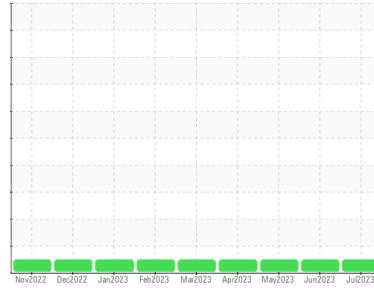




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**16K-3B**  
 Component  
**Compressor**  
 Fluid  
**R&O OIL ISO 100 (--- 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		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>HPL0003472</b>	HPL0003417	HPL0003428
Sample Date	Client Info			<b>03 Jul 2023</b>	15 Jun 2023	15 May 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>45</b>	34	34
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m		<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m	>25	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>13</b>	14	9
Tin	ppm	ASTM D5185m	>15	<b>17</b>	14	13
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>1</b>	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	5	<b>&lt;1</b>	<1	2
Calcium	ppm	ASTM D5185m	5	<b>6</b>	6	9
Phosphorus	ppm	ASTM D5185m	100	<b>191</b>	196	206
Zinc	ppm	ASTM D5185m	25	<b>22</b>	19	7
Sulfur	ppm	ASTM D5185m	1500	<b>16961</b>	17403	17409

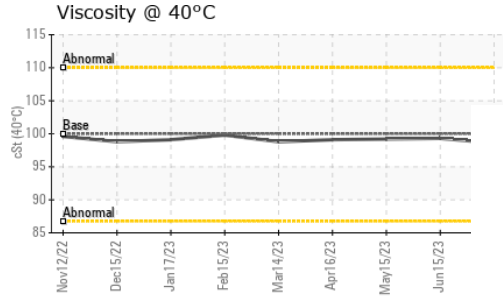
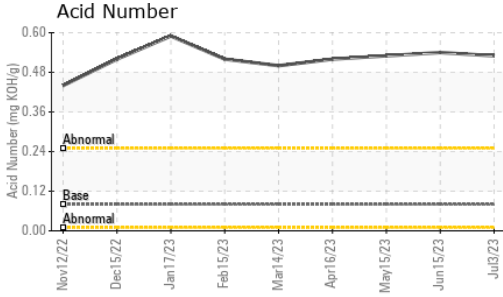
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>3</b>	2	1
Sodium	ppm	ASTM D5185m		<b>0</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.08	<b>0.53</b>	0.54	0.53

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG



# OIL ANALYSIS REPORT



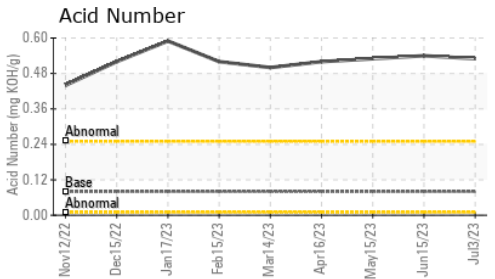
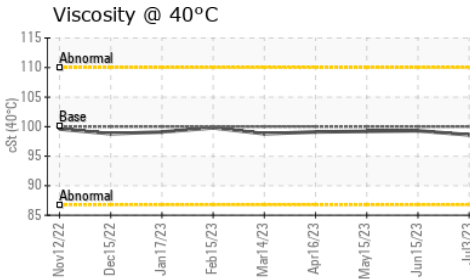
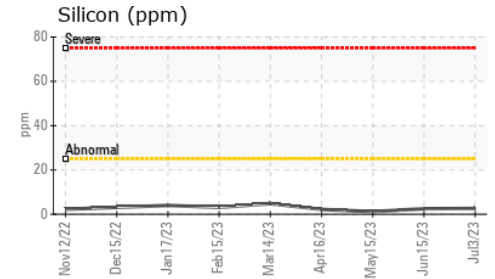
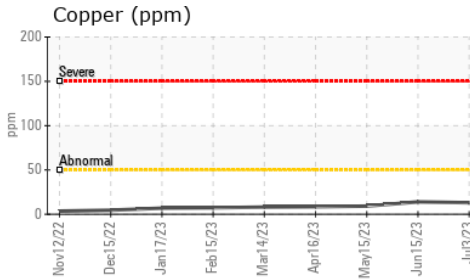
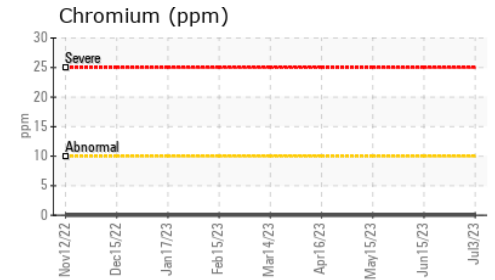
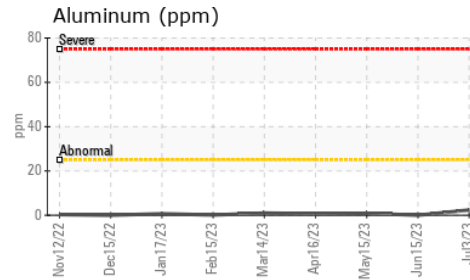
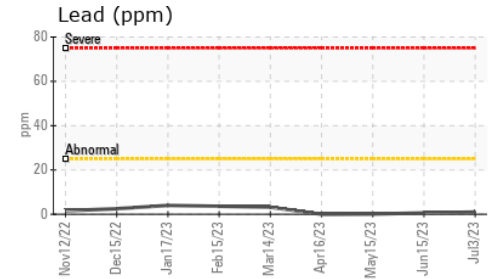
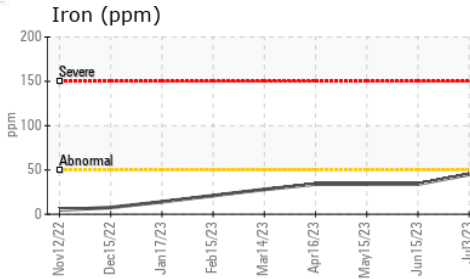
## FLUID PROPERTIES

method	limit/base	current	history1	history2	
Visc @ 40°C	cSt ASTM D445	100	98.6	99.3	99.2

## SAMPLE IMAGES

method	limit/base	current	history1	history2	
Color			no image	no image	no image
Bottom			no image	no image	no image

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HPL0003472 **Received** : 18 Jul 2023  
**Lab Number** : 05901418 **Diagnosed** : 20 Jul 2023  
**Unique Number** : 10562774 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

**MARATHON PETROLEUM CO.**  
 IL. REFINING DIVISION, 400 S MARATHON AVE  
 ROBINSON, IL  
 US 62454  
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 mmanhart@marathonpetroleum.com  
 T: (618)544-2121  
 F: x:

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)