

H02-142
SEP

#550

AIR COMP.

FLUID ANALYSIS

UIN 0BC9132

Diesel Engine

Unit No. 480923UEABE10

Unit:
Make Doosan
Model HP1600
Serial No. 480923UEABE10

Site

Compartment:

Name Diesel Engine
Make
Model
Serial No.
Capacity: 0.0 Ltrs

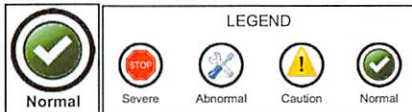
Customer:

BROTHERS HDD
2002 23Ave
Wainwright AB T9W0B8
Canada

DIAGNOSIS

Hours on component not given. No abnormal wear detected. No recommended action at this time. Resample at normal intervals.

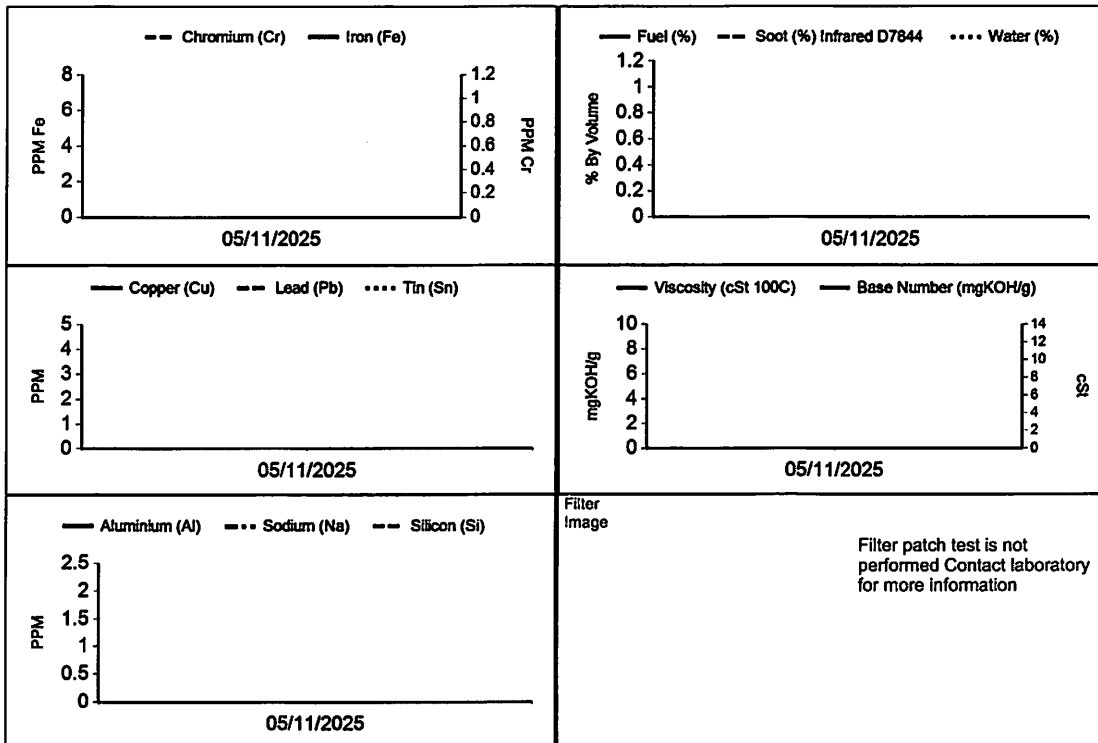
ANALYST: raphaella.nogueira



DATE SAMPLED	05-Nov-25
DATE RECEIVED	12-Nov-25
DATE REPORTED	13-Nov-25
LAB NO.	40210743281
SIF NO.	JDP010168015
TIME ON UNIT	17340
TIME ON OIL	560
OIL BRAND	Unidentified
OIL TYPE	Unidentified
OIL GRADE	SAE 15W40
OIL ADDED	0.0
FILTER	Not Applicable
OIL CHANGED	Not Changed
WO NUMBER	Unit # 550
Metals (ppm)	
Iron (Fe)	7
Chromium (Cr)	<1
Lead (Pb)	3
Copper (Cu)	5
Tin (Sn)	<1
Aluminium (Al)	<1
Nickel (Ni)	<1
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1
Contaminants (ppm)	
Silicon (Si)	2
Sodium (Na)	2
Potassium (K)	<1
Water (%)	<0.05
Coolant	No
Fuel (%)	<1
Soot (%) Infrared D7844	0.1
Additives (ppm)	
Magnesium (Mg)	1260
Calcium (Ca)	1262
Barium (Ba)	<1
Phosphorus (P)	926
Zinc (Zn)	1403
Molybdenum (Mo)	63
Boron (B)	<5
Physical Tests	
Viscosity (cSt 100C)	13.9
Physical / Chemical	
Base number (mgKOH/g)	9.0
Oxidation (Abs/0.1mm)	13
E2412/D7414	
Nitration (Abs/0.1mm) E2412	5
Sulphation (Abs/0.1mm)	18
E2412/D7415	



FLUID ANALYSIS



Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.

Brothers HDD
Attn: R Jerome
2002 23Ave
Wainwright AB T9W0B8
Canada

0003 v1.5

UIN 0BC9132

U.S. Laboratories

Atlanta, Georgia - 420
5300 Oakbrook Parkway
Building 200 Suite 245
Norcross, GA 30093
800.394.3669

Valley View, Ohio - 410
6180 Halo Dr. Suite D
Valley View, OH 44125
800.725.5400

Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.6055

Phoenix, Arizona - 440
3319 West Earl Drive
Phoenix, AZ 85017
800.445.7930

Portland, Oregon - 401

4943 NW Front Avenue
Portland, OR 97210
800.770.4128

Canadian Laboratories

Burlington, Ontario - 450
5036 South Service Rd.
Burlington, ON L7L5Y7
905.332.9559

Edmonton, Alberta - 402
9450 17 Ave NW
Edmonton, AB T6N 1M9
+1 (780) 483-1036

Sales & Marketing

Houston, Texas
10450 Standif Road, Suite 210
Houston, TX 77099
877.835.8437

International Locations

Australia
Brisbane, Perth, Sydney, Muswellbrook

South America
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TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setafish	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method