APPENDICES

APPENDIX A

SYSTEM OPERATING PARAMETERS MONITORING RECORDS

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
1	5/29/03	0645	A,B,C	28	28	28	45	8220	3420	710	3230	3580	240	300
1	5/29/03	1000	A,B,C	28	28	28	45	10600	4520	725	4910	4050	240	381

FID DATA

FID READINGS														
WEEK	DATE	TIME	INFLUENT (A) *PPM*	INFLUENT (B) *PPM*	INFLUENT (C) *PPM*	INFLUENT A,B,C *PPM*	P1 EFFLUENT *PPM*	P2 INFLUENT *PPM*	P2 EFFLUENT *PPM*	S1 INFLUENT *PPM*	S1 EFFLUENT *PPM*	S2 INFLUENT *PPM*	S2 EFFLUENT *PPM*	EFFLUENT (Total) *PPM*
1	5/29/03	1200	5.5	6.0	7.0	4.5								3.0

PRESSURE DATA

PRESSURE READINGS														
WEEK	DATE	TIME	INFLUENT (A) (Inches H_2O)	INFLUENT (B) (Inches H_2O)	INFLUENT (C) (Inches H_2O)	P1 INFLUENT ~~(A,B,C)~~ (Inches H_2O)	P1 EFFLUENT (Inches H_2O)	P2 INFLUENT (Inches H_2O)	P2 EFFLUENT (Inches H_2O)	S1 INFLUENT (Inches H_2O)	S1 EFFLUENT (Inches H_2O)	S2 INFLUENT (Inches H_2O)	S2 EFFLUENT (Inches H_2O)	INFLUENT ~~EFFLUENT (Total)~~ ABC (Inches H_2O)
1	5/29/03	0850	28	28	28	50	50	48	46	47	50	60	55	45
1	5/29/03	1005	28	28	28	50	50	48	47	47	50	60	55	45

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
1	5/30/03	0640	A,B,C	28	28	28	45	8560	3910	625	3255	3260	240	276
1	5/30/03	0950	A,B,C	29	29	30	45	8950	5430	830	4512	3780	240	381

FID DATA

FID READINGS														
WEEK	DATE	TIME	INFLUENT (A) *PPM*	INFLUENT (B) *PPM*	INFLUENT ~~(AB)~~ (C) *PPM*	~~P1~~ INFLUENT (A,B,C) *PPM*	P1 EFFLUENT *PPM*	P2 INFLUENT *PPM*	P2 EFFLUENT *PPM*	S1 INFLUENT *PPM*	S1 EFFLUENT *PPM*	S2 INFLUENT *PPM*	S2 EFFLUENT *PPM*	EFFLUENT (Total) *PPM*
1	5/30/03	1205	7.3	8.5	6.1	5.5								2.5

PRESSURE DATA

PRESSURE READINGS														
WEEK	DATE	TIME	INFLUENT (A) (Inches H_2O)	INFLUENT (B) (Inches H_2O)	INFLUENT ~~(AB)~~ (C) (Inches H_2O)	P1 INFLUENT (Inches H_2O)	P1 EFFLUENT (Inches H_2O)	P2 INFLUENT (Inches H_2O)	P2 EFFLUENT (Inches H_2O)	S1 INFLUENT (Inches H_2O)	S1 EFFLUENT (Inches H_2O)	S2 INFLUENT (Inches H_2O)	S2 EFFLUENT (Inches H_2O)	INF ~~EFFLUENT~~ (Total) A,B,C (Inches H_2O)
1	5/30/03	0645	28	28	28	50	48	48	46	47	50	60	55	45
1	5/30/03	0955	29	29	30	50	50	49	48	47	50	60	55	45

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
2	6/2/03	0650	A,B,C	29	29	30	45	8435	3520	610	4150	3590	240	383
2	6/2/03	1035	A,B,C	29	29	30	45	9450	4370	735	5240	4060	240	382

FID DATA

FID READINGS														
WEEK	DATE	TIME	INFLUENT (A) PPM	INFLUENT (B) PPM	INFLUENT ~~(AB)~~ (C) PPM	~~P1 INFLUENT~~ A, B, INN C PPM	P1 EFFLUENT PPM	P2 INFLUENT PPM	P2 EFFLUENT PPM	S1 INFLUENT PPM	S1 EFFLUENT PPM	S2 INFLUENT PPM	S2 EFFLUENT PPM	EFFLUENT (Total) PPM
2	6/2/03	1300	85.0	6.5	20.0	65.3								48.0

