

# **OIL ANALYSIS REPORT**

## Sample Rating Trend

NORMAL



# [952099] Machine Id K9 COMPRESSOR 4

Component

Compressor

**NOT GIVEN (--- GAL)** 

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil

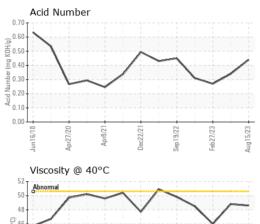
### **Fluid Condition**

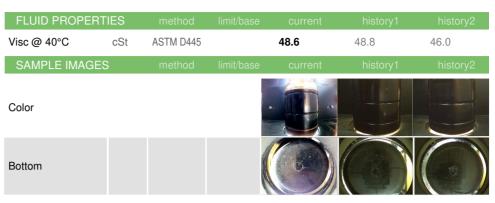
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

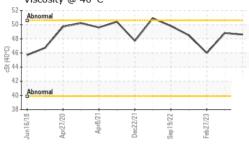
SAMPLE INFORMATION			Jun2018	Apr2020 Apr2021	Dec2021 Sep2022 Feb2023	Aug2023		
Sample Date   Client Info   64598   63040   61714	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age	Sample Number		Client Info		WC0816139	WC0816140	RP0786936	
Oil Age         hrs         Client Info         N/A         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A         N/A           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         <1         <1         <1         <1         <1         <1         <1         <1         <0         <1         <1         <1         <0         <1         <1         <1         <0         <1         <1         <1         <0         <1         <1         <0         <1         <1         <1         <0         <1         <1         <0         <1         <1         <0         <1         <1         <0         <1         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <1         <0         <0         <0         <0         <0         <0	Sample Date		Client Info		15 Aug 2023	16 May 2023	27 Feb 2023	
Oil Changed Status	Machine Age	hrs	Client Info		64598	63040	61714	
NORMAL   NORMAL   NORMAL   NORMAL	Oil Age	hrs	Client Info		0	0	0	
WEAR METALS	Oil Changed		Client Info		N/A	N/A	N/A	
Iron	Sample Status				NORMAL	NORMAL	NORMAL	
Chromium         ppm         ASTM D5185m         >10         0         0         0         0           Nickel         ppm         ASTM D5185m         0         0         0         0           Titanium         ppm         ASTM D5185m         0         0         0         0           Silver         ppm         ASTM D5185m         >25         0         <1	WEAR METALS		method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>50	<1	<1	<1	
Titanium         ppm         ASTM D5185m         0         0         0           Aluminum         ppm         ASTM D5185m         0         <1         0           Lead         ppm         ASTM D5185m         >25         0         <1         0           Copper         ppm         ASTM D5185m         >25         <1         0         <1           Copper         ppm         ASTM D5185m         >50         <1         0         <1           Tin         ppm         ASTM D5185m         0         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadraium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         <1         1         0         0           Calcium <th>Chromium</th> <td>ppm</td> <td>ASTM D5185m</td> <td>&gt;10</td> <th>0</th> <td>0</td> <td>0</td>	Chromium	ppm	ASTM D5185m	>10	0	0	0	
Silver	Nickel	ppm	ASTM D5185m		<1	<1	0	
Aluminum	Titanium	ppm	ASTM D5185m		0	0	0	
Aluminum	Silver	ppm	ASTM D5185m		0	0	0	
Copper         ppm         ASTM D5185m         >50         <1	Aluminum		ASTM D5185m	>25	0	<1	0	
Copper         ppm         ASTM D5185m         >50         <1	Lead	ppm	ASTM D5185m	>25	<1	0	<1	
Tin         ppm         ASTM D5185m         >15         <1	Copper		ASTM D5185m	>50	<1	0	<1	
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         0         -1         0           Magnesium         ppm         ASTM D5185m         -1         1         0           Magnesium         ppm         ASTM D5185m         -1         0         0           Phosphorus         ppm         ASTM D5185m         -1         0         0           Phosphorus         ppm         ASTM D5185m         29         42         36           Sulfur         ppm         ASTM D5185m         32         54         81           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         0         <1         1           Sodium         ppm         ASTM D5185m         >20         <1         1 </th <th>Tin</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;15</th> <th>&lt;1</th> <th>&lt;1</th> <th>&lt;1</th>	Tin	ppm	ASTM D5185m	>15	<1	<1	<1	
ADDITIVES	Vanadium		ASTM D5185m		0	0	0	
Boron	Cadmium	ppm	ASTM D5185m		0	0	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum         ppm         ASTM D5185m         0         0         0           Magnesium         ppm         ASTM D5185m         0         <1	Boron	ppm	ASTM D5185m		0	0	0	
Manganese         ppm         ASTM D5185m         0         <1	Barium	ppm	ASTM D5185m		0	0	0	
Magnesium         ppm         ASTM D5185m         <1	Molybdenum	ppm	ASTM D5185m		0	0	0	
Calcium         ppm         ASTM D5185m         <1	Manganese	ppm	ASTM D5185m		0	<1	0	
Phosphorus         ppm         ASTM D5185m         167         209         173           Zinc         ppm         ASTM D5185m         29         42         36           Sulfur         ppm         ASTM D5185m         32         54         81           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         0         <1         1           Sodium         ppm         ASTM D5185m         >0         <1         <1           Potassium         ppm         ASTM D5185m         >20         <1         1         <1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Astm D5185m         >20         <1         1         <1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Astm D5185m         >20         <1         1         <1           FLUID DEGRADATION         method         limit/base         current         history1         history2 <td co<="" th=""><th>Magnesium</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>&lt;1</th><th>1</th><th>0</th></td>	<th>Magnesium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>&lt;1</th> <th>1</th> <th>0</th>	Magnesium	ppm	ASTM D5185m		<1	1	0
