

1R - 266

REPORTS

DATE:

1999



Satellite # 4

1999 Activity Summary

Monitor Well # 9

This well also reflected the "summer spike" in BTEX concentrations. We anticipate that the January 2000 sampling round will show lower results.

Monitor Well # 23

This well has shown four consecutive quarters in which the BTEX concentrations have been below NMWQCC standards.

Monitor Well # 24

Prior to the October 1999 sampling round, this well had four consecutive quarters in which the BTEX concentrations were below NMWQCC guidelines. The concentrations fell outside these guidelines by one part per billion benzene in the October round however we fully expect it to fall back within standards on the next sampling event.

Benzene	0.092	0.067	0.002	0.055	0.038	0.034	0.027	0.010	0.034
Toluene	0.010	0.009	0.001	0.003	0.002	0.003	0.005	0.004	0.008
thylbenzen	0.015	0.006	0.001	0.010	0.006	0.006	0.004	0.009	0.009
m,p Xylene	0.082	0.033	0.002	0.011	0.003	0.005	0.004	0.020	0.019
o Xylene	0.002	0.008	0.001	0.002	0.001	0.001	0.002	0.007	0.01
Total Xylene	0.084	0.041	0.003	0.013	0.004	0.006	0.006	0.027	0.029
Total BTEX	0.285	0.123	0.007	0.081	0.050	0.049	0.042	0.050	0.080

Monitor Well # 23
Satellite # 4
Sampling Results

Benzene	0.001	0.040	0.071	0.002	0.048	0.004	0.004	0.003	0.003	0.007
Toluene	0.001	0.012	0.004	0.001	0.023	0.003	0.004	0.002	0.002	0.009
Ethylbenzene	0.001	0.009	0.012	0.001	0.001	0.001	0.001	0.002	0.002	0.006
m,p Xylene	0.002	0.042	0.017	0.003	0.004	0.004	0.003	0.008	0.008	0.019
o Xylene	0.001	0.019	0.002	0.001	0.002	0.002	0.002	0.003	0.003	0.01
Total Xylene	0.003	0.061	0.019	0.004	0.006	0.006	0.005	0.011	0.011	0.029
Total BTEX	0.009	0.122	0.106	0.008	0.078	0.014	0.014	0.018	0.018	0.051

