



UIN 05203F7

Gasoline Engine

Unit No. N220

Unit:

Make Cirrus
Model SR 22
Serial No. 0177

Site

Compartment:

Name Gasoline Engine
Make TCM
Model IO550
Serial No. 686187
Capacity: 8.0 qt

Customer:

AUGUSTA AVAITION
 1775 Highland Ave
 Augusta GA 30904
 USA

DIAGNOSIS

Engine wear levels appear satisfactory for first sample. Silicon level (dirt/sealant material) slightly elevated. Other contaminant levels acceptable. Viscosity within specified operating range.

Action: Advise check sampling procedure for possible source of contamination. Change the oil due to dirt contamination. Resample next service interval to monitor and establish wear trend.

ANALYST: Jon.Sowers

LEGEND				
Caution	Severe	Abnormal	Caution	Normal

DATE SAMPLED	24-May-16
DATE RECEIVED	25-May-16
DATE REPORTED	26-May-16

LAB NO.		42020834679
SIF NO.		30255420
TIME ON UNIT	Hrs	1707
TIME ON OIL	Hrs	27
OIL BRAND		Shell
OIL TYPE		Aeroshell W
OIL GRADE		SAE 15W50
OIL ADDED	qt	
FILTER	Hrs	27
OIL CHANGED		Not Changed
WO NUMBER		

Metals (ppm)

Iron (Fe)	27
Chromium (Cr)	4
Lead (Pb)	4860
Copper (Cu)	5
Tin (Sn)	<1
Aluminium (Al)	1
Nickel (Ni)	7
Silver (Ag)	<1
Titanium (Ti)	<1
Vanadium (V)	<1

Contaminants (ppm)

Silicon (Si)	22
Sodium (Na)	4
Potassium (K)	<1

Additives (ppm)

Magnesium (Mg)	<1
Calcium (Ca)	2
Barium (Ba)	<1
Phosphorus (P)	925
Zinc (Zn)	3
Molybdenum (Mo)	2
Boron (B)	<5

Contaminants

Water (%)	<0.05
Coolant	Yes

Physical Tests

Viscosity (cSt 100C)	13.9
PQ Index	11



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U.S. Laboratories

- | | |
|--|---|
| Atlanta, Georgia - 420
3121 Presidential Drive
Atlanta, GA 30340
800.394.3669 | Valley View, Ohio - 410
6180 Halle Dr. Suite D
Valley View, OH 44125
800.726.5400 |
| Kansas City, Kansas - 430
935 Sunshine Road
Kansas City, KS 66115
800.332.8055 | 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 | Sparks, Nevada - 400
1375 Greg Street, Suite 104
Sparks, NV 89431
800.524.7848 |

Canadian Laboratories

- Burlington, Ontario - 450**
1240 Burloak Drive, Unit 6
Burlington, ON L7L 6B3
877.732.9559
- Edmonton, Alberta - 402**
10717-176 Street
Edmonton, AB T5S 1K1
888.489.0057

