

OIL ANALYSIS REPORT

Sample Rating Trend



Area (33698Z) Walgreens Machine Id [Walgreens] 136A62572 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 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.

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 INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0093532	PCA0093507	
Sample Date		Client Info		01 Sep 2023	26 May 2023	
Machine Age	mls	Client Info		278398	243703	
Oil Age	mls	Client Info		34695	243703	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	26	23	
Chromium	ppm	ASTM D5185m	>5	2	2	
Nickel	ppm	ASTM D5185m	>2	<1	0	
Titanium	ppm	ASTM D5185m		23	37	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>30	6	5	
Lead	ppm	ASTM D5185m	>30	<1	0	
Copper	ppm	ASTM D5185m	>150	59	144	
Tin	ppm	ASTM D5185m	>5	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	4	14	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	50	47	27	
Manganese	ppm	ASTM D5185m	0	<1	<1	
Magnesium	ppm	ASTM D5185m	950	745	527	
Calcium	ppm			745	527	
Phoenhorue	ppin	ASTM D5185m	1050	1410	1718	
Phosphorus	ppm	ASTM D5185m ASTM D5185m	1050 995	-		
				1410	1718	
	ppm	ASTM D5185m	995	1410 966	1718 958	
Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	995 1180	1410 966 1237	1718 958 1264	
Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base	1410 966 1237 3050	1718 958 1264 3443	
Zinc Sulfur CONTAMINAN ^T Silicon Sodium	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method	995 1180 2600 limit/base	1410 966 1237 3050 current	1718 958 1264 3443 history1	
Zinc Sulfur CONTAMINAN ^T Silicon	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	995 1180 2600 limit/base	1410 966 1237 3050 current 6	1718 958 1264 3443 history1 4	 history2
Zinc Sulfur CONTAMINAN ^T Silicon Sodium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >20	1410 966 1237 3050 current 6 1	1718 958 1264 3443 history1 4 3	 history2
Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >20 >20	1410 966 1237 3050 current 6 1 6	1718 958 1264 3443 history1 4 3 9	 history2
Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium INFRA-RED	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >20 >20 limit/base	1410 966 1237 3050 current 6 1 6 2 1 6 2 2 2 2 2 2 2 2 2 2 2 2 2 3 2 2 2 2 2	1718 958 1264 3443 history1 4 3 9 history1	 history2 history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	995 1180 2600 limit/base >20 >20 limit/base >3	1410 966 1237 3050 current 6 1 6 2 current 1.7	1718 958 1264 3443 history1 4 3 9 history1 1.2	 history2 history2
Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm pm TS ppm ppm ppm ppm % % Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7415	995 1180 2600 limit/base >20 >20 limit/base >3 >20	1410 966 1237 3050 current 6 1 6 current 1.7 10.2	1718 958 1264 3443 history1 4 3 9 history1 1.2 9.2	 history2 history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm pm TS ppm ppm ppm ppm % % Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7844	995 1180 2600 limit/base >20 >20 limit/base >3 >20 >30	1410 966 1237 3050 current 6 1 6 2 current 1.7 10.2 23.4	1718 958 1264 3443 history1 4 3 9 history1 1.2 9.2 23.5	 history2 history2 history2

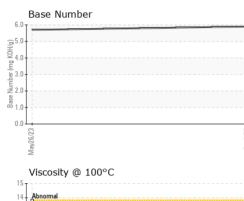


13 cSt (100°C) 11 10 Abnormal

> 8. May26/23

OIL ANALYSIS REPORT

VISUAL



	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	
San1 () 2.		scalar	*Visual	NORML	NORML	NORML	
Can	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual	2 U.L	NEG	NEG	
			VISUAI		NEG	NLU	
	FLUID PROP		method	limit/base		history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	12.0	12.3	
	GRAPHS						
	Ferrous Alloys						
	iron						
	25 - nickel						
	20						
	<u>۾</u> 15						
	10-						
	5						
	0						
	6/23			Sep 1/23			
	May26/23			Sep			
	 Non-ferrous Met	als					
	160 T						
	140 - copper						
	120- tin						
	100-						
	튭 80-						
	60 -						
	40 -						
	20 -						
	0 Li						
	May26/23			Sep 1/23			
	May			S			
	Viscosity @ 100°	C			Base Number		
	15 14 Abnormal			6	3.0 T		
	1			(5	i.0		
	13-			HOX	H.O		
	Co 12	*****		Base Number (mg KOH/g) 5			
	र्ट्स 11-			gu	1.0		
	10-			2 Na	2.0		
	Abnormal				.0-		
	123						
	May26/23			Sep 1/23	May26/23		
Laboratory	: WearCheck USA -				3 Transervi	ce - Shop 1376	
NAB Sample No.	: PCA0093532	Received		Sep 2023		3425 Trer	nley Point Ro
Lab Number Unique Numbe	: 05955098 r : 10656311	Diagnos		Sep 2023 s Davis			Linden, I US 070
		Diagnost	iciali . we	5 Davis	Co	ontact: Shop 1	
tificate 12367 Test Packad						made onop h	
tificate L2367 Test Package discuss this sample report		vice at 1-8	00-237-136	9.			transervice.co