PRESSURE DATA

PRESSURE READINGS														
WEEK	DATE	TIME	INFLUENT (A) (Inches H_2O)	INFLUENT (B) (Inches H_2O)	INFLUENT ~~(AB)~~ (C) (Inches H_2O)	P1 INFLUENT (Inches H_2O)	P1 EFFLUENT (Inches H_2O)	P2 INFLUENT (Inches H_2O)	P2 EFFLUENT (Inches H_2O)	S1 INFLUENT (Inches H_2O)	S1 EFFLUENT (Inches H_2O)	S2 INFLUENT (Inches H_2O)	S2 EFFLUENT (Inches H_2O)	~~EFFLUENT~~ (Total) INN (Inches H_2O)
2	6/2/03	0655	29	29	30	51	51	50	48	48	50	60	55	45
2	6/2/03	1040	29	29	30	51	50	50	48	48	50	60	55	45

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
2	6/3/03	0635	A, B, C	29	29	30	45	8270	3520	755	3270	3225	240	383
2	6/3/03	0900	A, B, C	29	29	30	45	8450	3610	780	4065	3190	240	383

FID DATA

FID READINGS														
WEEK	DATE	TIME	INFLUENT (A) *PPM*	INFLUENT (B) *PPM*	INFLUENT ~~(AB)~~ (C) *PPM*	~~P1~~ INFLUENT A,B,C *PPM*	P1 EFFLUENT *PPM*	P2 INFLUENT *PPM*	P2 EFFLUENT *PPM*	S1 INFLUENT *PPM*	S1 EFFLUENT *PPM*	S2 INFLUENT *PPM*	S2 EFFLUENT *PPM*	EFFLUENT (Total) *PPM*
2	6/3/03	1230	70.5	5.5	12.5	50.0								47.0

PRESSURE DATA

PRESSURE READINGS														
WEEK	DATE	TIME	INFLUENT (A) (Inches H_2O)	INFLUENT (B) (Inches H_2O)	INFLUENT ~~(AB)~~ (C) (Inches H_2O)	P1 INFLUENT (Inches H_2O)	P1 EFFLUENT (Inches H_2O)	P2 INFLUENT (Inches H_2O)	P2 EFFLUENT (Inches H_2O)	S1 INFLUENT (Inches H_2O)	S1 EFFLUENT (Inches H_2O)	S2 INFLUENT (Inches H_2O)	S2 EFFLUENT (Inches H_2O)	~~EFFLUENT~~ (Total) INN (Inches H_2O)
2	6/3/03	0640	29	29	30	51	51	50	48	48	50	60	55	45
2	6/3/03	0905	29	29	30	51	51	50	48	49	50	60	55	45

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
2	6/4/03	0635	A,B,C	29	29	30	45	~~29~~	~~2~~	615	3875	3470	240	383
								7880	3370					
2	6-4-03	1005	ABC	29	29	30	45	7830	3310	870	3650	3430	240	383

FID DATA

FID READINGS														
WEEK	DATE	TIME	INFLUENT (A) *PPM*	INFLUENT (B) *PPM*	INFLUENT ~~(AB)~~ (C) *PPM*	~~P1~~ INFLUENT A, B, C *PPM*	P1 EFFLUENT *PPM*	P2 INFLUENT *PPM*	P2 EFFLUENT *PPM*	S1 INFLUENT *PPM*	S1 EFFLUENT *PPM*	S2 INFLUENT *PPM*	S2 EFFLUENT *PPM*	EFFLUENT (Total) *PPM*
2	6/4/03	1245	43.0	5.5	9.5	40.0								32

PRESSURE DATA

PRESSURE READINGS														
WEEK	DATE	TIME	INFLUENT (A) (Inches H_2O)	INFLUENT (B) (Inches H_2O)	INFLUENT ~~(AB)~~ (C) (Inches H_2O)	P1 INFLUENT (Inches H_2O)	P1 EFFLUENT (Inches H_2O)	P2 INFLUENT (Inches H_2O)	P2 EFFLUENT (Inches H_2O)	S1 INFLUENT (Inches H_2O)	S1 EFFLUENT (Inches H_2O)	S2 INFLUENT (Inches H_2O)	S2 EFFLUENT (Inches H_2O)	~~EFFLUENT~~ (Total) INN (Inches H_2O)
2	6/4/03	0640	29	29	30	51	51	48	50	50	48	60	55	45
2	6/4/03	1010	29	29	30	51	51	50	48	49	51	60	55	45

