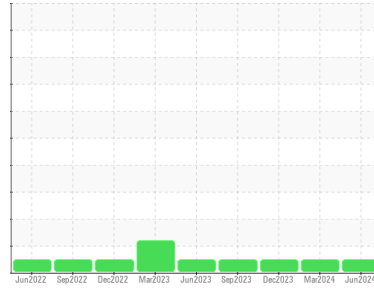




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

PACKAGING [10-1514797]

Machine Id

WEST VANDEBERG - VFD1-10C (S/N 850114369.05.06.004)

Component

Gearbox

Fluid

PETRO CANADA PURITY FG SYNTH EP GEAR 220 (--- 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. The amount and size of particulates present in the system are acceptable.

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	USP0013122	USP0006271	USP0004379
Sample Date	Client Info	14 Jun 2024	14 Mar 2024	11 Dec 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	0	0	<1
Chromium	ppm	ASTM D5185m >15	0	0	0
Nickel	ppm	ASTM D5185m >15	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	0	2
Lead	ppm	ASTM D5185m >100	0	0	0
Copper	ppm	ASTM D5185m >200	0	0	0
Tin	ppm	ASTM D5185m >25	0	0	0
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	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	<1	<1	0
Calcium	ppm	ASTM D5185m	<1	2	<1
Phosphorus	ppm	ASTM D5185m	535	505	519
Zinc	ppm	ASTM D5185m	6	0	0
Sulfur	ppm	ASTM D5185m	1024	925	876

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	1	2	2
Sodium	ppm	ASTM D5185m	<1	0	<1
Potassium	ppm	ASTM D5185m >20	0	1	<1
Water	%	ASTM D6304 >0.2	0.003	0.002	0.003
ppm Water	ppm	ASTM D6304 >2000	30	18	31

FLUID CLEANLINESS

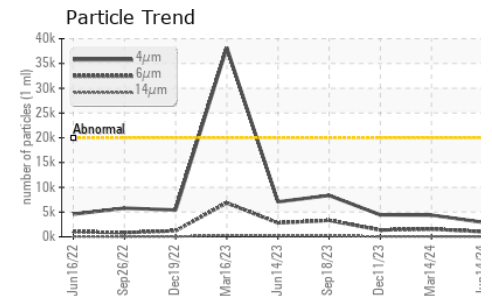
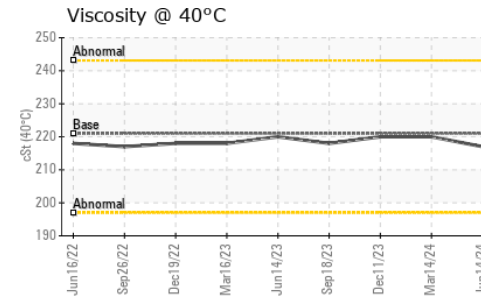
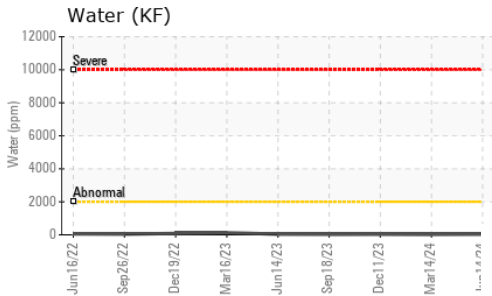
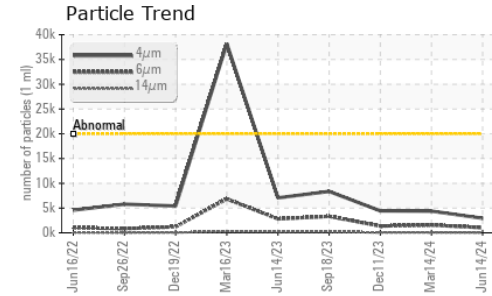
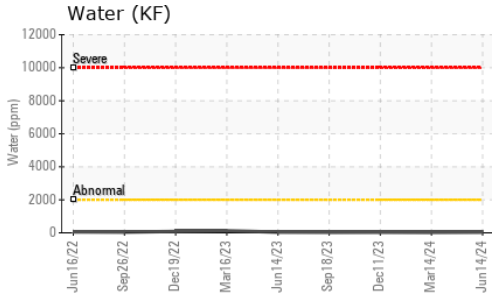
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	2935	4377	4433
Particles >6µm	ASTM D7647 >5000	1045	1564	1373
Particles >14µm	ASTM D7647 >640	39	61	65
Particles >21µm	ASTM D7647 >160	6	10	15
Particles >38µm	ASTM D7647 >40	3	1	1
Particles >71µm	ASTM D7647 >10	1	0	0
Oil Cleanliness	ISO 4406 (c) >21/19/16	19/17/12	19/18/13	19/18/13

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.59	0.61	0.12	0.58



OIL ANALYSIS REPORT

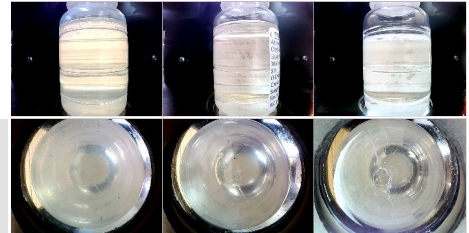
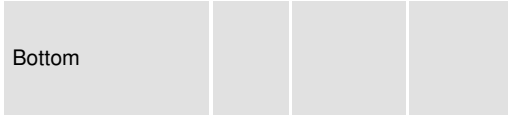


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

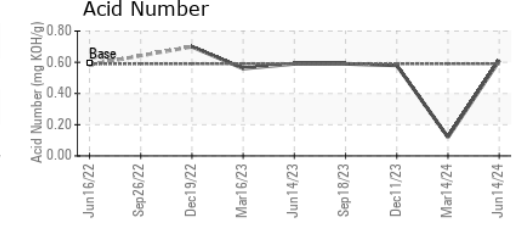
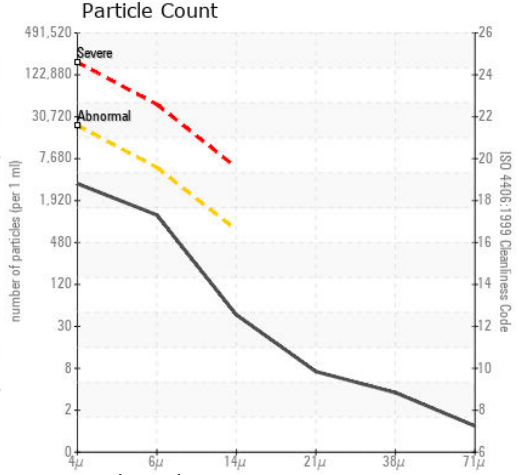
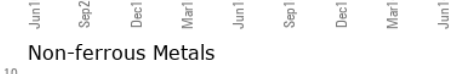
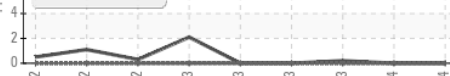
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 221	217	220	220

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0013122 **Received** : 24 Jun 2024
Lab Number : 06218253 **Tested** : 25 Jun 2024
Unique Number : 11096450 **Diagnosed** : 25 Jun 2024 - Doug Bogart
Test Package : IND 2

TYSON - SMART CHICKEN MBA
 13151 DOVER ST
 WAVERLY, NE
 US 68462

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)