



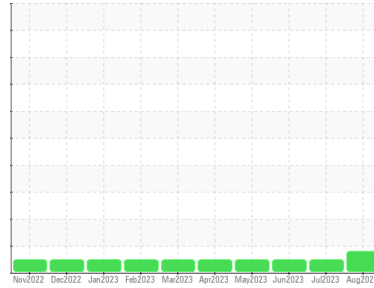
# OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Machine Id  
**77K-1**  
Component  
**Compressor**  
Fluid  
**R&O OIL ISO 100 (--- GAL)**



## DIAGNOSIS

- Recommendation**  
No corrective action is recommended at this time. 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 oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>HPL0003205</b>	HPL0003238	HPL0003410
Sample Date	Client Info	<b>15 Aug 2023</b>	13 Jul 2023	15 Jun 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>0</b>	0	0
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	<1
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	1	0
Lead	ppm	ASTM D5185m >25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>2</b>	1	<1
Tin	ppm	ASTM D5185m >15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## 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	<1
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m 100	<b>73</b>	86	128
Zinc	ppm	ASTM D5185m 25	<b>0</b>	0	<1
Sulfur	ppm	ASTM D5185m 1500	<b>13137</b>	14492	15880

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>1</b>	2	3
Sodium	ppm	ASTM D5185m	<b>&lt;1</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>0.23</b>	0.23	0.34

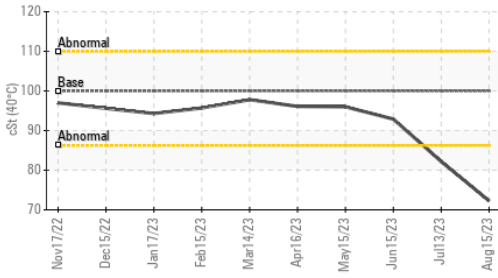
## VISUAL

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>▲ MODER</b>	NONE	LIGHT
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

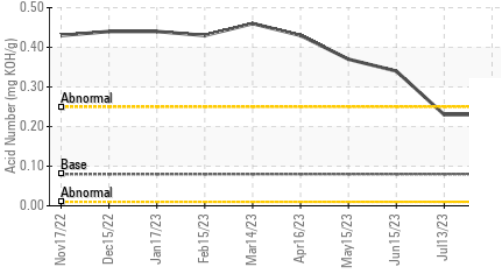


# OIL ANALYSIS REPORT

▲ Viscosity @ 40°C



Acid Number



### FLUID PROPERTIES

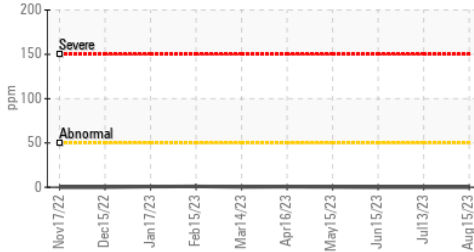
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445 100	▲ 72.27	82.2	92.9

### SAMPLE IMAGES

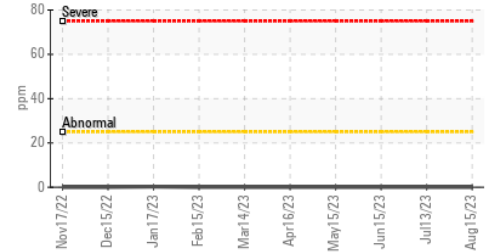
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

### GRAPHS

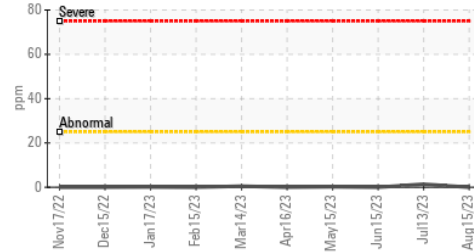
Iron (ppm)



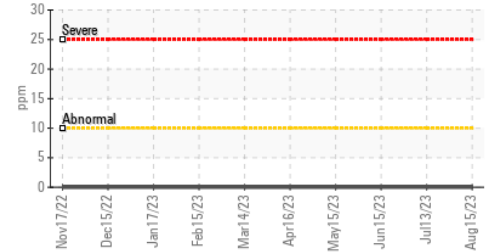
Lead (ppm)



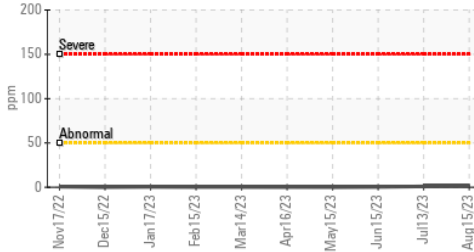
Aluminum (ppm)



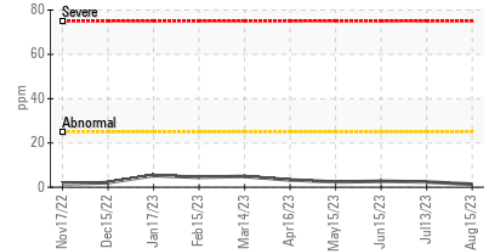
Chromium (ppm)



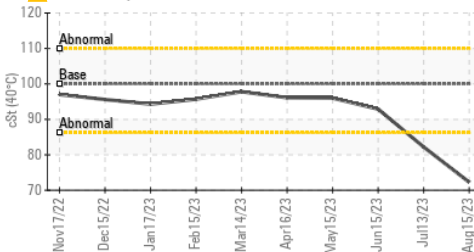
Copper (ppm)



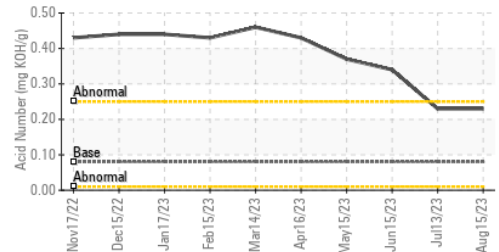
Silicon (ppm)



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HPL0003205 **Received** : 21 Aug 2023  
**Lab Number** : 05930482 **Diagnosed** : 24 Aug 2023  
**Unique Number** : 10615753 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

**MARATHON PETROLEUM CO.**  
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 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)