	1		
Copper	ppm	ASTM D5185m	>50	4		
Tin	ppm	ASTM D5185m	>10	1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
	ppm ppm		limit/base 90			
Boron		ASTM D5185m		0		
Boron Barium	ppm	ASTM D5185m ASTM D5185m		0 30		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 30 <1		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 90	0 30 <1 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 90	0 30 <1 <1 19		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 90	0 30 <1 <1 19 4	   	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 90	0 30 <1 <1 19 4 0	   	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 90	0 30 <1 <1 19 4 0 2	    	    
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 90 2	0 30 <1 <1 19 4 0 2 21331	     	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 90 2 limit/base	0 30 <1 <1 19 4 0 2 21331 current	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	90 90 2 limit/base	0 30 <1 <1 19 4 0 2 21331 current 1	     history1	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	90 90 2 limit/base >25	0 30 <1 <1 19 4 0 2 21331 21331 current 1 3	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	90 90 2 limit/base >25 >20	0 30 <1 <1 19 4 0 2 21331 21331 current 1 3 1	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	90 90 2 limit/base >25 >20 >0.05	0 30 <1 <1 19 4 0 2 21331 current 1 3 1 ▲ 0.149	     history1  	history2



# **OIL ANALYSIS REPORT**







White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE NONE		
Precipitate Silt Debris Sand/Dirt	scalar scalar	*Visual *Visual	NONE	NONE		
Silt Debris Sand/Dirt	scalar	*Visual				
Debris Sand/Dirt			NONE	NONE		
Sand/Dirt	scalar			NONE		
		*Visual	NONE			
	scalar	*Visual	NONE	NONE		
	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.05	0.2%		
Free Water	scalar	*Visual		NEG		
FLUID PROPERTI		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	43.5		
			-			
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
GRAPHS						
Ferrous Alloys						
4 2 0 4 7 2 9 7 2 9 7 8 2 9 8 9 8 2 9 8 9 8 9 8 9 9 8 9 9 9 9			Mar26/24			
– Non-ferrous Metals			-			
copper 6 4 2						
0			/24			
Mar26/24			Mar26/24			
Viscosity @ 40°C				Acid Number		
Abnormal			Ş <sup>0.50</sup>			
			(B/HO 0.40			*****
5 - Base			الله 0.30 للم 0.30 ل			
Abnormal			g 0.20			
35			Pice 0.00	1		
			0.00			
Mar26/24			Mar26/24	Mar26/24		40,050 M
						WNERS GROVE

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (630)960-3931

Report Id: UCDELDOW [WUSCAR] 06144373 (Generated: 04/12/2024 19:28:42) Rev: 1

Certificate L2367

Laboratory

Sample No.

Lab Number **Unique Number** Test Package

Contact/Location: MICHAEL FERRIS - UCDELDOW

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