Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-04-100

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/20/11

Crew Signature:

Weather: Sunny

Time: 1201

Review Signature and Date: 9/28/2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: BH VOCs Ø

BZ VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	100 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	0.136 ft² at	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.136 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	98 ft	(K) One Purge Volume (C + J)	.54 ft³
(E) Depth to Bottom of Screen	100.5 ft	(L) 10 Purge Volumes (K*10)	5.4 ft³

Static Pressure: 0" H_2O

Purge Flow Rate: 1.0 CFm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/20/11 1201	0	0.02	5.30	14.56	6570	
1203	2	0.02	5.46	14.43	6920	
1205	4	0.02	5.48	14.41	6810	
1207	6	0.02	5.46	14.70	6730	

Values Prior to Sampling

1207	6	0.02	5.46	14.70	6730	

Sample ID: ~~VA0077~~ VA038

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-04-250

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/20/11

Crew Signature:

Weather: Sunny

Time: 1238

Review Signature and Date: 9/20/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: BH - VOCs Ø
BZ - VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.34 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	250 ft	(K) One Purge Volume (C + J)	.74 ft³
(E) Depth to Bottom of Screen	252.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft³

Static Pressure: -.49 " H_2O

Purge Flow Rate: 1.0 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/20/11 1238	Ø	0	.48	20.35	401	
1240	2	0	0.02	0.00	6	
1242	4	0	.90 ~~0.02~~ at	19.29 ~~0.00~~ at	516 ~~13~~ at	
1244	6	0	0.90	19.30	517	
1246	8	0	0.90	19.25	520	

Values Prior to Sampling

1246	8	0	0.90	19.25	520	

Sample ID: ~~VA0380~~ at
VA0385 a

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/Interval:** SVMW-04-300 | **Field Crew:** A.T.TN

Site / SWMU No.: 106 | **Date:** 9/20/11 | **Crew Signature:** [signature]

Weather: sunny | **Time:** 1312 | **Review Signature and Date:** [signature] 9/20/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	290 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.394 ft^3	(J) Filter Pack Volume (F x G)	0.4 ft^3
(D) Depth to Top of Screen	287.5 ft	(K) One Purge Volume (C + J)	.79 ft^3
(E) Depth to Bottom of Screen	290.0 ft	(L) 10 Purge Volumes (K*10)	7.9 ft^3

Static Pressure: -.48" H_2O **Purge Flow Rate:** 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/20/11 1312	0	0	.20	20.26	22	
1314	2	0	.60	19.36	89 TN	
1316	4	0	.60	19.41	89	
1318	6	0	.60	19.51	90	
1320	8	0	.60	19.57	90	

Values Prior to Sampling

1320	8	0	.60	19.57	90	

Sample ID: VA00081 at VA0386

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | Well ID No/Interval: SVMW-05-050 | Field Crew: DR, TN

Site / SWMU No.: 106 | Date: 9/22/11 | Crew Signature: [signature]

Weather: sunny | Time: 1320 | Review Signature and Date: [signature] 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged | Locked: Yes - (No) | Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	52.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.475 ~~1.7~~ ft³
(E) Depth to Bottom of Screen	52.5 ft	(L) 10 Purge Volumes (K*10)	4.7 ft³

Static Pressure: +.01" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/22/11 1320	0	0	3.86	15.34	12	
1322	2	0	3.76	15.97	12	
1324	4	0	3.78	15.69	12	
1326	6	0	3.80	15.54	14	

Values Prior to Sampling

1326	6	0	3.80	15.54	14	

Sample ID: VA0387

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** SVMW-05-0100	**Field Crew:** TN, DR
Site / SWMU No.: 106	**Date:** 9/22/11	**Crew Signature:**
Weather: sunny	**Time:** 1345	**Review Signature and Date:** 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0
B2 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	102.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.14 ft³	(J) Filter Pack Volume (F x G)	0.40 ft³
(D) Depth to Top of Screen	100 ft	(K) One Purge Volume (C + J)	.54 ft³
(E) Depth to Bottom of Screen	102.5 ft	(L) 10 Purge Volumes (K*10)	5.4 ft³

Static Pressure: −.34" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/22/11 1345	0	0	5.90	15.49	22	
1347	2	0	5.64	13.81	140	
1349	4	0	5.64	13.74	144	
1351	6	0	5.64	13.69	147	

Values Prior to Sampling

1351	6	0	5.64	13.69	147	

Sample ID: VA0388

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-05-230

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 9/22/11

Crew Signature: [signature]

Weather: Sunny

Time: 1413

Review Signature and Date: [signature] 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes / (No)

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	231 ft	(F) Filter Pack Length (E –D)	1.5 ft
(B) Casing Factor: (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.314 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	229.5 ft	(K) One Purge Volume (C + J)	.714 ft³
(E) Depth to Bottom of Screen	231.0 ft	(L) 10 Purge Volumes (K*10)	7.14 ft³

Static Pressure: −1.0" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/22/11 1413	0	0	.32	20.77	14	
1415	2	0	.48	19.78	14	
1417	4	0	.50	19.61	14	
1419	6	0	.50	19.90	12	
1421	8	0	.50	19.91	13	

Values Prior to Sampling

1421	8	0	.50	19.91	13	

Sample ID: VA0389

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | Well ID No/Interval: SVMW-05-290 | Field Crew: TN, DR

Site / SWMU No.: 106 | Date: 9/22/11 | Crew Signature: TN Nagra

Weather: sunny | Time: 1444 | Review Signature and Date: DHR 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged | Locked: Yes - (No) | Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	290 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.39 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	287.5 ft	(K) One Purge Volume (C + J)	.79 ft³
(E) Depth to Bottom of Screen	290 ft	(L) 10 Purge Volumes (K*10)	7.9 ft³

Static Pressure: −1.0" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/22/11 1444	0	0	.04	21.05	13	
1446	2	0	.62	19.89	116	
1448	4	0	.64	19.79	122	
1450	6	0	.64	19.70	126	
1452	8	0	.64	19.73	129	

Values Prior to Sampling

1452	8	0	.64	19.73	129	

Sample ID: VA0390

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-06-050

Field Crew: DRiTN

Site / SWMU No.: 106

Date: 9/22/11

Crew Signature: [signature]

Weather: sunny windy

Time: 1017

Review Signature and Date: [signature] 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes:

CALCULATIONS

(A) Depth to Well Bottom	52.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.47 ft³
(E) Depth to Bottom of Screen	52.5 ft	(L) 10 Purge Volumes (K*10)	4.7 ft³

Static Pressure: −.16 in H₂O

Purge Flow Rate: 1.0 cfm

PURGE DATA

2 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
9/22/11 1017	0	0	2.56	17.56	13	
1019	2	0	2.56	17.55	11	
1021	4	0	2.14	18.10	15	
1023	6	0	2.16	18.13	15	

Values Prior to Sampling

1023	6	0	2.16	18.13	15	

Sample ID: VA0391

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-877

Well ID No/Interval: SVMW-06-100

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/22/11

Crew Signature: T Nogen

Weather: sunny

Time: 1041

Review Signature and Date: 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: Yes - (No) Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	102 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.138 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	99.5 ft	(K) One Purge Volume (C + J)	.538 ft³
(E) Depth to Bottom of Screen	102 ft	(L) 10 Purge Volumes (K*10)	5.38 ft³

Static Pressure: -.34" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/22/11 1041	0	0	1.96	19.42	17	
1043	2	0	3.16	17.05	18	
1045	4	0	3.34	16.69	17	
1047	6	0	3.52	16.36	15	

Values Prior to Sampling

1047	6	0	3.52	16.36	15	

Sample ID: VA0392

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | Well ID No/Interval: SVMW-06-252 | Field Crew: DR, TN

Site / SWMU No.: 106 | Date: 9/22/11 | Crew Signature:

Weather: sunny | Time: 1106 | Review Signature and Date: 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged | Locked: Yes - (No) | Well ID Mark: (Yes) - No

Notes: Bkgd VOCs 0
BZ VOCs 0

CALCULATIONS

(A) Depth to Well Bottom	254.5 ft	(F) Filter Pack Length (E –D)	2 ft
(B) Casing Factor: (½" = .00136), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.346 ft³	(J) Filter Pack Volume (F x G)	.33 ft³
(D) Depth to Top of Screen	252.5 ft	(K) One Purge Volume (C + J)	.68 ft³
(E) Depth to Bottom of Screen	254.5 ft	(L) 10 Purge Volumes (K*10)	6.8 ft³

Static Pressure: – 1.0 "H₂0

Purge Flow Rate:

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/22/11 1106	0	0	.06	20.52	16	
1108	2	0	.92	16.52	3000	
1110	4	0	1.08	15.90	3720	
1112	6	0	1.16	16.02	3990	
1114	8	0	1.20	16.08	4070	

Values Prior to Sampling

1114	8	0	1.20	16.08	4070	

Sample ID: VA0393

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SUMW-06 - 302

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/22/11

Crew Signature:

Weather: sunny

Time: 1132

Review Signature and Date: 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	305 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.41 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	302.5 ft	(K) One Purge Volume (C + J)	.81 ft³
(E) Depth to Bottom of Screen	305 ft	(L) 10 Purge Volumes (K*10)	8.1 ft³

Static Pressure: −1.4" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/22/11 1132	0	0	.08	20.61	21	
1135	3	.01	.80	18.22	2820	
1138	6	.01	.82	18.17	2920	
1141	9	0	.70	18.21	2960	

Values Prior to Sampling

1141	9	0	.70	18.21	2960	

Sample ID: VA0394

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: SVMW-07-050

Date: 8/23/11

Time: 832

Field Crew: TN, DR

Crew Signature: [signature]

Review Signature and Date: [signature] 8-23-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged

Locked: Yes - No

Well ID Mark: Yes - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: -.92" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/23/11 832	0	TN ~~84~~ 0.0	.84	17.90	37	
835	4.5	0	.86	17.96	37	
838	9	0	.88	17.77	43	
841	13.5	0	.90	17.82	46	
844	18	0	.90	17.95	46	

Values Prior to Sampling

844	18	0	.90	17.95	46	

Sample ID: VA0395

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-B77F

Well ID No/Interval: SVMW-07-100

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 8/23/11

Crew Signature:

Weather: sunny

Time: 900

Review Signature and Date: 8-23-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: ~~-.20" H_2O~~ Bkgd VOC's 0
13 ≥ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	100 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.30 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	90 ft	(K) One Purge Volume (C + J)	1.93 ft³
(E) Depth to Bottom of Screen	100 ft	(L) 10 Purge Volumes (K*10)	19.3 ft³

Static Pressure: -.20" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/23/11 900	0	0	6.12	13.72	1390	
903	4.5	0	6.20	13.64	1423	
906	9	.01	6.24	13.64	1431	
909	13.5	.01	6.24	13.65	1433	
912	18	.01	6.28	13.66	1435	
915	22.5	.01	6.28	13.67	1437	

Values Prior to Sampling

915	22.5	.01	6.28	13.67	1437	

Sample ID: VA0396
VA0397

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-B77 **Well ID No/Interval:** SVMW-07-150 **Field Crew:** DR, TN

Site / SWMU No.: 106 **Date:** 8/23/11 **Crew Signature:**

Weather: sunny **Time:** 944 **Review Signature and Date:** 8-23-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: TN BKgd VOC's 0

~~B~~ BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: -.12 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time (3min)	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/23/11 944	0	0	5.34	14.77	3	
947	4.5	0	5.40	14.77	0	
950	9	0	5.40	14.76	0	
953	13.5	0	5.42	14.76	0	
956	18	0	5.42	14.75	0	
959	22.5	0	5.44	14.74	0	

Values Prior to Sampling

959	22.5	0	5.44	14.74	0	

Sample ID: VA0398

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-08-050

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/24/11

Crew Signature:

Weather: sunny

Time: 846

Review Signature and Date: 8/24/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: (½" = .00136), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.068 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.698 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	16.98 ft³

Static Pressure: -.14" H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
8/24/11 846	0	0.00	12.36	4.03	11890	inst
849	4.5	0	12.60	3.91	11550	inst
852	9	0	8.62	4.23	12090	inst
855	13.5	0	12.30	4.22	12050	inst
858	18	0	10.96	3.99	12210	
					707	x9 by dilution
					=6363	

Values Prior to Sampling

858	18	0	10.96	3.99	6363	

Sample ID: VA 0399

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-08-100

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/24/11

Crew Signature: Tom Nash

Weather: sunny

Time: 1022

Review Signature and Date: [illegible] 8/24/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	100 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: (½" = .00130), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.136 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	90 ft	(K) One Purge Volume (C + J)	1.76 ft³
(E) Depth to Bottom of Screen	100 ft	(L) 10 Purge Volumes (K*10)	17.6 ft³

Static Pressure: -.04

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/24/11 1022	0	0	11.86	6.35	23	
1025	4.5	0	12.00	6.21	41	
1028	9	0	12.02	6.19	52	
1031	13.5	0	12.02	6.18	65	
1034	18	0	12.02	6.17	77	

Values Prior to Sampling

1034	18	0	12.02	6.17	77	

Sample ID: VA0400

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-08-250

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/24/11

Crew Signature:

Weather: sunny

Time: 1056

Review Signature and Date: 8/24/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.34 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	1.97 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	19.7 ft³

Static Pressure: -.86 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/24/11 1056	0	0	.90	19.04	120	
1059	4.5	0	.92	18.98	126	
1102	9	0	.92	18.91	125	
1105	13.5	0	.84	19.06	123	
1108	18	0	.82	18.96	124	
1111	22.5	0	.82	18.95	124	

Values Prior to Sampling

1111	22.5	0	.82	18.95	124	

Sample ID: VA0401

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: Pt ly Cldy 90s

Well ID No/Interval: SVMW08-266

Date: 8/24/11

Time: 1130

Field Crew: RB TN

Crew Signature: TN

Review Signature and Date: 8/24/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: Well Port Plugged - Not Purged not Sampled

CALCULATIONS

(A) Depth to Well Bottom	ft	(F) Filter Pack Length (E –D)	ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	ft^3	(J) Filter Pack Volume (F x G)	ft^3
(D) Depth to Top of Screen	ft	(K) One Purge Volume (C + J)	ft^3
(E) Depth to Bottom of Screen	ft	(L) 10 Purge Volumes (K*10)	ft^3

Static Pressure:

Purge Flow Rate:

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	

Values Prior to Sampling

Sample ID:

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: -080 ~~-09~~ at SVMW ~~-09~~ ~~-360~~ - ~~106~~

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/27/11

Crew Signature: [signature]

Weather: Sunny

Time: 1147

Review Signature and Date: [signature] 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged

Locked: Yes - No

Well ID Mark: Yes - No

Notes: VOC's Ø in BH
VOCs Ø in BZ

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	0.068 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.46 ft^3
(E) Depth to Bottom of Screen	50.2 ft	(L) 10 Purge Volumes (K*10)	4.6 ft^3

Static Pressure: -.16" H_2O

Purge Flow Rate: 1.0 CFM

PURGE DATA

2mm Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/27/11 1147	0	Ø	7.24	11.61	1035	
1149	2	Ø	7.72	11.31	1131	
1151	4	Ø	7.74	11.27	1166	
1153	6	0	7.76	1122	1199	

Values Prior to Sampling

1153	6	Ø	7.76	11.22	1199	

Sample ID: VA-0403

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	Well ID No/Interval: SWMU-09-100	Field Crew: AT, TN
Site / SWMU No.: 106	Date: 9/27/11	Crew Signature: [signature]
Weather: Sunny	Time: 1059	Review Signature and Date: [signature] 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged Locked: Yes - No Well ID Mark: Yes - No

Notes: VOCs Ø in BH
VOCs Ø in BZ

CALCULATIONS

(A) Depth to Well Bottom	100 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	.14 ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	~~100~~ .14 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	100 ft	(K) One Purge Volume (C + J)	.54 ft^3
(E) Depth to Bottom of Screen	102.5 ft	(L) 10 Purge Volumes (K*10)	5.4 ft^3

Static Pressure: -.06" H_2O Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/27/11 1059	Ø	Ø	8.60	9.46	16200	Inst
1101	2	Ø	8.64	11.23	16210	Inst
1103	4	Ø	8.60	11.64	16190	Inst
1105	6	Ø	8.32	10.25	16310	Inst
					1163 x 9 =	
					at 10467 ~~1163~~ ~~1163~~ at	by deduction

Values Prior to Sampling

1105	6	Ø	8.32	10.25	10467	

Sample ID: VA0404 VA0405

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 250 SVMW-09-050

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/27/11

Crew Signature:

Weather: Sunny

Time: 1011

Review Signature and Date: TNeu 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: Yes - (No)

Notes: VOCs @ in BH
VOCs @ in BZ

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	.00136 ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	107 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.47 ft³
(E) Depth to Bottom of Screen	52.5 ft	(L) 10 Purge Volumes (K*10)	4.7 ft³

Static Pressure: -1.0 "H2O

Purge Flow Rate: 1.0 CFM

PURGE DATA

2nd Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/27/11 1011	0	0	.76	19.25	1074	HC count was peaking above 10,000 in first 10 seconds then dropped below 2000 ppm
1013	2	0	.76	19.27	1028	
1015	4	0	.76	19.36	824	
1017	6	0	.76	19.41	770	
1019	8	0	.76	19.45	736	

Values Prior to Sampling

1019	8	0	.76	19.45	736	

Sample ID: ~~MA0403~~ at MA0406

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** SWMU-09-266	**Field Crew:** AT, TV
Site / SWMU No.: 106	**Date:** 9/27/11	**Crew Signature:**
Weather: Sunny	**Time:** 1212	**Review Signature and Date:** Piper 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: VOCs @ in BH
VOCs @ in BZ

CALCULATIONS

(A) Depth to Well Bottom	266 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.36 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	266 ft	(K) One Purge Volume (C + J)	.76 ft³
(E) Depth to Bottom of Screen	268.5 ft	(L) 10 Purge Volumes (K*10)	7.6 ft³

Static Pressure: -1.4 "H₂O

Purge Flow Rate: 1.0 CFm

PURGE DATA

2m Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/27/11 1212	0	0	.06	19.86	44	
1214	2	.01	1.14	18.09	7300	
1216	4	.01	1.14	18.18	7120	
1218	6	.01	1.16	18.18	7010	
1220	8	.01	1.16	18.23	6900	

Values Prior to Sampling

1220	8	.01	1.16	18.23	6900	

Sample ID: VA0407

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB BFF

Well ID No/Interval: SVMW-10-050

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/27/11

Crew Signature:

Weather: Cloudy

Time: ~~1416~~ TN 1356

Review Signature and Date: TN Nagar 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: VOCs @ CH BH
VOCs @ in BZ

CALCULATIONS

(A) Depth to Well Bottom	52.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.07 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.47 ft^3
(E) Depth to Bottom of Screen	52.5 ft	(L) 10 Purge Volumes (K*10)	4.7 ft^3

Static Pressure: 0" H_2O

Purge Flow Rate: 1.0 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/27/11 1356	0	0	7.24	13.02	18962	Inst
1358	2	0	7.30	12.56	19570	Inst
1400	4	0	7.48	12.29	19620	Inst
1402	6	0	7.12	13.75	19550	Inst
					1497	
					x9 =	
					13473	By dilution

Values Prior to Sampling

1402	6	0	7.12	13.72	13473	

Sample ID: VA 0408

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-10-100

Field Crew: AT

Site / SWMU No.: 106

Date: 9/27/11

Crew Signature:

Weather: Cloudy

Time: 1428

Review Signature and Date: 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: VOCs ND in BH
VOCs ND in BZ

CALCULATIONS

(A) Depth to Well Bottom	102.5ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.14 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	100 ft	(K) One Purge Volume (C + J)	.65 ft³
(E) Depth to Bottom of Screen	102.5ft	(L) 10 Purge Volumes (K*10)	6.5 ft³

Static Pressure: 0" H2O

Purge Flow Rate: 1.0CFM

PURGE DATA

2m Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
9/27/11 1428	0	Ø	8.28	12.24	25770	
1430	2	Ø	8.36	12.90	25860	
1432	4	Ø	8.28	10.34	26730	
1434	6	Ø	8.34	10.25	26600	
1436	8	Ø	8.30	10.03	26850	
					X 9 =	By dilution
					2520	
					22680	

Values Prior to Sampling

1436	8	Ø	8.30	10.03	22680	

Sample ID: X VA0409 X

Shaw Shaw Environmental, Inc.

(2)

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BTF

Well ID No/Interval: SVMW-10-150

Field Crew: TN, AT

Site / SWMU No.: 106

Date: 9/27/11

Crew Signature: [signature]

Weather: sunny

Time: 1505

Review Signature and Date: [signature] 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: BKgd VOC's 0

BZ VOC's 1.4 ppm

CALCULATIONS

(A) Depth to Well Bottom	152.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.20 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	150 ft	(K) One Purge Volume (C + J)	.60 ft^3
(E) Depth to Bottom of Screen	152.5 ft	(L) 10 Purge Volumes (K*10)	6.0 ft^3

Static Pressure: −.70 "H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

2 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
1505	0	0	4.18	13.66	17610	inst.
1507	2	0	4.22	13.97	17440	inst.
1509	4	0	4.36	14.10	17470	Inst
1511	6	0	4.10	14.13	18360	Inst
1513	8	0	4.48	14.03	18150	Inst
					1557	
					x9 =	by Calculator
					14013	

Values Prior to Sampling

1513	8	0	4.48	14.03	14013	

Sample ID: VA0410

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: SVMW-10-250
Field Crew: AT, TN
Site / SWMU No.: 106
Date: 9/27/11
Crew Signature:
Weather: Sunny
Time: 1542
Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes (No) **Well ID Mark:** (Yes) No

Notes: VOC's Ø BH
VOC's 1.9 ppm BZ

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	034 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	250 ft	(K) One Purge Volume (C + J)	.74 ft³
(E) Depth to Bottom of Screen	252.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft³

Static Pressure: -.80 "H2O **Purge Flow Rate:** 1.0 CFm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/27/11 1542	0	0	.82	19.08	4260	
1544	2	0	.84	19.07	4580	
1546	4	0	.86	19.02	4660	
1548	6	0	.84	19.02	4790	
1550	8	0	.86	19.00	4850	

Values Prior to Sampling

1550	8	0	.86	19.00	4850	

Sample ID: VA0411

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-11-050

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/25/11

Crew Signature: TN

Weather: sunny

Time: 1305

Review Signature and Date: 8/25/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd 0.7 TVOC's need Security Bolt

BZ 144.4 VOC's (open)

CALCULATIONS

(A) Depth to Well Bottom	52.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	.41 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.48 ft³
(E) Depth to Bottom of Screen	52.5 ft	(L) 10 Purge Volumes (K*10)	4.8 ft³

Static Pressure: +.04" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time (2 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
8/25/11 1305	0	0	14.66	2.82	7280	
1307	2	0	14.68	2.82	8600	
1309	4	0	14.64	2.84	9390	
1311	6	0	14.72	2.82	9770	

Values Prior to Sampling

1311	6	0	14.72	2.82	9770	

Sample ID: VA0412

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-11-100

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/25/11

Crew Signature: [signature]

Weather: sunny

Time: 1338

Review Signature and Date: [signature] 8/25/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: Bkgd 67 VOC's need Sec. bolt

BZ 2.5 VOC's (open)

CALCULATIONS

(A) Depth to Well Bottom	102.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.1394 ft³	(J) Filter Pack Volume (F x G)	.41 ft³
(D) Depth to Top of Screen	100 ft	(K) One Purge Volume (C + J)	.55 ft³
(E) Depth to Bottom of Screen	102.5 ft	(L) 10 Purge Volumes (K*10)	5.5 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

2 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
1338	0	0	11.58	8.68	37050	inst.
1340	2	0	11.62	4.28	32760	"
1342	4	0	11.52	4.30	32760	"
1344	6	0	11.80	4.23	32760	"
					2470	x9 by dilution
				=	22230	

Values Prior to Sampling

1344	6	0	11.80	4.23	22230	

Sample ID: VA0413

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	Well ID No/Interval: SVMW-11-250	Field Crew: RB, TN
Site / SWMU No.: 106	Date: 8/25/11	Crew Signature: Tim Nagen
Weather: cloudy	Time: 1419	Review Signature and Date: [signature] 8/25/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged Locked: Yes - No Well ID Mark: Yes - No

Notes: Bkgd GT TN VOC's
BZ ~~V~~2.7 VOC's

need Sec. bolt

CALCULATIONS

(A) Depth to Well Bottom	252.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.34 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	250 ft	(K) One Purge Volume (C + J)	.74 ft^3
(E) Depth to Bottom of Screen	252.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft^3

Static Pressure: −1.8" H_2O Purge Flow Rate: 1 cfm

PURGE DATA

2 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/25/11 1419	0	0	2.02	16.31	25350	Inst.
1421	2	0	2.20	16.83	25650	
1423	4	0	2.56	16.70	26120	
1425	6	0	2.56	16.87	23850	
1427	8	0	2.20	16.93	26730	
					TN ~~1683~~ 1700	x9 by dilution
					=15300	

Values Prior to Sampling

1427	8	0	2.20	16.93	TN 15300	

Sample ID: ✗VA0414 ✗ VA0415

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW 11-260

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/26/11

Crew Signature: TN RB

Weather: sunny

Time: 810

Review Signature and Date: [illegible] 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

Well casing seals near port are bad

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	262.5 ft	(F) Filter Pack Length (E –D)	ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.35 ft³	(J) Filter Pack Volume (F x G)	.0.40 ft³
(D) Depth to Top of Screen	260 ft	(K) One Purge Volume (C + J)	.75 ft³
(E) Depth to Bottom of Screen	262.5 ft	(L) 10 Purge Volumes (K*10)	7.5 ft³

Static Pressure: -1.8 "H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

2 min

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/26/11 810	0	0	.16	20.46	611	~~inst~~
812	2	0	.52	19.83	4400	~~inst~~
814	4	0	.96	19.19	8290	
816	6	0	1.06	20.62	10620	inst
818	8	0	1.44	18.69	14350	inst continue purge for stabilization
820	10	0	1.68	18.46	17010	inst
826 TN	16	0	1.80	18.59	19150	inst
832 TN	22	0	1.82	17.72	21810	inst

Values Prior to Sampling

1382 x 9 = 12438 by dilution

~~832~~ TN ~~818~~	~~22~~ TN 22	0	1.82	17.72	12438	

Sample ID: VA0416

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SUMW-12-150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-19-2011

Crew Signature: [signature]

Weather: HAZY, LIGHT BREEZE

Time: 8:38 Am

Review Signature and Date: [signature] 7-19-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BH GP 0 VOCs
B2 0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	152.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.20 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	150 ft	(K) One Purge Volume (C + J)	4.80 ft³
(E) Depth to Bottom of Screen	152.5 ft	(L) 10 Purge Volumes (K*10)	6.0 ft³

Static Pressure: -1.0 " H2O

Purge Flow Rate: 1.0 CFM

PURGE DATA

Date/Time (2 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-19-2011 8:38 Am	0	0.0	0.02	20.88	4	
7-19-2011 8:40 Am	2	0.0	0.10	20.57	4	
7-19-2011 8:42 Am	4	0.0	0.10	19.94	5	
7-19-2011 8:44 Am	6	0.0	0.10	19.83	4	

Values Prior to Sampling

7-19-2011	6	0.0	0.10	19.83	4	

Sample ID: VA0417

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: SVMW-12-250

Field Crew: AR, RB

Site / SWMU No.: 106

Date: 7-19-2011

Crew Signature: Amy Armstrong

Weather: HAZY, LIGHT BREEZE

Time: 8:58 Am

Review Signature and Date: RSB 7-19-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BUG 0 VOC's
BZ 0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	252.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.34 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	250 ft	(K) One Purge Volume (C + J)	.74 ft³
(E) Depth to Bottom of Screen	252.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft³

Static Pressure: -1.4 in H2O

Purge Flow Rate: 1.0 LPM

PURGE DATA

Date/Time (2 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-19-2011 8:58 Am	0	0.0	0.02	20.79	14	
7-19-2011 9:00 Am	2	0.0	0.06	20.68	12	
7-19-2011 9:02 Am	4	0.0	0.10	20.75	24	
7-19-2011 9:04 Am	6	0.0	0.12	20.75	36	
7-19-2011 9:06 Am	8	0.0	0.14	20.59	47	

Values Prior to Sampling

7-19-2011	8	0.0	0.14	20.59	47	

Sample ID: VA04118

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** SUMW-12-350	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-19-2011	**Crew Signature:**
Weather: HAZY, LIGHT BREEZE	**Time:** 9:19 Am	**Review Signature and Date:** 7-19-2011

WELL OBSERVATIONS

Protective Casing / Vault (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark** (Yes) - No

Notes: BKGD 0 VOC'S
B2 0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	352.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.47 ft³	(J) Filter Pack Volume (F x G)	.41 ft³
(D) Depth to Top of Screen	350 ft	(K) One Purge Volume (C + J)	.87 ft³
(E) Depth to Bottom of Screen	352.5 ft	(L) 10 Purge Volumes (K*10)	8.7 ft³

Static Pressure: -1.6 " H2O **Purge Flow Rate:** 1 GPM

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-19-2011 9.19 Am	0	0.0	0.04	20.73	5	
7-19-2011 9:22 Am	3	0.0	0.06	20.56	6	
7-19-2011 9:25 Am	6	0.0	0.24	20.33	8	
7-19-2011 9:28 Am	9	0.0	0.32	20.37	17	
AG ~~7-19-2011 9:31 Am~~						

Values Prior to Sampling

7-19-2011 9:28 Am	9	0.0	0.32	20.37	17	

Sample ID: VA0419

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - OFF	**Well ID No/Interval:** SVMW-12-450	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-19-2011	**Crew Signature:** [signature]
Weather: HAZY, LIGHT BREEZE	**Time:** 9:44 AM	**Review Signature and Date:** [signature] 7-19-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BUGO 0 VOCS
B2 0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	452.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.61 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	450 ft	(K) One Purge Volume (C + J)	1.01 ft^3
(E) Depth to Bottom of Screen	452.5 ft	(L) 10 Purge Volumes (K*10)	10.1 ft^3

Static Pressure: -1.2 " H2O **Purge Flow Rate:** 1.0 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-19-2011 9:44 AM	0	0.0	0.0	20.84	9	
7-19-2011 9:46 AM	2	0.0	0.02	20.95	10	
7-19-2011 9:48 AM	4	0.0	0.02	20.98	10	
7-19-2011 9:50 AM	6	0.0	0.04	21.04	12	
7-19-2011 9:52 AM	8	0.0	0.06	20.99	17	
7-19-2011 9:54 AM	10	0.0	0.06	20.94	19	
7 AG	~~10~~ AG	~~0.0~~ AG				

Values Prior to Sampling

7-19-2011 9:54 AM	10	0.0	0.06	20.94	19	

Sample ID: VA0420

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: TW13 & SVMW 3 / 150

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/7/11

Crew Signature:

Weather: cloudy

Time: 1221

Review Signature and Date: 9/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: BKgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	152.5 (TW) ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.20 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	150 ft	(K) One Purge Volume (C + J)	.60 ft³
(E) Depth to Bottom of Screen	152.5 ft	(L) 10 Purge Volumes (K*10)	6.0 ft³

Static Pressure: -2.0" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/7/11 1221	0	0	0	20.79	5	
1223	2	0	.40	19.77	363	
1225	4	0	.40	19.45	368	
1227	6	0	.38	19.48	371	

Values Prior to Sampling

1227	6	0	.38	19.48	371	

Sample ID: VA0421

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW 13/250

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/7/11

Crew Signature:

Weather: sunny

Time: 1253

Review Signature and Date: 9/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: Yes - (No) Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	252.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.34 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	252.5 ft	(K) One Purge Volume (C + J)	.74 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	7.4 ft³

Static Pressure: −1.0" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/7/11 1253	0	0	.46	17.30	6	
1255	2	0	.66	17.22	6	
1257	4	0	.64	17.25	7	
1259	6	0	.64	17.26	5	
1301	8	0	.66	17.27	5	

Values Prior to Sampling

1301	8	0	.66	17.27	5	

Sample ID: VA0422

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: SVMW13/350

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/7/11

Crew Signature:

Weather: sunny

Time: 1330

Review Signature and Date: 9/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	352.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.476 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	350 ft	(K) One Purge Volume (C + J)	.87 ft³
(E) Depth to Bottom of Screen	352.5 ft	(L) 10 Purge Volumes (K*10)	8.7 ft³

Static Pressure: -1.2" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/7/11 1330	0	0	1.44	17.42	10	
1333	3	0	1.56	17.41	12	
1336	6	0	1.56	17.45	11	
1339	9	0	1.56	17.44	12	

Values Prior to Sampling

1339	9	0	1.56	17.44	12	

Sample ID: VA0423

VA0424

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW13/450

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/7/11

Crew Signature: [signature]

Weather: cloudy

Time: 1412

Review Signature and Date: [signature] 9/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	452.5ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.612 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	450 ft	(K) One Purge Volume (C + J)	1.12 ft³
(E) Depth to Bottom of Screen	452.5ft	(L) 10 Purge Volumes (K*10)	11.2 ft³

Static Pressure: -1.6" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/7/11 1412	0	0	.18	20.84	4	
1415	3	0	.52	18.62	644	
1418	6	0	.52	18.60	717	
1421	9	0	.52	18.60	735	
1424	12	0	.52	18.59	759	

Values Prior to Sampling

1424	12	0	.52	18.59	759	

Sample ID: VA0425

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: PARTLY CLOUDY

Well ID No/Interval: SVMW-14-150

Date: 7-20-2011

Time: 3:30 PM

Field Crew: AG, RB

Crew Signature: Amy Granowski

Review Signature and Date: 7-20-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BLGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	152.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.20 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	150 ft	(K) One Purge Volume (C + J)	.60 ft³
(E) Depth to Bottom of Screen	152.5 ft	(L) 10 Purge Volumes (K*10)	6.0 ft³

Static Pressure: +.90 " H_2O **Purge Flow Rate:** 1.0 GPM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-20-2011 3:30	0	0	0	21.17	0	
7-20-2011 3:33	3	0	0	20.88	1	
7-20-2011 3:36	6	0	0	20.99	0	
7-20-2011 3:39	9	0	0	21.04	0	

Values Prior to Sampling

7-20-2011 1539	9	0	0	21.04	0	

Sample ID: VA0426

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** SVMW-14-250	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-20-2011	**Crew Signature:**
Weather: PARTLY CLOUDY	**Time:** 1600	**Review Signature and Date:** 7-20-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	252.5 ft	(F) Filter Pack Length (E –D)	25 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.34 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	250 ft	(K) One Purge Volume (C + J)	.74 ft³
(E) Depth to Bottom of Screen	252.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft³

Static Pressure: +.90 " H20 **Purge Flow Rate:** 1 CFM

PURGE DATA

Date/Time (3 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-20-2011 1600	0	0	0.15	20.91	2	
7-20-2011 1603	3	0	0.16	19.81	2	
7-20-2011 1606	6	0	0.18	19.85	2	
7-20-2011 1609	9	0	0.16	19.91	2	

Values Prior to Sampling

7-20-2011 1609	9	0	0.16	19.91	2	

Sample ID: VA0427

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-14-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-21-2011

Crew Signature:

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 8:25 Am

Review Signature and Date: 7-20-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	352.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.47 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	350 ft	(K) One Purge Volume (C + J)	.87 ft³
(E) Depth to Bottom of Screen	352.5 ft	(L) 10 Purge Volumes (K*10)	8.7 ft³

Static Pressure: -.20 in H2O **Purge Flow Rate:** 1 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-21-2011 8:25 Am	0	0	0	20.63	2	
7-21-2011 8:28 Am	3	0	0.08	20.20	7	
7-21-2011 8:31 Am	6	0	0.12	20.07	12	
7-21-2011 8:34 Am	9	0	0.10	20.07	11	

Values Prior to Sampling

7-21-2011 8:34 Am	9	0	0.10	20.07	11	

Sample ID: VA0428

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** SVMW - 14 - 450	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7 - 21 - 2011	**Crew Signature:** [signature]
Weather: CLOUDY, LIGHT BREEZE	**Time:** 8:50 Am	**Review Signature and Date:** 7-21-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	452.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.61 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	450 ft	(K) One Purge Volume (C + J)	1.01 ft^3
(E) Depth to Bottom of Screen	452.5 ft	(L) 10 Purge Volumes (K*10)	10.1 ft^3

Static Pressure: -.40" H_2O **Purge Flow Rate:** 1.0 CFM

PURGE DATA

4 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-21-2011 8:50 Am	0	0	0.02	20.76	2	
7-21-2011 8:54 Am	4	0	1.04	16.82	79	
7-21-2011 8:58 Am	8	0	1.36	15.49	146	
7-21-2011 9:02 Am	12	0	1.56	14.73	190	

Values Prior to Sampling

7-21-2011 9:02 Am	12	0	1.56	14.73	190	

Sample ID: VA0429

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFI

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: SVMW-15-150

Date: 9/26/11

Time: 0831

Field Crew: AT, TN

Crew Signature:

Review Signature and Date: 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: BH VOCs Ø
BZ VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft² 0.40
(C) One Well Casing Volume (A x B):	0.204 ft³	(J) Filter Pack Volume (F x G)	0.40 ft³
(D) Depth to Top of Screen	150 ft	(K) One Purge Volume (C + J)	0.612 ft³
(E) Depth to Bottom of Screen	152.5 ft	(L) 10 Purge Volumes (K*10)	6.1 ft³

Static Pressure: +.04" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

2m Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/26/11 0831	Ø	Ø	0.30	18.82	3	
0833	2	Ø	0.42	18.66	3	
0835	4	Ø	0.42	18.77	3	
0837	6	Ø	0.34	17.95	4	
0839	8	Ø	0.36	17.95	3	

Values Prior to Sampling

0839	8	Ø	0.36	17.95	3	

Sample ID: VA0432

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: SVMW-15-250

Date: 9/26/11

Time: 0901

Field Crew: AT, TN

Crew Signature: [signature]

Review Signature and Date: [signature] 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes (No)

Well ID Mark: (Yes) - No

Notes: BA VOCs Ø

BE VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.34 ft³	(J) Filter Pack Volume (F x G)	0.4 ft³
(D) Depth to Top of Screen	200 ft	(K) One Purge Volume (C + J)	0.74 ft³
(E) Depth to Bottom of Screen	250.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft³

Static Pressure: + .10 " H_2O

Purge Flow Rate: 1.0 CFM

PURGE DATA

2 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
9/26/11 0901	0	0	0.48	18.90	129	
0903	2	0	0.54	18.79	77	
0905	4	0	0.56	18.67	62	
0907	6	0	0.58	18.67	61	
0909	8	0	0.58	18.64	60	

Values Prior to Sampling

0909	8	0	0.58	18.64	60	

Sample ID: VA0433

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-15-350

Field Crew: TN, AT

Site / SWMU No.: 106

Date: 9/26/11

Crew Signature: [signature]

Weather: sunny

Time: 934

Review Signature and Date: [signature] 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's Ø

BZ VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	352.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.48 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	350 ft	(K) One Purge Volume (C + J)	.88 ft³
(E) Depth to Bottom of Screen	352.5 ft	(L) 10 Purge Volumes (K*10)	8.8 ft³

Static Pressure: +.07 " H_2O **Purge Flow Rate:** 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/24/11 934	0	0	.06	21.00	6	
936	2	0	.78	17.12	8730	
938	4	0	.78	17.16	8770	
940	6	0	.80	17.45	8820	
942	8	0	.80	17.51	8830	
944	10	0	.80	17.58	8860	

Values Prior to Sampling

944	10	0	.80	17.58	8860	

Sample ID: VA0434

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: SWMU-15-450
Field Crew: AT, TN
Site / SWMU No.: 106
Date: 9/26/11
Crew Signature:
Weather: Sunny
Time: 1009
Review Signature and Date: 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged
Locked: Yes - (No)
Well ID Mark: (Yes) - No
Notes: ~~BT~~ VOCs Ø
BE VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	25 ft
(B) Casing Factor (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.612 ft³	(J) Filter Pack Volume (F x G)	0.4 ft³
(D) Depth to Top of Screen	450 ft	(K) One Purge Volume (C + J)	1.0 ft³
(E) Depth to Bottom of Screen	452.5 ft	(L) 10 Purge Volumes (K*10)	10.12 ft³

Static Pressure: 8" H2O
Purge Flow Rate: 1.0 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
9/26/11 ~~1005~~ 1009	Ø at Ø	Ø	0.98	18.54	18860	Inst
1012	3 at 3	Ø	1.52	17.24	20430	Inst
1015	6 at 6	Ø	1.54	17.43	20530	Inst
1018	9 at 9	Ø	1.52	17.53	20380	Inst
1021	12 at 12	Ø	1.50	17.31	20330	Inst
	10 at				1736 x 9	
					= 15624	by dilution

Values Prior to Sampling

1021	12	Ø	1.50	17.31	~~20330~~ at 15624	

Sample ID: ✘ VA0435 ✘

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BTF

Well ID No/Interval: 106028 - 150

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/15/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 1326

Review Signature and Date: [signature] 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.09 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.9 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/15/11 1326	0	0	.08	19.74	1	
1329	4.5	0	.06	19.59	3	
1332	9	0	.08	19.67	2	
1335	13.5	0	.08	19.74	3	
1338	18	0	.08	19.79	3	
1341	22.5	0	0	19.61	4	

Values Prior to Sampling

1341	22.5	0	0	19.61	4	

Sample ID: VA0436

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: 106028-250

Date: 8/15/11

Time: 1404

Field Crew: RB, TN

Crew Signature: TN Nagra

Review Signature and Date: [signature] 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: 0 "H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/15/11 1404	0	0	.18	20.18	4	
1407	4.5	0	.18	20.30	3	
1410	9	0	.16	20.40	2	
1413	13.5	0	.18	20.42	3	
1416	18	0	.18	20.42	3	
1419	22.5	0	.18	20.44	2	
1422	27	0	.18	20.47	2	

Values Prior to Sampling

1422	27	0	.18	20.47	2	

Sample ID: VA0437

VA0438

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106028-350

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/15/11

Crew Signature: Ian Nogar

Weather: cloudy

Time: 1452

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark** (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft^3

Static Pressure: −.12" H_2O

Purge Flow Rate: 15 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/15/11 1452	0	0	.32	20.07	107	
1455	4.5	0	.32	20.21	114	
1458	9	0	.32	20.30	115	
1501	13.5	0	.34	20.36	118	
1504	18	0	.32	20.35	117	
1507	22.5	0	.32	20.35	118	
1510	27	0	.32	20.35	118	

Values Prior to Sampling

1510	27	0	.32	20.35	118	

Sample ID: VA 0439

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106028-450
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/15/11
Crew Signature: Tim Nagy
Weather: cloudy
Time: 1526
Review Signature and Date: 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: (Yes) - No
Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.37 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	30 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	30 ft^3

Static Pressure: −.14" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

4mm Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/15/11 1526	0	0	.46	19.85	156	
1530	6	0	.36	19.60	382	
1534	12	0	.36	19.66	379	
1538	18	0	.36	19.66	380	
1542	24	0	.44	19.52	380	
1546	30	0	.44	19.52	381	

Values Prior to Sampling

1546	30	0	.44	19.52	381	

Sample ID: VA0440

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/ICE:** SVEM-01-260 | **Field Crew:** RB, DR, TN

Site / SWMU No.: 106 | **Date:** 8/16/11 | **Crew Signature:** Tim Nash

Weather: sunny | **Time:** 1148 | **Review Signature and Date:** 8/16/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: TN -.75" H_2O Port was partially clogged; Cleared out by DR.

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/16/11 1148	.01	9.46	8.02	9220	

VA0441

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/ICE:** SVEW-02-060 | **Field Crew:** RB, TN, DR

Site / SWMU No.: 106 | **Date:** 8/16/11 | **Crew Signature:** Tom Nagel

Weather: sunny | **Time:** 1215 | **Review Signature and Date:** 8/16/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: -.60" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1215	0	12.02	4.89	15990	Inst
				12519	By dilution
				11259	

VA0442

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/ICE:** SVEM-03-160 | **Field Crew:** RB, DR, TN

Site / SWMU No.: 106 | **Date:** 8/16/11 | **Crew Signature:** Tim Nagel

Weather: sunny | **Time:** 1410 | **Review Signature and Date:** Tim Nagel 8/16/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: -.32

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1410	0	10.88	6.13	1213	
				1173 x 9 = 10557	By dilution

VA0443

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: SVEM-04-313

Field Crew: RB, DR, TN

Site / SWMU No.: 106

Date: 8/16/11

Crew Signature:

Weather: sunny

Time: 1438

Review Signature and Date: 8/16/11

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: -.30

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1438	0	8.10	9.05	4750	

VA0444

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: SVEM-05-460

Field Crew: RB, DR, TN

Site / SWMU No.: 106

Date: 8/16/11

Crew Signature: Ten Nagr

Weather: sunny

Time: 1455

Review Signature and Date: 8/16/11

Background VOC: 0.0 TN

Breathing Zone VOC: ~~274~~ 274 (open)

Static Pressure:

-.26" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/16/11 1455	.01	8.40	8.41	~~6750~~ 6750	
1458	.01	8.28	8.54	7030 TN	

VA0445

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: SVEM-06-060

Field Crew: RB, TN, DR

Site / SWMU No.: 106

Date: 8/17/11

Crew Signature: Tom Nagy

Weather: sunny

Time: 0839 TN

Review Signature and Date: 8/17/11

Background VOC: 1.8

Breathing Zone VOC: 1.8

Static Pressure: -1.7 "H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 0839	0	10.02	6.87	4160	

VA0446
VA0447

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: SVEM-07-160

Field Crew: RB, TN, DR

Site / SWMU No.: 106

Date: 8/17/11

Crew Signature: [signature]

Weather: cloudy

Time: 0910

Review Signature and Date: [signature] 8/17/11

Background VOC: 1.8

Breathing Zone VOC: 2.0

Static Pressure: -1.8 " H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 0910	.01	10.14	6.67	4160	

VA0448

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/ICE:** SVEM-08-260	**Field Crew:** RB, DR, TN
Site / SWMU No.: 106	**Date:** 8/17/11	**Crew Signature:**
Weather: cloudy	**Time:** 0926	**Review Signature and Date:** 8/17/11

Background VOC: 1.8

Breathing Zone VOC: 1.8

Static Pressure: -1.8 "H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 0926	.01	10.08	6.84	4500	

VA0449

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/ICE:** SVEM-09-460	**Field Crew:** DR, TN, RB
Site / SWMU No.: 106	**Date:** 8/17/11	**Crew Signature:** TN Nagy
Weather: cloudy	**Time:** 0940	**Review Signature and Date:** 8/17/11

Background VOC: 1.8

Breathing Zone VOC: 1.8

Static Pressure: $-1.6\ ^{u}H_2O$

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
0940	0	10.20	6.41	4350	

VA0450

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: SVEW-10-410

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-19-2011

Crew Signature: [signature]

Weather: HAZY, LIGHT BREEZE

Time: 10:10 AM

Review Signature and Date: [signature] 7-19-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0 VOC'S
B2 0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	410 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, (2" = .0218) 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	8.93 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	400 ft	(K) One Purge Volume (C + J)	10.5 ft³
(E) Depth to Bottom of Screen	410 ft	(L) 10 Purge Volumes (K*10)	100.5 ft³

Static Pressure: -1.4 " H_2O

Purge Flow Rate: 12 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-19-2011 10:10 AM	0	0.0	0.0	20.78	2	
7-19-2011 10:13 AM	36	0.0	0.0	20.76	1	
7-19-2011 10:16 AM	72	0.0	0.0	20.59	1	
7-19-2011 10:19 AM	108	0.0	0.2	20.62	3	
~~7-19-2011~~ AG		~~0.0~~ AG				

Values Prior to Sampling

7-19-2011 10:19 AM	108	0.0	0.2	20.62	3	

Sample ID: ~~VA10275~~ VA10451

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVEW-11-410

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/7/11

Crew Signature:

Weather: cloudy

Time: 1445

Review Signature and Date: 9/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: Yes - (No) Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	410 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, (2") = 0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	8.938 ~~7.218~~ TN ft³	(J) Filter Pack Volume (F x G)	1.635 ft³
(D) Depth to Top of Screen	400 ft	(K) One Purge Volume (C + J)	10.57 ft³
(E) Depth to Bottom of Screen	410 ft	(L) 10 Purge Volumes (K*10)	105.7 ft³

Static Pressure: -1.4" H_2O Purge Flow Rate: 12 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1445	0	0	.26	19.94	170	
1448	36	0	.40	19.43	364	
1451	72	0	.40	19.44	367	
1454	108	0	.42	19.42	371	

Values Prior to Sampling

1454	108	0	.42	19.42	371	

Sample ID: VA0452

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BAF

Well ID No/Interval: SVEW-12-410

Field Crew: AG, AD

Site / SWMU No.: 106

Date: 7-21-2011

Crew Signature: Ang Doamaral

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 9:37 Am

Review Signature and Date: 7-21-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	412.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, (2" = .0218), 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B): 8.99	~~.56~~ ft³	(J) Filter Pack Volume (F x G)	40 ft³
(D) Depth to Top of Screen	410 ft	(K) One Purge Volume (C + J)	9.39 ft³
(E) Depth to Bottom of Screen	412.5 ft	(L) 10 Purge Volumes (K*10)	93.9 ft³

Static Pressure: -.20 " H_2O **Purge Flow Rate:** 12 CFM

PURGE DATA

2 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-21-2011 9:37Am	0	0	0.14	20.12	99	
7-21-2011 9:39Am	24	0	0.16	20.05	119	
7-21-2011 9:41Am	48	0	0.16	20.05	120	
7-21-2011 9:43Am	72	0	0.16	20.07	120	
7-21-2011 9:45Am	96	0	0.16	20.14	121	

Values Prior to Sampling

7-21-2011 9:45Am	96	0	0.16	20.14	121	

Sample ID: VA0453

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

SVEW [illegible] 9/26/11

Project Name: KAFB-BFF	**Well ID No/Interval:** ~~SVMW~~-13-410	**Field Crew:** AT, TN
Site / SWMU No.: 106	**Date:** 9/26/11	**Crew Signature:** [illegible]
Weather: Sunny	**Time:** 1049	**Review Signature and Date:** [illegible] 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BK gd VOC's Ø
BZ VOC's Ø at 6.1 ppm

CALCULATIONS

(A) Depth to Well Bottom	410 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft² 1.635
(C) One Well Casing Volume (A x B):	8.94 ft³	(J) Filter Pack Volume (F x G)	1.635 ft³
(D) Depth to Top of Screen	400 ft	(K) One Purge Volume (C + J)	10.57 ft³
(E) Depth to Bottom of Screen	410 ft	(L) 10 Purge Volumes (K*10)	~~108~~ 105 ft³

Static Pressure: 0" H_2O **Purge Flow Rate:** 12 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/26/11 1049	0	Ø	1.58	17.48	16060	inst
1052	36	Ø	1.60	17.40	15960	inst
1055	72	Ø	1.62	17.49	16190	inst
1058	108	Ø	1.58	17.55	16450	inst
					1161 x9	
					10449	by dilution

Values Prior to Sampling

1058	108	Ø	1.58	17.55	10449	

Sample ID: VA0454

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106108-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-6-2011

Crew Signature: Amy L Heaman

Weather: HAZY, SLIGHT BREEZE

Time: 1410

Review Signature and Date: [illegible] 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) No AG

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.076 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-6-2011 1410	0	0.0	.96	19.68	5	
7-6-2011 1413	4.5	0.0	.70	20.03	4	
7-6-2011 1416	9.0	0.0	.66	20.13	6	
7-6-2011 1419	13.5	0.0	.64	20.21	5	
7-6-2011 1422	18.0	0.0	.64	20.22	6	

Values Prior to Sampling

7-6-2011 1422	18.0	0.0	.64	20.22	6	

Sample ID: VA0455

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF
Site / SWMU No.: 106
Weather: HAZY, SLIGHT BREEZE

Well ID No/Interval: KAFB-106108-050
Date: 7-6-2011
Time: 2:33

Field Crew: AG, RB
Crew Signature: Amy L. Granaward
Review Signature and Date: 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-6-2011 2:33	0	0.0	3.16	17.32	5	
7-6-2011 2:36	4.5	0.0	3.22	17.32	4	
7-6-2011 2:39	9.0	0.0	3.22	17.44	4	
7-6-2011 2:42	13.5	0.0	3.24	17.47	8	
7-6-2011 2:45	18.0	0.0	3.22	17.39	7	

Values Prior to Sampling

7-6-2011 14:45	18.0	0.0	3.22	17.39	7	

Sample ID: VA0456
VA0457

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB -BFF	**Well ID No/Interval:** KAFB-106108-150	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-6-2011	**Crew Signature:** [signature]
Weather: HAZY, SLIGHT BREEZE	**Time:** 3:17	**Review Signature and Date:** [signature] 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.45 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft^3

Static Pressure: -.5" H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-6-2011 3:17	0	0.0	2.72	19.35	150	
7-6-2011 3:20	4.5	0.0	4.72	15.05	191	
7-6-2011 3:23	9.0	0.0	4.76	14.95	190	
7-6-2011 3:26	13.5	0.0	4.72	14.92	190	
7-6-2011 3:29	18.0	0.0	4.68	14.91	188	
7-6-2011 1532	22.5	0.0	4.62	15.15	185	

Values Prior to Sampling

7-6-2011 1532	22.5	0.0	4.62	15.15	185	

Sample ID: VA0458

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106108-250 240.27-250.27

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Greenwald

Weather: HAZY, SLIGHT BREEZE

Time: 8:00 AM

Review Signature and Date: 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	250.2 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: - 1.0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-7-2011 8:00 AM	0	0.0	0.30	21.10	152	
7-7-2011 8:03 AM	4.5	0.0	0.44	20.35	262	
7-7-2011 8:06 AM	9.0	0.0	0.44	20.34	283	
7-7-2011 8:09 AM	13.5	0.0	0.46	20.39	299	
7-7-2011 8:12 AM	18.0	0.0	0.40	19.51	300	
7-7-2011 8:15 AM	22.5	0.0	0.42	19.61	299	
7-7-2011 8:18 AM	27.0	0.0	0.44	19.66	300	

Values Prior to Sampling

7-7-2011 8:18 AM	27.0	0.0	0.44	19.66	300	

Sample ID: VAO459

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: 34027-350.27 KAFB-106108-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Greenwald

Weather: HAZY, SLIGHT BREEZE

Time: 8:38 Am

Review Signature and Date: RAB 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
BZ 0-0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350.27 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -1.0 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-7-2011 8:38 Am	0	0.0	0.04	20.72	46	
7-7-2011 8:41 Am	4.5	0.0	0.12	20.60	176	
7-7-2011 8:44 Am	9.0	0.0	0.18	20.44	323	
7-7-2011 8:47 Am	13.5	0.0	0.18	20.43	341	
7-7-2011 8:50 Am	18.0	0.0	0.20	20.47	440	
7-7-2011 8:53 Am	22.5	0.0	0.20	20.48	518	
7-7-2011 8:56 Am	27.0	0.0	0.22	20.42	520	

Values Prior to Sampling

7-7-2011 8:56 Am	27.0	0.0	0.22	20.42	520	

Sample ID: VA0460

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106108-450 (440-450)

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Germann

Weather: HAZY & SLIGHT BREEZE

Time: 9:14 Am

Review Signature and Date: RB 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: -1.0 " H2O

Purge Flow Rate: 12

PURGE DATA

Date/Time (4 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-7-2011 9:14 Am	0	0.0	0.00	20.70	0	
7-7-2011 9:18 Am	48	0.0	0.08	20.38	2	
7-7-2011 9:22 Am	96	0.0	0.14	20.17	45	
7-7-2011 9:26 Am	144	0.0	0.16	19.91	84	
7-7-2011 9:30 Am	192	0.0	0.18	19.71	122	
7-7-2011 9:34 Am	240	0.0	0.22	19.57	134	

Values Prior to Sampling

7-7-2011 9:34 Am	240	0.0	0.22	19.57	134	

Sample ID: VA0461

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106109-025 15.2-25.2

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Gronewold

Weather: HAZY, SLIGHT BREEZE

Time: 10:46

Review Signature and Date: RAB 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25.2 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15.2 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25.2 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0" H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-7-2011 10:46	0	0.0	0.50	19.87	4	
7-7-2011 10:49	4.5	0.0	0.50	19.88	3	
7-7-2011 10:52	9.0	0.0	0.48	19.88	4	
7-7-2011 10:55	13.5	0.0	0.48	20.07	2	
7-7-2011 10:58	18.0	0.0	0.50	20.17	2	

Values Prior to Sampling

7-7-2011 1058	18.0	0.0	0.50	20.17	2	

Sample ID: VA0462

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: 40.1 - 50.1 KAFB-106109-050

Field Crew: AG, AB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Gossard

Weather: HAZY, SLIGHT BREEZE

Time: 11:12

Review Signature and Date: KAB 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50.1 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.15 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	40.1 ft	(K) One Purge Volume (C + J)	1.78 ft^3
(E) Depth to Bottom of Screen	50.1 ft	(L) 10 Purge Volumes (K*10)	17.8 ft^3

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-7-2011 11:12 Am	0	0.0	0.72	19.63	1	
7-7-2011 11:15 Am	4.5	0.0	0.71	19.62	1	
7-7-2011 11:18 Am	9.0	0.0	0.72	19.63	2	
7-7-2011 11:21 Am	13.5	0.0	0.72	19.58	1	
7-7-2011 11:24 Am	18.0	0.0	0.72	19.56	2	

Values Prior to Sampling

7-7-2011 11:24 Am	18.0	0.0	0.72	19.56	2	

Sample ID: VA0463
VA0464

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB -106109 -150 (140-150)

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Granaudo

Weather: HAZY, LIGHT BREEZE

Time: 1:15 PM

Review Signature and Date: VKMO 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: - 1.0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-7-2011 1:15 PM	0	0.0	0.00	21.03	2	
7-7-2011 1:18 PM	4.5	0.0	0.00	21.07	1	
7-7-2011 1:21 PM	9.0	0.0	0.00	20.80	2	
7-7-2011 1:24 PM	13.5	0.0	0.02	20.82	2	
7-7-2011 1:27 PM	18.0	0.0	0.00	20.87	1	
7-7-2011 1330	22.5	0.0	0.00	20.84	0	

Values Prior to Sampling

7-7-2011 1330	22.5	0.0	0.00	20.84	0	

Sample ID: VA0465

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106109-250 (240.2-250.2)

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature:

Weather: HAZY, SLIGHT BREEZE

Time: 1:56 PM

Review Signature and Date: 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250.2 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240.2 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250.2 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: - 1.0" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-7-2011 1:50 PM	0	0.0	.32	19.57	5	
7-7-2011 1:53 PM	4.5	0.0	0.32	19.33	7	
7-7-2011 1:56 PM	9.0	0.0	0.32	19.28	7	
7-7-2011 1:59 PM	13.5	0.0	0.34	19.33	6	
7-7-2011 2:02 PM	18.0	0.0	0.34	19.41	9	
7-7-2011 2:05 PM	22.5	0.0	0.34	19.39	12	
7-7-2011 1408	27.0	0.0	0.32	19.39	13	

Values Prior to Sampling

7-7-2011 1408	27.0	0.0	0.32	19.39	13	

Sample ID: VA0466

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106109-350 340.6 - 350.6

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Greenwald

Weather: HAZY, SLIGHT BREEZE

Time: 1430

Review Signature and Date: 2/2/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	350.6 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340.6 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350.6 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: – 1.0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (4 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-7-2011 1430	0	0.0	.06	19.94	76	
7-7-2011 1436	9	0.0	.13	20.07	83	
7-7-2011 1443	18	0.0	.20	20.33	90	
7-7-2011 1450	27	0.0	.26	20.36	98	

Values Prior to Sampling

7-7-2011 1450	27	0.0	.26	20.36	98	

Sample ID: VA0467

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BP5

Well ID No/Interval: KAFB-106109-450 (440-450)

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-7-2011

Crew Signature: Amy Greenawalt

Weather: HAZY, SLIGHT BREEZE

Time: 1517

Review Signature and Date: 7/7/11

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged **Locked:** ~~Yes~~ No **Well ID Mark:** ~~Yes~~ No

Notes: BKGD 0.0 VOC'S
BZ 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor~~: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: -.90" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

Date/Time (4 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-7-2011 1517	0	0.0	0.12	21.76	5 ~~21.76~~ AG	
7-7-2011 1521	48	0.0	0.12	21.78	6	
7-7-2011 1525	96	0.0	0.20	21.89	12	
7-7-2011 1529	144	0.0	0.28	20.64	25	
7-7-2011 1533	192	0.0	0.32	20.24	35	
7-7-2011 1537	240	0.0	0.36	20.05	54	

Values Prior to Sampling

7-7-2011 1537	240	0.0	0.36	20.05	54	

Sample ID: VA0468

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106110-025

Field Crew: TN, RB

Site / SWMU No.: 106

Date: 8/29/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 825

Review Signature and Date: RAB 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

B2 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft³

Static Pressure: 0 "H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/29/11 825	0	0	.52	20.03	5	
828	4.5	0	.86	19.67	6	
831	9	0	.90	19.61	6	
834	13.5	0	.96	19.55	9	
837	18	0	1.00	19.48	7	

Values Prior to Sampling

837	18	0	1.00	19.48	7	

Sample ID: VA0469

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: KAFB106110-050

Date: 8/29/11

Time: 857

Field Crew: FN, RB

Crew Signature: Tim Nagy

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

B7 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.14 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.77 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.7 ft³

Static Pressure: -.02" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/29/11 857 TN	0	0	1.44	18.77	11	
900	4.5	0	1.54	18.64	8	
903	9	0	1.58	18.66	9	
906	13.5	0	1.56	18.70	9	
909	18	0	1.58	18.72	10	

Values Prior to Sampling

909	18	0	1.58	18.72	10	

Sample ID: VA0470

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: KAFB 106 110-150

Date: 8/29/11

Time: 929

Field Crew: TN, RB

Crew Signature: [signature]

Review Signature and Date: [signature] 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged

Locked: Yes - No

Well ID Mark: Yes - No

Notes: BKgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.42 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.05 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.5 ft^3

Static Pressure: -.42" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/29/11 929	0	0	.50	20.11	25	
932	4.5	0	1.38	18.80	153	
935	9	0	1.38	18.80	152	
938	13.5	0	1.38	18.83	151	
941	18	0	1.36	18.84	150	
944	22.5	0	1.16	18.28	145	

Values Prior to Sampling

944	22.5	0	1.16	18.28	145	

Sample ID: VA 0471

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-877

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: KAFB 106110-250

Date: 8/29/11

Time: 1004

Field Crew: RB, TN

Crew Signature:

Review Signature and Date: 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.44

Purge Flow Rate: 1.5 cfm

PURGE DATA

6min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/29/11 1004	0	0	0	20.84	13	
1010	9	0	.62	19.63	17	
1016	18	0	.62	19.64	18	
1022	27	0	.56	19.44	16	

Values Prior to Sampling

1022	27	0	.56	19.44	16	

Sample ID: VA0472

VA0473

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB106 110-350

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/29/11

Crew Signature: [signature]

Weather: sunny

Time: 1100

Review Signature and Date: [signature] 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

B2 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: −.40 "H2O

Purge Flow Rate: 1.5 afm

PURGE DATA

Date/Time (6 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/29/11 1100	0	0	.18	19.78	90	
1106	9	0	.20	19.60	159	
1112	18	0	.20	19.57	162	
1118	27	0	.18	19.51	159	

Values Prior to Sampling

1118	27	0	.18	19.51	159	

Sample ID: VA0474

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: KAFB 106110-450

Date: 8/29/11

Time: 1143

Field Crew: RB, TN

Crew Signature: Tim Nagy

Review Signature and Date: RB 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	23.70 ft^3

Static Pressure: -.58" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4 min

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/29/11 1143	0	0	0	19.06	74	
1147	48	0	.32	17.86	G310	
1151	96	0	.32	17.89	G410	
1155	144	0	.32	17.84	G420	
1159	192	0	.24	17.74	G410	
1203	240	0	.24	17.71	G370	

Values Prior to Sampling

1203	240	0	.24	17.71	G370	

Sample ID: VA0475

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: cloudy

Well ID No/Interval: KAFB 106 111-025

Date: DLO ~~6/9/11~~ 9/6/11

Time: 1329

Field Crew: TN, DR

Crew Signature: [signature]

Review Signature and Date: [signature] 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged

Locked: Yes - No

Well ID Mark: Yes - No

Notes: Bkgd VOC's 2.7
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.7 ft^3
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft^3

Static Pressure: 0" H_2O

Purge Flow Rate:

PURGE DATA

3min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
6/9/11 1329	0	0	.92	19.59	26	
1332	4.5	0	.86	19.78	30	
1335	9.0	0	.86	19.89	30	
1338	13.5	0	.88	19.96	27	
1341	18.0	0	.88	20.00	25	

Values Prior to Sampling

1341	18.0	0	.88	20.00	25	

Sample ID: VA0476

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: cloudy

Well ID No/Interval: KAFB106111-050

Date: 9/6/11

Time: 1406

Field Crew: TN, DR

Crew Signature: [signature]

Review Signature and Date: [signature] 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 2.8
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/6/11 1406	0	0	3.28	15.21	16	
1409	4.5	0	3.36	15.10	13	
1412	9.0	0	3.42	15.03	12	
1415	13.5	0	3.44	15.03	14	
1418	18.0	0	3.46	15.03	12	

Values Prior to Sampling

1418	18.0	0	3.46	15.03	12	

Sample ID: VA0477

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB106111-150

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 9/6/11

Crew Signature: [signature]

Weather: cloudy

Time: 1438

Review Signature and Date: [signature] 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 2.8
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.46 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	~~1.79~~ 2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: −.80 "H20

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
9/6/11 1438	0	0	2.00	17.25	13	
1441	4.5	0	2.12	17.05	140	
1444	9.0	0	2.20	16.91	146	
1447	13.5	0	2.24	16.83	150	
1450	18.0	0	2.26	16.80	155	
1453	22.5	0	2.24	16.81	153	

Values Prior to Sampling

1453	22.5	0	2.24	16.81	153	

Sample ID: VA0478

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106111-250

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/6/11

Crew Signature: Tim Nagy

Weather: Sunny

Time: 1516

Review Signature and Date: DR 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 2.9
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	0.765 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft^3
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft^3

Static Pressure: −.86" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

0 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/6/11 1516	0	0	0	20.67	12	
1522	9	0	.66	19.30	45	
1528	18	0	.66	19.36	44	
1534	27	0	.64	19.21	40	

Values Prior to Sampling

1534	27	0	.64	19.21	40	

Sample ID: VA0479

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106II-350

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/6/11

Crew Signature: Tim Page

Weather: cloudy

Time: 1551

Review Signature and Date: 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 82.8

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft^3

Static Pressure: -.94" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (6min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/6/11 1551	0	0	0	20.71	10	
1557	9	0	.10	19.45	328	
1603	18	0	.10	19.36	333	
1609	27	0	.10	19.34	334	

Values Prior to Sampling

1609	27	0	.10	19.34	334	

Sample ID: VA0480

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106111-450

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/7/11

Crew Signature: TN Nagy

Weather: cloudy

Time: 807

Review Signature and Date: 9/7/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 4.8
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: −1.4" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/7/11 807	0	0	0	20.98	3	
811	48	0	.42	20.18	557	
815	96	0	.80	17.83	5330	
819	144	0	.88	17.45	6910	
823	192	0	.88	16.87	7210	
827	240	0	.90	16.82	7280	

Values Prior to Sampling

827	240	0	.90	16.82	7280	

Sample ID: VA 0481

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: windy

Well ID No/Interval: KAFB 106112-025

Date: 9/8/11

Time: 813

Field Crew: RB, TN

Crew Signature: [signature]

Review Signature and Date: [signature] 9/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft³

Static Pressure: Ø " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/8/11 813	0.00	0	.12	20.84	1	
816	4.5	0	.26	20.69	1	
819	9.0	0	.28	20.67	2	
822	13.5	0	.30	20.67	1	
825	18.0	0	.32	20.67	2	
828	22.5	0	.26	20.10	4	
831	27.0	0	.28	20.10	4	
834	31.5	0	.28	20.10	4	extra purge due to difference from last quarter

Values Prior to Sampling

~~825~~	~~18.0~~	~~0~~	~~.32~~	~~20.67~~	~~2~~	
834	31.5	0	.28	20.10	4	

Sample ID: VA0482

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB 106112-050

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/8/11

Crew Signature:

Weather: sunny

Time: 900

Review Signature and Date: 9/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 1.6
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	0.153 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft^3
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft^3

Static Pressure: −.02" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
900	0	0	.28	20.14	4	
903	4.5	0	.52	19.71	8	
906	9.0	0	.56	19.61	9	
909	13.5	0	.56	19.57	10	
912	18.0	0	.60	19.52	11	

Values Prior to Sampling

912	18.0	0	.60	19.52	11	

Sample ID: VA0483
VA0484

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106112-150

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/8/11

Crew Signature:

Weather: Sunny

Time: 953

Review Signature and Date: 9/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 1.1

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.459 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft^3

Static Pressure: −2.2" H_2O

Purge Flow Rate:

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/8/11 953	0	0	.26	19.50	5	
956	4.5	0	.62	17.71	23	
959	9	0	.68	17.40	28	
1002	13.5	0	.70	17.26	29	
1005	18	0	.70	17.21	30	
1008	22.5	0	.72	17.17	31	

Values Prior to Sampling

1008	22.5	0	.72	17.17	31	

Sample ID: VA0485

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106 112-250

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/8/11

Crew Signature:

Weather: sunny + windy

Time: 1036

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 1.4
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.395 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.95 ft³

Static Pressure: -2.2" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/8/11 1036	0	0	0	20.60	2	
1042 ~~1089~~	9	0	1.32	17.07	62	
1048	18	0	1.34	17.04	63	
1054	27	0	1.34	17.01	63	

Values Prior to Sampling

1054	27	0	1.34	17.01	63	

Sample ID: VA0486

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106 112-350

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/8/11

Crew Signature:

Weather: Sunny 70's

Time: 1124

Review Signature and Date: 9/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 1.4
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: −2.4" H_2O

Purge Flow Rate:

PURGE DATA

6 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/8/11 1124	0	0	0	20.93	1	
1130	9	0	1.28	16.05	8800	
1136	18	0	1.28	16.06	8890	
1142	27	0	1.30	16.04	8970	

Values Prior to Sampling

1142	27	0	1.30	16.04	8970	

Sample ID: VA0487

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB10612-450 PSB

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 9/8/11

Crew Signature: [signature]

Weather: Sunny

Time: 1205

Review Signature and Date: [signature] 9/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 1.4
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: −2.8" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/8/11 1205	0	0	0	20.83	13	
1209	48	0	1.46	17.45	9600	
1213	96	0	1.54	17.47	10320	inst
1217	144	0	1.46	17.49	10340	inst
1221	192	0	1.58	17.71	10340	inst
1225	240	0	1.60	17.74	10410	inst
					604	x9
				=	5436	by dilution

Values Prior to Sampling

1225	240	0	1.60	17.74	~~10410~~ TD 5436	

Sample ID: V0488

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: PARTLY CLOUDY

Well ID No/Interval: ~~KAFB~~ - 106113 - 020

Date: 8-8-2011

Time: 931

Field Crew: AG, RB

Crew Signature: Amy Gronewold

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	20 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.06 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	10 ft	(K) One Purge Volume (C + J)	1.69 ft³
(E) Depth to Bottom of Screen	20 ft	(L) 10 Purge Volumes (K*10)	16.9 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-8-2011 906	0	0	.34	20.32	2	Stopped purge to
		0			1	refuel generator
931	0	0	.38	19.98	1	Restart purge
934	4.5	0	.42	19.65	1	
937	9.0	0	.42	19.67	0	
940	13.5	0	.40	19.56	4	
943	18.0	0	.40	19.57	5	
8-8-2011						

Values Prior to Sampling

8-8-2011 943	18.0	0	.40	19.57	5	

Sample ID: VA0489

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: PARTLY CLOUDY

Well ID No/Interval: KAFB-106113-050

Date: 8-8-2011

Time: 10:23 AM

Field Crew: AG, AB

Crew Signature: Amy Gonzales

Review Signature and Date: 8-8-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: ~~Yes~~ - No

Well ID Mark: (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15~ ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: -.1 "H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-8-2011 10:23 AM	0	0	0.24	20.29	1	
8-8-2011 10:26 AM	4.5	0	0.30	20.10	2	
8-8-2011 10:29 AM	9.0	0	0.34	19.77	0	
8-8-2011 10:32 AM	13.5	0	0.40	19.51	3	
8-8-2011 10:35	18.0	0	0.40	19.50	4	

Values Prior to Sampling

8-8-2011 10:35 AM	18.0	0	0.40	19.50	4	

Sample ID: VA0490

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: PARTLY CLOUDY

Well ID No/Interval: KAFB-106113-150

Date: 8-8-2011

Time: 12:47

Field Crew: AG, RB

Crew Signature: [signature]

Review Signature and Date: [signature] 8-8-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: −.2" H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-8-2011 12:47	0	0	0.28	18.53	2	
8-8-2011 12:50	4.5	0	0.30	18.77	1	
8-8-2011 12:53	9.0	0	0.22	18.53	3	
8-8-2011 12:56	13.5	0	0.20	18.54	3	
8-8-2011 12:59	18.0	0	0.21	18.54	2	
8-8-2011 1:02	22.5	0	0.20	18.56	3	

Values Prior to Sampling

8-8-2011 1:02	22.5	0	0.20	18.56	3	

Sample ID: VA0491

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: PARTLY CLOUDY

Well ID No/Interval: KAFB-106113-250

Date: 8-8-2011

Time: 1321

Field Crew: AG, RB

Crew Signature:

Review Signature and Date: 8-8-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.2 in H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

6 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
8-8-2011 1321	0	0	0.66	18.99	4	
8-8-2011 1327	9	0	0.68	19.16	2	
8-8-2011 1333	18	0	0.68	19.17	3	
8-8-2011 1339	27	0	0.68	19.21	2	

Values Prior to Sampling

8-8-2011 1339	27	0	0.68	19.21	2	

Sample ID: VP0492

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106113-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-8-2011

Crew Signature: Amy Granowski

Weather: HAZY, HOT

Time: 1413

Review Signature and Date: 8-8-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft^3

Static Pressure: -.36 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-8-2011 1413	0	0	0.46	18.02	1465	
8-8-2011 1419	9	0	0.46	18.01	1480	
8-8-2011 1425	18	0	.38	17.75	1495	
8-8-2011 1431	27	0	.38	17.77	1498	

Values Prior to Sampling

8-8-2011 1431	27	0	.38	17.77	1498	

Sample ID: VA0493

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BJF

Site / SWMU No.: 106

Weather: 1124 , 1405

Well ID No/Interval: KAFB-106 113-450

Date: 8-8-2011

Time: 1524

Field Crew: AG , RB

Crew Signature:

Review Signature and Date: 8-8-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BUGO 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: -.42 " H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-8-2011 1524	0	0	0.36	17.56	4440	
8-8-2011 1528	48	0	0.38	17.33	4632	
8-8-2011 1532	96	0	0.40	17.31	4724	
8-8-2011 1536	144	0	0.40	17.30	4896	
8-8-2011 1540	192	0	0.38	17.22	4891	
8-8-2011 1544	240	0	0.38	17.21	4890	

Values Prior to Sampling

8-8-2011 1544	240	0	0.38	17.21	4890	

Sample ID: VA0494

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | Well ID No/Interval: 106114-025 | Field Crew: RB, TN

Site / SWMU No.: 106 | Date: 8/5/11 | Crew Signature: Tim Nogan

Weather: cloudy, rainy | Time: 914 | Review Signature and Date: 8/5/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged | Locked: (Yes) - No | Well ID Mark: (Yes) - No

Notes: BKgd - 0.0 Voc
Bz - 0.0 Voc

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	~~.077~~ ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.077 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.71 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft³

Static Pressure: 0 " H_2O | **Purge Flow Rate:** 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/5/11 914	0	0	.50	20.88	1	
917	4.5	0	.60	20.82	0	
920	9	0	.68	20.72	1	
923	13.5	0	.70	20.64	1	
926	18	0	.72	20.64	1	

Values Prior to Sampling

926	18	0	.72	20.64	1	

Sample ID: VA0496

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106114-050

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/5/11

Crew Signature:

Weather: cloudy

Time: 954

Review Signature and Date: 8/5/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes:

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: -.06" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 times Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/5/11 954	0	0	.56	19.99	0	
957	4.5	0	.58	19.90	0	
1000	9	0	.58	19.85	0	
1003	13.5	0	.62	19.75	0	
1007	18	0	.58	19.29	0	

Values Prior to Sampling

1007	18	0	.58	19.29	0	

Sample ID: VA0497

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106114 - 150

Field Crew: RB, TN

Site / SWMU No.: 106

Date: ~~1035~~ TN 8/5/11

Crew Signature: Tim Nagy

Weather: cloudy

Time: 1035

Review Signature and Date: [signature] 8/5/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes:

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.46 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	21 ft³

Static Pressure: −.64" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/5/11 1035	0	0	.38	18.9	0	
1038	4.5	0	TN 0.40	18.52	0	
1041	9	0	.40	18.54	0	
1044	13.5	0	.40	18.59	0	
1047	18	0	.42	18.55	0	
1050	22.5	0	.42	18.52	0	

Values Prior to Sampling

1050	22.5	0	.42	18.52	0	

Sample ID: VA0498

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106114-250
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/5/11
Crew Signature: [signature]
Weather: sunny
Time: 1309
Review Signature and Date: [signature] 8/5/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKgd / 0 VOC's
BZ / 0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.40 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	24 ft³

Static Pressure: −.70 "H₂O

Purge Flow Rate: 1.5 afm

PURGE DATA

6 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
1309	0	0	.80	19.40	2	
1315	9	0	.82	19.61	1	
1321	18	0	.78	19.17	1	
1327	27	0	.78	19.20	0	

Values Prior to Sampling

1327	27	0	.78	19.20	0	

Sample ID: VA0499

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106114-350
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/5/11
Crew Signature: [signature]
Weather: sunny
Time: 1350
Review Signature and Date: [signature]

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd - VOC's 0
BZ - VOC's 0

CALCULATIONS

(A) Depth to Well Bottom TD	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: -.90" H_2O

Purge Flow Rate: 65 cfm

PURGE DATA

6 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/5/11 1350	0	0	.18	20.02	87	
1356	9	0	.30	19.89	182	
1402	18	0	.32	19.82	223	
1408	27	0	.34	19.85	262	
1414	36	0	.36	19.94	290	
1420	45	0	.38	20.07	319	additional purge for stabilization

Values Prior to Sampling

1420	45	0	.38	20.07	319	

Sample ID: VA0500
VA0501

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: 106114-450

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/5/11

Crew Signature: Tim Nugen

Weather: Sunny

Time: 1454

Review Signature and Date: 8/5/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: BKmnd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) ~~Casing Factor~~: ½" = .00136, ¾" = .00306, 2" = .0218 (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.71 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: -.92" H_2 Purge Flow Rate: 12 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/5/11 1454	0	0	.54	18.70	6000	
1458	48	0	.68	18.36	9550	
1502	96	0	.66	18.23	11568	inst.
1506	144	0	.70	18.22	12120	inst.
1510	192	0	.70	18.19	12290	inst.
1514	240	0	.64	18.14	12830	
					648 x 9	by dilution

Values Prior to Sampling

1514	240	0	.64	18.14	5832	by dilution

Sample ID: VA0502

** *

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106115-025

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/9/11

Crew Signature: TN Noah

Weather: sunny

Time: 0919

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark (Yes) - No

Notes: Bkgd = 0.0 VOC
BZ = 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.08 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.71 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.1 ft³

Static Pressure: 0

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time 8/9/11	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv) TN	
0919	0	0	0	20.07	2	
0922	4.5	0	.42	20.09	3	
0925	9	0	.44	20.18	2	
0928	13.5	0	.44	20.23	2	
0931	18	0	.44	20.24	2	

Values Prior to Sampling

0931	18	0	.44	20.24	2	

Sample ID: VA0503

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** 106115-050	**Field Crew:** RB, TN
Site / SWMU No.: 106	**Date:** 8/9/11	**Crew Signature:**
Weather: Sunny	**Time:** 0949	**Review Signature and Date:**

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKgrnd 0.0 VOC's
BZ 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom TN	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: 1½" = .00136, 2" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.783 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	178 ft³

Static Pressure: -.04

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/9/11 0949	0	0	0.56	20.13	3	
0952	4.5	0	0.52	19.51	3	
0955	9	0	0.54	19.47	2	
0958	13.5	0	0.56	19.46	2	
1001	18	0	0.58	19.48	5	

Values Prior to Sampling

1001	18	0	0.58	19.48	5	

Sample ID: VA0504

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106 115-150
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/9/11
Crew Signature: Tim Nagy
Weather: sunny
Time: 1027
Review Signature and Date: 8/9/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: (Yes) - No
Well ID Mark: (Yes) - No

Notes: Bkgrd ØVOC's
B2 ØVOC's

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.459 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.089 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.89 ft³

Static Pressure: -.14
Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
8/9/11 1027	0	0	0.14	19.80	3	
1030	4.5	0	0.30	18.86	4	
1033	9	0	0.34	18.71	3	
1036	13.5	0	0.36	18.71	4	
1039	18	0	036	18.68	4	
1042	22.5	0	0.36	18.70	4	

Values Prior to Sampling

1042	22.5	0	0.36	18.70	4	

Sample ID: VA0505
VA0506

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106115-250
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/9/11
Crew Signature: Tim Nogay
Weather: sunny
Time: 1246
Review Signature and Date: 8/9/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: (Yes) - No
Well ID Mark: (Yes) - No

Notes: BKgrd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.765 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.395 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.95 ft³

Static Pressure: −0.12 "H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (6 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/9/11 1246	0	0	0.28	19.25	4	
1252	9	0	0.32	19.47	3	
1258	18	0	0.22	19.39	3	
1304	27	0	0.22	19.54	4	

Values Prior to Sampling

1304	27	0	0.22	19.54	4	

Sample ID: VA0507

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BTF
Well ID No/Interval: 106115-350
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/9/11
Crew Signature: Tim Noger
Weather: sunny
Time: 1324
Review Signature and Date: Mark Jaya 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKgrd VOC's 0 TN
BZ VOC's 2.3 (open)

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: -.36
Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (6 min)	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/9/11 1324	0	0	.24	19.47	628	
1330	9	0	.34	19.56	1988	
1336	18	0	.34	19.57	1994	
1342	27	0	.34	19.59	1994	

Values Prior to Sampling

1342	27	0	.34	19.59	1994	

Sample ID: VA0508

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	Well ID No/Interval: 106115-450	Field Crew: RB, TN
Site / SWMU No.: 106	Date: 8/9/11	Crew Signature: Tim Noga
Weather: sunny	Time: 1416	Review Signature and Date: [signature] 8/9/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged Locked: Yes - No Well ID Mark: Yes - No

Notes: Bkgd 0.0 voc
BZ 1.3 voc - (open)

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.08 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft^3

Static Pressure: -.40" H_2O **Purge Flow Rate:** 12 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/9/11 1416	0	0	0.64	17.17	3880	
1420	48	0	0.80	16.69	6150	
1424	96	0	0.84	16.54	6840	
1428	144	0	0.86	16.37	7380	
1432	192	0	0.90	16.28	7690	
1436	240	0	0.90	16.23	7850	

Values Prior to Sampling

1436	240	0	0.90	16.23	7850	

Sample ID: VA0509

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106116-025
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/10/11
Crew Signature: Tom Noser
Weather: Sunny
Time: 1100
Review Signature and Date: 8/10/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: (Yes) - No
Well ID Mark: (Yes) - No

Notes: Bkgd VOC's Ø
BZ VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136 (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.076 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.71 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.1 ft³

Static Pressure: 0 in H_2O
Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/10/11 1100	TN ~~4.5~~ 0	0	0.54	20.16	1	
1103	TN ~~9~~ 4.5	0	0.54	20.19	1	
1106	TN ~~13.5~~ 9	0	0.54	20.14	1	
1109	TN ~~18~~ 13.5	0	0.54	20.10	1	
1112	18	0	0.54	20.13	1	

Values Prior to Sampling

1112	18	0	0.54	20.13	1	

Sample ID: VA0510

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: 106116-050

Date: 8/10/11

Time: 1141

Field Crew: RB, TN

Crew Signature: Tim Nagy

Review Signature and Date: 8/10/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: Bkgd VOC's Ø
BZ VOC's Ø
- Fuel truck @ Fill Stand 3 (adjacent to well)

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	0.153 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.783 ft^3
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.83 ft^3

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/10/11 1141	0	0	.86	18.42	1	
1144	4.5	0	.86	18.36	2	
1147	9	0	.78	18.05	TN 2	
1150	13.5	0	.80	18.11	0	
1153	18	0	.80	18.20	2	

Values Prior to Sampling

1153	18	0	.80	18.20	2	

Sample ID: VA0511

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB BFF

Site / SWMU No.: 106

Weather: Ptly Cldy - 90s

Well ID No/Interval: KAFB-106142-450

Date: 8/10/11

Time: 1402

Field Crew: RB . TN

Crew Signature: [signature]

Review Signature and Date: [signature] 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: BKgd - 0.0 VOC
BZ - 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	2207 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: +.60" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1402	0	0	.18	20.26	59	
1406	48	0	.18	20.04	65	
1410	96	0	.20	20.17	65	
1414	144	0	.22	20.23	67	
1418	192	0	.14	20.21	68	
1422	240	0	.14	20.28	69	

Values Prior to Sampling

1422	240	0	.14	20.28	69	

Sample ID: VA0686-R

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: 106116-150

Date: 8/10/11

Time: 1531

Field Crew: RB, TN

Crew Signature: [signature]

Review Signature and Date: [signature] 8/15/2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged

Locked: Yes - No

Well ID Mark: Yes - No

Notes: Bkgd VOC's Ø
BZ VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.459 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.089 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.89 ft^3

Static Pressure: 0" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/10/11 1516	0	0	0.54	17.60	9	
1519	4.5	0	0.50	17.34	11	
1522	9	0	0.52	17.41	10	
1525	13.5	0	0.52	17.46	12	
1528	18	0	0.54	17.53	10	
1531	22.5	0	0.54	17.33	12	

Values Prior to Sampling

1531	22.5	0	0.54	17.33	12	

Sample ID: VA0512

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB BFF

Site / SWMU No.: 106

Weather: Pt Cldy 80s

Well ID No/Interval: KAFB 106116-250

Date: 8/11/11

Time: 904

Field Crew: DR RB

Crew Signature:

Review Signature and Date: 8-11-11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: Bkgd - 0.0 VOC
BZ - 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: −.59" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

~~Date/Time~~ 6 min	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
904	0	0	0.0	21.13	5	
910	9	0	0.0	20.86	0	
916	18	0	0.0	20.81	0	
922	27	0	0.0	20.95	1	

Values Prior to Sampling

922	27	0	0.0	20.95	1	

Sample ID: VA0513

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: Pt. Cldy 90s

Well ID No/Interval: KAFB 106116-350

Date: 8/11/11

Time: 939

Field Crew: RB · DR

Crew Signature:

Review Signature and Date: 8-11-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) No

Well ID Mark: (Yes) - No

Notes: Bkgd - 0.0 VOC
BZ - 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: -.80" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

6 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
939	0	0	.76	17.96	372	
945	9	0	.82	17.86	5260	
951	18	0	.84	17.94	5270	
957	27	0	.86	17.94	5290	

Values Prior to Sampling

957	27	0	.86	17.94	5290	

Sample ID: VA0514

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: Pt Cldy

Well ID No/Interval: KAFB-106116-450

Date: 8/11/11

Time: 1020

Field Crew: RB DR

Crew Signature:

Review Signature and Date: 8-11-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: BKgd 0.0 VOC
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.0 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.63 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft^3

Static Pressure: -.90" H_2O

Purge Flow Rate: 12 Ofm

PURGE DATA

4 min Date/Time 8/11/11	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1020	0	0	0	20.91	4	
1024	48	0	.38	19.96	5720	
1028	96	0	1.16	19.43	10560	inst
1032	144	0	1.28	17.67	24380	inst
1036	192	0	1.32	17.70	24570	inst
1040	240	0	1.30	17.73	24850	inst
					2067x9	By Dilution

Values Prior to Sampling

1040	240	0	1.30	17.73	18603	By dilution

Sample ID: VA0515

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Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** KAFB 106117-025	**Field Crew:** TN, DR
Site / SWMU No.: 106	**Date:** 9/9/11	**Crew Signature:**
Weather: cloudy 60's	**Time:** 1136	**Review Signature and Date:** 9-9-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.076 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft^3
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft^3

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/9/11 1136	0	0	.80	19.90	5	
1139	4.5	0	1.54	19.38	6	
1142	9	0	1.62	19.34	5	
1145	13.5	0	1.64	19.35	5	
1148	18	0	1.66	19.35	5	

Values Prior to Sampling

1148	18	0	1.66	19.35	5	

Sample ID: VA0516

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106117-050

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/9/11

Crew Signature:

Weather: cloudy + windy

Time: 1226

Review Signature and Date: 9-9-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOCs 0

BZ VOCs 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E – D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1226	0	0	2.94	17.82	2	
9/9/11 1229	4.5	0	3.18	17.60	1	
1232	9.0	0	3.30	17.45	1	
1235	13.5	0	3.34	17.44	2	
1238	18.0	0	3.34	17.43	1	

Values Prior to Sampling

1238	18.0	0	3.34	17.43	1	

Sample ID: VA05 17

VA05 18

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106117-150

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/9/11

Crew Signature: Tim Nagy

Weather: cloudy 60's

Time: 1312

Review Signature and Date: 9/9/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) / Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.459 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: – 1.0 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
9/9/11 1312	0.0	0	.76	19.20	6	
1315	4.5	0	2.30	16.70	6	
1318	9.0	0	2.32	16.57	5	
1321	13.5	0	2.38	16.46	5	
1324	18.0	0	2.38	16.42	4	
1327	22.5	0	2.38	16.40	4	

Values Prior to Sampling

1327	22.5	0	2.38	16.40	4	

Sample ID: VA0519

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB106117-250

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/9/11

Crew Signature: [signature]

Weather: cloudy

Time: 1348

Review Signature and Date: [signature] 9/9/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: −1.0" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Gun Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/9/11 1348	0	0	1.36	17.85	649	HC shot up to ~1000 in the first 15 seconds then settled
1354	9	0	.94	18.26	61	back down to ~70
1400	18	0	.94	18.30	55	
1406	27	0	.94	18.30	55	

Values Prior to Sampling

1406	27	0	.94	18.30	55	

Sample ID: VA0520

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106117-350

Field Crew: TN, DR

Site / SWMU No.: 106

Date: 9/9/11

Crew Signature:

Weather: cloudy

Time: 1430

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's Ø

BZ VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: -1.2" H_2O

Purge Flow Rate: 1.5 dm

PURGE DATA

Gmin Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/9/11 1430	0	0	.02	2107	6	
1436	9	0	3.44	14.32	20210	inst.
1442	18	0	3.48	14.12	20800	inst.
1448	27	0	3.44	14.03	21990	inst.
					1877	x 9
					= 16893	by dilution

Values Prior to Sampling

1448	27	0	3.44	14.03	16893	by dilution

Sample ID: VA0521

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106 117-450

Field Crew: TN

Site / SWMU No.: 106

Date: 9/9/11

Crew Signature: Tim Vogel

Weather: cloudy 70's

Time: 1528

Review Signature and Date: 9/9/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 1.8
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237.0 ft³

Static Pressure: −1.0 "H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/9/11 1528	0	0	0	20.42	97	
1532	48	0	1.58	16.61	28650	inst.
1536	96	0	1.60	16.62	29330	inst.
1540	144	0	1.60	16.64	29840	inst.
1544	192	0	1.60	16.62	29750	inst.
1548	240	0	1.62	16.68	29350	
					2180	x9
				=	19620	by dilution

Values Prior to Sampling

1548	240	0	1.62	16.68	19620	

Sample ID: VA0522

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: KAFB106118/25

Date: 8/24/11

Time: 1152

Field Crew: RB, TN

Crew Signature: [signature]

Review Signature and Date: [signature] 8/24/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.0765 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.7 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft³

Static Pressure: 0 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/24/11 1152	0	0	.78	19.88	4	
1155	4.5	0	.82	19.82	6	
1158	9	0	.82	19.82	7	
1201	13.5	0	.84	19.79	6	
1204	18	0	.86	19.75	6	

Values Prior to Sampling

1204	18	0	.86	19.75	6	

Sample ID: VA0523

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106118-50

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/26/11

Crew Signature: [signature]

Weather: cloudy

Time: 1220

Review Signature and Date: [signature] 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.14 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.77 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.7 ft³

Static Pressure: 0" H20

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%) TN	O_2 (%)	HC (ppmv)	Comments
8/24/11 1220	0	0	1.78	18.33	5	
1223	4.5	0	1.88	18.39	7	
1226	9	0	1.92	18.36	8	
1229	13.5	0	1.96	18.33	7	
1232	18	0	2.00	18.28	6	

Values Prior to Sampling

1232	18	0	2.00	18.28	6	

Sample ID: VA0824

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-877 | **Well ID No/Interval:** KAFB106118-160 | **Field Crew:** RB, TN

Site / SWMU No.: 106 | **Date:** 8/24/11 | **Crew Signature:** Tin Nagh

Weather: cloudy | **Time:** 1256 | **Review Signature and Date:** 8/24/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	160 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.48 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	150 ft	(K) One Purge Volume (C + J)	2.11 ft³
(E) Depth to Bottom of Screen	160 ft	(L) 10 Purge Volumes (K*10)	21.1 ft³

Static Pressure: -.78" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/24/11 1256	0	0	15.2	17.28	20	
1259	4.5	0	~~16.81~~ TN 1.60	16.81	32	
1302	9	0	1.54	16.83	39	
1305	13.5	0	1.52	16.84	40	
1308	18	0	1.48	16.87	45	
1311	22.5	0	1.46	16.87	45	

Values Prior to Sampling

1311	22.5	0	1.46	16.87	45	

Sample ID: VA0525
VA0526

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106118-265

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/24/11

Crew Signature: Tim Nagra

Weather: cloudy, Thunderclouds

Time: 1345

Review Signature and Date: [illegible] 8/24/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd 0.0 VOC
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	265 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.81 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	255 ft	(K) One Purge Volume (C + J)	2.44 ft³
(E) Depth to Bottom of Screen	265 ft	(L) 10 Purge Volumes (K*10)	24.4 ft³

Static Pressure: -.84" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Gmin Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/24/11 1345	0	0	.56	17.37	399	
1351	9	0	.60	17.36	407	
1357	18	0	.58	17.38	401	
1403	27	0	.60	17.41	400	Shut down for work stoppage due to lightening
1530	Collect sample					

Values Prior to Sampling

~~1403~~ 1530	27	0	.60	17.41	400	

Sample ID: VA0527

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106118-350

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/25/11

Crew Signature: TN Nogu

Weather: partly cloudy + breezy

Time: 844

Review Signature and Date: [signature] 8/25/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: −1.8" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

6mm Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/25/11 844	0	0	0	20.91	2	
850	9	0	.04	21.20	1	
856	18	0	.08	21.25	3	
902	27	0	.06	20.52	3	

Values Prior to Sampling

902	27	0	.06	20.52	3	

Sample ID: VA0528

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106118-450

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/25/11

Crew Signature:

Weather: sunny

Time: 925

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

B2 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.63 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236.3 ft³

Static Pressure: −1.6" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4 min Date/Time 8/25/11	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
0925	0	0	0	21.27	1	
0929	48	0	.62	18.73	560	
0933	96	0	.66	18.72	561	
0937	144	0	.66	18.62	560	
0941	192	0	.66	18.61	562	
0945	240	0	.68	18.60	562	

Values Prior to Sampling

945	240	0	.68	18.60	562	

Sample ID: VA0529

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KABF-BTF

Well ID No/Interval: KAFB 106119-025

Field Crew: TN, AT

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature: [signature]

Weather: sunny

Time: 830

Review Signature and Date: [signature] 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: BKgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 0830	0	~~.58~~ TN 0	.58	20.65	1	
0833	4.5	0	.64	20.65	1	
0836	9	0	.70	20.55	1	
0839	13.5	0	.70	20.52	1	
0842	18	0	.72	20.49	1	

Values Prior to Sampling

0842	18	0	.72	20.49	1	

Sample ID: VA 0530

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106 119-050

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature:

Weather: Sunny

Time: 0908

Review Signature and Date: 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: −.08" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 0908	0	0	2.02	18.85	8 TN	
0911	4.5	0	3.54	17.41	4	
0914	9	0	3.86	16.99	2	
0917	13.5	0	4.08	16.79	6	
0920	18	0	4.16	16.71	5	

Values Prior to Sampling

0920	18	0	4.16	16.71	5	

Sample ID: VA0531

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106619-150

Field Crew: AT TV

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature:

Weather: Sunny

Time: 0940

Review Signature and Date: 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bldg d VOCs Ø
BE VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.459 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.089 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.09 ft³

Static Pressure: -1.4" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 0940	Ø	0	7.42	9.66	1295	
0943	4.5	0	7.54	9.48	988	
0946	9	0	7.04	9.86	883	
0949	13.5	0	6.98	9.89	881	
0952	18	0	7.00	9.88	883	
0955	22.5	0	6.98	9.82	884	
	~~22.5~~ 4					

Values Prior to Sampling

0955	22.5	0	6.98	9.82	884	

Sample ID: VA0532

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106119-250

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature:

Weather: Sunny

Time: 1019

Review Signature and Date: 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd 0 vocs @
Bz 0 vocs @

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft² ~~1.635~~
(C) One Well Casing Volume (A x B):	0.765 ft³	(J) Filter Pack Volume (F x G)	1.635 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.4 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	24 ft³

Static Pressure: - 1.6" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 1019	Ø	0	0.06	20.39	17	
1022	4.5	0	0.94	17.92	142 ~~Heat~~	
1025	9	0	1.20	17.33	183	
1028	13.5	0	1.28	17.16	197	
1031	18	0	1.30	17.05	202	
1034	22.5	0	1.32	16.92	206	
1037	27	0	1.34	16.87	206	

Values Prior to Sampling

1037	27	0	1.34	16.87	206	

Sample ID: VA0533
VA0534

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106119-350

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature: Tom Nogen

Weather: Sunny

Time: 1106

Review Signature and Date: 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's Ø
BZ VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: −2.4" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

6 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 1106	0	0	0	20.67	15	
1112	9	0	.92	18.10	5450	
1118	18	0	.92	18.11	5520	
1124	27	0	.92	18.24	5540	

Values Prior to Sampling

1124	27	0	.92	18.24	5540	

Sample ID: VA0535

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB106119-450

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature: TC Nader

Weather: sunny

Time: 1143

Review Signature and Date: 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	TVP 237 ft^3

Static Pressure: -1.4" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 1143	0	0	0.02	20.63	46	
1147	48	0	1.04	17.70	4930	
1151	96	0	1.12	17.55	5200	
1155	144	0	1.20	17.28	5410	
1159	192	0	1.26	17.21	5550	
1203	240	0	1.20	17.25	5610	

Values Prior to Sampling

1203	240	0	1.20	17.25	5610	

Sample ID: VA0536

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106120-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-6-2011

Crew Signature: Amy Heaney

Weather: PARTLY CLOUDY, BREEZY

Time: 8:49 AM

Review Signature and Date: 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: Yes (No) wrote on vault

Notes: BKgd : 0.0 VOC
BZ : 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-6-2011 8:49 AM	0	0.0	0.78	20.11	1	
7-6-2011 8:52 AM	4.5	0.0	0.92	20.07	2	
7-6-2011 8:55 AM	9.0	0.0	0.92	20.06	2	
7-6-2011 8:58 AM	13.5	0.0	0.88	19.75	4	
7-6-2011 9:01 AM	18.0	0.0	0.88	19.78	6	

Values Prior to Sampling

7-6-2011 9:04 AM	18.0	0.0	0.88	19.78	6	

Sample ID: VA0537

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106120-050

Field Crew: AG RB

Site / SWMU No.: 106

Date: 7-6-2011

Crew Signature: Amy Howard

Weather: PARTLY CLOUDY, BREEZY

Time: 9:19 Am

Review Signature and Date: 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: Bkgd - 0.0 VOC
BZ - 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-6-2011 9:19 Am	0	0.0	0.00	21.14	0	
7-6-2011 9:22 Am	4.5	0.0	0.10	20.99	0	
7-6-2011 9:25 Am	9.0	0.0	0.12	20.97	1	
7-6-2011 9:28 Am	13.5	0.0	0.10	20.98	0	
7-6-2011 9:31 Am	18.0	0.0	0.54	20.78	7	

Values Prior to Sampling

7-6-2011 9:31 Am	18.0	0.0	0.54	20.78	7	

Sample ID: VA0538

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB – 106120 – 150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7 – 6 – 2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY, BREEZY

Time: 9:43 Am

Review Signature and Date: [signature] 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOCs
B2 , 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: – .80 " H_2O **Purge Flow Rate:** 1.5 Lpm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-6-2011 9:43 Am	0	0.0	0.34	19.21	5	
7-6-2011 9:46 Am	4.5	0.0	0.34	19.22	4	
7-6-2011 9:49 Am	9.0	0.0	0.34	19.24	3	
7-6-2011 9:52 Am	13.5	0.0	0.33	19.29	3	
7-6-2011 9:55 Am	18.0	0.0	0.34	19.34	2	
7-6-2011 9:58 Am	21.5	0.0	0.34	19.35	3	

Values Prior to Sampling

7-6-2011 9:58 Am	21.5	0.0	0.34	19.35	3	

Sample ID: VA0539

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB -106120 -250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-6-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY, BREEZY

Time: 10:08 AM

Review Signature and Date: 7/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** Yes (No)

Notes: BKGd 0.0 VOC
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: - 1.4 " H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

6 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-6-2011 10:08 AM	0	0.0	0.12	20.75	2	
7-6-2011 10:14 AM	9.0	0.0	0.14	20.46	1	
7-6-2011 10:17 AM	18.0	0.0	0.22	20.48	2	
7-6-2011 10:23 AM	27.0	0.0	0.21	20.43	3	

Values Prior to Sampling

7-6-2011 10:23 AM	27.0	0.0	0.21	20.43	3	

Sample ID: VA0540

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB - 106120-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-6-2011

Crew Signature: Amy Howard

Weather: PARTLY CLOUDY, BREEZY

Time: 10:38 AM

Review Signature and Date: 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** Yes - (No)

Notes: BKGD 0.0
B2 0.0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.701 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.01 ft³

Static Pressure: - 1.6 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

6 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-6-2011 10:38 Am	0	0.0	.10	20.81	9	
7-6-2011 10:44 Am	9	0.0	.22	20.59	16	
7-6-2011 10:50 Am	18	0.0	.26	20.66	25	
7-6-2011 10:56 Am	27	0.0	.32	20.72	43	

Values Prior to Sampling

7-6-2011 10:56 Am	27	0.0	.32	20.72	43	

Sample ID: VA0541

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFS

Well ID No/Interval: KAFB – 106 120-450

Field Crew: AG RB

Site / SWMU No.: 106

Date: 7-6-2011

Crew Signature:

Weather: PARTLY CLOUDY, BREEZY

Time: 11:48 AM

Review Signature and Date: 7/6/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes (No) **Well ID Mark:** Yes - (No)

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	27.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: – 1.6 " H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-6-2011 11:48 AM	0	0.0	.02	20.95	3	
7-6-2011 11:52 AM	48	0.0	.04	20.61	11	
7-6-2011 11:56 AM	96	0.0	.06	20.60	25	
7-6-2011 12:00 PM	144	0.0	.06	20.57	47	
7-6-2011 12:04 PM	192	0.0	.10	20.51	103	
7-6-2011 12:08 PM	240	0.0	.10	20.21	283	
7-6-2011 12:16 PM	336	0.0	.18	19.70	1209	Difficulty reaching
1224	432	0.0	.18	19.65	1762	stabilization
Values Prior to Sampling 1232	528	0.0	.20	19.52	2160	
~~7-6-2011 12:16 PM~~	~~240~~	~~0.0~~				
1234	552	0.0	.22	19.55	2300	
1236	576	0.0	.24	19.57	2370	Sample ID: VA0542

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF
Well ID No/Interval: KAFB-106121-025
Field Crew: AG RB
Site / SWMU No.: 106
Date: 7-8-2011
Crew Signature: Amy Heonard
Weather: HAZY
Time: 8:40
Review Signature and Date: 7/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.0376 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 Cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-8-2011 8:40 AM	0	0.0	0.58	20.55	0	
7-8-2011 8:43 AM	4.5	0.0	0.76	20.47	0	
7-8-2011 8:46 AM	9.0	0.0	0.74	19.79	0	
7-8-2011 8:49 AM	13.5	0.0	0.76	19.81	0	
7-8-2011 8:52	18.0	0.0	0.78	19.86	1	

Values Prior to Sampling

7-8-2011 8:52	18.0	0.0	0.78	19.86	1	

Sample ID: VA0543

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-10612I-050

Field Crew: MG JRB

Site / SWMU No.: 106

Date: 7-8-2011

Crew Signature: Amy Greenawalt

Weather: HAZY

Time: 9:10 AM

Review Signature and Date: 7/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOCs
B2 0.0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Time Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-8-2011 9:10 AM	0	0.0	0.52	20.21	2	
7-8-2011 9:13 AM	4.5	0.0	0.52	20.20	3	
7-8-2011 9:16 AM	9.0	0.0	0.54	20.13	1	
7-8-2011 9:19 AM	13.5	0.0	0.53	20.12	4	
7-8-2011 9:22 AM	18.0	0.0	0.66	20.01	5	

Values Prior to Sampling

7-8-2011 9:22 AM	18.0	0.0	.66	20.01	5	

Sample ID: VA0544

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106R1-150

Field Crew: AG, RB

Site / SWMU No.: ~~HA24~~ AR 106

Date: 7-8-2011

Crew Signature:

Weather: HA24

Time: 9:38 Am

Review Signature and Date: 7/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) - No

Notes: BkGD 0.0 VOC's
B2 0.0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: -.56 "H2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-8-2011 938 Am	0	0.0	0.14	19.57	0	
7-8-2011 9:41 Am	4.5	0.0	0.16	19.56	0	
7-8-2011 9:44 Am	9.0	0.0	0.16	19.67	0	
7-8-2011 9:47 Am	13.5	0.0	0.15	20.16	0	
7-8-2011 9:50 Am	18.0	0.0	0.16	20.24	0	
7-8-2011 9:53 Am	22.5	0.0	.20	20.15	0	

Values Prior to Sampling

7-8-2011 9:53 Am	22.5	0.0	.20	20.15	0	

Sample ID: VA0545

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB - 106121 - 250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-8-2011

Crew Signature:

Weather: HAZY

Time: 10:00 AM

Review Signature and Date: 7/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BH6D 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.68 "H2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

6 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-8-2011 10:00 AM	0.0	0.0	0.18	20.83	0	
7-8-2011 10:06 AM	9.0	0.0	0.16	20.08	1	
7-8-2011 10:12 AM	18.0	0.0	0.18	20.00	1	
7-8-2011 10:18 AM	27.0	0.0	.20	19.76	1	

Values Prior to Sampling

7-8-2011 1015	27.0	0.0	.20	19.76	(	

Sample ID: VA0546

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BF	**Well ID No/Interval:** KAFB-106121-350	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-8-2011	**Crew Signature:**
Weather: PARTLY CLOUDY, HOT	**Time:** 2:30	**Review Signature and Date:** 7/8/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** ~~Yes~~ - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: 7.28 "H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time (6 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-8-2011 2:30	0	0.0	0.20	19.10	846	
7-8-2011 2:36	9.0	0.0	0.20	19.32	862	
7-8-2011 2:42	18.0	0.0	0.06	19.26	870	
7-8-2011 2:48	27.0	0.0	0.00	19.40	871	

Values Prior to Sampling

7-8-2011 1448	27.0	0.0	0.00	19.40	871	

Sample ID: WA0547

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BPF

Well ID No/Interval: KAFB-106121-450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-8-2011

Crew Signature: Amy Greenawalt

Weather: PARTLY CLOUDY, HOT

Time: 1521

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor:~~ ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: +.26 " H_2O **Purge Flow Rate:** 12 cfm

PURGE DATA

4min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-8-2011 1521	0	0.0	0	20.69	0	
7-8-2011 1529	96	0.0	0	20.67	16	
7-8-2011 1537	192	0.0	.04	20.51	20	
4min 7-8-2011 1541	240	0.0	.04	20.38	32	

Values Prior to Sampling

7-8-2011 1541	240	0.0	.04	20.38	32	

Sample ID: VA0548

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: ~~BFF~~ KAFB-~~106122-025~~ AA

Well ID No/Interval: KAFB-106122-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY

Time: 2:05 pm

Review Signature and Date: 7/11/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: +.06 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 2:05 pm	0	0.0	1.42	19.46	8	
7-11-2011 2:08 pm	4.5	0.0	1.44	19.52	8	
7-11-2011 2:11 pm	9.0	0.0	1.44	19.55	8	
7-11-2011 1414	13.5	0.0	1.43	19.58	6	
7-11-2011 1417	18.0	0.0	1.26	19.38	6	

Values Prior to Sampling

7-11-2011 1419	18.0	0.0	1.26	19.38	6	

Sample ID: VA0549

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106122-050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY

Time: 2:34 pm

Review Signature and Date: RAB 7/11/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.15 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft^3
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft^3

Static Pressure: +.20 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 2:34 pm	0	0.0	1.02	19.08	3	
7-11-2011 2:37 pm	4.5	0.0	1.06	19.12	2	
7-11-2011 2:40 pm	9.0	0.0	1.05	19.24	2	
7-11-2011 2:43 pm	13.5	0.0	1.06	19.26	1	
7-11-2011 1446	18.0	0.0	1.05	19.23	1	

Values Prior to Sampling

7-11-2011 1446	18.0	0.0	1.05	19.23	1	

Sample ID: VA0550

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106122-150

Field Crew: AC, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY

Time: 3:00 PM

Review Signature and Date: Ronda L Bailey 7-11-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: -.06 " H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 300 PM	0	0.0	0.06	19.60	1	
7-11-2011 303 PM	4.5	0.0	0.05	19.59	0	
7-11-2011 306 PM	9.0	0.0	0.08	19.58	0	
7-11-2011 1509	13.5	0.0	0.10	19.48	1	
7-11-2011 1512	18.0	0.0	0.10	19.42	0	
7-11-2011 1515	22.5	0.0	0.11	19.41	0	

Values Prior to Sampling

7-11-2011 1505	22.5	0.0	0.11	19.41	0	

Sample ID: VA0551

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106122-250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: Amy Goarnard

Weather: PARTLY CLOUDY

Time: 3:32 PM

Review Signature and Date: 7/11/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 3:32 PM	0	0	0	20.67	0	
7-11-2011 3:35 PM	4.5	0	0	20.69	1	
7-11-2011 3:38 PM	9.0	0	0	20.68	1	
7-11-2011 3:41 PM	13.5	0	0	20.63	0	
7-11-2011 3:44 PM	18.0	0	0	20.72	0	
7-11-2011 3:47 PM	22.5	0	0	20.75	0	
7-11-2011 1556	27.0	0	0	20.81	1	

Values Prior to Sampling

7-11-2011 1556	27.0	0	0	20.81	1	

Sample ID: VAO552

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106122-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-12-2011

Crew Signature: Amy Granowski

Weather: HAZY ; SLIGHT BREEZE

Time: 8:20 AM

Review Signature and Date: 7/12/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) No

Notes: BKG-0 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -.80 " H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-12-2011 8:20 AM	0	0.0	0.0	20.80	0	
7-12-2011 8:23 AM	4.5	0.0	0.16	19.58	560	
7-12-2011 8:26 AM	9.0	0.0	0.18	19.57	589	
7-12-2011 8:29 AM	13.5	0.0	0.18	19.59	619	
7-12-2011 8:32 AM	18.0	0.0	0.18	19.64	600	
7-12-2011 8:35 AM	22.5	0.0	0.20	19.74	665	
7-12-2011 8:38 AM	27.0	0.0	0.22	19.84	667	

Values Prior to Sampling

7-12-2011 8:38 AM	27.0	0.0	0.22	19.84	667	

Sample ID: VA0553

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB - 106122 - 450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-12-2011

Crew Signature: [signature]

Weather: HAZY, SLIGHT BREEZE

Time: 8:53 AM

Review Signature and Date: [signature] 7/12/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor:~~ ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.0 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft^3

Static Pressure: -.30 " H2O **Purge Flow Rate:** 12 CFM

PURGE DATA

4 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-12-2011 8:53 AM	0	0.0	0.0	20.85	0	
7-12-2011 8:57 AM	48	0.0	0.02	20.90	1	
7-12-2011 9:01 AM	96	0.0	0.04	20.65	1	
7-12-2011 9:05 AM	144	0.0	0.10	20.09	13	
7-12-2011 9:09 AM	192	0.0	0.14	19.75	46	
7-12-2011 9:13 AM	240	0.0	.18	19.62	79	

Values Prior to Sampling

7-12-2011 9:13 AM	240	0.0	.18	19.62	79	

Sample ID: VA0554

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB106123-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-13-2011

Crew Signature: Amy Leonard

Weather: PARTLY CLOUDY, BREEZY

Time: 2:06 PM

Review Signature and Date: 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC's
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 2:06 PM	0	0.0	1.56	19.34	7	
7-13-2011 2:09 PM	4.5	0.0	1.40	19.66	4	
7-13-2011 2:12 PM	9.0	0.0	1.38	19.30	5	
7-13-2011 2:15 PM	13.5	0.0	1.36	19.35	5	
7-13-2011 2:18 PM	18.0	0.0	1.36	19.39	6	

Values Prior to Sampling

7-13-2011 2:18 PM	18.0	0.0	1.36	19.39	6	

Sample ID: VA0555

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106123-050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-13-2011

Crew Signature:

Weather: PARTLY CLOUDY, BREEZY

Time: 2:30 PM

Review Signature and Date: 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: +.16 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 2:30	0	0.0	1.80	18.55	0	
7-13-2011 2:33	4.5	0.0	1.80	18.65	0	
7-13-2011 2:36	9.0	0.0	1.80	18.66	0	
7-13-2011 2:39	13.5	0.0	1.81	18.71	0	
7-13-2011 2:42	18.0	0.0	1.82	18.72	0	

Values Prior to Sampling

7-13-2011 1442	18.0	0.0	1.82	18.72	0	

Sample ID: VA0556

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106123-150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-13-2011

Crew Signature: Amy Gonzales

Weather: PARTLY CLOUDY, BREEZY

Time: 3:00 pm

Review Signature and Date: 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 3:00 PM	0	0.0	0.08	19.84	0	
7-13-2011 3:03 PM	4.5	0.0	0.06	19.87	0	
7-13-2011 3:06 PM	9.0	0.0	0.08	19.53	2	
7-13-2011 3:09 PM	13.5	0.0	0.10	19.58	2	
7-13-2011 3:12 PM	18.0	0.0	0.08	19.60	2	
7-13-2011 15:15 PM	22.5	0.0	0.10	19.61	3	

Values Prior to Sampling

7-13-2011 15:15 PM	22.5	0.0	0.10	19.61	3	

Sample ID: VA0557

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106123-250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-13-2011

Crew Signature: Amy Howard

Weather: PARTLY CLOUDY, BREEZY

Time: 1528

Review Signature and Date: 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.04 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 1528	0	0.0	0.20	20.01	3	
7-13-2011 1531	4.5	0.0	0.18	19.95	3	
7-13-2011 1535	9.0	0.0	0.18	19.93	3	
7-13-2011 1538	13.5	0.0	0.08	19.91	1	
7-13-2011 1541	18.0	0.0	0.08	19.90	1	
7-13-2011 1544	22.5	0.0	0.10	19.89	2	
7/13-2011 1547	27.0	0.0	0.10	19.88	2	

Values Prior to Sampling

7-13-2011 1547	27.0	0.0	0.10	19.88	2	

Sample ID: VA0558

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB – 106123-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-13-2011

Crew Signature: Amy Groenewold

Weather: PARTLY CLOUDY, BREEZY

Time: 1605

Review Signature and Date: 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes:

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -.22 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-13-2011 1605	0	0.0	0.0	20.87	0	
7-13-2011 1608	4.5	0.0	0.0	19.37	401	
7-13-2011 1611	9.0	0.0	0.0	19.32	437	
7-13-2011 1614	13.5	0.0	0.0	19.31	442	
7-13-2011 1617	18.0	0.0	0.0	19.34	444	
7-13-2011 1620	22.5	0.0	0.0	19.35	450	
7-13-2011 1623	27.0	0.0	0.0	19.37	449	

Values Prior to Sampling

7-13-2011 1623	27.0	0.0	0.0	19.37	449	

Sample ID: VA0559

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106123-450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-14-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY, BREEZY

Time: 8:25 Am

Review Signature and Date: [signature] 7-14-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218 (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	ft³

Static Pressure: – .58 " H2O

Purge Flow Rate: 12 CFM

PURGE DATA

4 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-14-2011 8:25 AM	0	0.0	0.0	20.79	0	
7-14-2011 8:29 Am	48	0.0	0.0	21.06	0	
7-14-2011 8:33 Am	96	0.0	0.0	20.67	3	
7-14-2011 8:37 Am	144	0.0	0.04	20.87	6	
7-14-2011 8:41 AM	192	0.0	0.06	20.98	8	
7-14-2011 8:45 Am	240	0.0	0.06	20.69	19	

Values Prior to Sampling

7-14-2011 8:45 Am	240	0.0	0.06	20.69	19	

Sample ID: VA0560

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106124-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-19-2011

Crew Signature: Amy L. Greenawalt

Weather: PARTLY CLOUDY, BREEZY

Time: 1516

Review Signature and Date: 7-19-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** ~~Yes~~ - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: +.18 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

3MPV Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-19-2011 1516	0	0	0	20.98	0	
7-19-2011 1519	4.5	0	1.3	19.00	3	
7-19-2011 1522	9.0	0	1.32	19.04	4	
7-19-2011 1525	13.5	0	1.32	19.06	5	
7-19-2011 1528	18.0	0	1.34	19.08	4	

Values Prior to Sampling

7-19-2011 1528	18.0	0	1.34	19.08	4	~~VAO~~ AG

Sample ID: VA0561

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106124050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-19-2011

Crew Signature: Amy Gonsur M

Weather: PARTLY CLOUDY, BREEZY

Time: 1549

Review Signature and Date: 7-19-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** ~~Yes~~ - No **Well ID Mark** (Yes) - No

Notes: BKGD 0.0
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: +.30 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-19-2011 1549	0	0	1.14	19.07	1	
7-19-2011 1552	4.5	0	1.14	19.06	1	
7-19-2011 1555	9.0	0	1.16	19.07	0	
7-19-2011 1558	13.5	0	1.14	19.06	0	
7-19-2011 1601	18.0	0	1.16	19.07	0	

Values Prior to Sampling

7-19-2011 1601	18.0	0	1.16	19.07	0	

Sample ID: VA0562

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106124-150

Field Crew: AF, RB

Site / SWMU No.: 106

Date: 7-20-2011

Crew Signature: Amy Fernald

Weather: PARTLY CLOUDY, BREEZY

Time: 10:20 Am

Review Signature and Date: 7-20-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BH60 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: -.58 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-20-2011 10:20 Am	0	0	0.06	20.62	2	
7-20-2011 10:23 Am	4.5	0	0.22	19.49	1	
7-20-2011 10:26 Am	9.0	0	0.24	19.34	1	
7-20-2011 10:29 Am	13.5	0	0.22	19.32	1	
7-20-2011 10:32 Am	18.0	0	0.26	19.22	0	
7-20-2011 10:35 Am	22.5	0	0.16	19.22	1	
	~~2~~					

Values Prior to Sampling

7-20-2011 10:35 Am	22.5	0	0.16	19.22	1	

Sample ID: VA0563

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106124-250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-20-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY, BREEZY

Time: 11:00 Am

Review Signature and Date: [signature] 7-20-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.72 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

3 min. Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-20-2011 11:00 Am	0	0	0	21.11	1	
7-20-2011 11:03 2011	4.5	0	0	20.94	0	
7-20-2011 11:06 Am	9.0	0	0	20.54	2	
7-20-2011 11:09 Am	13.5	0	0	20.56	1	
7-20-2011 11:12 Am ~~Am~~	18.0	0	0	20.55	1	
7-20-2011 11:15 Am	22.5	0	0	20.55	2	
7-20-2011 11:18 Am	27.0	0	0	20.51	1	

Values Prior to Sampling

7-20-2011 11:18 Am	27.0	0	0	20.51	1	

Sample ID: VA0564

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106124-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-20-2011

Crew Signature: Amy Gronewold

Weather: PARTLY CLOUDY, BREEZY

Time: 11:38 AM

Review Signature and Date: 7-20-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -.60 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-20-2011 11:38 AM	0	0	0	21.06	1	
7-20-2011 11:41 AM	4.5	0	0	20.71	5	
7-20-2011 11:44 AM	9.0	0	0	20.68	6	
7-20-2011 11:47 AM	13.5	0	0	20.63	16	
7-20-2011 11:50 AM	18.0	0	0	20.61	26	
7-20-2011 11:53 AM	22.5	0	0	20.59	35	
7-20-2011 11:56 AM	27.0	0	0	20.58	40	

Values Prior to Sampling

7-20-2011 11:56 AM	27.0	0	0	20.58	40	

Sample ID: VA0565

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106124-450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-20-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY, BREEZY

Time: 12:14 pm

Review Signature and Date: [signature] 7-20-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: -.60 "H2O

Purge Flow Rate: 12 CFM

PURGE DATA

4 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-20-2011 12:14 PM	0	0	0.04	20.60	22	
7-20-2011 12:18 PM	48	0	0.16	19.94	570	
7-20-2011 12:22 PM	96	0	0.20	19.34	1558	
7-20-2011 12:26 PM	144	0	0.22	19.12	1810	
7-20-2011 12:30 PM	192	0	0.22	18.90	2250	
7-20-2011 12:34 PM	240	0	0.22	18.86	2290	

Values Prior to Sampling

7-20-2011 1234	240	0	0.22	18.86	2290	

Sample ID: VA0566

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB BFF
Site / SWMU No.: 106
Weather: Pt ly Cldy
Well ID No/Interval: KAFB 106124-450
Date: 8/19/11
Time: 902
Field Crew: RB TN
Crew Signature:
Review Signature and Date: 8/22/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: Repurge to verify Horiba field readings - Purged on 7/20/11

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: -.58" H_2O **Purge Flow Rate:** 12 cfm

PURGE DATA

4 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
902	0	0	0.0	20.62	6	
906	48	0	.40	18.28	4560	
910	96	0	.42	18.30	4820	
914	144	0	.44	18.38	4890	
918	192	0	.42	18.27	4910	
922	240	0	.42	18.32	4940	

Values Prior to Sampling

Sample ID: N/a

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF
Well ID No/Interval: KAFB-106125-025
Field Crew: AG, RB
Site / SWMU No.: 106
Date: 7-21-2011
Crew Signature: AG, RB
Weather: PARTLY CLOUDY, LIGHT BREEZE
Time: 1330
Review Signature and Date: 7-21-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD VOC's
B2 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: +.08 "H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-21-2011 1330	0	0	1.42	19.41	1	
7-21-2011 1336	4.5	0	1.46	19.57	2	
7-21-2011 1339	9.0	0	1.30	19.55	0	
7-21-2011 1342	13.5	0	1.32	19.20	0	
7-21-2011 1345	18.0	0	1.31	19.21	0	

Values Prior to Sampling

7-21-2011 1345	18.0	0	1.31	19.21	0	

Sample ID: VA0567

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106125-050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-21-2011

Crew Signature: Amy Gronewald

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 1413

Review Signature and Date: 7-21-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: +.18 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-21-2011 1413	0	0	2.08	18.39	0	
7-21-2011 1416	4.5	0	2.12	18.51	1	
7-21-2011 1419	9.0	0	2.10	18.50	1	
7-21-2011 1422	13.5	0	2.10	18.54	0	
7-21-2011 1425	18.0	0	2.10	18.52	0	

Values Prior to Sampling

7-21-2011 1425	18.0	0	2.10	18.52	0	

Sample ID: VA0568

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106125-150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-21-2011

Crew Signature:

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 1447

Review Signature and Date: 7-21-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¼" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.459 ft³	(J) Filter Pack Volume (F x G)	1.635 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.094 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.94 ft³

Static Pressure: +.46 " H_2O **Purge Flow Rate:** 1.5 LPM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-21-2011 1447	0	0	.22	19.49	1	
7-21-2011 1450	4.5	0	.24	19.56	1	
7-21-2011 1453	9.0	0	.26	19.59	0	
7-21-2011 1456	13.5	0	.26	19.57	0	
7-21-2011 1459	18.0	0	.25	19.59	1	
7-21-2011 1502	22.5	0	.26	19.60	0	

Values Prior to Sampling

7-21-2011 1502	22.5	0	.26	19.60	0	

Sample ID: VA0569

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** KAFB-106125-250	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-22-2011	**Crew Signature:** [signature]
Weather: CLOUDY	**Time:** 8:37 Am	**Review Signature and Date:** [signature] 7-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.76 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft^3
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft^3

Static Pressure: AG ~~+.64~~ -.2 ↗ " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-22-2011 837	0	0	0	21.04	0	
7-22-2011 840	4.5	0	0	20.08	0	
843	9.0	0	0	20.19	0	
846	13.5	0	.02	20.20	1	
849	18.0	0	.02	20.23	0	
852	22.5	0	.06	20.02	3	
855	27.0	0	.08	20.02	1	

Values Prior to Sampling

7-22-2011 855	27.0	0	.08	20.02	1	

Sample ID: VA0570

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB-106125-350	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-22-2011	**Crew Signature:** Amy Greenawald
Weather: Cloudy	**Time:** 9:47 Am	**Review Signature and Date:** [signature] 7-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft^3

Static Pressure: -.4 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

6 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-22-2011 9:47 Am	0	0	0	20.87	1	
7-22-2011 9:53 Am	9.0	0	0.06	20.79	92	
7-22-2011 9:59 Am	18.0	0	0.06	20.69	208	
7-22-2011 10:05 Am	27.0	0	0.08	20.64	298	

Values Prior to Sampling

7-22-2011 10:05 Am	27.0	0	0.08	20.64	298	

Sample ID: VA0571

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF
Well ID No/Interval: KAFB-106125-450
Field Crew: AG, RB
Site / SWMU No.: 106
Date: 7-22-2011
Crew Signature: Amy Greenawalt
Weather: Cloudy
Time: 10:28
Review Signature and Date: 7-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BkGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: -.46 " H_2O **Purge Flow Rate:** 12 CFM

PURGE DATA

4 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-22-2011 10:28	0	0	0.02	20.12	574	
7-22-2011 10:32	48	0	0.06	19.53	2660	
7-22-2011 10:36	96	0	0.08	19.20	3380	
7-22-2011 10:40	144	0	0.10	19.09	3530	
7-22-2011 10:44	192	0	0.10	19.08	3550	
7-22-2011 10:48	240	0	0.10	19.07	3541	

Values Prior to Sampling

7-22-2011 10:48	240	0	0.10	19.07	3541	

Sample ID: VA0572

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106126-25

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/15/11

Crew Signature: Tim Nagle

Weather: Sunny

Time: 0827

Review Signature and Date: 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's Ø
BZ VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	25 ~~50~~ TN ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	~~15~~ ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: Ø

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (3 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
8/15/11 0827	0	0	1.44	19.28	69	
0830	4.5	0	1.48	19.39	73	
0833	9	0	1.42	18.77	76	
0836	13.5	0	1.44	18.82	76	
0839	18	0	1.46	18.89	76	

Values Prior to Sampling

0839	18	0	1.46	18.89	76	

Sample ID: VA0573

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106126-050

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/15/11

Crew Signature: [signature]

Weather: sunny

Time: 0856

Review Signature and Date: [signature] 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's Ø
BZ VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x.G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: Ø

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/15/11 0856	0	0	0.92	19.53	3	
0859	4.5	0	0.94	19.60	2	
0902	9	0	0.96	19.63	3	
0905	13.5	0	0.96	19.66	3	
0908	18	0	0.96	19.67	2	

Values Prior to Sampling

0908	18	0	0.96	19.67	2	

Sample ID: VA0574

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: 106126 - 150

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/15/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 0927

Review Signature and Date: 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's @
B2 VOC's @

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.459 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.089 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.89 ft³

Static Pressure: −.48 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/15/11 0927	0	0	0.22	19.39	4	
0930	4.5	0	0.20	19.57	3	
0933	9	0	0.20	19.58	3	
0936	13.5	0	0.20	19.61	2	
0939	18	0	0.20	19.63	3	
0942	22.5	0	0.20	19.62	3	

Values Prior to Sampling

0942	22.5	0	0.20	19.62	3	

Sample ID: VA0575

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106126 -250

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/15/11

Crew Signature: Tim Nagel

Weather: sunny

Time: 1002

Review Signature and Date: [signature] 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKgd VOC's 0

B2 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	0.765 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.395 ft^3
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.95 ft^3

Static Pressure: -.54" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/15/11 1002	0	0	0.04	20.44	0	
1005	4.5	0	0.10	20.24	1	
1008	9	0	0.10	20.24	0	
1011	13.5	0	0.10	20.23	0	
1014	18	0	0.10	20.19	0	
1017	22.5	0	0.10	20.18	1	
1020	27	0	0.10	20.17	1	

Values Prior to Sampling

1020	27	0	0.10	20.17	1	

Sample ID: VA0576

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BTF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: 106126-350

Date: 8/15/11

Time: 1040

Field Crew: RB, TN

Crew Signature:

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.071 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: −.78 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/15/11 1040	0	0	0	21.08	3	
1043	4.5	0	0.12	20.68	163	
1046	9	0	0.12	20.62	227	
1049	13.5	0	0.12	20.60	269	
1052	18	0	0.14	20.57	294	
1055	22.5	0	0.14	20.53	322	
1058	27	0	0.14	20.52	340	

Values Prior to Sampling

1058	27	0	0.14	20.52	340	

Sample ID: VA0577

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106126 – 450

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/15/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 1119

Review Signature and Date: RAB 8/15/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

B2 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: –.76

Purge Flow Rate: 12 cfm

PURGE DATA

4 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/15/11 1119	0	0	.14	20.62	5	
1123	48	0	.28	20.08	512	
1127	96	0	.30	19.87	798	
1131	144	0	.32	19.73	1022	
1135	192	0	.34	19.62	1278	
1139	240	0	.34	19.50	1564	
1143	288	0	.36	19.40	1836	
1145	302	0	.36	19.36	1971	
Values Prior to Sampling 1147	326	0	.38	19.31	2100	
1147	326	0	.38	19.31	~~1918~~ 2100 TN	

Sample ID: ~~VA058 RB05~~ VA0578

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106127-025

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 8/18/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 1331

Review Signature and Date: 8-18-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.076 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft³

Static Pressure: .16" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
8/18/11 1331	0	0	0.84	20.52	9	
1334	4.5	0	0.84	20.53	9	
1337	9	0	.82	19.76	12	
1340	13.5	0	.82	19.81	13	
1343	18	0	.84	19.88	12	

Values Prior to Sampling

1343	18	0	.84	19.88	12	

Sample ID: VA0579

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106127-050
Field Crew: DR, TN
Site / SWMU No.: 106
Date: 8/18/11
Crew Signature: Tim Nagy
Weather: sunny
Time: 1400
Review Signature and Date: 8-18-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.153 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft^3
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft^3

Static Pressure: .38 "H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/18/11 1400	0	0	.66	19.80	14	
1403	4.5	0	.66	19.87	10	
1406	9	0	.66	19.90	11	
1409	13.5	0	.66	19.92	8	
1412	18	0	.68	19.95	8	

Values Prior to Sampling

1412	18	0	.68	19.95	8	

Sample ID: VA0580

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106127-150
Field Crew: DR, TN
Site / SWMU No.: 106
Date: 8/18/11
Crew Signature: Tim Nagy
Weather: sunny
Time: 1436
Review Signature and Date: 8-18-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.459 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft^3

Static Pressure: -.79

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/18/11 1436	0	0	.26	19.79	6	
1439	4.5	0	.26	19.80	6	
1442	9	0	.26	19.81	5	
1445	13.5	0	.26	19.83	6	
1448	18	0	.26	19.86	7	
1451	22.5	0	.26	19.96	6	

Values Prior to Sampling

1451	22.5	0	.26	19.96	6	

Sample ID: VA0581

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106127-250

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 8/18/11

Crew Signature: [signature]

Weather: sunny & hot

Time: 1509

Review Signature and Date: [signature] 8-18-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.395 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.95 ft³

Static Pressure: −1.0 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/18/11 1509	0	0	0	19.86	8	
1512	4.5	0	0	19.85	7	
1515	9	0	0	19.89	5	
1518	13.5	0	0	19.90	4	
1521	18	0	0	19.90	5	
1524	22.5	0	0	19.91	5	
1527	27	0	0	19.91	4	

Values Prior to Sampling

1527	27	0	0	19.91	4	

Sample ID: VA0582

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: cloudy

Well ID No/Interval: 106127-350

Date: 8/19/11

Time: 1258

Field Crew: RB, TN

Crew Signature: Tim Nagy

Review Signature and Date: 8/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: -.28 "H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/19/11 1258	0	0	.12	20.42	127	
1301	4.5	0	.16	20.23	357	
1304	9	0	.20	20.19	442	
1307	13.5	0	.20	20.22	477	
1310	18	0	.12	19.81	492	
1313	22.5	0	.12	19.81	501	
1316	27	0	.14	19.83	508	

Values Prior to Sampling

1316	27	0	.14	19.83	508	

Sample ID: VA0583

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106127-460
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/19/11
Crew Signature:
Weather: sunny
Time: 1336
Review Signature and Date: 8/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: (Yes) - No
Well ID Mark: (Yes) - No
Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft^3

Static Pressure: −.30" H_2O
Purge Flow Rate: 12 cfm

PURGE DATA

4min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/19/11 1336	0	0	0.20	19.93	4	
1340	48	0	.28	19.27	2160	
1344	96	0	.28	19.21	2460	
1348	144	0	.30	19.19	2530	
1352	192	0	.32	19.16	2620	
1356	240	0	.32	19.15	2690	
1406	360	0	.32	19.15	2790	extra purge because of earlier Data from nearby
1416	480	0	.34	19.11	2860	well

Values Prior to Sampling

1416	480	0	.34	19.11	2860	

Sample ID: VA0584

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: Rtly Cldy

Well ID No/Interval: KAFB 106128-25

Date: 8/29/11

Time: 1500

Field Crew: RB TN

Crew Signature:

Review Signature and Date: 8/29/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd 0.0 VOC
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: +.22" Hg

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time 8/29/11	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1500	0	0	1.34	19.54	10	
1503	4.5	0	1.32	19.19	12	
1506	9.0	0	1.32	19.27	11	
1509	13.5	0	1.32	19.38	12	
1512	18.0	0	1.20	19.24	11	

Values Prior to Sampling

1512	18.0	0	1.20	19.24	11	

Sample ID: VA0585
VA0586

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: Pt Cldy

Well ID No/Interval: KAFB 106128 - 050

Date: 8/29/11

Time: 1544

Field Crew: RB TN

Crew Signature: [signature]

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: Bkgd 0.0 VOC
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: + .43" Hg

Purge Flow Rate: 1.5 lpm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
1546	0	0	2.74	17.22	8	
1549	4.5			17.16	5	
1552	9.0			17.12	7	
1553	13.5	0	2.76	17.08	6	
1556	18.0					
	Stopped Purge due to lightening					

Values Prior to Sampling

1556	18.0					

Sample ID: VA0587

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BTF

Well ID No/Interval: KAFB 106128-050

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 9/6/11

Crew Signature:

Weather: Sunny

Time: 815

Review Signature and Date: 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 "H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/6/11 815	0	0	.16	20.59	0	
818	4.5	0	1.42	18.66	1	
821	9.0	0	1.80	18.43	0	
824	13.5	0	2.00	18.22	0	
827	18.0	0	2.12	18.12	0	

Values Prior to Sampling

827	18.0	0	2.12	18.12	0	

Sample ID: VA0587

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB- BFF

Well ID No/Interval: KAFB106128-150

Field Crew: T.N, DR

Site / SWMU No.: 106

Date: 9/6/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 914

Review Signature and Date: 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.459 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.089 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.89 ft^3

Static Pressure: -.80" H_2O

Purge Flow Rate: 1.5cfm

PURGE DATA

3 min

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/6/11 914	0	0	.34	20.40	0	
917	4.5	0	2.74	17.15	0	
920	9.0	0	3.20	16.22	2	
923	13.5	0	3.26	16.15	4	
926	18.0	0	3.32	16.09	2	
929	22.5	0	3.32	16.09	3	

Values Prior to Sampling

929	22.5	0	3.32	16.09	3	

Sample ID: VA0588

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: KAFB106128-250

Date: 9/6/11

Time: 950

Field Crew: TN, DR

Crew Signature: [signature]

Review Signature and Date: [signature] 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: ~~TV = .80" H2O~~ Bkgd VOC's 0

B2 VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.765 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.395 ft^3
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.95 ft^3

Static Pressure: – .80" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

6min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/6/11 950	0	0	.16	20.65	1	
956	9	0	1.52	18.55	3	
1002	18	0	1.56	18.52	4	
1008	27	0	1.58	18.52	4	

Values Prior to Sampling

1008	27	0	1.58	18.52	4	

Sample ID: VA0589

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: KAFB106128-350

Date: 9/6/11

Time: 1030

Field Crew: TN

Crew Signature: Tim Nagle

Review Signature and Date: 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: TN -1.8" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

6min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/6/11 1030	0	~~3.04~~ TN 0.0	3.16	17.63	109	
1036	9	0.0	.44	18.90	1711	
1042	18	0	.44	18.91	1714	
1048	27	0	.44	18.97	1720	

Values Prior to Sampling

1048	27	0	.44	18.97	1720	

Sample ID: VA0590

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106 128-450

Field Crew: FN

Site / SWMU No.: 106

Date: 9/6/11

Crew Signature:

Weather: Sunny

Time: 1133

Review Signature and Date: 9-6-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: −1.0" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/9/11 1113	0	0	0.50	19.73	2440	
1117	48	0	0.84	18.28	9830	
1121	96	0	1.06	17.59	15720	inst.
1125	144	0	1.18	17.03	18330	inst.
1129	192	0	1.24	16.90	19240	inst.
1133	240	0	1.26	16.85	20005	inst.
					1775 x 9	
				=	15975	by dilution

Values Prior to Sampling

1133	240	0	1.26	16.85	15975	by dilution

Sample ID: VA0591

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** KAFB-025-106[illegible]	**Field Crew:** AT, TW
Site / SWMU No.: 106	**Date:** 9/21/11	**Crew Signature:** [signature]
Weather: Sunny	**Time:** 1321	**Review Signature and Date:** [signature] 9/21/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BA VOC's Ø
BZ VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	0.0765 ft^3	(J) Filter Pack Volume (F x G)	1.635 ft^3
(D) Depth to Top of Screen	15.1 ft	(K) One Purge Volume (C + J)	1.7 ft^3
(E) Depth to Bottom of Screen	25.1 ft	(L) 10 Purge Volumes (K*10)	17 ft^3

Static Pressure: 0" H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/21/11 1321	0	0	.16	20.10	23	
1324	4.5	0	.16	20.24	23	
1327	9	0	.18	21.10	22	
1330	13.5	0	.19	20.95	18	
1333	18	0	.16	20.70	19	

Values Prior to Sampling

1333	18	0	.16	20.70	19	

Sample ID: VA0592

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB106129-050

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/21/11

Crew Signature:

Weather: Sunny

Time: 1351

Review Signature and Date: TN Vogel 9/21/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.153 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/21/11 1351	0	0	.14	19.86	20 TN	
1354	4.5	0	.12	19.61	16	
1357	9	0	.14	19.22	15	
1400	13.5	0	.14	19.09	15	
1403	18	0	.14	18.68	11	

Values Prior to Sampling

1403	18	0	.14	18.68	11	

Sample ID: MW0583

VA0594

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106129-150

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/21/11

Crew Signature: Tim Nagel

Weather: sunny 80's

Time: 1438

Review Signature and Date: 9/21/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: −.38" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/21/11 1438	0	0	.08	19.06	15	
1441	4.5	0	.10	19.05	14	
1444	9	0	.10	19.11	13	
1447	13.5	0	.12	18.88	13	
1450	18	0	.12	19.10	13	
1453	22.5	0	.12	19.44	12	

Values Prior to Sampling

1453	22.5	0	.12	19.44	12	

Sample ID: VA0595

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB106129-250

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/21/11

Crew Signature: Nuga

Weather: Sunny

Time: 1514

Review Signature and Date: 9/21/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: −.46 "H₂O

Purge Flow Rate: 1.5 CFM

PURGE DATA

6 mm Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/21/11 1514	0	0	.22	18.81	27	
1520	9	0	.36	19.00	22	
1526	18	0	.36	19.23	19	
1532	27	0	.36	19.20	19	

Values Prior to Sampling

1532	27	0	.36	19.20	19	

Sample ID: VA0596

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: KAFB-350-106129

Date: 9/21/11

Time: 1550

Field Crew: AT, TN

Crew Signature: [signature]

Review Signature and Date: [signature] 9/21/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BH VOCs Ø

BZ VOCs Ø

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.6 ft³
(D) Depth to Top of Screen	347.9 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350.7 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: -.58 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Time Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/21/11 1550	0	0	.04	20.53	14	
1556	4.5 at 9	0	.48	17.82	1733	
1602	18	0	.48	17.96	1727	
1608	27	0	.48	17.21	1723	

Values Prior to Sampling

1608	27	0	.48	17.21	1723	

Sample ID: VA0597

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106129-450

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 9/22/11

Crew Signature:

Weather: sunny

Time: 924

Review Signature and Date: 9-22-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.70 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: – 1.7" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

4m Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/22/11 924	0	0	0	20.91	0	
928	48	0	.32	19.78	1223	
932	96	0	.44	18.29	3930 ~~32820~~ TV	
936	144	0	.48	18.43	4000	
940	192	0	.46	17.82	4020	
944	240	0	.48	17.84	4030	

Values Prior to Sampling

944	240	0	.48	17.84	4030	

Sample ID: VA0598

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-3FS

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: KAFB-025-106130

Date: 9/26/11

Time: 1331

Field Crew: AT, TN

Crew Signature:

Review Signature and Date: 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: ~~Yes~~ - No

Well ID Mark: (Yes) - No

Notes: VOCs Ø BH

VOCs Ø BZ

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = (.00306, 2") = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft² 1.635
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	~~1.70~~ ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: +.03 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3rm Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
9/26/11 1331	Ø	~~Ø~~	0.36 ~~0.02~~ at	20.04 ~~21.01~~ at	361	
1334	4.5	~~Ø~~	0.36	20.49	361	
1337	9	~~Ø~~	0.36	20.73	365	
1340	13.5	Ø	0.36	20.45	367	
1343	18	Ø	0.32	19.10	365	

Values Prior to Sampling

1343	18	Ø	0.32	19.10	365	

Sample ID: UA0529

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-3FF

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: KAFB-050-106130

Date: 9/26/11

Time: 1416

Field Crew: AT, TN

Crew Signature:

Review Signature and Date: 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes No **Well ID Mark:** Yes - No

Notes: VOCs @ BH

VOCs @ B2

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.83 ft³	(J) Filter Pack Volume (F x G)	1.635 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.788 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.80 ft³

Static Pressure: +.12 "H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/26/11 1416	0.0	0	.18	18.83	262	
1419	4.5	0	.22	18.97	329	
1422	9.0	0	.20	18.98	322	
1425	13.5	0	.22	18.88	314	
1428	18.0	0	.20	18.77	307	

Values Prior to Sampling

1428	18.0	0	.20	18.77	307	

Sample ID: VA0600

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: KAFB 106130-150

Date: 9/26/11

Time: 1446

Field Crew: AT, TN

Crew Signature: [signature]

Review Signature and Date: [signature] 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	160 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.49 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	150 ft	(K) One Purge Volume (C + J)	2.12 ft³
(E) Depth to Bottom of Screen	160 ft	(L) 10 Purge Volumes (K*10)	21.2 ft³

Static Pressure: +.60 " H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/26/11 1446	0	0	0.32	18.74	17	
1449	4.5	0	0.32	19.12	12	
1452	9	0	0.32	19.09	11	
1455	13.5	0	0.32	18.86	13	
1458	18	0	0.32	18.89	10	
1501	22.5	0	.32	19.18	12	

Values Prior to Sampling

1501	22.5	0	.32	19.18	12	

Sample ID: VA0601

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB 106 130-250

Field Crew: TN, AT

Site / SWMU No.: 106

Date: 9/26/11

Crew Signature: Nagar

Weather: sunny

Time: 1539

Review Signature and Date: 9/26/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	239 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: +.60 "H₂O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/26/11 1521	0	0	1.20	17.49	13	
1527	9	0	1.22	17.44	10	
1533	18	0	1.24	17.33	7	
1539	27	0	1.24	17.12	8	

Values Prior to Sampling

1539	27	0	1.24	17.12	8	

Sample ID: VA0602

VA0603

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-350-106130

Field Crew: AT, TW

Site / SWMU No.: 106

Date: 9/27/11

Crew Signature:

Weather: Sunny

Time: 813

Review Signature and Date: 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) No

Well ID Mark: (Yes) - No

Notes: VOC's @ in BH
VOCs @ in BH

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	.00136 ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B): 1.0	.04 ft³	(J) Filter Pack Volume (F x G)	1.635 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: +.48" H_2O -.84"

Purge Flow Rate: 1.5 L/min

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/27/11 0813	0	0	0	20.65	38	
0819	9	0	1.36	16.27	2050	
0825	18	0	1.34	16.11	2100	
0831	27	0	1.36	16.11	2120	

Values Prior to Sampling

0831	27	0	1.36	16.11	2120	

Sample ID: VA-0604

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106 130-450

Field Crew: TN, AT

Site / SWMU No.: 106

Date: 9/27/11

Crew Signature: [signature]

Weather: sunny

Time: 856

Review Signature and Date: [signature] 9/27/11

WELL OBSERVATIONS

Protective Casing / Vault: (ntact) - Damaged Locked: (Yes) - No Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0 TN

BZ VOC's 1.4 ppm

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: -1.0 "H20

Purge Flow Rate: 12cfm

PURGE DATA

4min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
9/27/11 856	0	0	0	20.94	3	
900	48	0	.74	17.64	7990	
904	96	0	.78	17.41	9100	
908	144	0	.84	17.18	9920	
912	192	0	.82	17.22	9960	inst.
916	240	0	.80	17.48	10017	
					886 x9	
					= 7974	by dilution

Values Prior to Sampling

916	240	0	.80	17.48	7974	

Sample ID: VA0605

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106131-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-3-2011

Crew Signature: Amy Howard

Weather: Partly Cloudy

Time: 1435

Review Signature and Date: 8-3-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: +.20. " H20

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-3-2011 1435	0	0	0.14	20.16	0	
8-3-2011 1438	4.5	0	0.16	20.37	0	
8-3-2011 1441	9.0	0	0.08	20.11	2	
8-3-2011 1444	13.5	0	0.10	20.21	2	
8-3-2011 1447	18.0	0	0.12	20.24	2	

Values Prior to Sampling

8-3-2011 1447	18.0	0	0.12	20.24	2	

Sample ID: VA0606

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB BFF

Well ID No/Interval: KAFB106131-055

Field Crew: RB AG

Site / SWMU No.: 106

Date: 8/3/11

Crew Signature:

Weather: Pt1y Cldy 90s

Time: 1507

Review Signature and Date: 8-3-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd 0.0 VOC
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	55 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.16 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	45 ft	(K) One Purge Volume (C + J)	1.79 ft^3
(E) Depth to Bottom of Screen	55 ft	(L) 10 Purge Volumes (K*10)	17.9 ft^3

Static Pressure: +.30" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1507	0	0	.12	20.17	0	
1510	4.5	0	.12	20.17	0	
1513	9.0	0	.12	20.17	0	
1516	13.5	0	.12	20.16	0	
1519	18.0	0	.14	20.14	4	

Values Prior to Sampling

1519	18.0	0	.14	20.14	4	

Sample ID: VA0607

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106131-150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-3-2011

Crew Signature: Amy Gomara

Weather: CLOUDY, RAIN STORM

Time: 1542

Review Signature and Date: 8-3-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes:

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: +.46" H_2O **Purge Flow Rate:** 1.5

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-3-2011 1542	0	0	.20	19.31	0	
8-3-2011 1545	4.5	0	0.18	19.35	0	
8-3-2011 1548	9.0	0	0.18	19.37	0	
8-3-2011 1551	13.5	0	0.18	19.35	0	
8-3-2011 1554	18.0	0	0.18	19.36	0	
8-3-2011 1557	22.5	0	0.18	19.37	0	

Values Prior to Sampling

8-3-2011 1557	22.5	0	0.18	19.37	0	

NO SAMPLE TAKEN DUE TO WORK STOPPAGE DUE TO LIGHTENING

Sample ID: ~~VAP0608~~ MW 8/5/11

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB BFF

Well ID No/Interval: KAFB 106131-150

Field Crew: RB TN

Site / SWMU No.: 106

Date: 8/4/11

Crew Signature: Tim Nam

Weather: PHyCldy - 80s

Time: 1126

Review Signature and Date: 8/4/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd - 0 VOC
BZ. 0 VOC

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: −.60" H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/4/11 1126	0	0	0	20.02	0	
1129	4.5	0	0	19.99	0	
1132	9.0	0	.06	19.66	1	
1135	13.5	0	.06	19.63	0	
1138	18.0	0	.06	19.62	1	
1141	22.5	0	.10	19.46	0	

Values Prior to Sampling

1141	22.5	0	.10	19.46	0	

Sample ID: VA0608

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106131/245

Field Crew: R.B., T.N.

Site / SWMU No.: 106

Date: 8/4/11

Crew Signature:

Weather: sunny

Time: 1201

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKgd - 0.0 VOC
BZ - 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	245 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.75 ft³	(J) Filter Pack Volume (F x G)	1.64 ft³
(D) Depth to Top of Screen	235 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	245 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.62" H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time (6 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/4/11 1201	0	0	0.12	20.53	1	
1207	9.0 ~~4.5~~ TV	0	0.28	20.24	0	
1213	18	0	0.36	20.04	1	
1219	27	0	0.38	19.95	1	

Values Prior to Sampling

1219	27	0	0.38	19.95	1	

Sample ID: VA0609

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106131/350
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/4/11
Crew Signature: Tim Noga
Weather: sunny
Time: 1239
Review Signature and Date: 8/4/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes:

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	~~1.07~~ TN ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	~~1.63~~ TN ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: −.86" H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/4/11 1239	0	0	0	19.72	460	
1245	9	0	.04	19.65	551	
1251	18	0	0.02	19.63	591	
1257	27	0	0.02	19.61	622	

Values Prior to Sampling

1257	27	0	.02	19.61	622	

Sample ID: VA0610
VA0611

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/Interval:** 10G131/450 | **Field Crew:** RB, TN

Site / SWMU No.: 106 | **Date:** 8/4/11 | **Crew Signature:** Tim Nogen

Weather: sunny | **Time:** 1337 | **Review Signature and Date:** 8/4/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes:

CALCULATIONS

(A) Depth to Well Bottom	450 ft TN	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ~~¾" = .00306~~, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B): 22.08	~~1.38~~ TN ft³	(J) Filter Pack Volume (F x G)	1.64 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	~~23.72~~ ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10) 237	~~30.2~~ TN ft³

Static Pressure: −.86" H_2O **Purge Flow Rate:** 12 cfm

PURGE DATA

4 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/4/11 1337	0	0	0.12	20.42	171	
1341	48	0	0.24	19.59	1050	
1345	96	0	0.26	19.18	1818	
1349	144	0	0.30	18.91	2280	
1353	192	0	0.28	18.77	2450	
1357	240	0	0.30	18.68	2580	

Values Prior to Sampling

1357	240	0	.30	18.68	2580	

Sample ID: VA0612 *

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: ~~AR-7-11-2~~ KAFB-106122-025 15-25

Field Crew: AG, RP

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY

Time: 8:47 Am

Review Signature and Date: 7/11/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 8:47 Am	0	0.0	0.0	21.11	0	
7-11-2011 8:50 Am	4.5	0.0	0.0	21.38	0	
7-11-2011 8:53 Am	9.0	0.0	0.0	20.77	1	
7-11-2011 8:56 Am	13.5	0.0	0.0	20.75	1	
7-11-2011 8:59 Am	18.0	0.0	0.0	20.75	1	

Values Prior to Sampling

7-11-2011 8:58 Am	18.0	0.0	0.0	20.75	1	

Sample ID: ~~[illegible]~~ AG VA063

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106132-050 40-50

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: Amy Gorman

Weather: PARTLY CLOUDY

Time: 9:22 Am

Review Signature and Date: 7/11/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0" H_2O **Purge Flow Rate:** 1.5 cfm

3 min

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 9:22 Am	0	0.0	0.0	21.08	0	
7-11-2011 9:25 Am	4.5	0.0	0.0	21.39	0	
7-11-2011 9:28 Am	9.0	0.0	0.2	21.41	0	
7-11-2011 9:31 Am	13.5	0.0	0.02	21.42	0	
7-11-2011 9:34 Am	18.0	0.0	0.02	21.00	0	

Values Prior to Sampling

7-11-2011 9:34 Am	18.0	0.0	0.02	21.00	0	

Sample ID: ~~VA0550~~ AC
VA0614

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB 106132 175

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: Amy Goeman

Weather: PARTLY CLOUDY

Time: 9:50 AM

Review Signature and Date: 7/11/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** ~~Yes~~ No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	175 ft	(F) Filter Pack Length (E –D)	60 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.53 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	105 ft	(K) One Purge Volume (C + J)	2.16 ft³
(E) Depth to Bottom of Screen	175 ft	(L) 10 Purge Volumes (K*10)	21.6 ft³

Static Pressure: -.92 "H₂O **Purge Flow Rate:** 1.5 CFMS

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 9:50 AM	0	0.0	0.0	20.84	0	
7-11-2011 9:53 AM	4.5	0.0	0.0	20.86	1	
7-11-2011 9:56 AM	9.0	0.0	0.0	20.93	0	
7-11-2011 9:59 AM	13.5	0.0	0.0	21.05	0	
7-11-2011 10:02 AM	18.0	0.0	0.0	21.10	1	
7-11-2011 10:05 AM	22.5	0.0	0.0	21.12	0	

Values Prior to Sampling

7-11-2011 ~~9:50 AM~~ 10:05 AM	22.5	0.0	0.0	21.12	0	

Sample ID: ~~VA0615~~ VA0615

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106 -250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: [signature]

Weather: Partly Cloudy

Time: 10:12 AM

Review Signature and Date: [signature] 7/11/11

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.95 " H_2O **Purge Flow Rate:** 1.5 cfms

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 10:12 AM	0	0.0	0.14	20.79	0	
7-11-2011 10:15 AM	4.5	0.0	0.02	21.01	0	
7-11-2011 10:18 AM	9.0	0.0	0.02	21.00	0	
7-11-2011 10:21 AM	13.5	0.0	0.04	21.01	0	
7-11-2011 10:24 AM	18.0	0.0	0.00	20.85	0	
7-11-2011 10:27 AM	22.5	0.0	.16	20.14	0	
7-11-2011 10:30 AM	27.0	0.0	.18	19.97	0	

Values Prior to Sampling

7-11-2011 10:30 AM	27.0	0.0	.18	19.97	0	

Sample ID: ~~VA0552~~ AG VA0616

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106132-350

Field Crew: AG RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature:

Weather: PARTLY CLOUDY

Time: 11:00 AM

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft^3

Static Pressure: -1.0 " H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 11:00 AM	0	0.0	0.06	20.62	0	
7-11-2011 11:03 AM	4.5	0.0	0.66	19.36	19	
7-11-2011 11:06 AM	9.0	0.0	0.70	19.26	22	
7-11-2011 11:09 AM	13.5	0.0	0.78	19.06	27	
7-11-2011 11:12 AM	18.0	0.0	0.86	18.90	34	
7-11-2011 11:15 AM	22.5	0.0	0.89	18.88	36	
7-11-2011 11:18 AM	27.0	0.0	0.88	18.87	36	

Values Prior to Sampling

7-11-2011 11:18 AM	27.0	0.0	0.88	18.87	36	

Sample ID: [redacted] AG

VA0618

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106122-450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-11-2011

Crew Signature: [signature]

Weather: Partly Cloudy

Time: 11:37 Am

Review Signature and Date: [signature] 7-11-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.0 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237. ft^3

Static Pressure: -.9 in H_2O **Purge Flow Rate:** 12 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-11-2011 11:37 Am	0	0.0	0.0	20.76	2	
7-11-2011 11:41 Am	48	0.0	0.10	20.50	7	
7-11-2011 11:45 Am	96	0.0	0.28	20.21	53	
7-11-2011 11:49 Am	144	0.0	0.40	20.73	164	
7-11-2011 11:53 Am	192	0.0	0.46	20.20	137	
7-11-2011 11:57 Am	240	0.0	0.34	19.81	119	

Values Prior to Sampling

7-11-2011 11:57 Am	240	0.0	0.34	19.51	119	

Sample ID: ~~MOBEX~~ AL VA0619

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB-106133-025	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-12-2011	**Crew Signature:** Amy Gerard
Weather: PARTLY CLOUDY	**Time:** 12:07 PM	**Review Signature and Date:** 7-12-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes (No) NEEDS LOCKING BOLT **Well ID Mark** (Yes) - No

Notes: BKGD 0.0 VOC's
BZ 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-12-2011 12:07 PM	0	0.0	1.06	19.65	1	
7-12-2011 12:10 PM	4.5	0.0	1.08	19.76	0	
7-12-2011 12:13 PM	9.0	0.0	1.02	19.63	0	
7-12-2011 12:16 PM	13.5	0.0	1.02	19.67	2	
7-12-2011 12:19 PM	18.0	0.0	1.02	19.70	1	

Values Prior to Sampling

7-12-2011 12:19 PM	18.0	0.0	1.02	19.70	1	

Sample ID: VA0620

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF
Well ID No/Interval: KAFB-106133-050
Field Crew: AG, RB
Site / SWMU No.: 106
Date: 7-12-2011
Crew Signature: Amy Greenawalt
Weather: PARTLY CLOUDY
Time: 12:33 pm
Review Signature and Date: 7-12-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: ~~Yes~~ (No) need locking bolt
Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOCs
B2 0.0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.80 ft³

Static Pressure: 0 " H_2O
Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-12-2011 12:33 Pm	0	0.0	.76	19.59	0	
7-12-2011 12:36 pm	4.5	0.0	.74	19.66	0	
7-12-2011 12:39 2011	9.0	0.0	.73	19.67	0	
7-12-2011 12:42 Pm	13.5	0.0	.74	19.68	1	
7-12-2011 12:45 Pm	18.0	0.0	.74	19.61	1	

Values Prior to Sampling

7-12-2011 12:45 Pm	18.0	0.0	.74	19.61	1	

Sample ID: VA0621

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106133-170

Field Crew: AG, RP

Site / SWMU No.: 106

Date: 7-12-2011

Crew Signature: Amy Gronewold

Weather: PARTLY CLOUDY

Time: 12:56 PM

Review Signature and Date: 7-12-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: Yes - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's
Need locking bolt

CALCULATIONS

(A) Depth to Well Bottom	170 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.52 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	160 ft	(K) One Purge Volume (C + J)	2.15 ft³
(E) Depth to Bottom of Screen	170 ft	(L) 10 Purge Volumes (K*10)	21.5 ft³

Static Pressure: -.60 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-12-2011 12:56 PM	0	0.0	0.18	19.51	0	
7-12-2011 12:59 PM	4.5	0.0	0.24	19.30	1	
7-12-2011 1:02 PM	9.0	0.0	0.22	19.36	0	
7-12-2011 1:05 PM	13.5	0.0	0.32	19.29	2	
7-12-2011 1:08 PM	18.0	0.0	0.32	19.31	2	
7-12-2011 1311 PM	22.5	0.0	0.32	19.39	2	

Values Prior to Sampling

7-12-2011 1311	22.5	0.0	0.32	19.39	2	

Sample ID: VA0622
VA0623

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB-106133-250	**Field Crew:** RG, RB
Site / SWMU No.: 106	**Date:** 7-12-2011	**Crew Signature:**
Weather: PARTLY CLOUDY	**Time:** 1:40 PM	**Review Signature and Date:** 7-12-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** ~~Yes~~ (No) needs locking bolt **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOCs
BZ 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.8 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-12-2011 1:40 PM	0	0.0	0	20.91	1	
7-12-2011 1:43 PM	4.5	0.0	0	20.59	1	
7-12-2011 1:46 PM	9.0	0.0	0.06	20.31	0	
7-12-2011 1:49 PM	13.5	0.0	0.14	19.96	0	
7-12-2011 1:52 PM	18.0	0.0	0.16	19.81	0	
7-12-2011 1:55 PM	22.5	0.0	0.18	19.69	0	
7-12-2011 1358 PM	27.0	0.0	0.20	19.63	1	

Values Prior to Sampling

7-12-2011 1358 PM	27.0	0.0	0.20	19.63	1	

Sample ID: VA0624

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB -106133-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-12-2011

Crew Signature:

Weather: PARTLY CLOUDY

Time: 2:12 PM

Review Signature and Date: 7-12-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) (No) NEEDS LOCKING BOLT

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft^3

Static Pressure: -.8 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time (MST)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-12-2011 2:12 PM	0	0.0	0.06	20.06	24	
7-12-2011 2:15 PM	4.5	0.0	0.10	19.88	39	
7-12-2011 2:18 PM	9.0	0.0	0.20	19.37	70	
7-12-2011 2:21 PM	13.5	0.0	0.24	19.28	76	
7-12-2011 2:24 PM	18.0	0.0	0.24	19.19	82	
7-12-2011 2:27 PM	22.5	0.0	0.28	19.11	93	
7-12-2011 1430	27.0	0.0	0.30	19.07	99	

Values Prior to Sampling

7-12-2011 1430	27.0	0.0	0.30	19.07	99	

Sample ID: VA0625

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB - 106133 - 450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-12-2011

Crew Signature: Amy Howard

Weather: PARTLY CLOUDY

Time: 2:48 PM

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged

Locked: (Yes) No

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC's
D2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft^3

Static Pressure: -1.2 11 1/2 0

Purge Flow Rate: 12 ccm

PURGE DATA

4 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-12-2011 2:45 PM	0	0.0	0	21.09	1	
7-12-2011 2:49 PM	48	0.0	0	20.97	8	
7-12-2011 2:53 PM	96	0.0	0	20.85	21	
7-12-2011 2:57 PM	144	0.0	0.08	20.65	50	
7-12-2011 3:01 PM	192	0.0	0.18	20.24	150	
7-12-2011 3:05 PM	240	0.0	0.24	19.91	289	
~~7-12-2011~~ At		~~0.0~~				

Values Prior to Sampling

7-12-2011	240	0.0	0.24	19.91	289	

Sample ID: VA0626

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB -BFF	**Well ID No/Interval:** KAFB-106134-025	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-13-2011	**Crew Signature:** [signature]
Weather: HAZY	**Time:** 8:07 AM	**Review Signature and Date:** [signature] 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact Damaged **Locked:** Yes No **Well ID Mark:** Yes No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft^3
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft^3

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

3min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 8:07 AM	0	0.0	0.08	20.59	0	
7-13-2011 8:10 AM	4.5	0.0	0.20	21.12	3	
7-13-2011 8:13 AM	9.0	0.0	0.16	20.44	6	
7-13-2011 8:16 AM	13.5	0.0	0.16	20.47	5	
7-13-2011 8:19	18.0	0.0	0.15	20.48	6	

Values Prior to Sampling

7-13-2011 8:19	18.0	0.0	0.15	20.48	6	

Sample ID: VA0627

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB-106134-050	**Field Crew:** AG, BB
Site / SWMU No.: 106	**Date:** 7-13-2011	**Crew Signature:** Amy Goonan
Weather: HAZY	**Time:** 8:35 Am	**Review Signature and Date:** 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOCS

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.153 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft^3
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft^3

Static Pressure: 0 " H20 **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 8:35 Am	0	0.0	0.14	20.52	12	
7-13-2011 8:38 Am	4.5	0.0	0.10	20.34	13	
7-13-2011 8:41 Am	9.0	0.0	0.10	20.44	16	
7-13-2011 8:44 Am	13.5	0.0	0.10	20.50	17	
7-13-2011 8:47 Am	18.0	0.0	0.10	20.54	17	

Values Prior to Sampling

7-13-2011 8:47 Am	18.0	0.0	0.10	20.54	17	

Sample ID: VA0628

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106134-170

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-13-2011

Crew Signature:

Weather: HAZY

Time: 9:03 Am

Review Signature and Date: 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	170 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.52 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	160 ft	(K) One Purge Volume (C + J)	2.15 ft^3
(E) Depth to Bottom of Screen	170 ft	(L) 10 Purge Volumes (K*10)	21.5 ft^3

Static Pressure: - .30 " H20

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 9:03 Am	0	0.00	0.06	20.36	3	
7-13-2011 9:06 Am	4.5	0.00	0.10	19.53	5	
7-13-2011 9:09 Am	9.0	0.00	0.10	19.51	4	
7-13-2011 9:12 Am	13.5	0.00	0.10	19.45	5	
7-13-2011 9:15 Am	18.0	0.00	0.10	19.44	5	
7-13-2011 9:18 Am	22.5	0.00	0.12	19.38	5	

Values Prior to Sampling

7-13-2011 9:18 Am	22.5	0.0	0.12	19.38	5	

Sample ID: VA0629

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB-106134-250	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-13-2011	**Crew Signature:**
Weather: HAZY	**Time:** 9:33 Am	**Review Signature and Date:** 7-15-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** ~~Yes~~ - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.2 "H2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 9:33 Am	0	0.0	0.06	20.68	1	
7-13-2011 9:36 Am	4.5	0.0	0.24	18.93	7	
7-13-2011 9:39 Am	9.0	0.0	0.20	19.00	10	
7-13-2011 9:42 Am	13.5	0.0	0.21	19.00	11	
7-13-2011 9:45 Am	18.0	0.0	0.20	18.98	10	
7-13-2011 9:48 Am	22.5	0.0	0.20	18.96	10	
7-13-2011 9:51 Am	27.0	0.0	0.22	18.96	10	

Values Prior to Sampling

7-13-2011 9:51 Am	27.0	0.0	.22	18.96	10	

Sample ID: VA0630

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106134-350

Field Crew: AG, BB

Site / SWMU No.: 106

Date: 7-13-2011

Crew Signature:

Weather: Hazy

Time: 10:05 Am

Review Signature and Date: 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) = Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.6 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft^3

Static Pressure: -.6 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-13-2011 10:05 Am	0	0.0	0.38	18.84	80	
7-13-2011 10:08 Am	4.5	0.0	0.40	18.71	87	
7-13-2011 10:11 Am	9.0	0.0	0.46	18.83	88	
7-13-2011 10:14 Am	13.5	0.0	0.46	18.84	90	
7-13-2011 10:17 Am	18.0	0.0	0.46	18.87	91	
7-13-2011 10:20 Am	22.5	0.0	0.48	18.90	92	
7-13-2011 10:23 Am	27.0	0.0	0.48	18.90	93	

Values Prior to Sampling

7-13-2011 10:23	27.0	0.0	0.48	18.90	93	

Sample ID: JA0631

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB-106134-450	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-13-2011	**Crew Signature:** [signature]
Weather: HAZY	**Time:** 10:45 Am	**Review Signature and Date:** [signature] 7-13-2011

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged **Locked:** ~~Yes~~ - No **Well ID Mark:** ~~Yes~~ - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: -.7 " H2O **Purge Flow Rate:** ~~12.0~~ ~~[illegible]~~ CFM 12.0

PURGE DATA

4min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-13-2011 10:45 Am	0	0.0	0.04	20.28	35	
7-13-2011 10:47 Am	48	0.0	0.14	19.53	210	
7-13-2011 10:50 Am	96	0.0	0.18	19.20	354	
7-13-2011 10:54 Am	144	0.0	0.18	19.12	399	
7-13-2011 10:58 Am	192	0.0	0.18	18.97	448	
7-13-2011 11:02 Am	240	0.0	0.18	18.96	466	

Values Prior to Sampling

7-13-2011 11:02 Am	240	0.0	0.18	18.96	466	

Sample ID: VA0632

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF
Well ID No/Interval: KAFB-106135025
Field Crew: AG, RB
Site / SWMU No.: 106
Date: 7-15-2011
Crew Signature: [signature]
Weather: SUNNY, LIGHT BREEZE
Time: 8:27 AM
Review Signature and Date: [signature] 7-15-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-15-2011 8:27 AM	0	0.0	0.22	20.48	3	
7-15-2011 8:30 AM	4.5	0.0	0.24	20.50	4	
7-15-2011 8:33 AM	9.0	0.0	0.24	20.53	3	
7-15-2011 8:36 AM	13.5	0.0	0.22	20.28	0	
7-15-2011 8:39 AM	18.0	0.0	0.22	20.32	1	

Values Prior to Sampling

7-15-2011 8:39 AM	18.0	0.0	0.22	20.32	1	

Sample ID: VA0634

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106135-050

Field Crew: AG, AB

Site / SWMU No.: 106

Date: 7-15-2011

Crew Signature: Amy Hamawaki

Weather: SUNNY, LIGHT BREEZE

Time: 8:54 AM

Review Signature and Date: 7-15-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.15 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft^3
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft^3

Static Pressure: 0 "H20 **Purge Flow Rate:** 1.5 GPM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-15-2011 8:54 AM	0	0.0	0	21.04	0	
7-15-2011 8:57 AM	4.5	0.0	0	20.82	0	
7-15-2011 9:00 AM	9.0	0.0	0.06	20.76	1	
7-15-2011 9:03 AM	13.5	0.0	0.08	20.73	1	
7-15-2011 9:06 AM	14.0	0.0	0.10	20.70	2	

Values Prior to Sampling

7-15-2011 9:06 AM	18.0	0.0	0.10	20.70	2	

Sample ID: VA0635

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB-106135-150	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-15-2011	**Crew Signature:** [signature]
Weather: SUNNY, LIGHT BREEZE	**Time:** 9:20 AM	**Review Signature and Date:** [signature] 7-15-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact Damaged **Locked:** Yes No **Well ID Mark:** Yes No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.45 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft^3

Static Pressure: -.14" H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-15-2011 9:20 AM	0	0.0	0.0	21.02	0	
7-15-2011 9:23 AM	4.5	0.0	0.0	20.85	1	
7-15-2011 9:26 AM	9.0	0.0	0.06	20.11	2	
7-15-2011 9:29 AM	13.5	0.0	0.08	20.02	2	
7-15-2011 9:32 AM	18.0	0.0	0.08	19.96	1	
7-15-2011 9:35 AM	22.5	0.0	0.08	19.33	2	

Values Prior to Sampling

7-15-2011 9:35 AM	22.5	0.0	0.08	19.33	2	

Sample ID: VA0636

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106135-250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-15-2011

Crew Signature: Ay Hanawalt

Weather: SUNNY, LIGHT BREEZE

Time: 9:50 AM

Review Signature and Date: 7-15-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BLGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.76 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft^3
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft^3

Static Pressure: -.16 " H_2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-15-2011 9:50 AM	0	0.0	0	20.87	0	
7-15-2011 9:53 AM	4.5	0.0	0.02	20.60	1	
7-15-2011 9:56 AM	9.0	0.0	0.04	20.33	0	
7-15-2011 9:59 AM	13.5	0.0	0.10	20.24	6	
7-15-2011 10:02 AM	18.0	0.0	0.10	20.23	5	
7-15-2011 10:05 AM	22.5	0.0	0.12	20.18	5	
7-15-2011 10:08 AM	27.0	0.0	0.12	20.13	5	

Values Prior to Sampling

7-15-2011 10:08 AM	27.0	0.0	0.12	20.13	5	

Sample ID: VA0637

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB -106135 -350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-15-2011

Crew Signature: Amy Gonzales

Weather: SUNNY, LIGHT BREEZE

Time: 10:35 Am

Review Signature and Date: 7-15-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -.30 " H2O

Purge Flow Rate: 1.5 LPM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-15-2011 10:35 AM	0	0.0	0	20.66	13	
7-15-2011 10:38 Am	4.5	0.0	0	20.67	14	
7-15-2011 10:41 Am	9.0	0.0	0	20.61	23	
7-15-2011 10:44 Am	13.5	0.0	0.04	20.53	41	
7-15-2011 10:47 Am	18.0	0.0	0.06	20.52	43	
7-15-2011 10:50 Am	22.5	0.0	0.06	20.49	50	
7-15-2011 10:53 Am	27.0	0.0	0.06	20.48	54	

Values Prior to Sampling

7-15-2011 10:53 Am	27.0	0.0	0.06	20.48	548	

Sample ID: VAOG39

Shaw™ Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106135-450

Field Crew: MG, RB

Site / SWMU No.: 106

Date: 7-15-2011

Crew Signature: [signature]

Weather: SUNNY, LIGHT BREEZE

Time: 11:05 AM

Review Signature and Date: 7-15-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** ~~Yes~~ - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor~~: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: -.20 " H2O