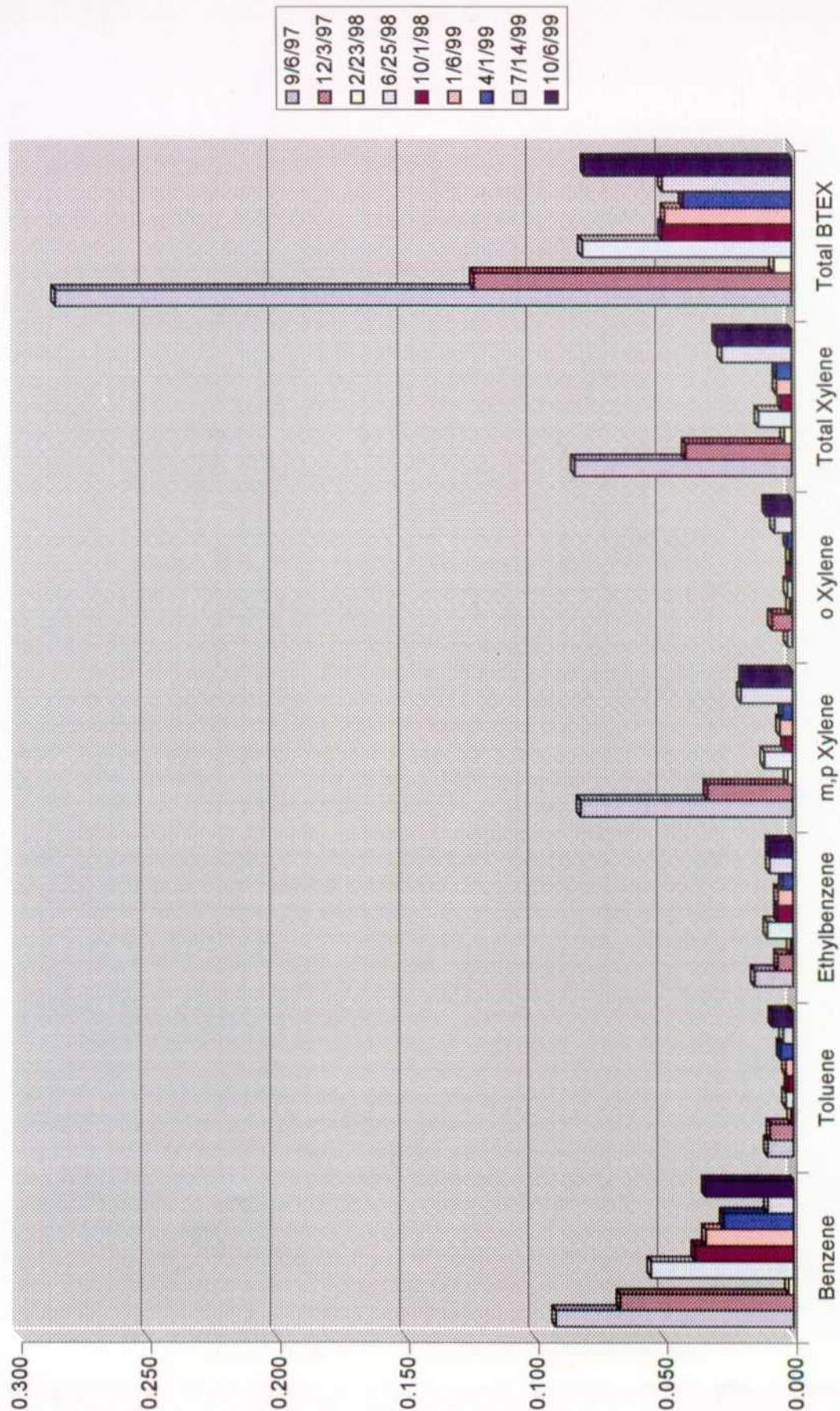
Monitor Well # 24

Satellite # 4

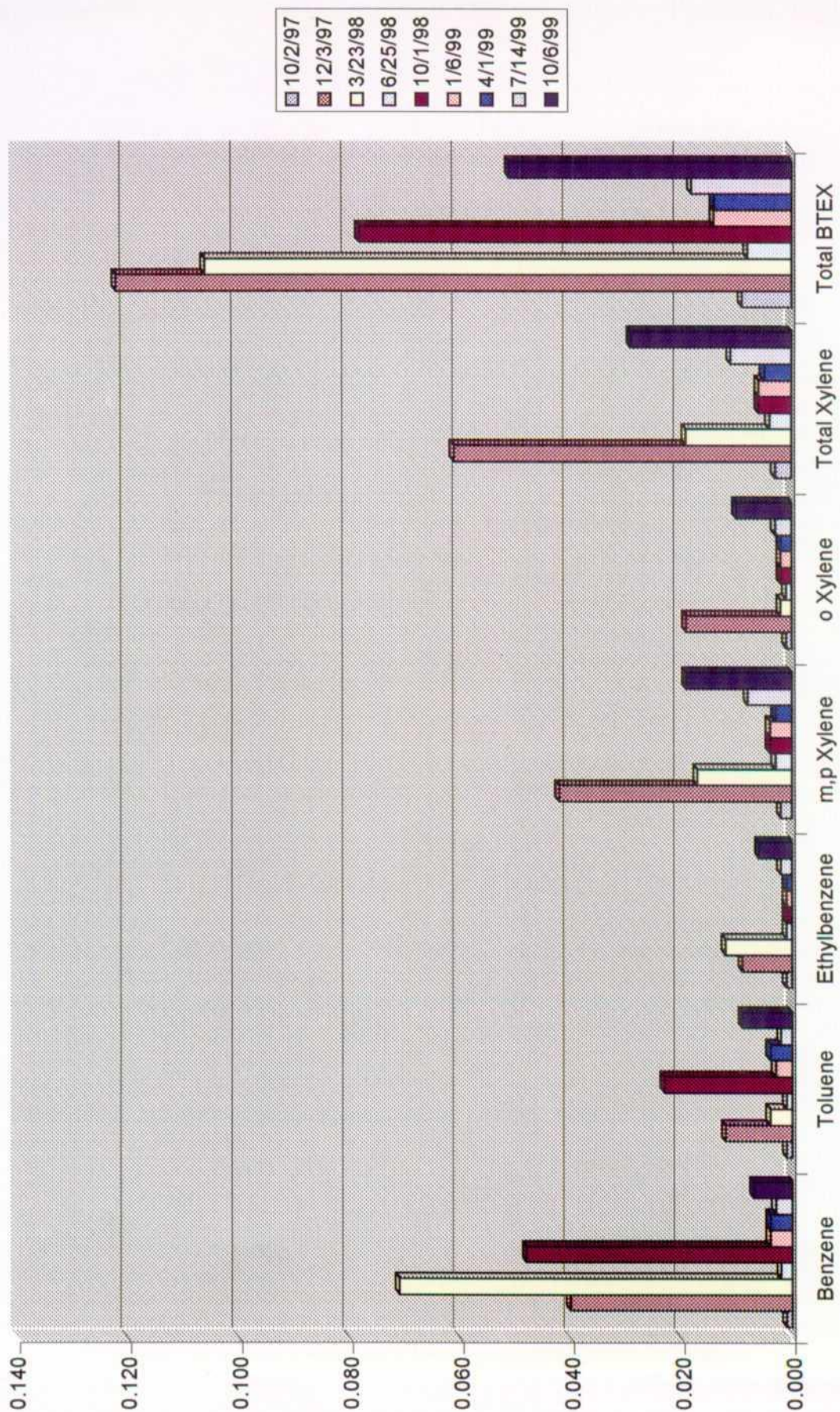
Sampling Results

Lab. #	12728	13193	14048	14678	15612	16594	20627
Sample Date	10/2/97	12/3/97	3/23/98	6/25/98	10/1/98	1/6/99	10/6/99
Benzene	0.001	0.017	0.001	0.003	0.002	0.004	0.011
Toluene	0.001	0.006	0.001	0.003	0.001	0.003	0.011
Ethylbenzene	0.001	0.005	0.001	0.002	0.001	0.001	0.006
m,p Xylene	0.002	0.025	0.003	0.006	0.002	0.002	0.021
o Xylene	0.001	0.011	0.001	0.003	0.001	0.001	0.012
Total Xylene	0.003	0.036	0.004	0.009	0.003	0.003	0.033
Total BTEX	0.009	0.064	0.007	0.017	0.007	0.011	0.061