Zinc         ppm         ASTM D5185m         29         42         36           Sulfur         ppm         ASTM D5185m         32         54         81           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         0         <1         1           Sodium         ppm         ASTM D5185m         >20         <1         1         <1           Potassium         ppm         ASTM D5185m         >20         <1         1         <1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.44         0.34         0.27           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE <th>Calcium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>&lt;1</th> <th>0</th> <th>0</th>	Calcium	ppm	ASTM D5185m		<1	0	0	
Zinc         ppm         ASTM D5185m         29         42         36           Sulfur         ppm         ASTM D5185m         32         54         81           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         0         <1         1           Sodium         ppm         ASTM D5185m         >20         <1         1         <1           Potassium         ppm         ASTM D5185m         >20         <1         1         <1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg K0H/g         ASTM D8045         0.44         0.34         0.27           VISUAL         method         limit/base         current         history1         history2           VISUAL         method         limit/base         current         history1         history2           VISUAL         method         limit/base         current         history1         history2           VISUAL         NONE         NONE         NONE         <	Phosphorus	ppm	ASTM D5185m		167	209	173	
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         0         <1         1           Sodium         ppm         ASTM D5185m         >20         <1         1         <1           Potassium         ppm         ASTM D5185m         >20         <1         1         <1           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.44         0.34         0.27           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE <th></th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>29</th> <th>42</th> <th>36</th>		ppm	ASTM D5185m		29	42	36	
Silicon         ppm         ASTM D5185m         >25         0         <1	Sulfur	ppm	ASTM D5185m		32	54	81	
Sodium ppm ASTM D5185m 0 <1 <1 Potassium ppm ASTM D5185m >20 <1 1 <1  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.44 0.34 0.27  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Codor scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual NORML NORML NORML NORML  Free Water scalar *Visual NORML NORML NORML NORML  NORML NORML NORML  NORML NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML NORML  NORML NORML NORML NORML NORML NORML	CONTAMINANTS		method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 <1 1 1 <1  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.44 0.34 0.27  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Codor scalar *Visual NORML NORML NORML NORML  Debris scalar *Visual NORML NORML NORML NORML  Appearance scalar *Visual NORML NORML NORML NORML  Codor scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual >0.1 NEG NEG NEG  Free Water scalar *Visual NEG NEG NEG	Silicon	ppm	ASTM D5185m	>25	0	<1	1	
FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.44 0.34 0.27  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Codor scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual >0.1 NEG NEG NEG  Free Water scalar *Visual NEG NEG NEG	Sodium	ppm	ASTM D5185m		0	<1	<1	
Acid Number (AN) mg KOH/g ASTM D8045 0.44 0.34 0.27  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Potassium	ppm	ASTM D5185m	>20	<1	1	<1	
White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG  Free Water	FLUID DEGRADA	TION	method	limit/base	current	history1	history2	
White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Acid Number (AN)	mg KOH/g	ASTM D8045		0.44	0.34	0.27	
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	VISUAL		method	limit/base	current	history1	history2	
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	White Metal	scalar		NONE	_		NONE	
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Debris scalar *Visual NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT	
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Emulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Free Water scalar *Visual NEG NEG NEG	Odor		*Visual	NORML	NORML	NORML	NORML	
	<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	

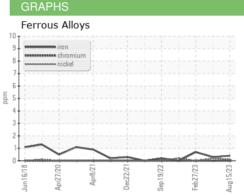


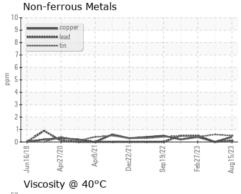
# **OIL ANALYSIS REPORT**

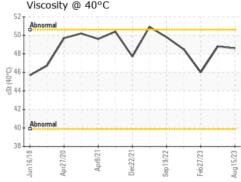


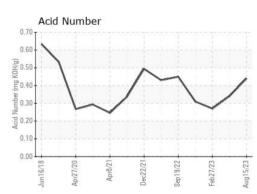












Contact/Location: JAY FAHRENBRUCH - BALKEA



Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : IND 2

: WC0816139 : 05929761 : 10615032

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

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Aug 2023 Diagnosed

: 23 Aug 2023 Diagnostician : Jonathan Hester

4400 HIGHWAY 30 EAST KEARNEY, NE US 68847-0724

Contact: JAY FAHRENBRUCH

jay.fahrenbruch@parker.com T:

**BALDWIN FILTERS INC** 

\* - 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)