Purge Flow Rate: 12 CFM

PURGE DATA

4 mAN Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-15-2011 11:05 AM	0	0.0	0	20.69	1	
7-15-2011 11:09 AM	48	0.0	.26	19.89	250	
7-15-2011 11:13 AM	96	0.0	.28	19.81	306	
7-15-2011 11:17 AM	144	0.0	.32	19.67	425	
7-15-2011 11:21 AM	192	0.0	.34	19.58	468	
7-15-2011 11:25 AM	240	0.0	.36	19.55	476	

Values Prior to Sampling

7-15-2011 11:25 AM	240	0.0	.36	19.55	476	

Sample ID: VA0640

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106136-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-14-2011

Crew Signature: Amy Goonewardene

Weather: PARTLY CLOUDY, SLIGHT BREEZE

Time: 11:55 AM

Review Signature and Date: 7-14-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's
well cap not installed

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-14-2011 11:55	0	0.0	0.12	20.60	0	
7-14-2011 11:58	4.5	0.0	0.12	20.61	0	
7-14-2011 12:02	9.0	0.0	0.12	20.37	1	
7-14-2011 12:04	13.5	0.0	0.11	20.39	0	
7-14-2011 12:07	18.0	0.0	0.12	20.42	0	

Values Prior to Sampling

7-14-2011 12:07	18.0	0.0	0.12	20.42	0	

Sample ID: VA0641

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106136-050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-14-2011

Crew Signature: Amy Haasarud

Weather: PARTLY CLOUDY, SLIGHT BREEZE

Time: 12:37

Review Signature and Date: 7-14-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: ~~Yes~~ - No

Well ID Mark: (Yes) - No

WELL CAP NOT INSTALLED

Notes: BUGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 CPM

PURGE DATA

3mav Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-14-2011 12:32	0	0.0	0.14	20.45	0	
7-14-2011 12:40	4.5	0.0	0.14	20.53	0	
7-14-2011 12:43	9.0	0.0	0.16	20.52	0	
7-14-2011 12:46	13.5	0.0	0.16	20.55	0	
7-14-2011 12:49	18.0	0.0	0.14	21.06	0	

Values Prior to Sampling

7-14-2011 12:49	18.0	0.0	0.14	21.06	0	

Sample ID: VA0642

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106136-150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-14-2011

Crew Signature: Amy Gronewold

Weather: PARTLY CLOUDY, BREEZY

Time: 1:05

Review Signature and Date: RMB 7-14-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No WELL CAP NOT INSTALLED

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: -.04 "H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-14-2011 1:05	0	0.0	0.0	20.30	3	
7-14-2011 1:08	4.5	0.0	0.0	20.30	4	
7-14-2011 1:11	9.0	0.0	0.0	20.32	3	
7-14-2011 1:14	13.5	0.0	0.0	20.34	2	
7-14-2011 1:17	18.0	0.0	0.0	20.35	2	
7-14-2011 1:20	22.5	0.0	0.0	20.40	1	

Values Prior to Sampling

7-14-2011 1320	22.5	0.0	0.0	20.40	1	

Sample ID: VA0643

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106136-250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-14-2011

Crew Signature: Amy Gomara

Weather: PARTLY CLOUDY, BREEZY

Time: 1343

Review Signature and Date: 7-14-2011

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged

Locked: ~~Yes~~ - No

Well ID Mark: (Yes) - No

Notes: BKGD 0.0 VOC'S
BZ 0.0 VOC'S
WELL CAP NOT INSTALLED

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -.22 "H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

3 MIN Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-14-2011 1343	0	0.0	0.08	20.52	1	
7-14-2011 1346	4.5	0.0	0.08	20.54	1	
7-14-2011 1349	9.0	0.0	0.08	20.55	0	
7-14-2011 1352	13.5	0.0	0.08	20.58	0	
7-14-2011 1355	18.0	0.0	0.08	20.59	0	
7-14-2011 1358	22.5	0.0	0.07	20.58	0	
7-14-2011 1401	27.0	0.0	0.08	20.59	0	

Values Prior to Sampling

7-14-2011 1401	27.0	0.0	0.08	20.59	0	

Sample ID: VA0644

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106136-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-14-2011

Crew Signature: Amy Freeman

Weather: PARTLY CLOUDY, BARELY

Time: 3:08

Review Signature and Date: 7-14-2011

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged

Locked: ~~Yes~~ - No — WELL CAP NOT INSTALLED

Well ID Mark: Yes - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: −.25 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-14-2011 3:08	0	0.0	0.0	20.54	3	
7-14-2011 3:11	4.5	0.0	0.0	20.55	4	
7-14-2011 3:14	9.0	0.0	0.02	20.54	3	
7-14-2011 3:17	13.5	0.0	0.02	20.55	2	
7-14-2011 3:20	18.0	0.0	0.00	20.57	3	
7-14-2011 3:23	22.5	0.0	0.00	20.59	4	
7-14-2011 3:26	27.0	0.0	0.00	20.60	3	

Values Prior to Sampling

7-14-2011 1526	27.0	0.0	0.00	20.60	3	

Sample ID: VA0645

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF
Well ID No/Interval: KAFB-106136-450
Field Crew: AG, RB
Site / SWMU No.: 106
Date: 7-14-2011
Crew Signature: Amy Howard
Weather: PARTLY CLOUDY, BREEZY
Time: 3:45
Review Signature and Date: RBB 7-14-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: (Yes) - No WELL CAP NOT INSTALLED
Well ID Mark: (Yes) No

Notes: BHGO 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor~~: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: -.28 " H2O
Purge Flow Rate: 12 CFM

PURGE DATA

4 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-14-2011 3:45	0	0.0	0.0	20.74	1	
7-14-2011 3:49	48	0.0	0.0	20.59	2	
7-14-2011 3:53	96	0.0	0.02	20.49	2	
7-14-2011 3:57	144	0.0	0.02	20.49	3	
7-14-2011 4:01	192	0.0	0.02	20.50	1	
7-14-2011 4:05	240	0.0	0.02	20.49	3	

Values Prior to Sampling

7-14-2011 1605	240	0.0	0.02	20.49	3	

Sample ID: VA0646

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** KAFB-106137-025	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-28-2011	**Crew Signature:** Amy Granawalt
Weather: PARTLY CLOUDY	**Time:** 1451	**Review Signature and Date:** 7-28-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.076 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 " H2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-28-2011 1451	0	0	0.14	20.91	0	
7-28-2011 1454	4.5	0	0.16	21.10	0	
7-28-2011 1457	9.0	0	0.16	20.54	0	
7-28-2011 1500	13.5	0	0.16	20.55	0	
1503	18.0	0	0.16	20.54	0	

Values Prior to Sampling

7-28-2011 1503	18.0	0	0.16	20.54	0	

Sample ID: VA0647

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106137-050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-28-2011

Crew Signature: Amy Greenawalt

Weather: PARTLY CLOUDY

Time: 1530

Review Signature and Date: 7-28-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
B2 5.4 VOC'S (OPEN)

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: +1.4 " H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-28-2011 1530	0	0	0.08	20.24	1	
7-28-2011 1533	4.5	0	0.10	20.36	1	
7-28-2011 1536	9.0	0	0.10	20.37	1	
7-28-2011 1539	13.5	0	0.10	20.38	2	
7-28-2011 1542	18.0	0	0.10	20.39	2	

Values Prior to Sampling

7-28-2011 1542	18.0	0	0.10	20.39	2	

Sample ID: VA0648

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB – 106 137-150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-29-2011

Crew Signature:

Weather: PARTLY CLOUDY, WINDY

Time: 8:35 Am

Review Signature and Date: 7-29-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: – 1.0 " H2O

Purge Flow Rate: CFM

PURGE DATA

3 MIN Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-29-2011 8:35 Am	0	0	0.14	20.41	1	
7-29-2011 8:38 Am	4.5	0	0.16	20.49	1	
7-29-2011 8:41	9.0	0	0.16	20.50	0	
7-29-2011 8:44	13.5	0	0.18	20.54	1	
7-29-2011 8:47	18.0	0	0.18	20.45	1	
7-29-2011 8:50	22.5	0	0.18	20.51	1	

Values Prior to Sampling

7-29-2011 8:50	22.5	0	0.18	20.51	1	

Sample ID: VA0649

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106137-250

Field Crew: AC, RB

Site / SWMU No.: 106

Date: 7-29-2011

Crew Signature:

Weather: CLOUDY, WINDY

Time: 8:15 AM

Review Signature and Date: 7-29-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -1.4 "H2O **Purge Flow Rate:** 1.5 LPM

PURGE DATA

6 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-29-2011 8:15 AM	0	0	0.10	20.73	0	
7-29-2011 9:21 AM	9	0	0.10	20.83	0	
7-29-2011 9:27 AM	18	0	0.10	20.82	0	
7-29-2011 9:33 AM	27	0	0.20	20.46	0	

Values Prior to Sampling

7-29-2011 9:33 AM	27	0	0.20	20.46	0	

Sample ID: VA0650

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB - 106137 - 350	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-29-2011	**Crew Signature:** [signature]
Weather: CLOUDY, WINDY	**Time:** 9:55 Am	**Review Signature and Date:** [signature] 7-29-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes No **Well ID Mark:** Yes No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	1.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft^3
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft^3

Static Pressure: -1.4 " H2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

6 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-29-2011 9:55 Am	0	0	0	21.06	0	
7-29-2011 10:01 Am	9	0	0.02	21.04	0	
7-29-2011 10:07 Am	18	0	0.04	21.11	2	
7-29-2011 10:13 Am	27	0	0.08	20.80	13	

Values Prior to Sampling

7-29-2011 10:13 Am	27	0	0.08	20.80	13	

Sample ID: VA0651

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB - 106137 - 450	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 7-29-2011	**Crew Signature:**
Weather: CLOUDY, WINDY	**Time:** 10:42 Am	**Review Signature and Date:** 7-29-CAM

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor: ½~~" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: - 1.4 "H20 **Purge Flow Rate:** 12 CFM

PURGE DATA

4 min DN Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
7-29-2011 10:42 Am	0	0	0.22	19.77	400	
7-29-2011 10:46 Am	48	0	0.24	19.80	479	
7-29-2011 10:50 Am	96	0	0.26	19.76	618	
7-29-2011 10:54 Am	144	0	0.26	19.73	670	
7-29-2011 10:58 Am	192	0	0.28	19.71	696	
7-29-2011 11:02 Am	240	0	0.28	19.75	718	

Values Prior to Sampling

7-29-2011 11:02 Am	240	0	0.28	19.75	718	

Sample ID: VA0653

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106138-025
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/22/11
Crew Signature: Tim Rogers
Weather: Sunny
Time: 900
Review Signature and Date: 8/22/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17 ft³

Static Pressure: 0 "H2O **Purge Flow Rate:** 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/22/11 900	0	0	2.18	19.01	6	
903	4.5	0	3.52	17.58	4	
906	9	0	3.82	17.36	4	
909	13.5	0	4.00	17.12	12	
912	18	0	4.06	16.85	11	

Values Prior to Sampling

912	18	0	4.06	16.85	11	

Sample ID: VA0654

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: 106138-050
Field Crew: RB, TN
Site / SWMU No.: 106
Date: 8/22/11
Crew Signature: Tim Nogle
Weather: sunny
Time: 935
Review Signature and Date: 8/22/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged
Locked: (Yes) - No
Well ID Mark: (Yes) - No

Notes: Bkgd VOCs 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 "H_2O

Purge Flow Rate: 1.5 afm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/22/11 935	0	0	1.12	19.18	3	
938	4.5	0	2.10	18.10	1	
941	9	0	2.30	17.88	1	
944	13.5	0	2.36	17.78	0	
947	18	0	2.38	17.80	1	

Values Prior to Sampling

947	18	0	2.38	17.80	1	

Sample ID: VA0655

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: sunny

Well ID No/Interval: 106138 - 150

Date: 8/22/11

Time: 1005

Field Crew: RB, TN

Crew Signature: Tim Nogle

Review Signature and Date: 8/22/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306,) 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: −1.2" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/22/11 1005	0	0	.16	19.21	7	
1008	4.5	0	.22	19.15	8	
1011	9	0	.24	19.25	8	
1014	13.5	0	.24	19.31	7	
1017	18	0	.24	19.30	7	
1020	22.5	0	.24	19.26	6	

Values Prior to Sampling

1020	22.5	0	.24	19.26	6	

Sample ID: VA0656

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB 106138/250

Field Crew: RB TN

Site / SWMU No.: 106

Date: 8/22/11

Crew Signature:

Weather: Clear 80s

Time: 1100

Review Signature and Date: 8/22/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKgd 0.0 VOC
BZ 0.0 VOC

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: −1.1 in H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time (6 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
1100	0	0	.16	20.46	3	
1106	9.0	0	.56	20.41	4	
1112	18.0	0	.62	20.43	1	
1118	27.0	0	.62	20.01	~~4~~ TN 3	

Values Prior to Sampling

1118	27.0	0	.62	20.01	3	

Sample ID: VA0658

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 106

Weather: Sunny

Well ID No/Interval: KAFB 106138 / 350

Date: 8/22/11

Time: 1304

Field Crew: RB, TN

Crew Signature: [signature]

Review Signature and Date: [signature] 8/22/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOCs 0

B2 VOCs 0

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.7 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27 ft³

Static Pressure: −1.3" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

6 min

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
1304	0	0	.08	20.62	3	
1310	9	0	.36	20.18	2	
1316	18	0	.36	20.28	2	
1322	27	0	.36	20.09	3	

Values Prior to Sampling

1322	27	0	.36	20.09	3	

Sample ID: VA0659

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: 106138-450

Field Crew: RB, TN

Site / SWMU No.: 106

Date: 8/22/11

Crew Signature:

Weather: sunny

Time: 1343

Review Signature and Date: 8/22/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: BKgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, (8") = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.63 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236.3 ft³

Static Pressure: −1.2" H_2O

Purge Flow Rate: 12 cfm

PURGE DATA

Date/Time (4 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8/22/11 1343	0	0	.12	20.72	2	
1347	48	0	.14	20.78	3	
1351	96	0	.14	20.80	2	
1355	144	0	.14	20.82	1	
1359	192	0	.12	20.83	3	
1403	240	0	.14	20.82	2	

Values Prior to Sampling

1403	240	0	.14	20.82	2	

Sample ID: VA0660

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB106139-025

Field Crew: AG ; RB

Site / SWMU No.: 106

Date: 8-1-2011

Crew Signature: Amy Howard

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 12:30

Review Signature and Date: 8-1-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOCs
B2 0.0 VOCs

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.07 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft^3
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft^3

Static Pressure: 0 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-1-2011 12:30	0	0	0.40	20.77	0	
8-1-2011 12:33	4.5	0	0.40	20.90	0	
8-1-2011 12:36	9.0	0	0.42	20.95	0	
8-1-2011 12:39	13.5	0	0.42	20.98	0	
8-1-2011 12:42	18.0	0	0.44	20.98	0	

Values Prior to Sampling

8-1-2011 12:42	18.0	0	0.44	20.98	0	

Sample ID: VA0661

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106 139-050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-1-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 1300

Review Signature and Date: [signature]

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD VOC's
B2 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 " H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-1-2011 1300	0	0	0.56	19.78	0	
8-1-2011 1303	4.5	0	0.58	19.88	0	
8-1-2011 1306	9.0	0	0.56	19.90	0	
8-1-2011 1309	13.5	0	0.56	19.91	0	
8-1-2011 1312	18.0	0	0.56	19.90	0	

Values Prior to Sampling

8-1-2011 1312	18.0	0	0.56	19.90	0	

Sample ID: VA0662

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106139-150

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-1-2011

Crew Signature:

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 1336

Review Signature and Date: 8-1-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: BKGD VOC's
B2A VOCS

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.45 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft³

Static Pressure: -1.0 " H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time (3 min)	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	Horiba Mexa – 584 L CO_2 (%)	Horiba Mexa – 584 L O_2 (%)	Horiba Mexa – 584 L HC (ppmv)	Comments
8-1-2011 1336	0	0	0.40	19.60	0	
8-1-2011 1339	4.5	0	0.38	19.42	0	
8-1-2011 1342	9.0	0	0.38	19.52	0	
8-1-2011 1345	13.5	0	0.40	19.54	0	
8-1-2011 1348	18.0	0	0.40	19.56	0	
8-1-2011 1351	22.5	0	0.40	19.55	0	

Values Prior to Sampling

8-1-2011 1351	22.5	0	0.40	19.55	0	

Sample ID: VA0663

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF	**Well ID No/Interval:** KAFB-106139-250	**Field Crew:** AG, RB
Site / SWMU No.: 106	**Date:** 8-1-2011	**Crew Signature:**
Weather: PARTLY CLOUDY, LIGHT BREEZE	**Time:** 1410	**Review Signature and Date:** 8-1-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: -1.0 H_2O **Purge Flow Rate:** OFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-1-2011 1410	0	0	0.40	19.88	0	
8-1-2011 1413	4.5	0	0.40	19.89	1	
8-1-2011 1416	9.0	0	0.40	19.90	1	
8-1-2011 1419	13.5	0	0.42	19.91	1	
8-1-2011 1422	18.0	0	0.40	19.90	0	
8-1-2011 1425	22.5	0	0.42	19.89	1	
8-1-2011 1428	27.0	0	0.42	19.88	0	

Values Prior to Sampling

8-1-2011 1428	27.0	0	0.42	19.88	0	

Sample ID: VA0664

Shaw: Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106139 ~~250AB~~ 350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-1-2011

Crew Signature:

Weather: PARTLY CLOUDY, LIGHT BREEZE

Time: 1503

Review Signature and Date: 8-1-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BHGD 0.0 VOC's
BZ 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -.20 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Comm. Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8-1-2011 1503	0	0	0.0	21.09	0	
8-1-2011 1509	9	0	0.22	20.32	0	
8-1-2011 1515	18	0	0.36	20.01	2	
8-1-2011 1521	27	0	.54	19.73	~~4~~	
~~8-1-2011 1527~~ AG		~~0~~ AG				

Values Prior to Sampling

8-1-2011 1521	27	0	.54	19.73	4	

Sample ID: VA0669

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB - 106139 -450

Field Crew: AG ; RB

Site / SWMU No.: 106

Date: 8-2-2011

Crew Signature: Amy Arenawald

Weather: SUNNY, LIGHT BREEZE

Time: 8:30 Am

Review Signature and Date: 8-2-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
BZ 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor: ½~~" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.7 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	237 ft³

Static Pressure: -.160 " H_2O **Purge Flow Rate:** 12 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-2-2011 8:30 Am	0	0	0	20.79	0	
8-2-2011 8:34 Am	46	0	0	20.95	2	
8-2-2011 8:38 Am	96	0	0.08	20.90	2	
8-2-2011 8:42 Am	144	0	0	20.78	0	
8-2-2011 8:46 Am	192	0	0	20.80	0	
8:50 Am	240	0	.02	20.80	0	

Values Prior to Sampling

8-2-2011 8:50 Am	240	0	.02	20.80	0	

Sample ID: VA0667

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB- BFF
Site / SWMU No.: 106
Weather: HA24

Well ID No/Interval: KAFB-106140-025
Date: 7-26-2011
Time: 851

Field Crew: AG, RB
Crew Signature: Amy Arenawald
Review Signature and Date: 7-26-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BkGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: 0 "H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-26-2011 851 Am	0	0	.02	20.83	5	
7-26-2011 854 Am	4.5	0	.04	20.98	6	
7-26-2011 857 Am	9.0	0	.06	21.02	6	
7-26-2011 900 Am	13.5	0	0	20.62	14	
7-26-2011 903 Am	18.0	0	0	20.63	13	

Values Prior to Sampling

7-26-2011 903 Am	18.0	0	0	20.63	13	

Sample ID: VA0668

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106140-050

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-26-2011

Crew Signature:

Weather: HAZY

Time: 955

Review Signature and Date: 7-26-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's

B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 "H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-26-2011 0955	0	0	0	20.42	24	
7-26-2011 958	4.5	0	0	20.66	26	
7-26-2011 1001	9.0	0	0	20.65	26	
7-26-2011 1004	13.5	0	0	20.67	26	
1007	18.0	0	0	20.72	26	

Values Prior to Sampling

7-26-2011 1007	18.0	0	0	20.72	26	

Sample ID: VA0669

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Site / SWMU No.: 106

Weather: HAZY

Well ID No/Interval: KAFB-106140-150

Date: 7-26-2011

Time: 11:34 Am

Field Crew: AG, RB

Crew Signature: [signature]

Review Signature and Date: [signature] 7-26-2011

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.45 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	2.08 ft^3
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	20.8 ft^3

Static Pressure: - 0.1 "H2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

3MIN. Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-26-2011 11:34 Am	0	0	0	21.15	0	
7-26-2011 11:37 Am	4.5	0	0	21.17	1	
7-26-2011 11:40 Am	9.0	0	.19	20.88	2	
7-26-2011 11:43 Am	13.5	0	.19	20.87	2	
7-26-2011 11:46 Am	18.0	0	.21	20.90	3	
7-26-2011 11:49 Am	22.5	0	.20	20.91	1	

Values Prior to Sampling

7-26-2011 11:49 Am	22.5	0	.20	20.91	1	

Sample ID: VA0671

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** KAFB - 106 140-250	**Field Crew:** AG ; RB
Site / SWMU No.: 106	**Date:** 7-26-2011	**Crew Signature:** Amy Greenawald
Weather: HAZY	**Time:** 12:09	**Review Signature and Date:** [signature] 7-26-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.76 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft^3
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft^3

Static Pressure: -.2 " H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

6 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-26-2011 12:09	0	0	0	20.32	2	
7-26-2011 12:15	9	0	0	20.40	1	
7-26-2011 12:21	18	0	0	20.40	3	
7-26-2011 12:27	27	0	0	20.40	1	

Values Prior to Sampling

7-26-2011 12:27	27	0	0	20.40	1	

Sample ID: VA0672

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB- BFF

Site / SWMU No.: 106

Weather: HAZY

Well ID No/Interval: KAFB -106140 -350

Date: 7-26-2011

Time: 1402

Field Crew: AG, RB

Crew Signature: [signature]

Review Signature and Date: [signature] 7-26-2011

WELL OBSERVATIONS

Protective Casing / Vault: ~~Intact~~ - Damaged **Locked:** ~~Yes~~ - No **Well ID Mark:** ~~Yes~~ - No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -.244" H2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

6 min. Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
7-26-2011 1402	0	0	.10	19.60	878	
7-26-2011 1408	9.0	0	.07	19.66	883	
7-26-2011 1414	18.0	0	.06	19.70	891	
7-26-2011 1420	27.0	0	0	19.67	904	

Values Prior to Sampling

7-26-2011 1420	27.0	0	0	19.67	904	

Sample ID: VA0673

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106140-450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-26-2011

Crew Signature: [signature]

Weather: HAZY

Time: 1450

Review Signature and Date: 7-26-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218 (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	2.36 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: −.42 "H_2O

Purge Flow Rate: 12 CFM

PURGE DATA

Date/Time (4 min SW)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-26-2011 1450	0	0	.42	19.43	1832	
7-26-2011 1454	48	0	.58	18.98	2550	
7-26-2011 1458	96	0	.56	18.94	2760	
7-26-2011 1502	144	0	.56	19.08	2620	
7-26-2011 1506	192	0	.64	18.83	2681	
7-26-2011 1510	240	0	.52	19.03	2679	

Values Prior to Sampling

7-26-2011 1510	240	0	.52	19.03	2679	

Sample ID: VA0674

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106141-025

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-2-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY

Time: 1524

Review Signature and Date: 8-2-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: Yes (No)

Well ID Mark: (Yes) No

Notes: * MISSING TWO WELL CAPS
* MISSING LOCKING BOLT

BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	25 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	15 ft	(K) One Purge Volume (C + J)	1.70 ft³
(E) Depth to Bottom of Screen	25 ft	(L) 10 Purge Volumes (K*10)	17.0 ft³

Static Pressure: +.06 " H2O

Purge Flow Rate: 1.5 LPM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-2-2011 1524	0	0	0.10	20.36	0	
8-2-2011 1527	4.5	0	0.10	20.29	1	
8-2-2011 1530	9.0	0	0.10	20.30	0	
8-2-2011 1533	13.5	0	0.10	20.31	1	
8-2-2011 1536	18	0	0.12	20.35	5	

Values Prior to Sampling

8-2-2011 1536	18	0	0.12	20.35	5	

Sample ID: VA0675

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB - 106141-060

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-2-2011

Crew Signature: Amy Gronewold

Weather: PARTLY CLOUDY

Time: 1602

Review Signature and Date: 8-12-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: (Yes) No

Well ID Mark: (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	60 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.18 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	60 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: +.12 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-2-2011 1602	0	0	0.08	20.32	1	
8-2-2011 1605	4.5	0	0.08	20.31	1	
8-2-2011 1608	9.0	0	0.08	20.31	2	
8-2-2011 1611	13.5	0	0.08	20.31	0	
8-2-2011 1614	18.0	0	0.08	20.30	2	

Values Prior to Sampling

8-2-2011 1614	18.0	0	0.08	20.30	2	

Sample ID: VA0676

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106141-170

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-3-2011

Crew Signature: Amy Garnand

Weather: PARTLY CLOUDY

Time: 8:48 Am

Review Signature and Date: 8-3-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact (Damaged) **Locked:** Yes (No) **Well ID Mark:** (Yes) - No

Notes: BLKD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	170 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.52 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	160 ft	(K) One Purge Volume (C + J)	2.15 ft³
(E) Depth to Bottom of Screen	170 ft	(L) 10 Purge Volumes (K*10)	21.5 ft³

Static Pressure: -.64 " H2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

3 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO₂ (%)	O₂ (%)	HC (ppmv)	Comments
8-3-2011 8:48 Am	0	0	0.10	20.62	0	
8-3-2011 8:51 Am	4.5	0	0.12	20.67	0	
8-3-2011 8:54 Am	9.0	0	0.12	20.66	0	
8-3-2011 8:57 Am	13.5	0	0	20.40	1	
8-3-2011 9:00 Am	18.0	0	0.0	20.39	2	
8-3-2011 9:03 Am	22.5	0	0.0	20.39	0	

Values Prior to Sampling

8-3-2011 9:03 Am	22.5	0	0.0	20.39	0	

Sample ID: VA0677

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106141-250

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-3-2011

Crew Signature: Greg Hammond

Weather: PARTLY CLOUDY

Time: 9:32 AM

Review Signature and Date:

WELL OBSERVATIONS

Protective Casing / Vault: Intact - (Damaged)

Locked: Yes - (No)

Well ID Mark: (Yes) - (No)

Notes: BKG-0 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: −.64" H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

(6 min) Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-3-2011 9:32 AM	0	0	0	20.67	1	
8-3-2011 9:38 AM	9	0	0.02	20.65	0	
8-3-2011 9:44 AM	18	0	0.04	20.83	0	
8-3-2011 9:50 AM	27	0	0.04	20.84	0	

Values Prior to Sampling

8-3-2011 9:50 AM	27	0	0.04	20.84	0	

Sample ID: VA0678

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB - 106141 - 350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 8-3-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY

Time: 10:18 Am

Review Signature and Date: [signature] 8-3-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - ~~Damaged~~ **Locked:** Yes - (No) **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306), 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	1.071 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	2.70 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	27.0 ft³

Static Pressure: -.70 " H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time (0 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8-3-2011 10:18	0	0	0.02	20.74	0	
8-3-2011 10:24	9	0	0.04	20.84	0	
8-3-2011 10:30	18	0	0.06	20.83	0	
8-3-2011 10:36	27	0	0.06	20.83	0	

Values Prior to Sampling

8-3-2011 10:36	27	0	0.06	20.83	0	

Sample ID: VA0679

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB106141/450

Field Crew: AF, RB

Site / SWMU No.: 106

Date: 8-3-2011

Crew Signature:

Weather: PARTLY CLOUDY

Time: 10:55 Am

Review Signature and Date: 8-3-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - ~~Damaged~~ **Locked:** Yes - ~~No~~ **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor:~~ ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	22.0 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft^3
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft^3

Static Pressure: -.66 H_2O

Purge Flow Rate: 120 CFM

PURGE DATA

4 min. Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
8-3-2011 10:55 Am	0	0	0	20.80	0	
8-3-2011 10:59 Am	48	0	0	20.86	0	
8-3-2011 11:03 Am	96	0	.01	20.94	0	
8-3-2011 11:07 Am	144	0	.02	20.88	0	
8-3-2011 11:11 Am	192	0	.04	20.96	0	
8-3-2011 11:15 Am	240	0	.06	20.93	0	

Values Prior to Sampling

8-3-2011 11:15 Am	240	0	.06	20.93	0	

Sample ID: VAD080

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB – BFF

Well ID No/Interval: KAFB-106142-030

Field Crew: AF, RB

Site / SWMU No.: 106

Date: 7-25-2011

Crew Signature: Amy Fearnaught

Weather: Hazy

Time: 9:16 Am

Review Signature and Date: 7/25/2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
BZ 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	30 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, (¾" = .00306) 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.09 ft^3	(J) Filter Pack Volume (F x G)	1.63 ft^3
(D) Depth to Top of Screen	20 ft	(K) One Purge Volume (C + J)	1.72 ft^3
(E) Depth to Bottom of Screen	30 ft	(L) 10 Purge Volumes (K*10)	17.2 ft^3

