

**In Field Instrument Review
05/31/2020 to 07/18/2020
Performed by Colleen O'Bryant**

100346 (Eielson AFB) – 1/6 Subject Test Ambient Fail – No Action Taken

100355 (Homer PD) – 1/22 Subject Test RFI, 1/22 Subject Test Pump Error – Pump Error followed by successfully completed subject test – No Action Taken

100357 (Juneau PD) – 1/6 VOC Internal Standard Error, 5/6 VOC Diagnostic Fails (2 Internal standard errors and 4 detector overflows)– Instrument removed from service on 06/08/2020 (100357 2020.06.08 Change In Status)

100359 (AST/Bethel) – 1/3 VOC Internal Standard Error – Instrument removed from service on 08/05/2020 (100359 2020.08.05 Change In Status)

100361 (Anchorage PD) – 1/146 Subject Test RFI, 2/146 Subject Test Tank Interference, 3/146 Subject Test Blank Error, 1/146 Subject Test Ambient Fail, 3/146 Subject Test Ambient Fail, 3/146 Subject Test Internal Standard Error, 1/146 Subject Test Filter 1 Won't Zero – Instrument removed from service on 07/16/2020 (100361 2020.07.16 Change In Status)

100362 (AST/Kodiak) – 1/4 Subject Test RFI – No Action Taken

100363 (AST/Anchor Point) – 1/1 VOC Diagnostic Failed (Filter Wheel Error) – Failed VOC occurred on 07/18/2020, Successful VOC completed on 07/28/2020. Recommend Monitoring Instrument

100364 (Kodiak PD) – 1/15 Subject Test Pump Error - Pump Error followed by successfully completed subject test – No Action Taken

100367 (Seward PD) – 7/26 Subject Test RFI – Spoke with SPD and confirmed the occurrences are likely operator rather than environmental/analytical. SPD will offer guidance to their operators. Experienced one blank error during previous In Field Instrument Review – Instrument was being monitored. Blank error status messages did not occur during this cycle – no further monitoring needed.

100375 (Denali NP) – 1/5 Subject Test RFI – No Action Taken

100378 (AST/Fairbanks) – 2/63 Subject Test RFI – No Action Taken

100379 (Wasilla PD) – 1/35 Subject Test RFI, 1/35 Subject Test Pump Error, 4/35 Subject Test Interference – Instrument removed from service on 08/10/2020 (100379 2020.08.10 Change In Status)

100380 (Anchorage PD) – 2/44 Subject Test Diagnostic Failed – Status messages occurred on the same subject following BT temperature too low. No other instances of failed diagnostics. – No Action Taken

100381 (AST/Soldotna) – 2/39 Subject Test RFI, 3/39 Subject Test Interference – No Action Taken.

100392 (Kotzebue PD) – 1/1 VOC Blank Error – Failed VOC occurred on 07/18/2020, successful VOC completed on 07/20/2020 – No Action Taken

100398 (AST/Galena) – 1/4 Subject Test Standard Out of Range – 4 subject tests conducted within 1 hour time frame, could have been environmental. Status message followed by a completed test – No Action Taken

100402 (Soldotna PD) – 3/10 Subject Test Interference, 1/1 VOC Blank Error – Subject Test Interference occurred on the same subject tested on multiple instruments, Failed VOC performed on 07/18/2020 followed by a successful VOC on 07/26/2020. – No Action Taken.

100406 (Juneau PD) – 1/30 Subject Test Pump Error, 1/30 Subject Test Blank Error, 1/30 Subject Test Internal Standard Error – Subject Test Blank Error and Subject Test Pump Error were followed by completed tests, Subject Test Internal Standard Error occurred on “Test/Test” (100406 2020.06.29 Change In Status) – No Action Taken

100414 (AST/Delta) – 1/1 VOC Gas Flow Error – Failed VOC occurred on 07/18/2020, successful VOC occurred 08/06/2020 – No other subject test data to observe – No Action Taken.

