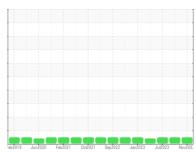


# **OIL ANALYSIS REPORT**

### Sample Rating Trend







# FGC-200 Component

**Compressor** Fluid

SYNTHETIC (--- 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			eb2019 Jur	2020 Feb2021 Oct202	21 Sep2022 Jan2023 Jul203	23 Nov202:	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		RP0038692	RP0038731	RP0034257
Oil Age         hrs         Client Info         N/A	Sample Date		Client Info		14 Nov 2023	10 Sep 2023	20 Jul 2023
Oil Changed 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         0         <1         0           Chromium         ppm         ASTM D5185m         0         0         0         0           Nikel         ppm         ASTM D5185m         0         0         0         0           Titanium         ppm         ASTM D5185m         0         0         0         0           Alluminum         ppm         ASTM D5185m         25         0         <1         <1           Lead         ppm         ASTM D5185m         >25         0         0         0           Aluminum         ppm         ASTM D5185m         >25         0         0         0           Lead         ppm         ASTM D5185m         >25         0         0         0           Vanadium         ppm         ASTM D5185m         >15         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0 <td< th=""><th>Machine Age</th><th>hrs</th><th>Client Info</th><th></th><th>0</th><th>0</th><th>0</th></td<>	Machine Age	hrs	Client Info		0	0	0
NORMAL   NORMAL   NORMAL   NORMAL	Oil Age	hrs	Client Info		0	0	0
Irron	Oil Changed		Client Info		N/A	N/A	N/A
Iron	Sample Status				NORMAL	NORMAL	NORMAL
Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         0         0           Titanium         ppm         ASTM D5185m         0         0         0         0           Aluminum         ppm         ASTM D5185m         25         0         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         0         0         0           Titanium         ppm         ASTM D5185m         0         0         <1           Siliver         ppm         ASTM D5185m         20         0         0         0           Aluminum         ppm         ASTM D5185m         >25         0         <1         <1           Lead         ppm         ASTM D5185m         >50         0         0         0           Copper         ppm         ASTM D5185m         >50         0         0         0           Tin         ppm         ASTM D5185m         0         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Galeium	Iron	ppm	ASTM D5185m	>50	0	<1	0
Titanium	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver	Nickel	ppm	ASTM D5185m		0	0	0
Aluminum	Titanium	ppm	ASTM D5185m		0	0	<1
Lead         ppm         ASTM D5185m         >25         0         0         0           Copper         ppm         ASTM D5185m         >50         0         0         <1           Tin         ppm         ASTM D5185m         >15         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         1           Cadmium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         0         0         1           Magnesium         ppm         ASTM D5185m         0         0         0         0           Phosphorus         ppm         ASTM D5185m         0         0         0         0           Silicon         ppm         ASTM D5185m         0         0         0         0 </th <th>Silver</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>0</th> <th>0</th>	Silver	ppm	ASTM D5185m		0	0	0
Copper         ppm         ASTM D5185m         >50         0         0         <1	Aluminum	ppm	ASTM D5185m	>25	0	<1	<1
Tin	Lead	ppm	ASTM D5185m	>25	0	0	0
Tin         ppm         ASTM D5185m         >15         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         <1	Copper	ppm	ASTM D5185m	>50	0	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         0         0           Manganese         ppm         ASTM D5185m         0         0         <1           Magnesium         ppm         ASTM D5185m         0         0         0           Calcium         ppm         ASTM D5185m         0         0         0           Phosphorus         ppm         ASTM D5185m         0         0         0           Zinc         ppm         ASTM D5185m         0         0         0           Zinc         ppm         ASTM D5185m         0         0         0           Zinc         ppm         ASTM D5185m         >25         <1         <1         <1           Sodium         ppm         ASTM D5185m         >25         <1         <1         <1         <1	Tin	ppm	ASTM D5185m	>15	0	0	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	<1
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         0         0         0           Manganese         ppm         ASTM D5185m         0         0         <1	Boron	ppm	ASTM D5185m		0	0	0
Manganese         ppm         ASTM D5185m         0         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         0         0         0           Phosphorus         ppm         ASTM D5185m         12         42         0           Zinc         ppm         ASTM D5185m         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         <1         <1         <1           Sodium         ppm         ASTM D5185m         0         <1         <1         <1           Potassium         ppm         ASTM D5185m         >20         0         <1         0           Water         %         ASTM D6304         >0.1         0.054         0.004         0.003           Water         %         ASTM D6304         >1000         540         45.3         38.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHlg         ASTM D8045         0.067         0.27         0.073           VISUAL         method         limit/base         current         history1         history2	Manganese	ppm	ASTM D5185m		0	0	<1
