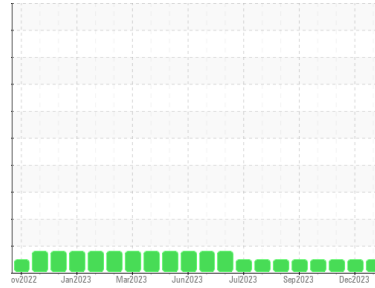




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**16K-3A**  
 Component  
**Compressor**  
 Fluid  
**HPL R&O 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>HPL0004152</b>	HPL0002576	HPL0002596
Sample Date	Client Info		<b>11 Jan 2024</b>	24 Dec 2023	15 Nov 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

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	<b>36</b>	31	30
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m		<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</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>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>26</b>	19	20
Tin	ppm	ASTM D5185m	>15	<b>18</b>	15	15
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
Calcium	ppm	ASTM D5185m		<b>4</b>	4	5
Phosphorus	ppm	ASTM D5185m		<b>214</b>	186	188
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m		<b>16286</b>	15256	15691

## CONTAMINANTS

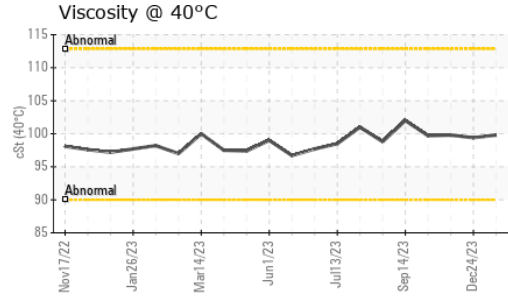
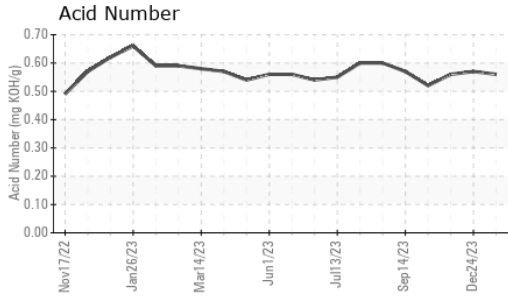
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	8	8
Sodium	ppm	ASTM D5185m		<b>0</b>	0	1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.56</b>	0.57	0.56



# OIL ANALYSIS REPORT



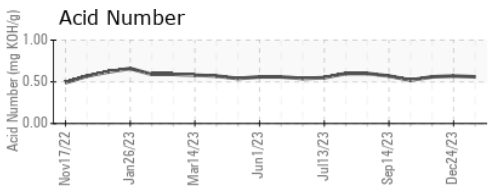
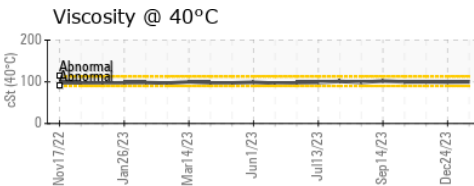
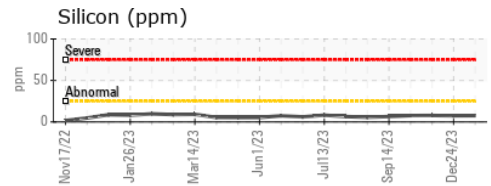
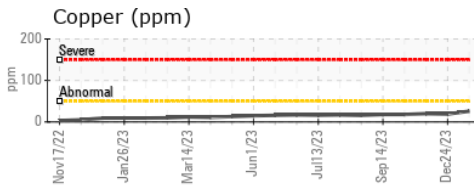
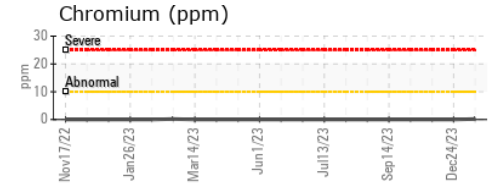
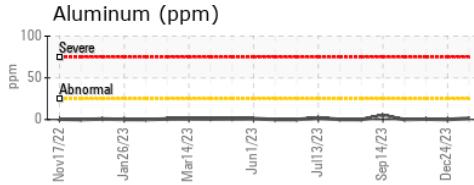
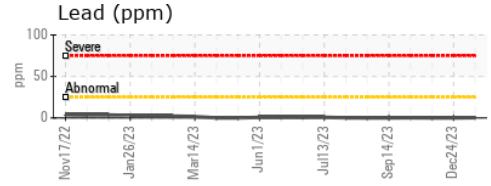
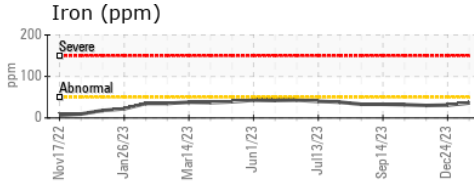
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	<b>99.8</b>	99.4	99.8

### SAMPLE IMAGES

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

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HPL0004152 **Recieved** : 18 Jan 2024  
**Lab Number** : 06065093 **Diagnosed** : 24 Jan 2024  
**Unique Number** : 10836475 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2

**MARATHON PETROLEUM CO.**  
 IL. REFININF DIVISION, 400 S MARATHON AVE  
 ROBINSON, IL  
 US 62454  
 Contact: M.S. MANHART  
 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)