PAB Materials Test System

Date of Receipt	8/24/2009
Sample Name/Description	Vespel (lightweight plastic)
Sample	
Composition:	polyimide based plastic
Picture Location:	
Density:	1.43 g/cm3 (LAr 1.39g/cm3)
Weight:	281.3g
Dimensions/Area:	5.5cm x 10cm x 4cm
Source:	Terry Tope
Preparation:	cleaned with ethyl alcohol
Zero Test	x
Submerging in LAr or LH2	x
Time in the airlock(hrs)	app. 24hrs
Purge:	
Vacuum:	7/9/09 overnight
Vapor Test 1	
Start Time/Date, End Time/Date :	7/14/09 8:45am, 7/16/09 9:00am
PrM run # :	5482
Condenser state:	On
Filter state:	On
O2 reading:	0.001ppb
H2O reading:	6.69ppb
Temperature:	226K
Lifetime:	5.6ms before test, 4.3ms 7 hrs after, 6.2ms 23 hrs after
Vapor Test 2	x
Start Time/Date, End Time/Date :	
PrM run # :	
Condenser state:	
Filter state:	
O2 reading:	
H20 reading:	
Temperature:	
Lifetime:	
Liquid Test	
Start Time/Date, End Time/Date :	7/10/09 11:20am, 7/14/09 8:45am
PrM run # :	5429
Condenser state:	On
Filter state/settings:	On
O2 reading:	0.00ppm
H20 reading:	5.37ppb
Temperature:	94K
Lifetime:	4.8ms before test, 2.2ms after submerged in Lar, 4.9ms 36 hrs after
Liquid level :	18.09 inches
Results & Comments	Vespel can be used in low temperatures.
	Historical Data plot is in elog 7/10/2009

LUKE HISTORICAL DATA - H2O, O2, Pressure, LN2 and LAr Level

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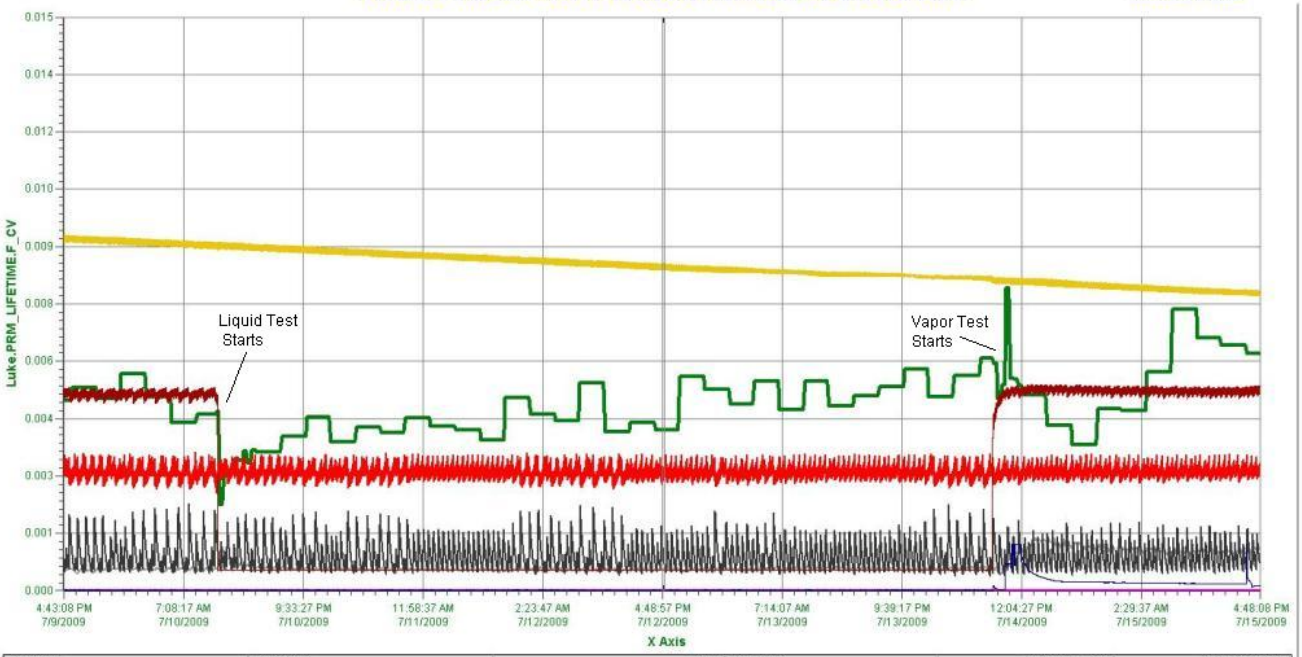

Pen Name	Description	Value	Eng Units	High Over Range	Low Over Range
Luke.PRM_LIFETIME.F_CV	Luke.PRM_LIFETIME.F_CV	0.0042	sec	0.0079	0.0022
Luke.PRM_IMPURITIES.F_CV	Luke.PRM_IMPURITIES.F_CV	0	imps	0	0
PAB_S1.AE_423_AR_REAL.F_CV	HALO H2O meter (F_CV)	3.69	ppb	9.01	2.68
PAB_S1.CRYOSTAT_PRESSURE_PSIG...	Luke Vapor Pressure	15.04	psig	18.11	12.51
PAB_S1.LT_10_N2.F_CV	Luke Condenser LN2 Level Probe (F_CV)	6.88	inches	15.05	2.35
PAB_S1.LT_13_AR_REAL.F_CV	Luke Argon Level Probe	16.76	inches	18.59	15.43
PAB_S1.AE_350_AR_REAL.F_CV	Nano Trace oxygen analyzer output (F_CV)	0.00	ppm	0.01	-0.00
PAB_S1.AE_311_AR_REAL.F_CV	Oxygen monitor connected to air lock purge	0	ppm	10	0
PAB_S1.TE_324_AR_REAL.F_CV	Luke material elevator RTD (F_CV)	95	K	231	94

2/19/2009 4:43:08 PM — 2/19/2009 4:48:08 PM