Phosphorus         ppm         ASTM D5185m         12         42         0           Zinc         ppm         ASTM D5185m         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         <1         <1         <1           Sodium         ppm         ASTM D5185m         0         <1         <1         <1           Potassium         ppm         ASTM D5185m         >20         0         <1         0           Water         %         ASTM D6304         >0.1         0.054         0.004         0.003           ppm Water         ppm         ASTM D6304         >1000         540         45.3         38.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHg         ASTM D8045         0.067         0.27         0.073           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE<	Magnesium	ppm	ASTM D5185m		<1	0	<1
Zinc         ppm         ASTM D5185m         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         <1         <1         <1           Sodium         ppm         ASTM D5185m         >20         0         <1         <1           Potassium         ppm         ASTM D5185m         >20         0         <1         0           Water         %         ASTM D6304         >0.1         0.054         0.004         0.003           ppm Water         ppm         ASTM D6304         >1000         540         45.3         38.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg K0Hlg         ASTM D8045         0.067         0.27         0.073           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE	Calcium	ppm	ASTM D5185m		0	0	0
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         <1         <1         <1           Sodium         ppm         ASTM D5185m         >20         0         <1         <1           Potassium         ppm         ASTM D5185m         >20         0         <1         0           Water         %         ASTM D6304         >0.1         0.054         0.004         0.003           ppm Water         ppm         ASTM D6304         >1000         540         45.3         38.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg K0Hlg         ASTM D8045         0.067         0.27         0.073           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar	Phosphorus	ppm	ASTM D5185m		12	42	0
Silicon         ppm         ASTM D5185m         >25         <1	Zinc	ppm	ASTM D5185m		0	0	0
Sodium         ppm         ASTM D5185m         0         <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         0         <1	Silicon	ppm	ASTM D5185m	>25	<1	<1	<1
Water         %         ASTM D6304         >0.1         0.054         0.004         0.003           ppm Water         ppm         ASTM D6304         >1000         540         45.3         38.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.067         0.27         0.073           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE           Silt         scalar         *Visual         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE           Sand/Dirt         scalar         *Visual         NORML         NORML	Sodium	ppm	ASTM D5185m		0	<1	<1
ppm Water ppm ASTM D6304 >1000 540 45.3 38.6  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.067 0.27 0.073  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  Silt 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  NORML NORML	Potassium	ppm	ASTM D5185m	>20	0	<1	0
FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.067 0.27 0.073  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  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  NORML NORML	Water	%	ASTM D6304	>0.1	0.054	0.004	0.003
Acid Number (AN) mg KOHg ASTM D8045 0.067 0.27 0.073  VISUAL 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 Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	ppm Water	ppm	ASTM D6304	>1000	540	45.3	38.6
VISUAL 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 Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	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 Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Acid Number (AN)	mg KOH/g	ASTM D8045		0.067	0.27	0.073
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	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 NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML							
Silt 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	Yellow Metal			NONE	NONE		
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	•		*Visual	NONE	NONE		
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Silt		*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor scalar *Visual NORML NORML NORML NORML	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML		NORML
Emulsified Water scalar *Visual >0.1 0.2% NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG	NEG

NEG

IERTIST SAUVEURNENGBOS



## **OIL ANALYSIS REPORT**







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** 

: RP0038692 : 06008426 : 10742188 Test Package : IND 2

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

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Nov 2023 Diagnosed : 17 Nov 2023

Diagnostician : Don Baldridge

**ENGIE-MATEP** 474 BROOKLINE AVE BOSTON, MA US 02215

Contact: ROBERT ST SAUVEUR

robert.stsauveur@engie.com T: (401)651-9381

\* - 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: