

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id SPC-02 Component Diesel Engine Fluid PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

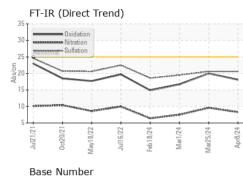
Fluid Condition

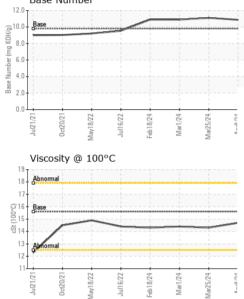
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0118447	PCA0118453	PCA0118507
Sample Date		Client Info		08 Apr 2024	25 Mar 2024	01 Mar 2024
Machine Age	hrs	Client Info		8864	8555	8072
Oil Age	hrs	Client Info		0	483	259
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	10	12	8
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	1	2
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	1	2	2
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1 <1	history2 <1
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	0	<1	<1
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	0 0	<1 0	<1 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67	<1 0 62	<1 0 65
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67 0	<1 0 62 0	<1 0 65 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67 0 1118 1156 1174	<1 0 62 0 1042 1080 1005	<1 0 65 0 979 1076 1027
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67 0 1118 1156	<1 0 62 0 1042 1080 1005 1291	<1 0 65 0 979 1076 1027 1269
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67 0 1118 1156 1174	<1 0 62 0 1042 1080 1005	<1 0 65 0 979 1076 1027
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67 0 1118 1156 1174 1380	<1 0 62 0 1042 1080 1005 1291	<1 0 65 0 979 1076 1027 1269
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 67 0 1118 1156 1174 1380 3965 current 3	<1 0 62 0 1042 1080 1005 1291 3547 history1 2	<1 0 65 0 979 1076 1027 1269 3254 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67 0 1118 1156 1174 1380 3965 current 3 <1	<1 0 62 0 1042 1080 1005 1291 3547 history1 2 1	<1 0 65 0 979 1076 1027 1269 3254 history2 4 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 67 0 1118 1156 1174 1380 3965 current 3	<1 0 62 0 1042 1080 1005 1291 3547 history1 2	<1 0 65 0 979 1076 1027 1269 3254 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	0 0 67 0 1118 1156 1174 1380 3965 current 3 <1 0 current	<1 0 62 0 1042 1080 1005 1291 3547 history1 2 1 0 0 history1	<1 0 65 0 979 1076 1027 1269 3254 history2 4 1 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	0 0 67 0 1118 1156 1174 1380 3965 <i>current</i> 3 <1 0 <i>current</i>	<1 0 62 0 1042 1080 1005 1291 3547 history1 2 1 0 history1 0.2	<1 0 65 0 979 1076 1027 1269 3254 history2 4 1 2 <u>history2</u> 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	0 0 67 0 1118 1156 1174 1380 3965 <i>current</i> 3 <1 0 <i>current</i> 0.2 8.3	<1 0 62 0 1042 1080 1005 1291 3547 history1 2 1 0 history1 0.2 9.6	<1 0 65 0 979 1076 1027 1269 3254 history2 4 1 2 history2 0.1 7.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	0 0 67 0 1118 1156 1174 1380 3965 <i>current</i> 3 <1 0 <i>current</i>	<1 0 62 0 1042 1080 1005 1291 3547 history1 2 1 0 history1 0.2	<1 0 65 0 979 1076 1027 1269 3254 history2 4 1 2 <u>history2</u> 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	0 0 67 0 1118 1156 1174 1380 3965 <i>current</i> 3 <1 0 <i>current</i> 0.2 8.3	<1 0 62 0 1042 1080 1005 1291 3547 history1 2 1 0 history1 0.2 9.6	<1 0 65 0 979 1076 1027 1269 3254 history2 4 1 2 history2 0.1 7.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	Imit/base >25 >20 Imit/base >20 >3 >20 >30	0 0 67 0 1118 1156 1174 1380 3965 current 3 <1 0 current 0.2 8.3 20.6	<1 0 62 0 1042 1080 1005 1291 3547 history1 2 1 0 <i>history1</i> 0.2 9.6 20.6	<1 0 65 0 979 1076 1027 1269 3254 history2 4 1 2 0.1 7.5 19.5



OIL ANALYSIS REPORT





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	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	14.7	14.3	14.4
GRAPHS						
Iron (ppm)			100	Lead (ppm)		
250 Severe			100	Severe		
			80			
150 100 - Abnormal			E 60	Abnormal		
			40	T		
50			20			
0/21+0	3/24 -	/24	Apr8/24	0/21 - 0/21 - 0/21 - 0/21 - 0/21 - 0/21 - 0/22 - 0/	6/22 -	Mar1/24 1ar25/24 Apr8/24
Jul21/21 0ct20/21 May18/22	Juli 0/24 Feb 18/24	Mar1/24 Mar25/24	Apr8	Jul21/21 0ct20/21 May18/22	Jul16/22 Feb18/24	Mar1/24 Mar25/24 Apr8/24
Aluminum (ppm)		-		Chromium (pp	om)	-
50 T			50	T:		
40 - Severe			40	Severe		
and a second sec						
a. 20 - Abnormal			²¹ 20	Abnormal - o		
10-			10			
	4	4	5 0		2	4 4
Jul21/21 0ct20/21 May18/22	-eb 18/24	Mar1/24 Mar25/24	Apr8/24	Jul21/21 0ct20/21 May18/22	Jul16/22 Feb18/24	Mar1/24 - Mar25/24 - Apr8/24 -
2		A N		2	E	~ W 7
Copper (ppm)			80	Silicon (ppm)		
600			60			
E 400 - Strofmal			특 40	Abnormal		
200-			20			
0			0			
Jul21/21 0ct20/21 May18/22	Juli 0/24 Feb 18/24	Mar1/24 Mar25/24	Apr8/24	Jul21/21 0ct20/21 May18/22	Jul16/22 Feb18/24	Mar1/24 - Mar25/24 - Apr8/24 -
May 0ct	Teb.	Ma	Ap	Jul Oct May	Jul Feb	Marí Ap
Viscosity @ 100°C				Base Number		
20 18 Abnormal			12.0 E 10.0	Deve		
			(b)H0.0 B)H04 B)H0			
(), 16 835 14 Abatimal			E 6.0			
			4.0			
12			8 2.0			
	724	24		121 121 122	722	24 + 24 + 24 +
Jul21/21 0ct20/21 May18/22	Juli 0/24 Feb 18/24	Mar1/24 Mar25/24	Apr8/24	Jul21/21 0ct20/21 May18/22	Jul16/22 Feb18/24	Mar1/24 - Mar25/24 - Apr8/24 -
2		2		2	_	
: WearCheck USA - 501	l Madieo		NC 27512			MS Mill Services LLC)
: PCA0118447	Recei		3 Apr 2024	JOHAP MI		MMERCIAL AVE
: 06153339	Teste	d : 22	2 Apr 2024			JUNCTION, OH
: 10983417	Diagn	iosed : 22	Apr 2024 - W	es Davis		US 43938
: MOB 2			-			: FRANK NALLY
contact Customer Servi	ce at 1-8	00-237-1369	J .	fr	nally@scrapme	etalservices.com

To discuss this sample report, co * - 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)

Report Id: SCRMIN [WUSCAR] 06153339 (Generated: 04/22/2024 07:51:36) Rev: 1

Certificate L2367

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

Contact/Location: FRANK NALLY - SCRMIN

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