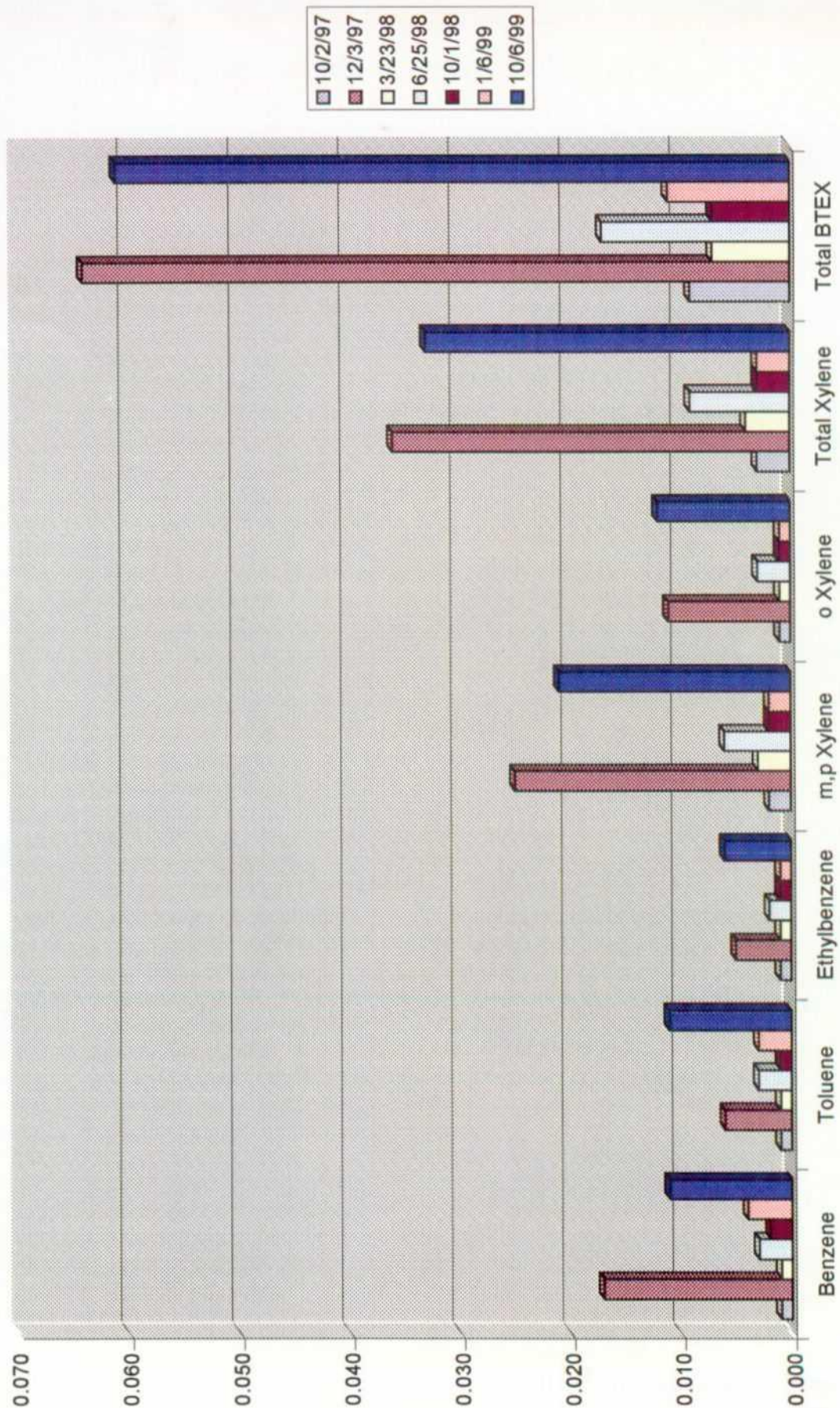
Satellite 4 MW # 9



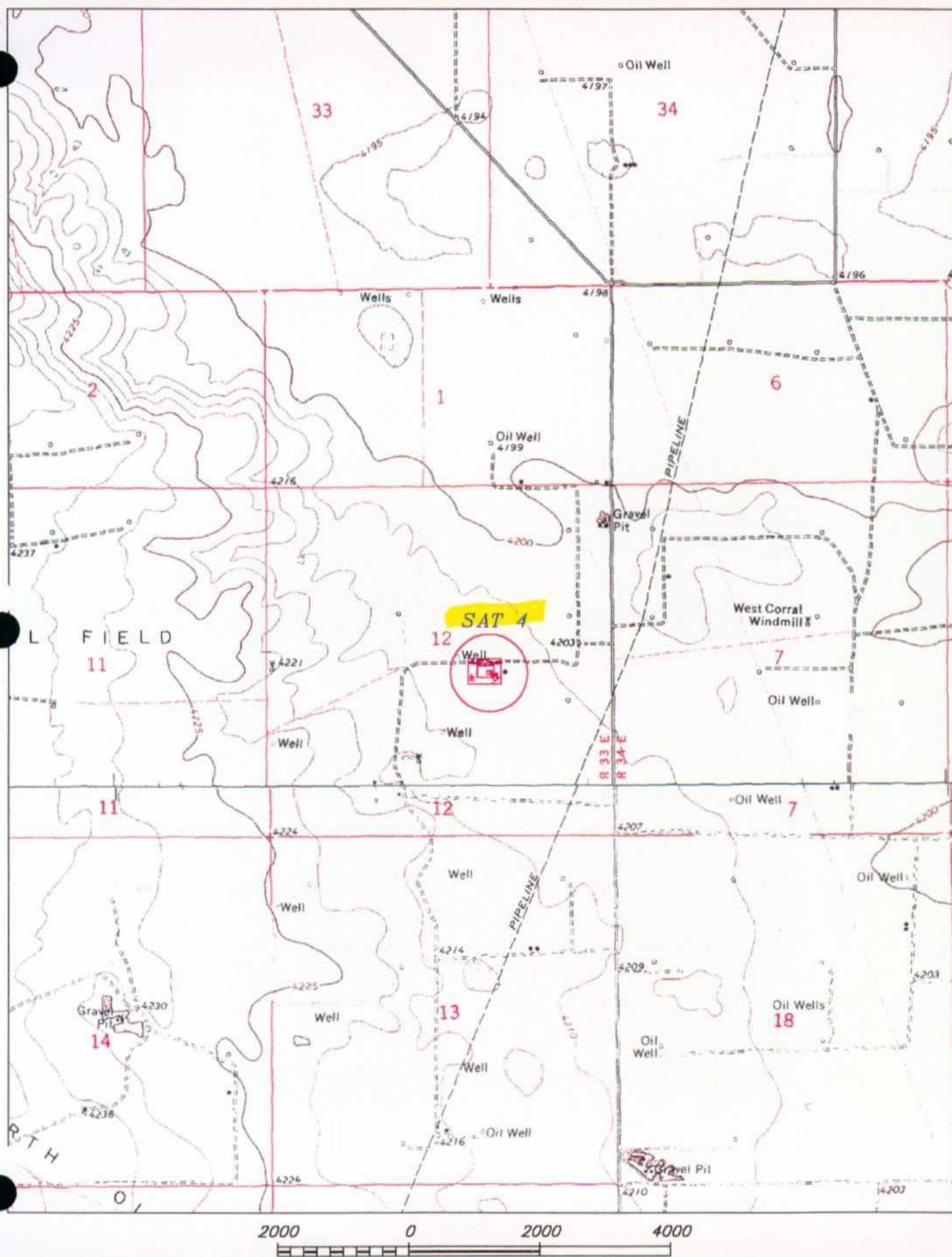
Satellite 4 MW # 23



