WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id **862557**

Gasoline Engine

	Test	UOM	Method	Limit/Abn	Current	History1	History2
RECOMMENDATION Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number	OOW	Client Info	LIIIIUAUII	PC0085570		
	Sample Date		Client Info		26 Dec 2023		
	Machine Age	kms	Client Info		322894		
	Oil Age	kms	Client Info		0		
	Filter Age	kms	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
VEAR	Iron	ppm	ASTM D5185(m)	>150	4		
I EAIT	Chromium	ppm	ASTM D5185(m)		0		
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)		<1		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>2	0		
	Aluminum	ppm	ASTM D5185(m)	>40	2		
	Lead	ppm	ASTM D5185(m)	>50	0		
	Copper	ppm	ASTM D5185(m)	>155	3		
	Tin	ppm	ASTM D5185(m)	>10	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>30	13		
CHTAMINATION	Potassium	ppm	ASTM D5185(m)	>20	1		
There is no indication of any contamination in the oil.	Fuel	ррпп	WC Method	>4.0	<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	7 O.L	NEG		
	Soot %	%	ASTM D7844*		0		
	Nitration	Abs/cm	ASTM D7624*	>20	5.1		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	15.6		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
LUID CONDITION	Sodium	ppm	ASTM D5185(m)	>400	1		
	Boron	ppm	ASTM D5185(m)	186	160		
The BN result is higher than normal. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)	79	65		
	Manganese	ppm	ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)	578	513		
	Calcium	ppm	ASTM D5185(m)	1002	1145		
	Phosphorus	ppm	ASTM D5185(m)	745	615		
	Zinc	ppm	ASTM D5185(m)	837	702		
	Sulfur	ppm	ASTM D5185(m)	2502	2287		
	Oxidation	Abs/.1mm	ASTM D7414*	>25	8.8		
		1/011/	ACTM DOOCS*	7.0	7.91		
	Base Number (BN)		ASTM D2896*				
	Base Number (BN) Visc @ 40°C Visc @ 100°C	mg KOH/g cSt cSt	ASTM D7279(m) ASTM D7279(m)	69.33	60.5 10.7		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number**

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Petro-Canada Technical/Behshad Sabah : PC0085570

: 5698368

: 02605283

Test Package : MOB 2 (Additional Tests: KV40, VI)

Recieved Diagnosed

: 27 Dec 2023 : 28 Dec 2023 : Kevin Marson Diagnostician

Mississauga, ON Contact: Behshad Sabah Behshad.Sabah@hfsinclair.com

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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CA L5J 1K2