100421 (JBER) – 1/17 Subject Test Blank Error, 1/17 Subject Test Ambient Fail – Both tests were followed by successfully completed tests - No Action Taken

100667 (AST/Tok) – 2/5 VOC Diagnostic Failed – Failed VOCs occurred the same date the instrument was put in service due to Pump On Failure. Successful VOC performed and no other issues. – No Action Taken

100668 (Palmer PD) – 1/29 Subject Test RFI, 1/29 Subject Test Blank Error - Both tests were followed by successfully completed tests - No Action Taken

100675 (Bethel PD) – 2/10 Subject Test Standard Out of Range – Both errors occurred on the same subject test with an elevated alcohol level and were followed by a successful test – No Action Taken.

100678 (AST/Mat-Su West) – 1/16 Subject Test Tank Interference – Tank interference was followed by a successful test and status message wasn't duplicated during timeframe – No Action Taken.

100683 (AST/Glennallen) – 1/6 Subject Test Blank Error, 1/3 VOC Diagnostic Failed – Pump On followed by a successfully completed test, Failed VOC occurred on 06/26/2020, followed by a successful VOC on 06/26/2020 and 07/18/2020 – No Action Taken

100690 (Bristol Bay Borough PD) – 1/7 Subject Test Internal Standard Error, 4/5 VOC Blank Error – Recommend taking the instrument out of service.

100694 (Anchorage PD) – 1/147 Subject Test RFI, 1/147 Subject Test Pump Error, 1/147 Subject Test Tank Interference, 22/147 Subject Test Blank Error, 1/147 Subject Test Standard Out of Range, 5/147 Subject Test Internal Standard Error, 1/147 Subject Test Diagnostic Failed (Tank Pressure Too Low), 2/4 VOC Blank Error – Instrument was under monitoring – Subject Test Internal Standard Error occurred due to a stuck locking pin (100694 2020.07.28) – Recommended taking the instrument out of service

100697 (UAA) – 2/5 VOC Tank Interference and 1/5 VOC Blank Error – Status messages occurred on 06/05/2020 – reference 100697 2020.06.05 Change In Status. No status messages have occurred since. – No Action Taken.

Follow Ups from Previous In Field Instrument Review

100343 (Sitka PD): 1/12 Pump error, 7/12 Subject interference on subject tests – 3 different subjects and 2/5 Tank interference last cycle, Recommend monitoring

- No status messages for subject test or VOC data for this VOC cycle. No further monitoring needed.

100352 (Anchorage Airport): 4/22 Pump error on subject tests – Recommend monitoring

- No status messages for subject test or VOC data for this VOC cycle. No further monitoring needed.

100382 (University of Alaska – Fairbanks): 2/5 Tank interference on VOCs – Interferences occurred on the same day the instrument was shut down to attach to a different UPS unit – Recommend monitoring

- No status messages for subject test or VOC data for this VOC cycle. No further monitoring needed.

100395 (Fairbanks Airport): 1/4 Internal standard error on subject tests – Appears to be higher than other recent internal standard values - Recommend monitoring

- No status messages for subject test or VOC data for this VOC cycle. No further monitoring needed.

100416 (Fairbanks PD): 3/41 RFI, 3/41 Tank interference on subject tests – All within 5 hours with 2 subjects - Recommend monitoring

- No status messages for subject test or VOC data for this VOC cycle. No further monitoring needed.

100694 (Anchorage PD): 1/129 Subject interference, 6/129 Tank interference, 13/129 Blank error, 1/129 Ambient fail, 3/129 Internal standard error on subject tests – Recommended taking the instrument out of service. – See additional information above.

