

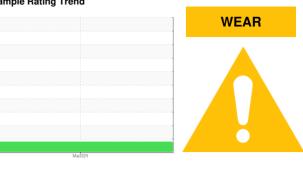
OIL ANALYSIS REPORT

Sample Rating Trend



Area **East Chicago Operations** Machine Io **LIEBHERR R912 MH-85 (S/N 5007455)** Component Rear Right Tandem

Fluid PETRO CANADA TRAXON 80W90 (--- GAL)



υ	IA	G	VV	5	5	

Recommendation

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

🔺 Wear

The iron level is abnormal. All other metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

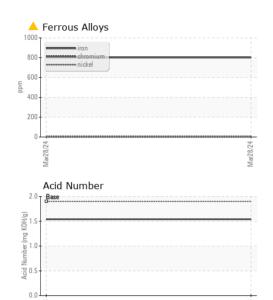
Fluid Condition

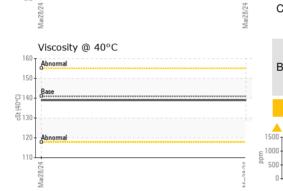
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0113785		
Sample Date		Client Info		28 Mar 2024		
Machine Age	hrs	Client Info		1838		
Oil Age	hrs	Client Info		1838		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>425	A 802		
Chromium	ppm	ASTM D5185m	>5	4		
Nickel	ppm	ASTM D5185m	>5	<1		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>5	3		
Lead	ppm	ASTM D5185m		<1		
Copper	ppm	ASTM D5185m	>8	23		
Tin	ppm	ASTM D5185m		<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	243	118		
Barium	ppm	ASTM D5185m	1	0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		6		
Magnesium	ppm	ASTM D5185m	2	4		
Calcium	ppm	ASTM D5185m	6	32		
Phosphorus	ppm	ASTM D5185m	987	1178		
Zinc	ppm	ASTM D5185m	1	50		
Sulfur	ppm	ASTM D5185m	21530	23496		
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	18		
Sodium	ppm	ASTM D5185m		14		
Potassium	ppm	ASTM D5185m	>20	2		
FLUID DEGRA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.9	1.54		



OIL ANALYSIS REPORT





	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
Mar28/24	Appearance	scalar	*Visual	NORML	NORML		
Mar	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	141.0	139		
	SAMPLE IMAG	ES	method	limit/base	current	history1	history2
				[
3/24	Color				no image	no image	no image
Mar28/24					-	-	-
				L			
	Bottom				no image	no image	no image
	GRAPHS						
	▲ Iron (ppm)				Lead (ppm)		
	1500 Severe				¹ T:		
V	E 1000 - Abnormal			톱0.5	5-		
C 80-							
10 H	Mar28/24			Mar28/24	Mar28/24		
	Mari			Mari	Mar		
	Aluminum (ppm)				Chromium (p	pm)	
	15 10 Severe			1!	Severe		
	E 10 - Abnormal			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Abnormal		
	0				, L		
	Mar28/24			Mar28/24	Mar28/24		
	Mar			Mar			
	Copper (ppm)			10	Silicon (ppm)		
				10	0		
	E 20 Severe			튭 50	Abnormal		
					, L		
	Mar28/24			Mar28/24	Mar28/24		
	—			Mar	Mar		
	Viscosity @ 40°C			(B/H	Acid Number		
				9 2. P			
	(2) 140 - Base 			/24 Acid Number (mg KOH/g) 1.1	D +		
	100			No.0			
	Mar28/24			Mar28/24 Acio	Mar28/24		
	Mar			Mar	Mar		
		1 Madiaa	n Ave Carv	/ NC 27513		SCRAP MET	AL SERVICE
Laboratory	• WearCheck LISA - 50	1 Manieni					
Laboratory Sample No.	: WearCheck USA - 50 : PCA0113785	Recei	ved : 05	5 Apr 2024		415 E 1	51ST STREE
Sample No. Lab Number	: PCA0113785 : <mark>06140083</mark>	Recei [®] Teste	ved : 05 d : 08	5 Apr 2024 3 Apr 2024			51ST STREE CHICAGO,
AB Sample No.	: PCA0113785 : <mark>06140083</mark> : 10964891	Recei	ved : 05 d : 08	5 Apr 2024	Baldridge	EAST	

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

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Submitted By: DAN GERTLER

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