Sales & Marketing

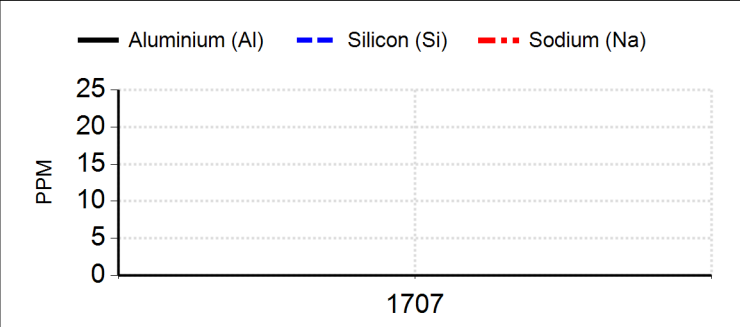
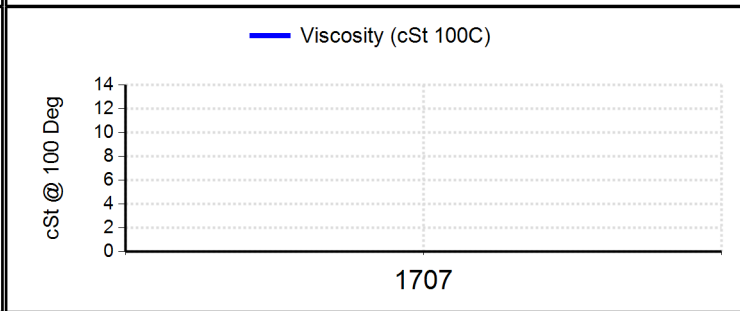
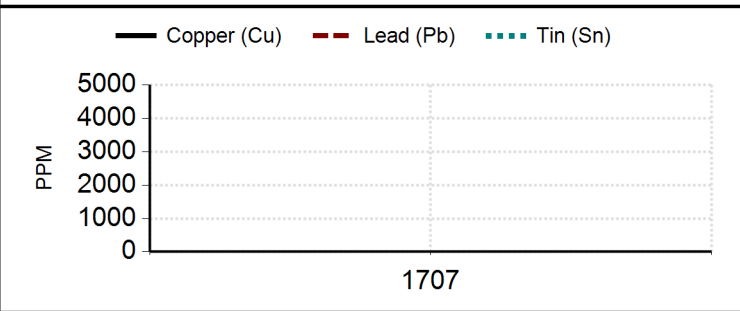
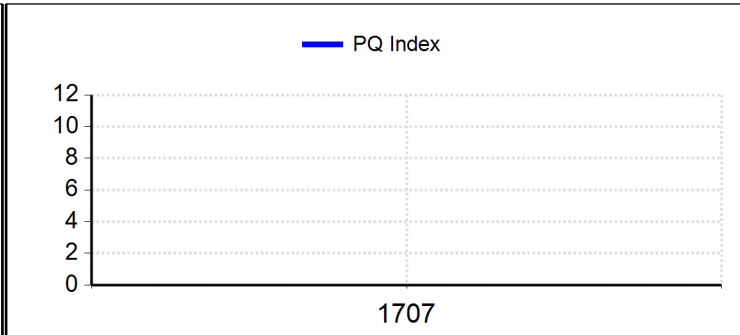
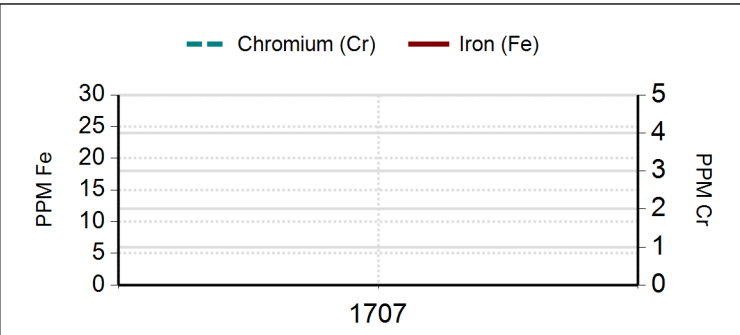
Houston, Texas
10450 Stancliff Road, Suite 210
Houston, TX 77099
877.835.8437

International Locations

- | | | |
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| Australia
Brisbane, Perth, Sydney, Muswellbrook | South America
Santiago de Chile | |
| New Zealand
Wellington | Southeast Asia
Kuala Lumpur, Singapore | Europe
Prague |

TEST METHODS:

Acid Number:	ASTM D974/D664
Base Number:	ASTM D4739
Base Number (Perchloric):	ASTM D2896
Fuel Dilution by GC:	ASTM D3524/D7593
Fuel Dilution Visc/Setaflash	ASTM D445/D7279/D3828
Fuel Soot ATR/IR:	ASTM D7686
Glycol:	ASTM D2982
Metals by ICP AES:	ASTM D5185
Ox, NOx, SOx, FTIR:	ASTM D7418/D7414/D7415 D7624
Particle Count:	ASTM D7647 / ISO 11500, 4406
Viscosity:	ASTM D445 / D7279
Water KF:	ASTM E203 Mod / D6304C
Water Crackle:	In House



Filter Image

Filter patch test is not performed Contact laboratory for more information

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.

Augusta Avation
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