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
2	6/5/03	0800	A,B,C	29	29	30	45	7875	3260	545	3250	3480	240	383
2	6/5/03	1100	A,B,C	29	29	30	45	8430	3525	630	4150	3540	240	383

FID DATA

FID READINGS														
WEEK	DATE	TIME	INFLUENT (A) *PPM*	INFLUENT (B) *PPM*	INFLUENT ~~(AB)~~ (C) *PPM*	~~P1~~ INFLUENT INN *PPM*	P1 EFFLUENT *PPM*	P2 INFLUENT *PPM*	P2 EFFLUENT *PPM*	S1 INFLUENT *PPM*	S1 EFFLUENT *PPM*	S2 INFLUENT *PPM*	S2 EFFLUENT *PPM*	EFFLUENT (Total) *PPM*
2	6/5/03	1230	28.0	8.0	8.5	25.0								20.0

PRESSURE DATA

PRESSURE READINGS														
WEEK	DATE	TIME	INFLUENT (A) (Inches H_2O)	INFLUENT (B) (Inches H_2O)	INFLUENT ~~(AB)~~ (C) (Inches H_2O)	P1 INFLUENT (Inches H_2O)	P1 EFFLUENT (Inches H_2O)	P2 INFLUENT (Inches H_2O)	P2 EFFLUENT (Inches H_2O)	S1 INFLUENT (Inches H_2O)	S1 EFFLUENT (Inches H_2O)	S2 INFLUENT (Inches H_2O)	S2 EFFLUENT (Inches H_2O)	~~EFFLUENT~~ (Total) INN (Inches H_2O)
2	6/5/03	0805	29	29	30	51	51	50	48	49	51	60	55	45
2	6/5/03	1105	29	29	30	51	51	50	48	49	51	60	55	45

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
3	6/9/03	0815	A,BC	29	29	30	45	7875	3480	520	2880	3640	240	384
3	6/9/03	1000	A,BC	29	29	30	45	7965	3415	535	3010	3550	240	384

FID DATA

FID READINGS															
WEEK	DATE	TIME	INFLUENT (A) *PPM*	INFLUENT (B) *PPM*	INFLUENT (C) *PPM*	INFLUENT (ABC) *PPM*	P1 INFLUENT *PPM*	P1 EFFLUENT *PPM*	P2 INFLUENT *PPM*	P2 EFFLUENT *PPM*	S1 INFLUENT *PPM*	S1 EFFLUENT *PPM*	S2 INFLUENT *PPM*	S2 EFFLUENT *PPM*	EFFLUENT (Total) *PPM*
3	6/9/03		15.5	6.5	6.0	13.0									11.0

PRESSURE DATA

PRESSURE READINGS														
WEEK	DATE	TIME	INFLUENT (A) (Inches H_2O)	INFLUENT (B) (Inches H_2O)	INFLUENT (C) (Inches H_2O)	INFLUENT (ABC) (Inches H_2O)	P1 INFLUENT (Inches H_2O)	P1 EFFLUENT (Inches H_2O)	P2 INFLUENT (Inches H_2O)	P2 EFFLUENT (Inches H_2O)	S1 INFLUENT (Inches H_2O)	S1 EFFLUENT (Inches H_2O)	S2 INFLUENT (Inches H_2O)	S2 EFFLUENT (Inches H_2O)
3	6/9/03	0820	29	29	30	45	51	51	48	50	50	48	60	55
3	6/9/03	1005	29	29	30	45	51	51	50	48	49	51	61	56

MONITORING WELL DATA
VAPOR EXTRACTION WELL VE-04

WEEK	DATE	TIME	WELL SCREEN	VACUUM				FLOWRATE						
				VE-04-A	VE-04-B	VE-04-C	Total Influent	ANEMOMETER FLOWRATE					FLOWMETER	LCD Reading
								A	B	C	Influent	Effluent	Influent	Influent
				in. H_2O	*in. H_2O*	*in. H_2O*	*in. H_2O*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*ft/m*	*SCFM*	*CFM*
3	6/10/03	0710	ABC	29	29	30	45	7560	3310	570	2975	3260	240	383
3	6/10/03	1030	ABC	29	29	30	45	7710	3370	585	3080	3170	240	383