

# **OIL ANALYSIS REPORT**

Sample Rating Trend



**NORMAL** 



Machine Id

# PHILADELPHIA FOX POLY REACTOR

Component **Gearbox** 

**ROYAL PURPLE SYNERGY 90/150 (15 GAL)** 

## Recommendation Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

The water content is negligible. 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.

White Metal scalar *Visual NONE NONE NONE NONE	-)		32014 Aug20	15 Sep2016 Oct2017	Mar2019 Jun2020 Sep2021	Dec2022	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age   hrs   Client Info   0   0   0   0   0   0   0   0   0	Sample Number		Client Info		RP0035950	RP0035837	RP0035838
Oil Age         Inrs         Client Info         0         NORMAL         NORMAL <t< td=""><td>Sample Date</td><td></td><td>Client Info</td><td></td><th>26 Mar 2024</th><td>02 Jan 2024</td><td>03 Oct 2023</td></t<>	Sample Date		Client Info		26 Mar 2024	02 Jan 2024	03 Oct 2023
Oil Changed Sample Status         Client Info         N/A         N/A         N/A         N/A           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >200         159         28         36           Chromium         ppm         ASTM D5185m         >15         <1	Machine Age	hrs	Client Info		0	0	0
NORMAL   NORMAL   NORMAL   WEAR METALS   method   limit/base   current   history1   history2   history2   history2   limit   history2   history2   history2   limit   history3   history2   limit   history3   history3   limit   li	Oil Age	hrs	Client Info		0	0	0
WEAR METALS	Oil Changed		Client Info		N/A	N/A	N/A
Iron	Sample Status				NORMAL	NORMAL	NORMAL
Chromium         ppm         ASTM D5185m         >1.5         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>200	159	28	36
Titanium	Chromium	ppm	ASTM D5185m	>15	<1	<1	<1
Silver         ppm         ASTM D5185m         0         0         0           Aluminum         ppm         ASTM D5185m         >25         3         2         2           Lead         ppm         ASTM D5185m         >100         <1         0         <1           Copper         ppm         ASTM D5185m         >200         10         11         10           Tin         ppm         ASTM D5185m         >20         10         11         10           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         3           Molybdenum         ppm         ASTM D5185m         0         0         1         1           Magnesium         ppm         ASTM D5185m         2         0         <1         1           Magnesium         ppm         ASTM D5185m         2         0         <1         1         2 <td>Nickel</td> <td>ppm</td> <td>ASTM D5185m</td> <td>&gt;15</td> <th>2</th> <td>&lt;1</td> <td>&lt;1</td>	Nickel	ppm	ASTM D5185m	>15	2	<1	<1
Aluminum	Titanium	ppm	ASTM D5185m		<1	<1	<1
Lead	Silver	ppm	ASTM D5185m		0	0	0
Copper         ppm         ASTM D5185m         >200         10         11         10           Tin         ppm         ASTM D5185m         >25         <1	Aluminum	ppm	ASTM D5185m	>25	3	2	2
Copper         ppm         ASTM D5185m         >200         10         11         10           Tin         ppm         ASTM D5185m         >25         <1	Lead	ppm	ASTM D5185m	>100	<1	0	<1
Tin	Copper		ASTM D5185m	>200	10	11	10
Vanadium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         3         0         3           Molybdenum         ppm         ASTM D5185m         0         <1			ASTM D5185m	>25	<1	<1	0
Cadmium         ppm         ASTM D5185m         0         0         <1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         0         <1	Vanadium		ASTM D5185m		0	0	0
Boron			ASTM D5185m		0		<1
Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         0         <1	ADDITIVES		method	limit/base	current	history1	history2
Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         0         <1	Boron	nnm	ASTM D5185m		n	0	0
Molybdenum         ppm         ASTM D5185m         0         <1         <1           Manganese         ppm         ASTM D5185m         2         0         <1           Magnesium         ppm         ASTM D5185m         4         2         3           Calcium         ppm         ASTM D5185m         12         15         20           Phosphorus         ppm         ASTM D5185m         200         137         144         128           Zinc         ppm         ASTM D5185m         200         137         144         128           Zinc         ppm         ASTM D5185m         20         3         22         0         6           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8							
Manganese         ppm         ASTM D5185m         2         0         <1           Magnesium         ppm         ASTM D5185m         4         2         3           Calcium         ppm         ASTM D5185m         200         137         144         128           Phosphorus         ppm         ASTM D5185m         200         137         144         128           Zinc         ppm         ASTM D5185m         22         0         6           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D5185m         >20         3         2         3           Water         %         ASTM D5185m         >20         3         2         3           Water         %         ASTM D5185m         >20         3         2         3           Water					-		
Magnesium         ppm         ASTM D5185m         4         2         3           Calcium         ppm         ASTM D5185m         12         15         20           Phosphorus         ppm         ASTM D5185m         200         137         144         128           Zinc         ppm         ASTM D5185m         22         0         6           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2							
Calcium         ppm         ASTM D5185m         12         15         20           Phosphorus         ppm         ASTM D5185m         200         137         144         128           Zinc         ppm         ASTM D5185m         22         0         6           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         1         0         0         0           Potassium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHg         ASTM D8045         1.61         0.35         0.40         0.36           VISUAL         method         limit/base         current         histor	•						
Phosphorus         ppm         ASTM D5185m         200         137         144         128           Zinc         ppm         ASTM D5185m         200         6           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.61         0.35         0.40         0.36           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE <td>-</td> <td></td> <td></td> <td></td> <th>-</th> <td></td> <td></td>	-				-		
Zinc         ppm         ASTM D5185m         22         0         6           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6185m         >20         3         2         3           Water         %         ASTM D6185m         >1         0.028         0.031         0.005           ppm Water         ppm         ASTM D6185m         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >0.02         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >0.02         0.028         0.031         0.005           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.6				200			
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         >20         3         2         3           Potassium         ppm         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.61         0.35         0.40         0.36           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE           Silt         scalar         *Visual         N				200			
Silicon         ppm         ASTM D5185m         >50         6         5         6           Sodium         ppm         ASTM D5185m         1         0         0           Potassium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.61         0.35         0.40         0.36           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE           Silt         scalar         *Visual         NONE <t< td=""><td>CONTAMINANTS</td><td></td><td>method</td><td>limit/base</td><th>current</th><td>history1</td><td>history2</td></t<>	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium         ppm         ASTM D5185m         1         0         0           Potassium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.61         0.35         0.40         0.36           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         NONE           Debris<							
Potassium         ppm         ASTM D5185m         >20         3         2         3           Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.61         0.35         0.40         0.36           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           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         NORML         NORML <td< td=""><td></td><td></td><td></td><td></td><th></th><td></td><td></td></td<>							
Water         %         ASTM D6304         >0.2         0.028         0.031         0.005           ppm Water         ppm         ASTM D6304         >2000         282         310         58.8           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         1.61         0.35         0.40         0.36           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         NONE           Sand/Dirt         scalar         *Visual         NORML         NORML         NORML         NORM				>20			
ppm Water ppm ASTM D6304 >2000 282 310 58.8  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 1.61 0.35 0.40 0.36  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML NORML							
Acid Number (AN) mg KOH/g ASTM D8045 1.61 0.35 0.40 0.36  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML					0.000		
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 NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	FLUID DEGRADA	NOITA	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 NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Acid Number (AN)	mg KOH/g	ASTM D8045	1.61	0.35	0.40	0.36
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	White 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 NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Precipitate	scalar			NONE		NONE
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	•	scalar	*Visual	NONE		NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Debris				NONE		
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Sand/Dirt	scalar	*Visual				
Odor scalar *Visual NORML NORML NORML NORML NORML							