Satellite 4 MW # 24

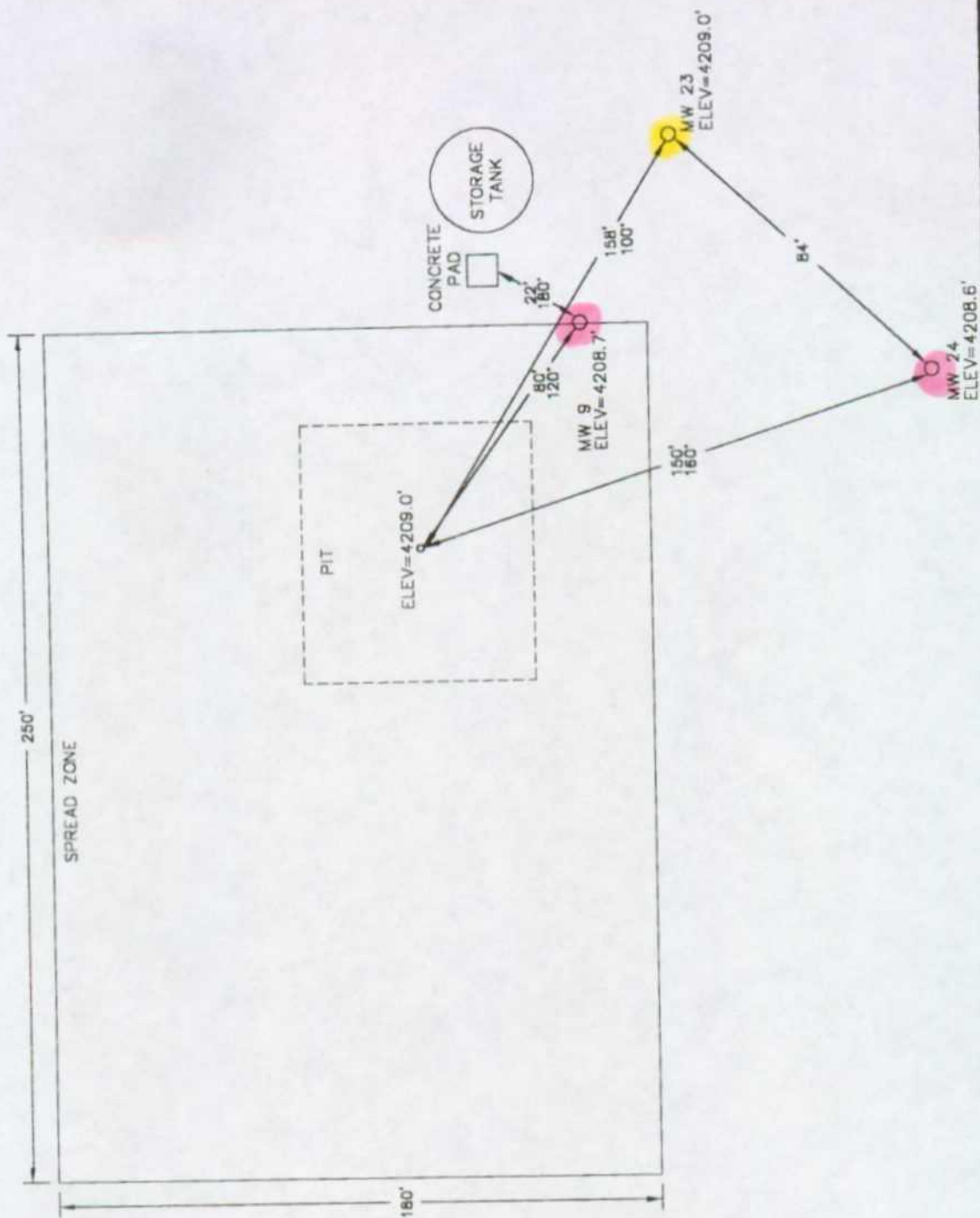


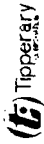
WHOLE EARTH ENVIRONMENTAL, INC.



SAT. 4

LEASE ROAD





Tipperary Corporation
Tatum Pit Closure Project
Monitor Well Water Elevation Table

