

OIL ANALYSIS REPORT

Sample Rating Trend







	SAMPLE INFORM	/ ATION	method	limit/base	current	history1	history2
	Sample Number		Client Info		GFL0087702	GFL0078557	GFL0069358
terval to monitor.	Sample Date		Client Info		25 Aug 2023	18 May 2023	02 Feb 2023
	Machine Age	hrs	Client Info		16037	15437	16094
ormal.	Oil Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	N/A
ntamination in the	Sample Status				NORMAL	NORMAL	NORMAL
	CONTAMINATI	ON	method	limit/base	current	history1	history2
re is suitable	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
he condition of the	Glycol		WC Method		NEG	NEG	NEG
	WEAR METALS	S	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m		8	19	10
	Chromium	ppm	ASTM D5185m		0	0	<1
	Nickel	ppm	ASTM D5185m		0	<1	1
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m		1	0	<1
	Lead	ppm	ASTM D5185m		0	0	<1
	Copper	ppm	ASTM D5185m		2	6	1
	Tin	ppm	ASTM D5185m		0	<1	<1
	Antimony	ppm	ASTM D5185m				
	Vanadium	ppm	ASTM D5185m		<1	0	0
	Cadmium	ppm	ASTM D5185m		0	0	0
	ADDITIVES	1-1-	method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m		0	3	30
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	50	57	59	60
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	950	947	968	786
	Calcium	ppm	ASTM D5185m		1055	1098	1013
	Phosphorus	ppm	ASTM D5185m	995	961	989	909
	Zinc	ppm		1180	1201	1264	1117
	200	ppiii		1100	1201		
	Sulfur	ppm	ASTM D5185m	2600	3373	3464	2787
			ASTM D5185m method	2600 limit/base	3373 current	3464 history1	2787 history2
	Sulfur CONTAMINAN Silicon	• •					
	CONTAMINAN	TS	method	limit/base	current	history1	history2
	CONTAMINAN Silicon	TS ppm	method ASTM D5185m	limit/base >25	current 2	history1 4	history2 5
	CONTAMINAN Silicon Sodium	TS ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >25	current 2 3	history1 4 3	history2 5 3
	CONTAMINAN Silicon Sodium Potassium	TS ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	current 2 3 2	history1 4 3 4	history2 5 3 <1
	CONTAMINAN Silicon Sodium Potassium INFRA-RED	TS ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base >25 >20 limit/base >4	current 2 3 2 current	history1 4 3 4 history1	history2 5 3 <1 history2
	CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	TS ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	limit/base >25 >20 limit/base >4 >20	current 2 3 2 current 0.5	history1 4 3 4 history1 0.4	history2 5 3 <1 history2 0.3
	CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm % Abs/cm Abs/.1mm	method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >20 limit/base >4 >20	current 2 3 2 current 0.5 8.8	history1 4 3 4 history1 0.4 8.0	history2 5 3 <1 history2 0.3 9.0
	CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm % Abs/cm Abs/.1mm	method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >20 limit/base >4 >20 >30 limit/base	current 2 3 2 current 0.5 8.8 19.8	history1 4 3 4 history1 0.4 8.0 19.4	history2 5 3 <1 history2 0.3 9.0 19.0

Machine Id 1034A Component

Diesel Engine Fluic

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service

Wear

All component wear rates are

Contamination

There is no indication of any oil.

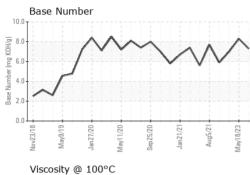
Fluid Condition

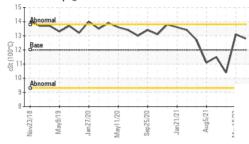
The BN result indicates that alkalinity remaining in the oil. oil is suitable for further servi



