9/19/2022 Monday

Activity: Spill Response SVM
Team: DA, KO, EB
Location: RHB FSF
Weather: Sunny light winds
PPE: Level D
Ref: EZ WP/HSP, EM-385-1-1 /Navy PPM

0955 - EZ arrive on site, HS briefing
1000 Cal. PPB RAE
1005 Enter ADIT 6
1010 Arrive @ cart
1017 Arrive @ SVMP 2
1035 Arrive @ SVMP 3
1048 Arrive @ SVMP 4
1100 Arrive @ SVMP 5
1113 Arrive @ SVMP 6
1122 Arrive @ SVMP 7
1136 Arrive @ SVMP 8
1151 Arrive @ SVMP 9
1203 Arrive @ SVMP 10 CAL CHK @ 1214
1218 Arrive @ SVMP 11
1227 ARRIVE @ SVMP 12
1239 ARRIVE @ SVMP 13
1250 ARRIVE @ SVMP 14
1302 ARRIVE @ SVMP 15
1312 ARRIVE @ SVMP 16

1325 ARRIVE @ SVMP 17
1337 ARRIVE @ SVMP 18
1346 ARRIVE @ SVMP 20
1400 CAL CHECK @ TANK 20
1402 ARRIVE @ CART PARK
1409 EXIT ADIT 6

Rite in the Rain

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Project Title: Long-Term Monitoring, Red Hill Bulk Fuel Storage Facility (RHBFSF)
E2 Job No.: 180025

DAILY INSTRUMENT CALIBRATION LOG

Date: 09/19/22 **E2 Team:** DA KO EB

Instrument Type, Model/Serial No.: PID, ppbRAE 3000 (PGM-7340) / 594-906662

INITIAL CALIBRATION: ** All calibration is conducted with moisture filter attached.*

Zero Calibration			Notes
Zeroing Tube *(Make/P /N /Batch No.)* or **Zeroing Gas** *(Manufacturer/Lot No./Exp.)*	**Calibration Reading (ppbv)**	**Pass?** *(Y/N)*	OUTSIDE APIT @ 10:00 AM
GASCO 304-402382045-1 EXP 3/11/2026	2 ppb	Y	
Span Calibration			
Calibration Gas – 10 ppm, Isobutylene *(Manufacturer/Lot No./Exp.)*	**Calibration Reading (ppbv)**	**Pass?** *(Y/N)*	
GASCO 304-402350572-1 EXP 03/11/2026	9995 ppb	Y	
Calibration Pass Criteria*: (1) Zero calibration = ± 100 ppb, (2) Span Calibration= ± 3% (300 ppb)			

Temperature (°F) *(measured from PID):* 88°F

Background Reading (ppbv) *(moisture filter attached):* 0 ppb

CALIBRATION CHECK: **Calibration checks are conducted with moisture filter on. At minimum, one check at midpoint and one check at the end of monitoring. Additional checks conducted, as needed, to verify initial consecutive zero readings or suspected drift in PID readings.*

Time	Calibration Gas – *Concentration as indicated on initial span calibration (specify if other)*			Notes *(e.g., Location)*
	Manufacturer/Lot No./Exp.	**Calibration Reading (ppbv)**	**Pass?** *(Y/N)*	
1214	GASCO 304-402350572-1 EXP 03/11/2026	9661	Y	@ TANK 10
1400	GASCO 304-402350572-1 EXP 03/11/2026	9740	Y	@ TANK 20
Calibration Check Pass Criteria*: Span Calibration Gas= ± 10% (1,000 ppb)				

Date: 9/19/22

**Note: If any parameter fails to meet the acceptable range, perform maintenance as needed and re-calibrate PID.*

Soil Vapor Monitoring Log

Contract No.: N62742-17-D-1802 CTO N6274221F0148 Date: 9/19/22
E2 Job No.: 210045
Project Title: Long-Term Monitoring, Red Hill Bulk Fuel Storage Facility (RHBFSF) Location: RHBFSF, JBPHH, Hawaii
Personnel: DA, KO, EB
Instrument Model: ppbRAE 3000 (PGM-7340) Serial No.: 594-906662
Calibration: per SOP (see Instrument Calibration Log)

SVMP No. (Material)	Purge Start Time	Sample Start Time	PID Reading[2] 1	2	3	Reading Time	Background PID Reading	Notes
SV02 $S_{(C)}$	1020	1022	0	0	0	1024	190	
SV02 $M_{(C)}$	1024	1026	0	0	0	1028		
SV02 $D_{(C)}$	1028	1030	0	0	0	1031		
SV03 $S_{(S)}$	1036	1037	0	0	0	1039	78	
SV03 $M_{(S)}$	1039	1040	0	0	0	1043		
SV03 $D_{(S)}$	1043	1044	0	0	0	1047		
SV04 $S_{(S)}$	1049	1050	0	0	0	1051	84	
SV04 $M_{(S)}$	1051	1052	0	0	0	1055		
SV04 $D_{(S)}$	1055	1056	0	0	0	1058		
SV05 $S_{(S)}$	1100	1101	0	0	0	1104	8	
SV05 $M_{(S)}$	1104	1105	52	53	61	1107		
SV05 $D_{(S)}$	1107	1108	0	0	0	1111		
SV06 $S_{(C)}$	1113	1115	3412	4396	5463	1116	11	
SV06 $M_{(C)}$	1116	1118	122	119	118	1120		
SV07 $S_{(S)}$	1122	1123	0	0	0	1126	78	
SV07 $M_{(S)}$	1126	1127	0	0	0	1131		
SV07 $D_{(S)}$	1131	1132	326	335	348	1135		
SV08 $S_{(S)}$	1136	1137	0	0	0	1139	60	
SV08 $M_{(S)}$	1139	1140	0	0	0	1144		
SV08 $D_{(S)}$	1144	1145	0	0	0	1149		
SV09 $S_{(S)}$	1151	1152	0	0	0	1155	91	
SV09 $M_{(S)}$	1155	1156	0	0	0	1158		
SV09 $D_{(S)}$	1158	1159	39	28	26	1202		
SV10 $S_{(C)}$	1204	1206	23	17	18	1207	102	
SV10 $M/D_{(C)}$	1207	1209	25	11	3	1211		

1. S - Shallow/Front (Yellow); M - Middle (Blue); M/D - Middle to Deep (Blue & White); D - Deep/Back (White); MD - Marine diesel (F-76); C - Copper tubing (O.D. ~1/4-in.); S - Stainless Steel Tubing (O.D. ~3/16 in.)
2. Readings are measured in part per billion by volume (ppbv) unless otherwise noted. Threshold for summa cannister sampling for both jet fuels (JP-5, F-24) and marine diesel (F-76) is 50,000 ppbv.

Comments:

Soil Vapor Monitoring Log

Date: 9/19/22

SVMP No.	Purge Start Time	Sample Start Time	PID Reading[2] 1	2	3	Reading Time	Background PID Reading	Notes
SV11 $S_{(C)}$	1219	1221	23	20	15	1222	171	
SV11 $M/D_{(C)}$	1223	1225	9	2	1	1226		
SV12 $S_{(C)}$	1227	1229	185	193	199	1230	195	
SV12 $M_{(C)}$	1230	1232	44	29	23	1233		
SV12 $D_{(C)}$	1234	1236	75	56	48	1237		
SV13 $S_{(S)}$	1240	1241	0	1	4	1243	68	
SV13 $M_{(S)}$	1243	1244	22	28	33	1247		
SV13 $D_{(S)}$	1247	1248	30	36	44	1250		
SV14 $S_{(C)}$	1251	1253	185	139	122	1254	459	
SV14 $M_{(C)}$	1255	1257	148	103	89	1258		
SV14 $D_{(C)}$	1258	1300	540	574	601	1301		
^{MD}SV15 $S_{(S)}$	1303	1304	0	0	0	1307	61	
^{MD}SV15 $M_{(S)}$								
^{MD}SV15 $D_{(S)}$	1307	1308	5	9	10	1311		
^{MD}SV16 $S_{(C)}$	1312	1314	40	53	58	1316	121	
^{MD}SV16 $M_{(C)}$	1316	1318	18	20	25	1319		
^{MD}SV16 $D_{(C)}$	1320	1322	28	22	20	1323		
SV17 $S_{(S)}$	1326	1327	681	515	444	1329	3089	
SV17 $M_{(S)}$	1329	1330	873	685	606	1332		
SV17 $D_{(S)}$	1332	1333	1124	902	820	1336		
SV18 $S_{(S)}$	1338	1339	2320	2411	2486	1340	2516	
SV18 $D_{(S)}$	1340	1341	4081	4480	4804	1344		
SV20 $S_{(S)}$	1347	1348	620	584	554	1349	1448	
SV20 $M_{(S)}$	1350	1351	494	452	431	1353		
SV20 $D_{(S)}$	1353	1354	562	496	454	1358		

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