

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



{UNASSIGNED} 933041

Component **Natural Gas Engine**

Fluid

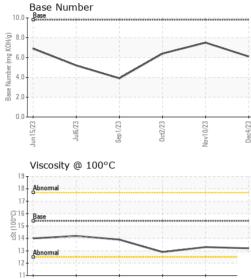
PETRO CANADA DURON SHP 15W40 (8 GAL)

DIAGNOSIS	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
commendation	Sample Number		Client Info		GFL0101264	GFL0101182	GFL0094360
sample at the next service interval to monitor.	Sample Date		Client Info		04 Dec 2023	10 Nov 2023	02 Oct 2023
ar	Machine Age	hrs	Client Info		1401	1248	979
component wear rates are normal.	Oil Age	hrs	Client Info		288	135	263
ntamination	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
ere is no indication of any contamination in the	Sample Status				NORMAL	NORMAL	NORMAL
bil. Fluid Condition The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the bil is suitable for further service.	CONTAMINAT	ION	method	limit/base	current	history1	history2
	Water		WC Method	>0.1	NEG	NEG	NEG
	WEAR METAL	S	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>50	15	10	18
	Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>2	0	0	<1
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>9	2	2	5
	Lead	ppm	ASTM D5185m	>30	0	<1	<1
	Copper	ppm	ASTM D5185m	>35	1	1	3
	Tin	ppm	ASTM D5185m	>4	0	<1	<1
	Vanadium	ppm	ASTM D5185m		0	<1	<1
	Cadmium	ppm	ASTM D5185m		0	0	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	2	4	5
	Barium	ppm	ASTM D5185m	0	2	0	0
	Molybdenum	ppm	ASTM D5185m	60	60	61	65
	Manganese	ppm	ASTM D5185m	0	0	<1	2
	Magnesium	ppm	ASTM D5185m	1010	810	944	914
	Calcium	ppm	ASTM D5185m	1070	1035	1121	1191
	Phosphorus	ppm	ASTM D5185m	1150	842	1046	979
	Zinc	ppm	ASTM D5185m	1270	1090	1285	1240
	Sulfur	ppm	ASTM D5185m		3082	3121	2851
	CONTAMINAN	NTS	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185m	>+100	4	3	6
	Sodium	ppm	ASTM D5185m		12	3	5
		ppm	ASTM D5185m	>20	7	4	15
	Potassium						
	Potassium INFRA-RED		method	limit/base	current	history1	history2
		%	method *ASTM D7844	limit/base	current 0	history1 0	history2 0
	INFRA-RED					,	
	INFRA-RED Soot %	%	*ASTM D7844	>20	0	0	0
	INFRA-RED Soot % Nitration	% Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>20	0 7.9 17.2	0 6.4	0 7.3 17.3
	INFRA-RED Soot % Nitration Sulfation	% Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>20 >30 limit/base	0 7.9 17.2	0 6.4 17.1	7.3



OIL ANALYSIS REPORT

VISUAL



Jul6/23

Jun15/23

		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	\frown	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
\checkmark		Silt	scalar	*Visual	NONE	NONE	NONE	NONE
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
		_ Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Sep 1/23 0ct2/23	Nov10/23 Dec4/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
ö ö	Nov	Ouoi	scalar	*Visual	NORML	NORML	NORML	NORML
0°C		Emulsified Water	scalar	*Visual	>0.1	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	15.4	13.2	13.3	12.9
		GRAPHS						
		Ferrous Alloys						
Sep1/23)/23	60 - iron						
Sep1 Oct2	Nov10/23	50 - nickel	\mathbf{A}					
		_ 40	$\langle \rangle$					
		E 30						
		20-						
		10		\searrow				
		0	The second s					
		un 15/23 Jul6/23 Sep 1/23	0ct2/23	Nov10/23	Dec4/23			
		5		No				
		Non-ferrous Metal	IS					
		16 - copper						
		14 - tin						
		12-		1				
		≜ ¹⁰	$\langle \rangle$					
		6-	\sim					
		2	7					
			Contraction of the local division of the loc	C.	27			
		un15/23 Jul6/23 Sep1/23	0ct2/23	Nov10/23	Dec4/23			
		⇒ Viscosity @ 100°C		2				
		¹⁹			10.	Base Number		
		18 - Abnormal						
		17-			(B/HC			\sim
		C2-16 Base C115 S3 14			Base Number (mg KOH/g)			
		0_15- ¹⁵ ¹⁴		1	Jaquan 4.			
		12			- Nu -			
		13 Abnormal			<u></u> 2.	0 -		
		11						
		Jun 15/23 Jul6/23 Sep 1/23	0ct2/23	Nov10/23	Dec4/23	Jun 15/23 Jul6/23	Sep 1/23 0ct2/23	Nov10/23 Dec4/23
		ар су со	0	No		Ju	8	ON NO
d	Laboratory	: WearCheck USA - 5	501 Madis	son Ave., Ca	ry, NC 2751	3 GFL Envi	ronmental - 010) - Stockbridge
ANAB	Sample No.		Received		Dec 2023			Creek Parkway
A C C R E D I T E D	Lab Number Unique Number		Diagnose Diagnost		Dec 2023 s Davis		Si	ockbridge, GA US 30281
Certificate L2367	Test Package		Liagnost		5 0 4 1 5		Contact: JOS	SHUA TINKER
To discuss this	s sample report,	contact Customer Serv						er@gflenv.com
		are outside of the ISO 1 cifications are based on ti				(ICGM 106.2012)		T: F:
Statements of C		onications are based off li	ne simple	aucepiance		000ivi 100.2012)		Г.

Submitted By: JOSHUA TINKER

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