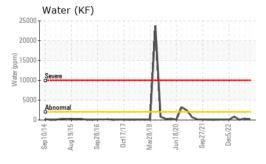
In: GHEARLES LOVENERYDEE

NEG

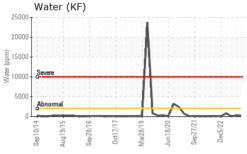
scalar \*Visual

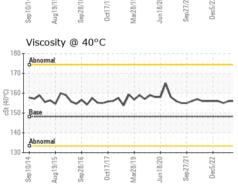


## **OIL ANALYSIS REPORT**

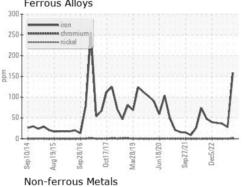


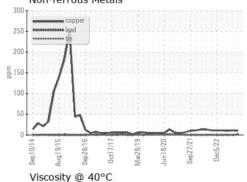


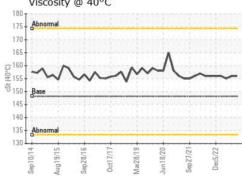


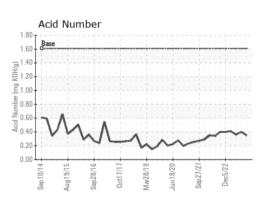


# **GRAPHS** Ferrous Alloys













Laboratory Sample No.

: RP0035950 Lab Number : 06139327

Unique Number : 10964135

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 04 Apr 2024 **Tested** : 05 Apr 2024

Diagnosed : 05 Apr 2024 - Wes Davis

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

**OXY VINYLS DEER PARK PVC** 

1000 TIDAL ROAD DEER PARK, TX US 77536

Contact: CHARLES LOVE charles\_love@oxy.com

T: (281)476-2277 F: (281)476-2604

Contact/Location: CHARLES LOVE - OXYDEE