POLARIS Laboratories

Lubricant Analysis Report

North America: +1-877-808-3750

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information		Component Information		Sample Information	
Account Number:	ONLINE-2349-0000	Component ID:	2000 LAND ROVER ENGINE	Tracking Number:	13094R00556
Company Name:		Secondary ID:		Lab Number:	A-479380
Contact:		Component Type:	DIESEL ENGINE	Lab Location:	Atlanta
Address:		Manufacturer:	LANDROVER	Data Analyst:	JDT
		Model:	FLAT TAPPET	Sampled:	03-Oct-2014
Phone Number:		Application:	UNKNOWN	Received:	07-Oct-2014
		Sump Capacity:	0 qt	Completed:	14-Oct-2014

Filter Information		Miscellaneous Information	Product Information	
Filter Type:	Missing Information		Product Manufacturer:	PEAK
Micron Rating:	0		Product Name:	
			Viscosity Grade:	SAE 15W40

Comments	Suggest Inspecting this unit for SEVERE PISTON wear; LUBRICANT and FILTER CHANGE is suggested if not done at sampling time. Piston metal is at a SEVERE LEVEL; Cylinder region metals (pistons, rings, liners etc.) are at a SIGNIFICANT LEVEL; LEAD is at a MODERATE LEVEL and may be OVERLAY METAL from MAIN/ROD BEARINGS; Abrasives (silicon/dirt) are at a MODERATE LEVEL; Sodium is at a MINOR LEVEL; Sodium sources: coolant (antifreeze), lube additive or supplement, and/or environmental contaminant; Please provide missing FLUID PRODUCT NAME to compare data to the correct standards.

	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorous	Zinc
1	203	7	3	180	18	29	25	0	0	0	48	99	11	0	37	0	1	0	13	620	1655	0	957	1259

	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time mi	Unit Time mi	Lube Change	Lube Added qt	Filter Change	Fuel Dilution % Vol	Soot % Vol	Water % Vol	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH/g	Base Number mg KOH/g	Oxidation abs/cm	Nitration abs/0.1 mm
1	03-Oct-2014	07-Oct-2014	5000	184000	No	0	No	<1 - Estimate	<.1	<.1 - FTIR		14.9				

	Particle Count (particles/mL)										Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	Test Method	
1	//										

Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Missing fluid or component information limits the evaluation. No warranty is expressed or implied.

Historical Comments