Well Name	Monitor Well No.	Surface Elevation	Date Well Drilled	Water Depth @ Drill Date	Water Elevation	Water Depth @ 8/9/99	Water Elev. @ 8/9/99	Water Depth @ 10/21/99	Water Elev. @ 10/21/99	Depth Change Aug. / Oct. '99	Distance to Pit Center (ft)	Gradient (ft./ft.)	Gradient (ft./100 ft.)
Iva	Recovery Well	4 288 42	Aug-97	52 0	4 246 42	48 83	4 243 27	51 75	4 240 35	2 92	115	0 080 174	8 02
	1	4 292 10	Aug-97	54 9	4 237 20	49 17	4 242 76	51 50	4 240 43	2 33	140	0 053 500	5 35
	2	4 291 93	Aug-97	53 0	4 238 93	48 75	4 238 55	52 0	4 234 72	3 75	148	0 022 500	2 25
	Recovery Well	4 280 55	Aug-97	52 0	4 235 22	48 58	4 238 88	51 75	4 235 71	3 17	160	0 019 313	1 93
Mable	3	4 287 22	Aug-97	52 0	4 235 46	42 50	4 237 40	43 01	4 238 11	0 88	93	0 021 183	2 12
	4	4 287 46	Aug-97	52 0	4 235 46	43 00	4 237 80	43 50	4 237 30	2 83	51	0 044 118	4 41
	Pit Center	4 282 59	Mar-99	47 4	4 232 97	43 50	4 236 87	43 50	4 236 87	0 00	154	0 017 662	1 77
	Pit Center	4 282 45	Mar-99	47 4	4 232 97	43 50	4 236 87	43 50	4 236 87	0 00	154	0 017 662	1 77
NBN	5	4 288 90	Aug-97	63 0	4 235 90	61 50	4 237 40	43 01	4 238 11	0 88	93	0 021 183	2 12
	Pit Center	4 283 03	Aug-97	51 0	4 230 12	42 13	4 238 99	43 01	4 238 11	0 88	93	0 021 183	2 12
	6	4 281 12	Aug-97	51 0	4 230 12	42 13	4 238 99	43 01	4 238 11	0 88	93	0 021 183	2 12
	13	4 280 84	Oct-97	47 8	4 233 04	40 83	4 240 01	43 66	4 237 18	2 83	51	0 044 118	4 41
NBF	14	4 280 80	Oct-97	48 3	4 232 50	43 00	4 237 80	43 50	4 237 30	2 83	51	0 044 118	4 41
	25	4 280 37	Mar-99	47 4	4 232 97	43 50	4 236 87	43 50	4 236 87	0 00	154	0 017 662	1 77
	Pit Center	4 282 45	Mar-99	47 4	4 232 97	43 50	4 236 87	43 50	4 236 87	0 00	154	0 017 662	1 77
	Pit Center	4 281 59	Aug-97	50 0	4 231 59	43 50	4 238 09	44 90	4 238 73	0 40	110	0 018 273	1 63
Schole #1	8	4 259 41	Aug-97	48 0	4 211 41	35 75	4 223 66	35 75	4 223 66	0 00	165	0 045 152	4 52
	15	4 259 68	Oct-97	47 0	4 212 68	34 75	4 224 93	37 00	4 222 88	2 25	198	0 038 263	3 63
	16	4 259 06	Oct-97	47 1	4 211 96	36 00	4 223 06	36 10	4 222 96	0 10	247	0 031 579	3 16
	26	4 258 04	Mar-99	43 0	4 215 04	34 75	4 223 39	34 80	4 223 44	-0 15	387	0 022 791	2 28
Schole "A"	10	4 283 63	Aug-97	50 0	4 233 63	44 50	4 239 13	44 90	4 238 73	0 40	110	0 018 273	1 63
	17	4 283 31	Oct-97	49 4	4 233 91	44 00	4 239 31	44 50	4 238 81	0 50	262	0 008 053	0 81
	18	4 283 59	Oct-97	48 6	4 234 99	43 75	4 239 84	44 10	4 239 49	0 35	176	0 010 398	1 04
	28	4 283 21	Mar-99	46 3	4 236 96	35 00	4 248 21	44 15	4 239 06	9 15	562	0 004 004	0 40
Schole "B"	30	4 281 13	Aug-99	45 3	4 235 82	45 31	4 235 82	44 10	4 237 03	-1 21	776	0 005 528	0 55
	Pit Center	4 286 84	Aug-97	50 0	4 235 88	38 25	4 247 63	38 50	4 247 38	0 25	115	0 008 348	0 83
	11	4 285 86	Aug-97	50 0	4 235 88	38 25	4 247 63	38 50	4 247 38	0 25	115	0 008 348	0 83
	19	4 285 97	Sep-97	49 7	4 237 27	32 50	4 253 47	35 15	4 250 82	2 65	164	0 005 305	0 53
O.S. State	20	4 285 96	Sep-97	49 5	4 236 46	38 00	4 247 96	38 66	4 247 30	0 66	151	0 005 828	0 58
	27	4 285 61	Mar-99	40 0	4 245 61	36 83	4 248 78	38 20	4 247 41	1 37	264	0 004 659	0 47
	31	4 283 54	Aug-99	37 5	4 246 09	37 45	4 246 09	38 90	4 244 64	1 45	624	0 005 288	0 53
	Source Well	4 307 00	Sep-97	48 0	4 259 00	42 75	4 260 52	42 90	4 260 37	0 15	52	0 071 731	7 17
Sat. #4	12	4 303 27	Aug-97	48 0	4 255 27	43 25	4 259 83	43 66	4 259 42	0 41	151	0 025 960	2 60
	21	4 303 08	Oct-97	48 0	4 255 08	43 25	4 259 83	43 66	4 259 42	0 41	151	0 025 960	2 60
	22	4 302 77	Oct-97	47 5	4 255 27	43 50	4 259 20	44 25	4 258 95	0 25	285	0 016 475	1 65
	29	4 303 20	Mar-99	49 1	4 254 14	44 00	4 259 20	44 25	4 258 95	0 25	285	0 016 475	1 65
Sat. #4	Pit Center	4 211 45	Aug-97	31 0	4 177 66	26 17	4 182 49	26 75	4 181 91	0 58	80	0 035 375	3 54
	9	4 208 66	Aug-97	28 0	4 181 03	26 25	4 182 78	27 15	4 181 88	0 90	158	0 015 570	1 56
	23	4 209 03	Oct-97	28 0	4 181 03	26 25	4 182 78	27 15	4 181 88	0 90	158	0 015 570	1 56
	24	4 208 64	Oct-97	28 9	4 179 74	26 08	4 182 56	26 45	4 182 19	0 37	150	0 019 000	1 90

Note: Vera Bell and Sataline 4 had significant subsidence within the pit area.
The red elevations include an added 3.49' (Ave. of seven other sites).
Correct elevations noted in column 6.