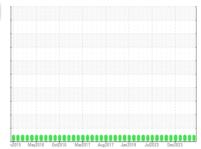


# **OIL ANALYSIS REPORT**

Sample Rating Trend





Machine Id

# 69K-2A (S/N X22XG503) Component Compressor

**HP R&O ISO 100 (35 GAL)** 

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

## Contamination

There is no indication of any contamination in the

## **Fluid Condition**

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		HPL0005007	HPL0004524	HPL0004466
Sample Date		Client Info		15 Apr 2024	13 Mar 2024	15 Feb 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	6	5	6
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	4	2
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>50	3	<1	<1
Tin	ppm	ASTM D5185m	>15	2	2	2
Vanadium	ppm	ASTM D5185m		0	0	0
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		1	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		1	<1	0
Magnesium	ppm	ASTM D5185m		1	1	<1
Calcium	ppm	ASTM D5185m		8	4	4
Phosphorus	ppm	ASTM D5185m		178	177	197
Zinc	ppm	ASTM D5185m		4	0	1
Sulfur	ppm	ASTM D5185m		18314	18417	16664
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	4	6
Sodium	ppm	ASTM D5185m		3	2	0
Potassium	ppm	ASTM D5185m	>20	0	1	1
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2

0.50

Acid Number (AN)

