

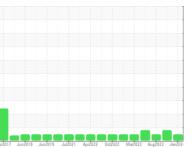
Machine Ic 201043 Component **Diesel Engine**

Wear

oil

OIL ANALYSIS REPORT

Sample Rating Trend





NORMAL

PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL) DIAGNOSIS SAMPLE INFORMATION method GFL0091617 GFL0099610 GFL0084330 Sample Number **Client Info** Recommendation Resample at the next service interval to monitor. Sample Date Client Info 30 Jan 2024 20 Sep 2023 15 Aug 2023 10036 8985 Machine Age hrs **Client Info** 9546 All component wear rates are normal. Oil Age hrs Client Info 550 0 227 Oil Changed Client Info Changed Changed Changed Contamination NORMAL Sample Status MARGINAL NORMAL There is no indication of any contamination in the CONTAMINATION Fluid Condition Fuel WC Method >5 **2**.7 <1.0 <1.0 The BN result indicates that there is suitable Water WC Method >0.2 NEG NEG NEG alkalinity remaining in the oil. The condition of the oil is suitable for further service. Glycol WC Method NEG NEG NEG WEAR METALS 6 7 Iron >100 17 ppm ASTM D5185(m) Chromium ASTM D5185(m) >20 0 ppm <1 <1 0 0 Nickel 0 ppm ASTM D5185(m) >4 Titanium ppm ASTM D5185(m) 0 0 0 Silver ASTM D5185(m) >3 0 0 <1 ppm Aluminum >20 5 1 2 ppm ASTM D5185(m) 6 Lead ASTM D5185(m) >40 2 2 ppm >330 Copper ppm ASTM D5185(m) <1 <1 <1 0 Tin ppm ASTM D5185(m) >15 <1 <1 Antimony ppm ASTM D5185(m) 0 0 0 0 0 Vanadium ASTM D5185(m) 0 ppm 0 0 0 Bervllium ppm ASTM D5185(m) 0 0 Cadmium ASTM D5185(m) 0 ppm ADDITIVES 2 2 2 Boron ASTM D5185(m) 1 ppm 0 Barium ASTM D5185(m) 0 ppm 1 <1 Molybdenum ASTM D5185(m) 60 57 57 57 ppm 0 Manganese ppm ASTM D5185(m) 1 0 <1 Magnesium ppm ASTM D5185(m) 1010 927 923 959 Calcium ppm ASTM D5185(m) 1070 1117 1093 1028 Phosphorus ASTM D5185(m) 1150 998 998 1049 ppm Zinc ppm ASTM D5185(m) 1270 1174 1170 1167 Sulfur ASTM D5185(m) 2060 2627 2539 2522 ppm Lithium ppm ASTM D5185(m) <1 <1 <1 CONTAMINANTS 12 6 3 Silicon ppm ASTM D5185(m) >25 Sodium ppm ASTM D5185(m) 2 2 1 Potassium ASTM D5185(m) >20 4 0 2 ppm **INFRA-RED** Soot % % ASTM D7844* >3 1.5 0.7 0.8 Abs/cm 13.3 9.6 8.7 Nitration ASTM D7624* >20

ASTM D7415*

>30

24.6

Abs/.1mm

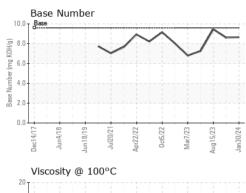
Sulfation

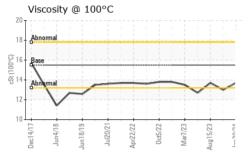
22.6

20.9



OIL ANALYSIS REPORT





FLUID DEGRAD	OATION	method	limit/base	current	history	1 history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.7	19.0	18.0
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	8.65	8.60	9.45
VISUAL		method	limit/base	current	history	1 history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPE		method	limit/base	current	history	
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	13.7	13.0	13.7
GRAPHS Iron (ppm) Lead (ppm)						
²⁵⁰			100			
200 - Severe			80	Severe		
150 - Abnormal			60 8			
100 -			40			
50		~~~	20			$\sim \sim \sim$
Dec14/17	Apr22/22	Uct5/22 Mar7/23 - Aug15/23 -	Jan 30/24	Dec14/17	Jul20/21	0ct5/22 + Mar7/23 + Aug15/23 + Jan30/24 +
	Apr	Ma Aug	Jan			00 Mi Aug Jan
Aluminum (ppm)			50	Chromium (opm)	
40 - Severe			40	Severe		
30 Abnormal			30 ਛ	1.1.1.1.1.1.1		
20 - a			20			
	~		10			
Dec14/17	Apr22/22	Uct5/22 - Mar7/23 - Aug15/23 -	Jan 30/24	Dec14/17	Jul20/21	0ct5/22 - Mar7/23 - Mar7/23 - Jan30/24 - Jan30/24 -
	Apri	Ma	Jan			00 Ma Aug
Copper (ppm)			80	Silicon (ppm)	
Abiroimal 300 -			60			
<u>특</u> 200 -			<u>ل</u> 40			
100-			20	Abnormal		
						~~~
Dec14/17	Apr22/22	Uct5/22 Mar7/23 Aug15/23	Jan 30/24	Dec14/17	Jul20/21 -	0ct5/22 + Mar7/23 + Aug15/23 + Jan30/24 +
	Aprá	Ma Ma	Jan	-	~	Oc Augʻ
Viscosity @ 100°C				Base Numbe	r	
18 Abnormal			(B/Ho		$\checkmark$	$\sim$
0.016 Base 3 14 Abrormal			0,4 8.0 Bill Hold KoHking Base Number 4.0 Base 2.0			
रहें 14 Abrormal		$\sim$	4.0			
12						
Dec1 4/17	Apr22/22	Uct5/22 + Mar7/23 + Aug15/23 +	Jan 30/24	Dec14/17	Jul20/21 -	0ct5/22
Jur Jun1	Aprá	Uc Ma Aug1	Jan	Jun Jun1	Juľ. Apr2	0c Ma Aug1 Jan3
: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County						
: GFL0099610 : 02614196	Recei Teste		8 Feb 2024 9 Feb 2024		Rod	220 Carmek Blvd ky View County, AB
: 5723291	Diagr		Feb 2024 - Kev	in Marson		CA T1X 1X1
: MOB 2 Contact: GFL Calgary						

Test Package : MOB 2 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

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.

CALA

ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number

**Unique Number** 

Submitted By: GFL Calgary Page 2 of 2

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