OIL ANALYSIS REPORT

VISUAL





			memou	iiiiii/base	Current	TIIStOLA	
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
$\sqrt{2}$	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
v	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
5/21	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Aug5/21 May18/23	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
2	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual	20.L	NEG	NEG	NEG
				11 11 11			
r	FLUID PROP		method	limit/base	current	history1	history:
M	Visc @ 100°C	cSt	ASTM D445	12.00	12.8	13.1	10.4
V	GRAPHS						
	Ferrous Alloys						
Aug5/21	50 - iron chromium						
Au	40+		1				
	1		1				
	톱30-		11				
	20		[[]				
	10		N	V			
		\sim					
	5 J3 J8	20	/21 /21	53			
	Nov23/18 May9/19 Jan27/20	May11/20 Sep25/20	Jan 21/21 Aug 5/21	May18/23			
	-	1000 C	J. A	Ma			
	Non-ferrous Met	als					
	10 copper		111111				
	copper lead						
	copper		A				
	8 - copper lead		٨				
	copper lead		٨.	٨			
	8 - copper lead			٨			
	8 - copper lead		n Ah	\wedge			
	B Copper lead		A	Λ			
	B Copper lead tin	A	A	A L			
	B Copper lead tin	01/1/20	m21/21	y18/23			
	mdd a a a a a a a a a a a a a a a a a a a	Sep25/20	Jan21/21 Aug5/21	May18/23			
	udd 0 0 0 0 0 0 0 0 0 0 0 0 0		Aug521	May18/23	Base Numbe	: Γ	
	und a b copper lead tin copper lead tin 02/IZuer Viscosity @ 100° 15		Jan21/21 Aug5/21	9.	0T3-3-5-5-5-5-5	۲ ۲	
	udd 0 0 0 0 0 0 0 0 0 0 0 0 0		Aug5/21	9.		er	
	und a b copper lead tin copper lead tin 02/IZuer Viscosity @ 100° 15		Jan21/21 Aug5/21-	9.		er	
	viscosity @ 100°		Jan21/21 Aug5/21-	9.		۲ ۲	\sim
	viscosity @ 100°		Jan21/21 Aug5/21	9.		:г У	\sim
	viscosity @ 100°		Jan21/21-22-24	9.		:г У	\sim
	viscosity @ 100°		Jan21/21-21 Aug5/21-22-2	9.			\sim
	viscosity @ 100°		Jan21/21 Aug5/21	9.			\sim
	Copper lead copper lead lead copper lead le	c	h	9. 8. (0)(16)(0) (0)(10)(10)(10)(10)(10)(10)(10)(10)(10)(~~~	
	Copper lead copper lead lead copper lead le	c	h	9. 8. (0)(16)(0) (0)(10)(10)(10)(10)(10)(10)(10)(10)(10)(~~~	5/21 5/21 5/21 5/21
	viscosity @ 100°		Jan21/21 Aug5/21 Aug5/21	9. 8. (9)(6)(6) 90(5). 90(4). 94(4). 93(2) 92(2)		~~~	Jan21/21 Aug5/21 Aug18/22
	viscosity @ 100° biology bio	C	Jan21/21 Aug5/21	9. (0,HOX 06. 1,1 4. 1,1 1,1 1,1 1,1 1,1 1,1 1,1 1,	Marg/3/18	May11/20	, 5
oratory	viscosity @ 100° bull bull bull bull bull bull bull bull	C 	12/12/lang	9.0 8.0 (PHO) 6.0 (PHO) 6.	Marg/3/18	07/11/vew 07/11/vew nvironmental -	≥ 837 - Harrison
oratory ple No.	Viscosity @ 100° bull bull bull bull bull bull bull bull	C OZ/11/eW 501 Madis Received	LZ/IZ/ISBINY Son Ave., Ca	9.0 8.0 9.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Marg/3/18	07/11/kew 07/11/kew nvironmental - 22820 S	 837 - Harrison State Route 2
oratory ple No. Number	Viscosity @ 100° bull bull bull bull bull bull bull bull	C OZILINEW 501 Madia Received Diagnose	17/17/17/17/17/17/17/17/17/17/17/17/17/1	9. 6. 9. 6. 9. 1. 9. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Marg/3/18	07/11/kew 07/11/kew nvironmental - 22820 S	837 - Harrison State Route 2 Harrisonville, N
oratory ple No. Number ue Number	viscosity @ 100° billow viscosity @ 100° billow viscosity @ 100° billow viscosity @ 100° billow	C OZ/11/eW 501 Madis Received	17/17/17/17/17/17/17/17/17/17/17/17/17/1	9.0 8.0 9.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Marg/3/18	07211/vew 07211/vew nvironmental - 1 22820 S	8 37 - Harrison State Route 2 Harrisonville, M US 647
oratory ple No. Number ue Number Package	Viscosity @ 100° bull bull bull bull bull bull bull bull	C OZILIVEW 501 Madia Received Diagnost	IZ/IZ/IZ/IEF son Ave., Ca d : 06 ed : 07 ician : We	9. 8. 9. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Marg/3/18	07211/vew nvironmental - 22820 S Contact: BR	837 - Harrison State Route 2 Harrisonville, N

To discuss this sa * - 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)

Certificate L2367

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