

Product: **Military Jet A-1**

Sample Location: Tank J
Laboratory ID: 061419-7860
Report Date: 6/14/19
Tank Transfer:

Contract Number:
Crude Processing Technique:
Crude Oil Source:

SPE602-18-D-0503 Pipeline
SPE602-18-D-0501 Truck
Atmospheric
ANSC

ANALYSIS	RESULT	UNIT	SPECIFICATION ¹ (°F)	METHOD	CODE
APPEARANCE					
Visual inspection @ 20°C	pass	pass/fail	Visually free of undissolved water, sediment and suspended matter.	D4176	030
COMPOSITION					
Acid Number	0.029	mg KOH/g	0.10 max	D3242	100C
Aromatics	20.6	vol%	26.5 max	D6379	110
Sulfur, Mercaptan	0.0008	mass%	0.003 max	D3227	130
Sulfur, Total	0.083	mass%	0.3 max	D4294	150F
VOLATILITY					
Distillation by Auto				D86	200A
Initial Boiling Point	143.9	°C	Report	D86	201
10% Recovered	164.0	°C	205 max (401)	D86	202
20% Recovered	173.3	°C	Report	D86	203
50% Recovered	201.5	°C	Report	D86	204
90% Recovered	254.7	°C	Report	D86	205
Final Boiling Point	272.6	°C	300 max (572)	D86	211
Distillation Residue	1.2	vol%	1.5 max	D86	213
Distillation Loss	1.3	vol%	1.5 max	D86	214
Flash Point (Corrected)	103	°F	100 min	D56	220A
Flash Point (Corrected)	39.5	°C	38 min	D56	220A
API Gravity @ 15.6 °C	42.5	°API	37 min to 51 max	D4052	231B
Density @ 15.6 °C	0.8124	kg/L	0.775 min to 0.840 max	D4052	230B
FLUIDITY					
Freezing Point	-48.4	°C	-47 max (-53)	D7153	300E
Viscosity @ -20 °C	4.180	cSt	8.0 max	D445	310A
COMBUSTION					
Net Heat of Combustion (Sulfur Corrected)	43.088	kJ/kg	42.8 min	D3338	400C
Naphthalenes	2.38	vol%	3.0 max	D1840	120
Smoke Point (Manual)	19.0	mm	18.0 min	D1322	420
CORROSION					
Copper Strip, 2 h @ 100 °C	1a	Classification	1 max	D130	500
THERMAL STABILITY					
JFTOT (2.5 hours at control temperature)					
Test Temperature	265	°C	260 min	D3241	600B
Filter Pressure Drop	0.0	mm Hg	25 max	D3241	601A
Tube Deposit Rating	<1	Rating	<3 max	D3241	602A
CONTAMINANTS					
Existent Gum	1	mg/100 ml	7 max	IP540	710A
MSEP-A (Neat)	98	Rating	85 min	D3948	751
MSEP-A (Stadis 450)	89	Rating	70 min	D3948	750
MSEP-A (FSII & 5403)	89	Rating	70 min	D3948	750-17
ADDITIVES					
FSII	0.10	vol%	0.07 min to 0.10 max	D5006	830A
Corrosion Inhibitor	16.8	mg/l	12.0 min to 23.0 max	QPL-25017	840
Conductivity	120	pS/m	50 min to 600 max	D2624	900
Conductivity Test Temperature	18.9	°C		D2624	901

¹ Product will comply with ASTM D1655

Remarks:

QAR approves the segregated batch as represented by these test results for DESC procurement.
All additives injected at point of shipment.



QAR DESC/Alaska

19 June 2019



PSI QC Representative

6-19-19