

3319 W. Earll Drive, Phoenix, Arizona 85017
 Phone: 800-445-7930 Fax: 602-252-4639
<http://webtrieve.alstribology.com> ****email: aoa@alstribology.com

Customer Name: SIERRA AERO	Tail Number: N1937Y	Comp Serial No: RL-16512-51E
Address: 10356 Truckee Rd Truckee CA 96161 USA	Aircraft Make: Mooney	Comp Name: Single Engine
Phone: 5303598751	Aircraft Model: M20E	Comp Make: Lycoming
Fax: 5303598752	Serial No:	Comp Model: IO-360A1A
	UIN: 02741EF	

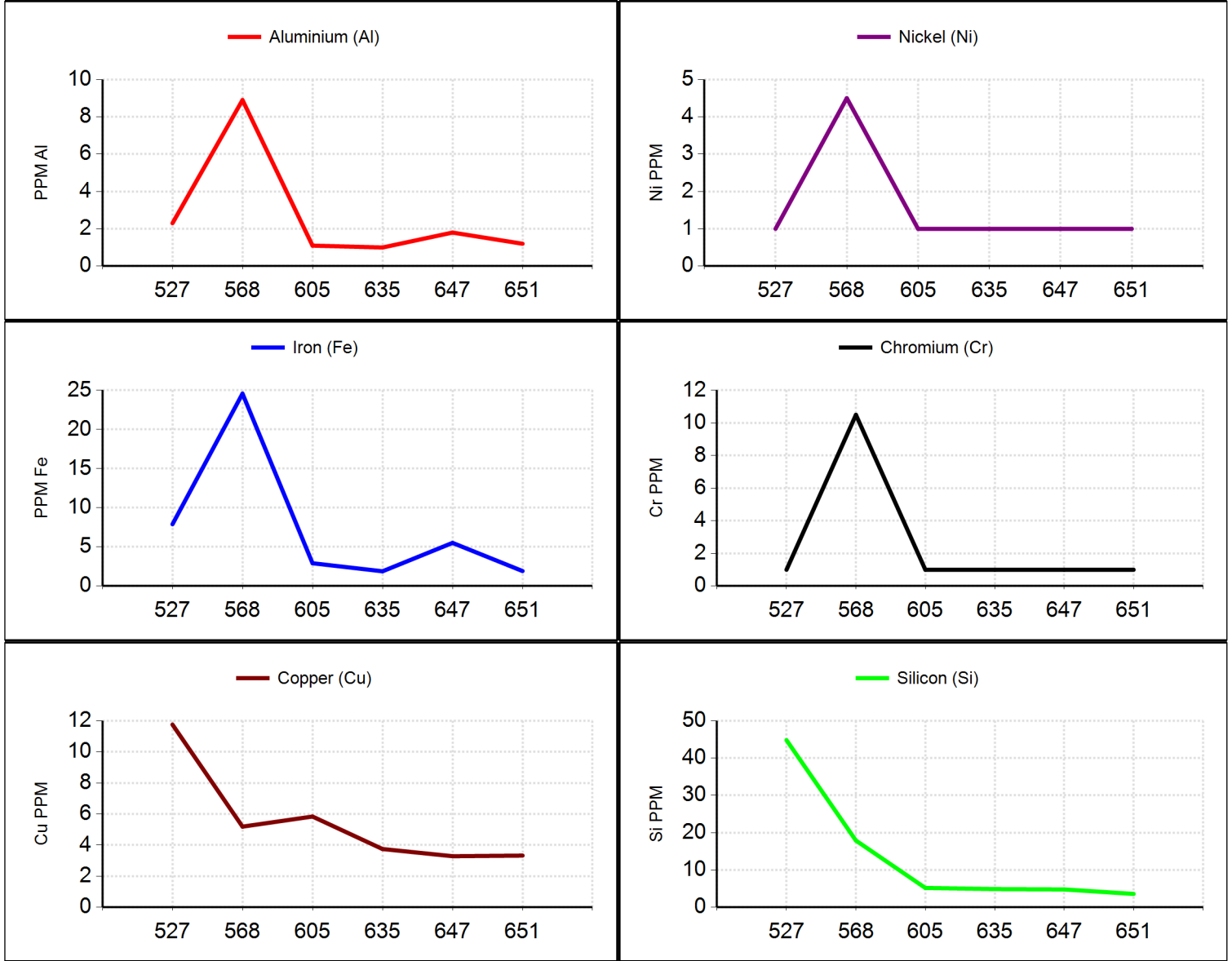
Sample No.	44150245417	44150220050	44150192238	44150169369	44150144388	44150119645
Date Sampled	10-Nov-20	28-Oct-19	10-Sep-18	25-Sep-17	06-Sep-16	13-Aug-15
Date Tested	23-Nov-20	04-Nov-19	21-Sep-18	04-Oct-17	16-Sep-16	19-Aug-15
Oil Brand	Shell	Shell	Shell	Shell	Shell	Shell
Oil Type	Aeroshell W	Aeroshell W	Aeroshell W	Aeroshell W	Aeroshell W	Aeroshell W
Oil Grade	SAE 15W50	SAE 15W50	SAE 15W50	SAE 15W50	SAE 15W50	SAE 15W50
Oil Hrs	4	11	7	15	41	4
Oil Added						
Hrs Since New						
Rebuild Hrs	651	647	635	605	568	527
Metals (ppm)						
Aluminium (Al)	1	2	<1	1	9	2
Iron (Fe)	1.92	5.52	1.89	2.92	24.58	7.90
Copper (Cu)	3.33	3.29	3.75	5.84	5.19	11.75
Nickel (Ni)	<1	<1	<1	<1	5	<1
Chromium (Cr)	<1	<1	<1	<1	11	1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	5	5	5	18	45

LEGEND



Sample No.	Diagnosis/Recommendations
-------------------	----------------------------------

44150245417	All values appear normal.
44150220050	All values appear normal.
44150192238	All values appear normal.
44150169369	All values appear normal.
44150144388	All values appear normal.
44150119645	All values appear normal.



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 Laboratory group 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.

Sierra Aero
 Attn: Sierra Aero
 10356 Truckee Rd
 Truckee CA 96161
 USA

TEST METHODS:

Acid Number:	ASTM D974/D664
ICP:	ASTM D5185
Viscosity:	ASTM D445 / D7279
Water by Crackle:	ASTM E203 Mod / In House