

OIL ANALYSIS REPORT

[1521388] #2 GOV BDE PH1 (S/N 371778)

Component Governor System Fluid R&O OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) R&O OIL ISO 46. Please confirm.

NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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





NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC923880		
Sample Date		Client Info		13 May 2021		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		0		
Iron	ppm	ASTM D5185(m)	>50	<1		
Chromium	ppm	ASTM D5185(m)		0		
Nickel	ppm	ASTM D5185(m)		<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		<1		
Aluminum	ppm	ASTM D5185(m)	>3	<1		
Lead	ppm	ASTM D5185(m)	>75	4		
Copper	ppm	ASTM D5185(m)	>15	<1		
Tin	ppm	ASTM D5185(m)	>55	0		
Antimony	ppm	ASTM D5185(m)		<1		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 5	current <1	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185(m) ASTM D5185(m)	limit/base 5 5	current <1 <1	history1 	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5	current <1 <1 0	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5	current <1 <1 0 0	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5 5 5	<pre>current <1 <1 0 0 0 0 0</pre>	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5 5 5 5 5 5	<pre>current <1 <1 0 0 0 0 <1 </pre>	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5 5 5 5 5 100	<1 <1 0 0 0 0 7	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5 5 5 5 100 25	<1 <1 0 0 0 2	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5 5 5 100 25 1500	current <1 0 0 0 2 1142	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base 5 5 5 5 5 5 100 25 1500	current <1 <1 0 0 <1 7 2 1142 <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	<1 <1 0 0 0 2 1142 <1 current	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base 5 5 5 5 5 5 100 25 1500 25 1500 1 imit/base >8	current <1 0 0 0 0 <1 7 2 1142 <1 .current	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base 5 5 5 5 5 5 5 5 5 5 5 5 100 25 1500 25 1500 25 1500 25 25 25 25 25 25 20 25 20 25 20 20 25 20 20 20 20 20 20 20 20 20 20 20 20 20	<1 <1 0 0 0 0 <1 7 2 1142 <1 current <1 0	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base 5 5 5 5 5 5 5 5 5 100 25 1500 25 1500 8 limit/base >8	<1 <1 0 0 0 <1 7 2 1142 <1 current <1 0 <1 0 <1 0 <1 0 <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base 5 5 5 5 5 5 5 5 5 5 5 1 00 25 1 500 25 1 500 3 limit/base >20 limit/base	<1 <1 0 0 0 <1 7 2 1142 <1 current <1 0 <1 current <1 0 <1 0 <1 0 <1 0 <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	<pre>limit/base 5 5 5 5 5 100 25 100 25 1500 limit/base >8 20 limit/base >20000</pre>	<1 <1 0 0 0 <1 7 2 1142 <1 current <1 0 <1 0 <1 0 <1 393	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base 5 5 5 5 5 5 5 5 5 5 0 100 25 1500 25 1500 25 3 20 20 20 20 20000 25000	current <1 0 0 0 <1 7 2 1142 <1 ourrent <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 <1 0 <1 0 <393 69	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7647 ASTM D7647	limit/base 5 5 5 5 5 5 5 5 100 25 1500 25 1500 limit/base >8 20 limit/base >20 limit/base >20000 >5000 >5000	current <1 0 0 0 <1 7 2 1142 <1 ourrent <1 ourrent <1 ourrent 393 69 4	history1 history1 history1 history1 history1 history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base 5 5 5 5 5 5 5 5 100 25 1500 25 1500 limit/base >8 20 limit/base >20 limit/base >20 20 20 20 20 20 20 20 20 20 20 20 20 2	current <1 0 0 0 <1 7 2 1142 <1 current <1 0 <1 current 393 69 4 1	history1 history1 history1 history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base 5 5 5 5 5 100 25 1500 25 1500 20000 >20000 >5000 >640 >160 >40	current <1 0 0 0 <1 7 2 1142 <1 current <1 0 <1 current 393 69 4 1 0	history1 history1 history1	history2

ISO 4406 (c) >21/19/16

Oil Cleanliness

16/13/9



OIL ANALYSIS REPORT

Abno

Abnorma

Test Package : IND 2 (Additional Tests: PrtCount)

To discuss this sample report, contact Customer Service at 1-800-268-2131.







FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.08	0.04		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.1	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	45.7		
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
GRAPHS						
Ferrous Alloys			401 520	Particle Count		20
iron			431,520	Severe		T20
5 - newsease chromium			122,880			+24
			30,720	Abnormal		-22
			- 7,680			-20 8
/13/2			/13/21			4400
Mar			T,920		<	10 199
Non-ferrous Metal	S		otured 480			-16 Clea
copper			jo 120			-14 nes
5			E 30			-12 0
0			- ⁰			10
lay13/2			ay13/2	-		-8

14µ

Acid Number

Abnorma

(B/H0.3

Ê 0.20

Ê 0.1 B

Mav1

May13/21.

Received

Diagnosed

Diagnostician : Wes Davis

21µ

38µ

71

May13/21