Static Pressure: 0 "H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7/25/2011 9:16 Am	0	0	0.22	20.34	1	
7/25/2011 9:19 Am	4.5	0	0.22	20.44	2	
7/25/2011 9:22 Am	9.0	0	0.22	20.45	0	
7/25/2011 9:25 Am	13.5	0	0.18	20.61	0	
7/25/2011 9:28	18.0	0	0.20	20.60	1	

Values Prior to Sampling

7/25/2011 9:28 Am	18.0	0	0.20	20.60	1	

Sample ID: VA0681

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106142-050

Field Crew: AG, IRB

Site / SWMU No.: 106

Date: 7-25-2011

Crew Signature: [signature]

Weather: HAZY

Time: 9:55 Am

Review Signature and Date: [signature] 7-28-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: 0 H_2O

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time (3 min)	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7/25/2011 9:55 Am	0	0	0.18	20.79	0	
7/25/2011 9:58 Am	4.5	0	0.22	20.78	0	
7/25/2011 10:01 Am	9.0	0	0.22	20.79	0	
7/25/2011 10:04 Am	13.5	0	0.06	20.43	0	
7/25/2011 10:07 Am	18.0	0	0.08	20.46	0	

Values Prior to Sampling

7/25/2011 10:07 Am	18.0	0	0.08	20.46	0	

Sample ID: VA0682

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106142-170

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7/25/2011

Crew Signature: Amy Leonard

Weather: HAZY, 84°

Time: 12:30

Review Signature and Date: 7-25-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	170 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.52 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	160 ft	(K) One Purge Volume (C + J)	2.15 ft³
(E) Depth to Bottom of Screen	170 ft	(L) 10 Purge Volumes (K*10)	21.5 ft³

Static Pressure: −1.6 in H_2O **Purge Flow Rate:** 1.5 CFM

PURGE DATA

3 MIN Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-25-2011 12:30	0	0	0	20.75	0	
7-25-2011 12:33	4.5	0	0	20.63	0	
7-25-2011 12:36	9.0	0	0	20.70	1	
7-25-2011 12:39	13.5	0	0	20.69	2	
7-25-2011 12:42	18.0	0	0	20.74	3	
7-25-2011 12:45	22.5	0	0	20.68	2	

Values Prior to Sampling

7-25-2011 12:45	22.5	0	0	20.68	2	

Sample ID: VA0683

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: KAFB-106142-250

Field Crew: BB, RB

Site / SWMU No.: 106

Date: 7-25-2011

Crew Signature: Amy Greenwell

Weather: Hazy, 84°

Time: 1316

Review Signature and Date: 7-25-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged **Locked:** (Yes) No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.76 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	240 ft	(K) One Purge Volume (C + J)	2.39 ft³
(E) Depth to Bottom of Screen	250 ft	(L) 10 Purge Volumes (K*10)	23.9 ft³

Static Pressure: −1.6 " H_2O

Purge Flow Rate: CAM

PURGE DATA

6 min. Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-25-2011 1316	0	0	0.02	20.77	0	
7-25-2011 1322	9	0	0.02	20.86	0	
7-25-2011 1328	18	0	0.04	20.87	0	
7-25-2011 1334	27	0	0.06	20.89	0	

Values Prior to Sampling

7-25-2011 1334	27	0	0.06	20.89	0	

Sample ID: VA0684

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BAF

Well ID No/Interval: KAFB-106142-350

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-25-2011

Crew Signature:

Weather: PARTLY CLOUDY

Time: 1402

Review Signature and Date: 7-25-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) No

Notes: BKGD 0.0 VOC'S
B2 0.0 VOC'S

CALCULATIONS

(A) Depth to Well Bottom	350 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft² 1.63
(C) One Well Casing Volume (A x B):	1.071 ft³	(J) Filter Pack Volume (F x G)	2.70 ft³
(D) Depth to Top of Screen	340 ft	(K) One Purge Volume (C + J)	27.0 ft³
(E) Depth to Bottom of Screen	350 ft	(L) 10 Purge Volumes (K*10)	ft³

Static Pressure: -1.8 " H20

Purge Flow Rate: 1.5 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-25-2011 1402	0	0	0.0	20.75	0	
7-25-2011 1408	9	0	0.0	20.76	0	
7-25-2011 1416	18	0	0.04	20.75	1	
7-25-2011 1422	27	0	0.06	20.76	1	

Values Prior to Sampling

7-25-2011 1422	27	0	0.06	20.76	1	

Sample ID: VA0685

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/Interval: KAFB-106142-450

Field Crew: AG, RB

Site / SWMU No.: 106

Date: 7-25-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY

Time: 1449

Review Signature and Date: 7-25-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKGD 0.0 VOC's
B2 0.0 VOC's

CALCULATIONS

(A) Depth to Well Bottom	450 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing ~~Factor~~: ½" = .00136, ¾" = .00306, 2" = .0218, (3" = .04906)	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	22.0 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	440 ft	(K) One Purge Volume (C + J)	23.6 ft³
(E) Depth to Bottom of Screen	450 ft	(L) 10 Purge Volumes (K*10)	236 ft³

Static Pressure: −1.0 in H_2O

Purge Flow Rate: 12 CFM

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-25-2011 1449	0	0	0.00	20.76	1	
7-25-2011 1453	48	0	0.08	20.83	15	
7-25-2011 1457	96	0	0.10	20.83	20	
7-25-2011 1501	144	0	0.12	20.83	24	
7-25-2011 1505	192	0	0.14	20.82	35	
7-25-2011 1509	240	0	0.12	20.79	50	

Values Prior to Sampling

7-25-2011 1509	240	0	0.12	20.79	50	

Sample ID: VA0686

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW001-050

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 1347

Review Signature and Date: Tom Jolly 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: BZ-VOCs Ø
Bkgd VOC's Ø

CALCULATIONS

(A) Depth to Well Bottom	52.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.07 ft³	(J) Filter Pack Volume (F x G)	0.4 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.47 ft³
(E) Depth to Bottom of Screen	52.5 ft	(L) 10 Purge Volumes (K*10)	4.7 ~~5.6~~ ft³ (TN)

Static Pressure: −.36" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

2min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 1347	0	0	6.32	12.83	21	
1349	2	0	6.50	12.83	21	
1351	4	0	6.52	12.87	18	
1353	6	0	6.58	12.58	21	

Values Prior to Sampling

1353	6	0	6.58	12.58	21	

Sample ID: ~~VA 000 1~~ TN VA 0687

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFT

Well ID No/Interval: ~~KAFB-106 SVMW-01~~ 00

Field Crew: AT, TW

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature:

Weather: Sunny

Time: 1422

Review Signature and Date: 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged Locked: Yes (No) Well ID Mark: (Yes) - No

Notes: VOCs = 0

CALCULATIONS

(A) Depth to Well Bottom	102.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.14 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	100 ft	(K) One Purge Volume (C + J)	.54 ft³
(E) Depth to Bottom of Screen	102.5 ft	(L) 10 Purge Volumes (K*10)	5.4 ft³

Static Pressure: -.43" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

2 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 1422	0	0	8.46	11.34	3720	
1424	2	0	8.50	10.47	4830	
1426	4	0	8.52	10.33	4860	
1428	6	0	8.58	10.21	4920	

Values Prior to Sampling

1428	6	0	8.58	10.21	4920	

Sample ID: ~~VA0007~~ TN

VA 0689

VA 0688

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-877 | Well ID No/Interval: SVMW-01 - 250 | Field Crew: AT, TN

Site / SWMU No.: 106 | Date: 9/19/11 | Crew Signature: Tim Nagel

Weather: sunny | Time: 1516 | Review Signature and Date: 9/19/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged | Locked: Yes - (No) | Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	252.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.34 ft^3	(J) Filter Pack Volume (F x G)	.40 ft^3
(D) Depth to Top of Screen	250 ft	(K) One Purge Volume (C + J)	.74 ft^3
(E) Depth to Bottom of Screen	252.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft^3

Static Pressure: + .05 "H_2O | **Purge Flow Rate:** 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 1516	0	0	.12	20.16	40	
1518	2	0	.66	19.73	37	
1520	4	0	.66	19.84	33	
1522	6	0	.68	19.61	31	
1524	8	0	.66	19.37	30	

Values Prior to Sampling

1524	8	0	.66	19.37	30	

Sample ID: VA0690

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SUMW-01-300

Field Crew: AT, TN

Site / SWMU No.: 106

Date: 9/19/11

Crew Signature: [signature]

Weather: Sunny

Time: 1541

Review Signature and Date: [signature]

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	302.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft^2	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft^2
(C) One Well Casing Volume (A x B):	.40 ft^3	(J) Filter Pack Volume (F x G)	.4 ft^3
(D) Depth to Top of Screen	300 ft	(K) One Purge Volume (C + J)	.80 ft^3
(E) Depth to Bottom of Screen	302.5 ft	(L) 10 Purge Volumes (K*10)	8.0 ft^3

Static Pressure: +0.08" H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/19/11 1541	0	0	.34	19.61	21	
1543	2	0	.52	19.22	343	
1545	4	0	.52	19.41	356	
1547	6	0	.54	20.37	363	
1549	8	0	.54	20.46	363	
1551	10	0	.54	20.16	362	

Values Prior to Sampling

1551	10	0	.54	20.16	362	

Sample ID: VA0691

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: SVMW-02-050
Field Crew: DR, TN
Site / SWMU No.: 106
Date: 8/23/11
Crew Signature:
Weather: sunny 90's
Time: 1209
Review Signature and Date: 8-23-2011

WELL OBSERVATIONS

Protective Casing / Vault: Intact - (Damaged) **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0 - Valve is missing
BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.15 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	40 ft	(K) One Purge Volume (C + J)	1.78 ft³
(E) Depth to Bottom of Screen	50 ft	(L) 10 Purge Volumes (K*10)	17.8 ft³

Static Pressure: .03 "H₂O
Purge Flow Rate: 1.5 afm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/23/11 1209	0	0	7.42	11.95	65	
1212	4.5	0	7.56	12.23	90	
1215	9	0	7.60	12.71	95	
1218	13.5	.01	7.64	12.86	97	
1221	18	0	7.66	12.88	99	

Values Prior to Sampling

1221	18	0	7.66	12.88	99	

Sample ID: VA0692

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-02-100

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 8/23/11

Crew Signature: [signature]

Weather: Sunny

Time: 1243

Review Signature and Date: [signature] 8-23-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** (Yes) - No **Well ID Mark:** (Yes) - No

Notes: BKgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	100 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.136 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	90 ft	(K) One Purge Volume (C + J)	1.76 ft³
(E) Depth to Bottom of Screen	100 ft	(L) 10 Purge Volumes (K*10)	17.6 ft³

Static Pressure: .08 "H2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/23/11 1243	0	0	9.64	9.12	13020	
1246	4.5	0	9.62	9.01	13110	
1249	9	0	9.64	8.36	13110	
1252	13.5	0	9.66	8.82	13210	
1255	18	0	9.68	8.78	13270	
					1102	x9
				=	9918	

Values Prior to Sampling

1255	18	0	9.68	8.78	9918	

Sample ID: VA0693 VA0694 ~~VA0695~~ TN

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-02-150

Field Crew: DR, TN

Site / SWMU No.: 106

Date: 8/23/11

Crew Signature:

Weather: sunny

Time: 1339

Review Signature and Date: 8-23-2011

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: (Yes) - No

Well ID Mark: (Yes) - No

Notes: Bkgd VOC's 0

BZ VOC's 0

CALCULATIONS

(A) Depth to Well Bottom	150 ft	(F) Filter Pack Length (E –D)	10 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.21 ft³	(J) Filter Pack Volume (F x G)	1.63 ft³
(D) Depth to Top of Screen	140 ft	(K) One Purge Volume (C + J)	1.84 ft³
(E) Depth to Bottom of Screen	150 ft	(L) 10 Purge Volumes (K*10)	18.4 ft³

Static Pressure: -.72" H_2O

Purge Flow Rate: 1.5 cfm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/23/11 1339	0	0	.46	19.38	36	
1342	4.5	0	1.84	17.13	2740	
1345	9	0	1.86	17.03	2710	
1348	13.5	0	1.84	17.15	2700	
1351	18	0	1.86	17.18	2680	
1354	22.5	0	1.86	17.30	2650	

Values Prior to Sampling

1354	22.5	0	1.86	17.30	2650	

Sample ID: VA0695

Shaw · Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/Interval: SVMW-03-050
Field Crew: AT, TN
Site / SWMU No.: 106
Date: 9/20/11
Crew Signature:
Weather: Sunny
Time: 1424
Review Signature and Date: 9/20/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: BH - VOCs @ 0
BZ VOCs @ 0.3 ppm

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor (½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.068 ft³	(J) Filter Pack Volume (F x G)	.40 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.46 ft³
(E) Depth to Bottom of Screen	52.5 ft	(L) 10 Purge Volumes (K*10)	4.6 ft³

Static Pressure: +.16 " H2O

Purge Flow Rate: 1.0 CFm

PURGE DATA

Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/20/11 1424	0	0 ~~.03~~ at	5.48	14.02	12	
1426	2	0	5.86	14.93	11	
1428	4	0	5.92	14.89	11	
1430	6	0	5.96	14.85	8	

Values Prior to Sampling

1430	6	0	5.96	14.85	8	

Sample ID: ~~VA0074~~ TN

VA0696

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/Interval: SVMW-03-100

Field Crew: IAT, JW

Site / SWMU No.: 100

Date: 9/20/11

Crew Signature:

Weather: Sunny

Time: 1449

Review Signature and Date: Nader 9/20/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: BZ VOCs 0.2 ppm
BH VOCs 0.1 ppm

CALCULATIONS

(A) Depth to Well Bottom	100 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.136 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	100 ft	(K) One Purge Volume (C + J)	.53 ft³
(E) Depth to Bottom of Screen	102.5 ft	(L) 10 Purge Volumes (K*10)	5.3 ft³

Static Pressure: .21 " H_2O

Purge Flow Rate: 1.0 CFm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/20/11 1449	0	0	7.84	7.11	13940	Inst.
1451	2	0	9.96	9.47	13970	inst.
1453	4	0	6.96	9.02	13720	inst.
1455	6	0	6.65	8.20	13840	inst.
					1041 ~~1075~~ at	
					9 = 9369	

Values Prior to Sampling

1455	6	0	6.65	8.20	9369	by dilution

Sample ID ~~KA0075~~ at KA0697

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF	**Well ID No/Interval:** SWMU-03-250	**Field Crew:** AT, TN
Site / SWMU No.: 106	**Date:** 9/20/11	**Crew Signature:** T Nager
Weather: Sunny	**Time:** 1529	**Review Signature and Date:** [signature] 9/20/11

WELL OBSERVATIONS

Protective Casing / Vault: Intact - Damaged **Locked:** Yes - No **Well ID Mark:** Yes - No

Notes: BKgd VOC's 0.1 ppm
BZ VOC's 0.2 ppm

CALCULATIONS

(A) Depth to Well Bottom	250 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: ½" = .00136, ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.34 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	250 ft	(K) One Purge Volume (C + J)	0.74 ft³
(E) Depth to Bottom of Screen	252.5 ft	(L) 10 Purge Volumes (K*10)	7.4 ft³

Static Pressure: +.06" H_2O **Purge Flow Rate:** 1.0 CFm

PURGE DATA

2 min Date/Time	Volume Purged (ft³)	Horiba Mexa – 584 L CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	Comments
9/20/11 1529	0	0	.80	20.27	86	
1531	2	0	1.66	16.90	1399	
1533	4	0	1.64	16.91	1402	
1535	6	0	1.66	16.97	1404	
1537	8	0	1.66	17.09	1406	

Values Prior to Sampling

1537	8	0	1.66	17.09	1406	

Sample ID: ~~VA0076~~ al VA0698

Shaw Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/Interval:** SVMW-03-300	**Field Crew:** AT, TN
Site / SWMU No.: 106	**Date:** 9/20/11	**Crew Signature:**
Weather: sunny	**Time:** 1557	**Review Signature and Date:**

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - (Damaged) **Locked:** Yes - (No) **Well ID Mark:** (Yes) - No

Notes: Bkgd VOC's 0.1 ppm - nozzle needs repairing
BZ VOC's 0.2 ppm

CALCULATIONS

(A) Depth to Well Bottom	302.5 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136) ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	.41 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	300 ft	(K) One Purge Volume (C + J)	.81 ft³
(E) Depth to Bottom of Screen	302.5 ft	(L) 10 Purge Volumes (K*10)	8.1 ft³

Static Pressure: 0 "H_2O

Purge Flow Rate: 1.0 cfm

PURGE DATA

Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/20/11 1557	0	0	.08	20.35	88	
1559	2	0	.08	20.12	111	
1601	4	0	.10	20.12	115	
1603	6	0	0.10	20.05	122	
1605	8	0	0.08	20.11	121	
1607	10	0	0.10	20.19	124	

Values Prior to Sampling

1607	10	0	0.10	20.19	124	

Sample ID: ~~VA0077~~ at VA0699

Shaw Environmental, Inc.

VAPOR PURGE LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Site / SWMU No.: 104

Weather: Sunny

Well ID No/Interval: SVMW-04-050

Date: 9/20/11

Time: 1134

Field Crew: AT, TN

Crew Signature:

Review Signature and Date: 9/20/11

WELL OBSERVATIONS

Protective Casing / Vault: (Intact) - Damaged

Locked: Yes - (No)

Well ID Mark: (Yes) - No

Notes: B4 - VOCs 0
B2 - VOCs 0

CALCULATIONS

(A) Depth to Well Bottom	50 ft	(F) Filter Pack Length (E –D)	2.5 ft
(B) Casing Factor: (½" = .00136), ¾" = .00306, 2" = .0218, 3" = .04906	ft²	(G) Casing/Borehole Factor: .545 sq. ft (10" Casing at 30% porosity)	0.1635 ft²
(C) One Well Casing Volume (A x B):	0.068 ft³	(J) Filter Pack Volume (F x G)	.4 ft³
(D) Depth to Top of Screen	50 ft	(K) One Purge Volume (C + J)	.47 ft³
(E) Depth to Bottom of Screen	58.5 ft	(L) 10 Purge Volumes (K*10)	4.7 ft³

Static Pressure: 6 " H_2O

Purge Flow Rate: 1.0 CFM

PURGE DATA

2 min Date/Time	Volume Purged (ft^3)	Horiba Mexa – 584 L				Comments
		CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/20/11 1134	0	0	7.92	10.17	637	
1136	2	0	7.96	10.21	625	
1138	4	0	8.00	10.21	634	
1140	6	0	8.02	10.25	650	

Values Prior to Sampling

1140	6	0	8.02	10.25	650	

Sample ID: ~~VA0078~~ at VA0701 VA0700

Shaw™ Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/ICE: ST 106

Field Crew: AG, RB DR

Site / SWMU No.: 106

Date: 7-18-2011

Crew Signature:

Weather: PARTLY CLOUDY

Time: 1620

Review Signature and Date: 7-18-2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: 0 " H_2O

Dilution Ratio (air/vapor): 2700/300

* PORT WAS PLUGGED

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 1620	.01	10.24	6.64	4930	

Shaw™ Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB, BFF

Well ID No/ICE: KAFB106b-POSTC1

Field Crew: AG, RB, DR

Site / SWMU No.: 106

Date: 7-18-2021

Crew Signature: Amy Howard

Weather: PARTLY CLOUDY

Time: 1450

Review Signature and Date: 7-18-21

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: +4 $"H_2O$

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 1450	.55	8.18	7.36	104	
7-18-2011 1450	.55	8.18	7.36	104	

SAMPLE # VA9036 VA9037

Shaw™ Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/ICE: KAFB1066 - POST C2

Field Crew: AG, RB, DL

Site / SWMU No.: 106

Date: 7-18-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY

Time: 1515

Review Signature and Date: [signature] 7-18-2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: 0.0 in H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 1515	0.0	.12	21.03	~~21.16~~ 4 AG	
7-18-2011 1515	0.0	.12	21.03	4	

SAMPLE # VA9038

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB- BFF	**Well ID No/ICE:** KAFB106S-IN	**Field Crew:** AG, RB, DR
Site / SWMU No.: 106	**Date:** 7/18/2011	**Crew Signature:** Amy Gonawa
Weather: PARTLY CLOUDY	**Time:** 8:50 Am	**Review Signature and Date:** 7/18/2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure:
-12 " H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7/18/2011 8:50 Am	0.0	4.14	14.30	5320	
7-18-2011 8:50 Am	0.0	4.14	14.30	5320	

* SAMPLE # VA9032 *

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB- BFF

Well ID No/ICE: KAFB1065-POSTC1

Field Crew: AG, RB, DR

Site / SWMU No.: 106

Date: 7-18-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY

Time: 9:11 Am

Review Signature and Date: [signature] 7-18-2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: +.1 in H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 9:11 Am	.36	7.88	8.48	191	
7-18-2011 9:11 Am	.36	7.88	8.48	191	

SAMPLE # VA9033

Shaw™ Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: KAFB1068-IN

Field Crew: AG, RB, DR

Site / SWMU No.: 106

Date: 7-18-2011

Crew Signature: [signature]

Weather: PARTLY CLOUDY

Time: 10:45 AM

Review Signature and Date: [signature] 7-18-2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: -6 " H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 10:45AM	0.0	1.46	16.87	5170	
7-18-2011 10:45AM	0.0	1.46	16.87	5170	

SAMPLE # VA9039
FD – VA9040

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF	**Well ID No/ICE:** KAFB1068 - POSTC1	**Field Crew:** AG, RB, DR
Site / SWMU No.: 106	**Date:** 7-18-2011	**Crew Signature:** Amy Greenawalt
Weather: PARTLY CLOUDY	**Time:** 11:22 AM	**Review Signature and Date:** 7-18-2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: +2.01" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 11:22 AM	.45	8.16	5.98	397	
7-18-2011 11:22 AM	.45	8.16	5.98	397	

SAMPLE # VA904/1

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/ICE: KAFB1068-POSTC2

Field Crew: AG, RB, DR

Site / SWMU No.: 106

Date: 7-18-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY

Time: 1141

Review Signature and Date: 7-18-2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: +2.0 "H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 1141	.39	10.48	6.08	128	
7-18-2011 1141	.39	10.48	6.08	128	

SAMPLE # VA9042

Shaw™ Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/ICE: KAFB1066 - IN

Field Crew: AG, RB, DR

Site / SWMU No.: 106

Date: 7-18-2011

Crew Signature: Amy Greenwald

Weather: PARTLY CLOUDY

Time: 1423

Review Signature and Date: 7-18-2011

Background VOC: 0

Breathing Zone VOC: 0

Static Pressure: −6 " H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
7-18-2011 1425	0.0	~~20.86~~ 2.32	~~20.54~~ 14.57	12200	instan.
	0.0	.20	19.42	~~12031~~ 1231 x 9	By dilution
7-18-2011 1425	0.0	.20	19.42	11079	

* SAMPLE # VA9035

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/ICE:** ST106-IN | **Field Crew:** RB, TN, DR

Site / SWMU No.: 106 | **Date:** 8/16/11 | **Crew Signature:** Tim Nagy

Weather: sunny | **Time:** 1018 | **Review Signature and Date:** RAB

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: $-2"\ H_2O$ - All well valves open

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/16/11 1018	0	6.92	10.55	6250	

VA9029

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: ST 106 - Post C1

Field Crew: RB, TN, DR

Site / SWMU No.: 106

Date: 8/16/11

Crew Signature: [signature]

Weather: sunny

Time: 1045

Review Signature and Date: [signature] 8/16/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure:

+7" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/16/11 1045	.39	12.32	1.42	177	

VA9030

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: ST106-Post C2

Field Crew: RB, DR, TN

Site / SWMU No.: 106

Date: 8/16/11

Crew Signature: Tim Nagy

Weather: sunny

Time: 1046

Review Signature and Date: 8/16/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: +3.0" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/16/11 1046	0	9.86	5.48	76	

VA9031

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: KAFB 1065 / INLET

Field Crew: RB, DR, TN

Site / SWMU No.: 106

Date: 8/16/11

Crew Signature:

Weather: Ptly Cldy, 80s

Time: 0834

Review Signature and Date:

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: $-32"\ H_2O$

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
0834	0	4.66	14.20	5640	

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/ICE: KAFB 1065/POST=1

Field Crew: DR, RB, TN

Site / SWMU No.: 106

Date: 8/16/11

Crew Signature: [signature]

Weather: Ptly Cldy

Time: 0905

Review Signature and Date:

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: + 1.0" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
0905	.32	6.74	10.34	243	

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/ICE: KAFB1005/POSTE2
Field Crew: RB, DR, TN
Site / SWMU No.: 106
Date: 8/16/11
Crew Signature: [signature]
Weather: Ptly Cldy
Time: 903
Review Signature and Date: [signature] 8/16/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: + 2.0 "H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
903	.12	7.60	9.19	51	

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB BFF

Well ID No/ICE: KAFB 106G IN

Field Crew: RB, DR, TN

Site / SWMU No.: 106

Date: 8/17/11

Crew Signature: [signature]

Weather: Ptly Cldy

Time: 1100

Review Signature and Date: [signature] 8/17/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: -4.8 "H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 1100	0	0.48	14.43	16102	
				1983x9	
			=	17847	

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB - BFF

Well ID No/ICE: KAFB 1066 / Post c 1

Field Crew: DR, RB, TN

Site / SWMU No.: 106

Date: 8-17-11

Crew Signature: Tim Nagel

Weather: Ptly Cldy

Time: 1056

Review Signature and Date: 8/17/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: + 0.9 " H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 1056	.53	8.22	6.02	168	

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/ICE: KAFB 1068-IN
Field Crew: RB, DR, TN
Site / SWMU No.: 106
Date: 8/17/11
Crew Signature: [signature]
Weather: sunny
Time: 1030
Review Signature and Date: [signature] 8/17/11

Background VOC: 0.0
Breathing Zone VOC: 0.0

Static Pressure: -5" H20

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 1030	0	1.54	16.80	5630	

Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF
Well ID No/ICE: KAFB1068-PostC1
Field Crew: RB, TN, DR
Site / SWMU No.: 106
Date: 8/17/11
Crew Signature: TN
Weather: cloudy
Time: 1022
Review Signature and Date: 8/17/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: +1.2" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 1022	.09	8.98	4.65	224	

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/ICE:** KAFB 1068-PostC2 | **Field Crew:** RB, DR, TN

Site / SWMU No.: 106 | **Date:** 8/17/11 | **Crew Signature:** TN

Weather: sunny | **Time:** 1024 | **Review Signature and Date:** 8/17/11

Background VOC: 0.0

Breathing Zone VOC: 0.0

Static Pressure: + 0.6 " H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
8/17/11 1024	.42	~~4.8~~ TN	7.45	116	
		7.38			

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF | **Well ID No/ICE:** ST-106 | **Field Crew:** TN, DR, AT

Site / SWMU No.: 106 | **Date:** 9/21/11 | **Crew Signature:** [signature]

Weather: cloudy | **Time:** 1028 | **Review Signature and Date:** [signature] 9/21/11

Background VOC: Ø

Breathing Zone VOC: Ø

INLET MEASUREMENT

Static Pressure: ~~300~~ −2.0 TN (all valves open)

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/21/11 1028	0.01	8.30	~~8.78~~ TN 9.14	5810	

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BTF

Well ID No/ICE: KAFB 1065 / 335 unit

Field Crew: DR, AT, TN

Site / SWMU No.: 106

Date: 9/21/11

Crew Signature: [signature]

Weather: cloudy

Time: 848

Review Signature and Date: [signature] 9/21/11

Background VOC: Ø

Breathing Zone VOC: Ø

INLET MEASUREMENT

Static Pressure: −2.4" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/20/11 848	0	6.30	11.23	7670	

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: KAFB 1066 / unit 345

Field Crew: TN, DR, AT

Site / SWMU No.: 106

Date: 9/21/11

Crew Signature: Nagel

Weather: cloudy

Time: 929

Review Signature and Date: 9/21/11

Background VOC: 0

Breathing Zone VOC: 0

INLET MEASUREMENT

Static Pressure: -1.2" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
9/21/11 929	0	2.96	13.61	22220	inst.
				2230	x9
				=20070	by dilution

Shaw Shaw Environmental, Inc.

SVE ICE VAPOR LOG

Kirtland Air Force Base, Bulk Fuels Facility Spill

Project Name: KAFB-BFF

Well ID No/ICE: KAFB1068/unit344

Field Crew: DR, AT, TN

Site / SWMU No.: 106

Date: 9/21/11

Crew Signature: [signature]

Weather: cloudy

Time: 907

Review Signature and Date: [signature] 9/21/11

Background VOC: Ø

Breathing Zone VOC: Ø

INLET MEASUREMENT

Static Pressure: -.80" H_2O

Dilution Ratio (air/vapor): 2700/300

VAPOR DATA

Date/Time	Horiba Mexa – 584 L				Comments
	CO (%)	CO_2 (%)	O_2 (%)	HC (ppmv)	
907	0	1.60	16.12	6130	