Agencies not included in this instrument review due to data not being supplied: Hoonah PD

Subject Test Data

Serial Number	Total Subject Tests	RFI		Pump Error		Interference		Tank Interference		Date Range		Total Messages		Total Tests		Ambient Fail		Internal Standard Error		Diagnostic Failed	
		5/31/2020	7/18/2020	Blank Error	Standard Out of Range	Gas Flow Error	5/31/2020	7/18/2020	5/31/2020	7/18/2020	5/31/2020	7/18/2020	5/31/2020	7/18/2020	5/31/2020	7/18/2020	5/31/2020	7/18/2020	5/31/2020	7/18/2020	5/31/2020
100346	6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	17%	0	0%	0	0%
100355	22	1	5%	1	5%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100361	146	1	1%	0	0%	0	0%	2	1%	3	2%	0	0%	0	0%	1	1%	3	2%	0	0%
100362	4	1	25%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100364	15	0	0%	1	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100367	26	7	27%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100375	5	1	20%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100378	63	2	3%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100379	35	1	3%	1	3%	4	11%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100380	44	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	5%
100381	39	2	5%	0	0%	3	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100398	4	0	0%	0	0%	0	0%	0	0%	0	0%	1	25%	0	0%	0	0%	0	0%	0	0%
100402	10	0	0%	0	0%	3	30%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100406	30	0	0%	1	3%	0	0%	0	0%	1	3%	0	0%	0	0%	0	0%	1	3%	0	0%
100421	17	0	0%	0	0%	0	0%	0	0%	1	6%	0	0%	0	0%	1	6%	0	0%	0	0%
100668	29	1	3%	0	0%	0	0%	0	0%	1	3%	0	0%	0	0%	0	0%	0	0%	0	0%
100675	10	0	0%	0	0%	0	0%	0	0%	0	0%	2	20%	0	0%	0	0%	0	0%	0	0%
100678	16	0	0%	0	0%	0	0%	1	6%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
100683	6	0	0%	0	0%	0	0%	0	0%	1	17%	0	0%	0	0%	0	0%	0	0%	0	0%
100690	7	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	14%	0	0%
100694	147	1	1%	1	1%	0	0%	1	1%	22	15%	1	1%	0	0%	0	0%	5	3%	1	1%
Total	919	18	2%	5	1%	10	1%	4	0%	29	3%	4	0%	0	0%	3	0%	10	1%	3	0%

Subject Test Data

Serial Number	Total Subject Tests	User Abort		Detector Overflow		Barometer Error		Filter Wheel Error		Date Range		Total Tests		Total Messages		Filter 1 Won't Zero		Samp Chamb Low		Breath Tube High		Static Analysis Error	
										5/31/2020	7/18/2020	Count	Percentage	Count	Percentage								
100361	146	0	0%	3	2%	0	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%	0	0%	0	0%
Total	919	0	0%	3	0%	0	0%	0	0%	0	0%	0	0%	1	0%	0	0%	0	0%	0	0%	0	0%

VOC Data

Serial Number	Total VOC Tests	RFI		Pump Error		Interference		Tank Interference		Date Range		Total Tests		Total Messages		Ambient Fail		Internal Standard Error		Diagnostic Failed	
										6/2/2020	7/18/2020	118	23	19.5%							
										Blank Error	Standard Out of Range	Gas Flow Error									
100357	6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	17%	5	83%
100359	3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	33%	0	0%
100363	1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%
100392	1	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%
100402	1	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%
100414	1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%
100667	5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	40%
100683	3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	33%
100690	5	0	0%	0	0%	0	0%	0	0%	4	80%	0	0%	0	0%	0	0%	0	0%	0	0%
100694	4	0	0%	0	0%	0	0%	0	0%	2	50%	0	0%	0	0%	0	0%	0	0%	0	0%
100697	5	0	0%	0	0%	0	0%	0	0%	2	40%	1	20%	0	0%	0	0%	0	0%	0	0%
Total	118	0	0%	0	0%	0	0%	2	2%	9	8%	0	0%	1	1%	0	0%	2	2%	9	8%

