



# OIL REPORT

LAB NUMBER: J15805

UNIT ID: 93 HDJ81

REPORT DATE: 3/10/2017

CLIENT ID: 88096

CODE: 20/685

PAYMENT: CC: Visa

<b>UNIT</b>	MAKE/MODEL: Toyota 4.2L Turbo 6cyl (1HD-T)	OIL TYPE & GRADE: Shell Rotella T6 5W/40
	FUEL TYPE: Diesel	OIL USE INTERVAL: 11,931 KM
	ADDITIONAL INFO:	

<b>CLIENT</b>	WINNIPEG, MB R2Y 0Y8 CANADA	PHONE:
		FAX:
		ALT PHONE:
		EMAIL:

**COMMENTS** IAN: Thanks for the notes. You said you went longer than you wanted to on this oil, and it doesn't look like the engine was upset about that. Wear metals are in good shape next to universal averages, so 11,931 km wasn't too much. Iron is the metal that accumulates with oil use and while the wear rate (ppm/km) is a little higher than last time, it's still better than the universal average wear rate, so steel parts are fine. The low flashpoint shows 0.5% fuel, which is harmless. The TBN was plenty strong at 8.8, so up to 15K km next would be okay, if you'd like. Excellent!

	MI/HR on Oil	11,931	UNIT / LOCATION AVERAGES	10,000	UNIVERSAL AVERAGES
	MI/HR on Unit	120,931		100,000	
	Sample Date	2/16/2017		9/18/2015	
	Make Up Oil Added	0.5 qts			
<b>ELEMENTS IN PARTS PER MILLION</b>	ALUMINUM	4	4	3	4
	CHROMIUM	1	1	1	2
	IRON	32	29	24	22
	COPPER	2	2	3	4
	LEAD	2	2	2	8
	TIN	4	3	0	1
	MOLYBDENUM	74	70	61	18
	NICKEL	1	1	0	0
	MANGANESE	0	0	0	0
	SILVER	0	0	0	0
	TITANIUM	0	0	0	0
	POTASSIUM	0	1	2	3
	BORON	40	36	27	29
	SILICON	10	13	19	12
	SODIUM	4	4	3	5
	CALCIUM	974	939	870	2435
	MAGNESIUM	1346	1282	1155	353
PHOSPHORUS	1163	1126	1051	1055	
ZINC	1413	1370	1284	1240	
BARIUM	0	0	0	0	

Values Should Be\*

<b>PROPERTIES</b>	SUS Viscosity @ 210°F	77.5	66-78	77.6
	cSt Viscosity @ 100°C	14.90	11.9-15.3	14.91
Flashpoint in °F	405	>410	425	
Fuel %	0.5	<2.0	<0.5	
Antifreeze %	0.0	0.0	0.0	
Water %	0.0	0.0	0.0	
Insolubles %	0.3	<0.6	0.3	
TBN	8.8	>1.0	7.4	
TAN				
ISO Code				

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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