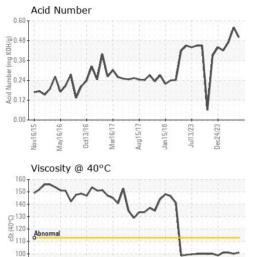
mg KOH/g ASTM D8045

0.56

0.47



# **OIL ANALYSIS REPORT**



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	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water		*Visual		NEG	NEG	NEG
	scalar		>0.1			
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		101	100	101
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS						
Iron (ppm)			10	Lead (ppm)		
Iron (ppm)	cree; iti		10	Severe	12222222	12222222222
Iron (ppm)				Severe		
Iron (ppm)			E 5	Severe Abnormal		
Iron (ppm)	15/17	13/23	E 5	Severe Abnormal	15/17	13/23
Iron (ppm)	Aug15/17	Jan 15/18 Jul 13/23	E 5	Severe Abnormal	Mar16/17	Juli 3/23
Iron (ppm)  Severe  Abnormal  Oct13/18/18/18  Aluminum (ppm)	Aug15/17	Juli3/23	udd	Severe  Abnomal  Stygnon Stygn		Jan15/18 Jul13/23
Iron (ppm)  Way16/18  May16/18  Oct13/18  Mar16/17	Aug15/174	Jan15/18	5 5 Wild	Severe  Abnomal  Slyg I/9		Jan15/18 Jul13/23 Dec24/23
Iron (ppm)  Severe  Abnormal  91/91/6W  Aluminum (ppm)  Severe	Aug15/17	Jan15/18 Jul13/23	5 5 Wild	Severe  Abnomal  Slyg I/9		Jun13/78 Jun13/23 Dec24/23
Iron (ppm)  Severe  Abnormal  91/91/6FW  Aluminum (ppm)  Severe			3 2 wdd 1	Severe  Abnomal  Slystvere  Slystvere  Slystvere  Short and a street a	pm)	
Iron (ppm)  Severe  Abnormal  SUNG ING INC			udd 3 2 4 1	Severe  Abnomal  Slystvere  Slystvere  Slystvere  Chromium (p	pm)	
Iron (ppm)  Severe  Abnormal  SUP 1/91/4EW  Aluminum (ppm)  Severe		Jan15/18  Jan15/18  Juli3/23  Juli3/23	udd 3 2 4 1	Severe  Abnomal  SLIGINEW 100  Chromium (p		Jan15/18 Jan15/18 Jan15/18 Jul13/23 Jul13/23 Dec24/23
Iron (ppm)  Severe  Abnormal  Aluminum (ppm)  Severe  Abnormal  Aluminum (ppm)  Severe			udd 3 2 4 1	Severe  Styling New Plant Styling Chromium (p	Mar16/17 Aug15/17	
Iron (ppm)  Severe  June 1			udd 3 2 4 1	Severe  Abnomal  Chromium (p  Severe  Abnomal  Sullicon (ppm)	Mar16/17 Aug15/17	
Iron (ppm)  Severe  Severe  Superior Severe  Superior Severe  Superior Severe  Superior Severe  Copper (ppm)  Severe			mdd 3 2 1	Severe  Abnomal  Chromium (p  Severe  JUSINON SIlicon (ppm)  Severe	Mar16/17 Aug15/17	
Iron (ppm)  Severe  Abnormal  Surgivery  Aluminum (ppm)  Severe  Abnormal  Copper (ppm)  Severe	Aug15/17	Juli3/23	3 2 wdd 1 1 C7/L7380 10 Wdd	Severe  Severe  Slicon (ppm)  Silicon (ppm)  Severe  Abnomal	Marl6/17	Jan 15/18 Jul 13/23 Dec24/23
Iron (ppm)  Severe  Abnormal  Severe  SUMBLAND APPLIEUM  Aluminum (ppm)  Severe  Abnormal  Copper (ppm)  Severe  Abnormal  Abnormal	Aug15/17	Juli3/23	3 2 wdd 1 1 C7/L7380 10 Wdd	Severe  Severe  Slicon (ppm)  Silicon (ppm)  Severe  Abnomal	Marl6/17	Jan 15/18  Juli 3/23  Dec24/23
Iron (ppm)  Severe  Severe  Superior Severe  Superior Severe  Superior Severe  Superior Severe  Copper (ppm)  Severe			3 2 wdd 1 1 C7/L7380 10 Wdd	Severe  Abnomal  Chromium (p  Severe  JUSINON SIlicon (ppm)  Severe	Mar16/17 Aug15/17	
Iron (ppm)  Severe  Abnormal  Surgivery  Aluminum (ppm)  Severe  Abnormal  Copper (ppm)  Severe	Aug15/17	Juli3/23	udd 10 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Severe  Stygnow Chromium (p  Severe  Survey	Marl6/17	Jan 15/18  Juli 3/23  Dec24/23
Iron (ppm)  Severe  July 1 vol Viscosity @ 40°C	Aug15/17	Juli3/23	udd 10 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Severe  Stygnow Chromium (p  Severe  Survey	Marl6/17	Jan 15/18  Juli 3/23  Dec24/23
Iron (ppm)  Severe  July 1 vol Viscosity @ 40°C	Aug15/17	Juli3/23	udd 10 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Severe  Stygnow Chromium (p  Severe  Survey	Marl6/17	Jan15/18 Jul13/23 Dec24/23
Iron (ppm)  Severe  Abnormal  Severe  SURINAN Aluminum (ppm)  Severe  Abnormal  Copper (ppm)  Severe  Abnormal  Copper (ppm)  Severe  Abnormal  Viscosity @ 40°C	Aug15/17	Juli3/23	udd 10 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Severe  Stygnow Chromium (p  Severe  Survey	Marl6/17	Jan 15/18 Jul 13/23 Dec24/23
Iron (ppm)  Severe  Abnormal  Severe  SUMBLANN  Aluminum (ppm)  Severe  Abnormal  Copper (ppm)  Severe  Abnormal  Viscosity @ 40°C	Aug15/17 Aug15/17	Jan15/78 Jan	3 2 wdd 1 1 C7/L7380 10 Wdd	Severe  Stygnow Chromium (p  Severe  Survey	Marl6/17	Jan 15/18 Jul 13/23 Dec24/23





Report Id: MARROB [WUSCAR] 06156176 (Generated: 04/24/2024 14:38:10) Rev: 1

Lab Number : 06156176 Unique Number : 10991599

Sample No. : HPL0005007

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Tested

: 22 Apr 2024 : 23 Apr 2024 : 23 Apr 2024 - Wes Davis Diagnosed

MARATHON PETROLEUM CO. IL. REFININF DIVISION, 400 S MARATHON AVE ROBINSON, IL

US 62454 Contact: M.S. MANHART mmanhart@marathonpetroleum.com

Test Package : MOB 2 Certificate 12367 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.

T: (618)544-2121 F: x:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: M.S. MANHART - MARROB