US EPA RECORDS CENTER REGION 5
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MEMORANDUM

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To: Sheri Bianchin
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Date: April 10, 1996

cc: ACS Technical Committee

From: Peter Vagt PSV

Subject: Response to Request for Additional Information
Technical Memorandum -- Upper Aquifer
ACS NPL RD/RA Pre-Design Investigation

I called Kathy Grindstaff at IDEM on April 10, 1996 and discussed the additional data presentations required by the Agencies to evaluate the upper aquifer technical memorandum. As the result of this conversation, Montgomery Watson is providing the following table and two figures:

Table 2 from the Upper Aquifer Technical Memorandum (revised)
This table has been revised so that the total volatile organic compound concentrations are reported in parts per billion (ppb) rather than in parts per million (ppm) as in the Technical Memorandum. This will facilitate direct comparison with individual VOC concentrations.

Figure 6. Total VOC Concentrations (ppb) Upper Aquifer
This is a plot of the Total VOC concentrations detected at the sampling locations in the upper aquifer investigation. An overlay has been added of the "extent of benzene" and "extent of acetone" contamination lines from Figure 5 of the Technical Memorandum.

Figure 1. Existing and Proposed Monitoring Well Locations
Information from Figures 1 and 5 of the Technical Memorandum have been compiled on this single plot. It shows the locations of all existing upper aquifer monitoring wells and piezometers as well as the locations for the six additional upper aquifer monitoring wells proposed in the Technical Memorandum. It also includes the overlay of the "extent of benzene" and "extent of acetone" contamination lines from Figure 5 of the Technical Memorandum.

Table 2. Tabulation of Selected VOC Detections (revised)
Upper Aquifer Investigation, ACS NPL Site

Probe Number	Coordinates Easting	Coordinates Northing	Acetone (ug/L)	Benzene (ug/L)	BETX (ug/L)	Total VOCs (ppb)
GP50	4756.5	7309.0	19	nd	nd	19
GP51	4568.2	7240.7	nd	nd	nd	nd
GP52	4813.6	7857.5	nd	nd	nd	nd
GP53	5042.0	7618.2	210	550	573	813
GP55	5026.8	7451.6	15	400	400	420
GP56	4994.1	7750.3	6700	nd	nd	6700
GP57	4938.8	7658.5	770	5000	5000	5700
GP58	4829.8	7705.0	50600	nd	nd	50600
GP59	4751.7	7615.9	11	nd	nd	11
GP60	4830.7	7537.2	3560	nd	nd	3560
GP61	4741.4	7752.7	nd	nd	nd	nd
GP62	4687.4	7519.2	nd	nd	nd	nd
GP63	4855.1	7259.5	nd	nd	nd	nd
GP64	4798.0	7166.3	12	nd	nd	12
GP65	4763.6	7087.3	nd	nd	nd	nd
GP66	4716.0	7632.5	nd	nd	nd	nd
GP67	4723.3	7432.8	715	nd	nd	715
GP68	4731.6	7032.7	17	nd	nd	17
GP69	4747.1	7168.2	nd	nd	nd	nd
GP70	4616.5	7064.6	nd	nd	nd	nd
GP71	4628.8	7420.4	nd	nd	nd	nd
GP72	5474.1	5558.7	ns	ns	ns	ns
GP73	4797.3	4726.1	34	nd	nd	34
GP74	4698.9	4904.4	57	nd	nd	57
GP75	4606.8	5082.5	nd	nd	nd	nd
GP76	4509.4	5257.8	nd	nd	nd	nd
GP77	4395.7	5420.9	nd	nd	nd	nd
GP78	4305.3	5619.1	31.1	nd	nd	31
GP79	4212.7	5795.8	nd	nd	nd	nd
GP80	5472.9	5563.3	nd	7860	22803	23120
GP81	5622.8	5547.8	1720	nd	13868	18803
GP82	5621.1	5352.5	4450	3430	21550	29460
GP83	5822.3	5356.9	nd	nd	16.7	17
GP84	5797.9	5171.7	nd	nd	nd	nd
GP85	5806.4	4972.5	nd	nd	nd	nd
GP86	5976.4	5043.0	nd	nd	nd	nd
GP87	5111.6	5523.4	3900	410	660	4560
GP88	5160.6	5368.9	159	nd	nd	159
GP89	5118.5	5565.8	2910	1060	6560	9470
GP90	5538.8	5705.9	3960	8260	52720	93010
GP91	5610.7	5891.5	nd	nd	6.1	16

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Probe Number	Coordinates Easting	Coordinates Northing	Acetone (ug/L)	Benzene (ug/L)	BETX (ug/L)	Total VOCs (ppb)
GP92	5725.9	6086.7	81.5	nd	nd	82
GP93	5802.3	6267.1	42.7	5	5	53
GP94	6149.4	6280.2	nd	nd	nd	10
GP95	6230.7	6472.2	nd	nd	nd	nd
GP96	6298.7	6648.4	nd	nd	nd	nd
GP97	6295.1	6832.1	nd	nd	nd	nd
GP98	6350.2	7046.3	nd	nd	nd	nd
GP99	6410.4	7280.7	nd	nd	nd	nd
GP100	6405.0	7678.9	nd	nd	nd	nd
GP101	5944.6	5706.5	nd	nd	nd	nd
GP102	5994.6	5905.4	nd	nd	nd	nd
GP103	6062.3	6086.4	nd	nd	nd	nd
GP104	6217.2	7736.6	47.9	nd	nd	48
GP105	6002.5	7753.3	205	52.5	52.5	327
GP106	5818.0	7827.9	37.5	118	118	156
GP107	5581.7	7906.7	860	5320	5320	6213
GP108	5398.0	7984.1	nd	nd	nd	6
GP109	5195.9	7973.0	nd	nd	nd	nd
GP110	4949.6	8072.4	nd	nd	nd	nd
GP111	6368.8	7845.2	nd	nd	nd	nd
GP112	6138.2	7961.0	172	nd	nd	172
GP113	5985.9	7954.8	nd	nd	nd	nd
GP114	5794.2	8025.5	53.3	nd	nd	53
GP115	4592.5	6905.3	nd	nd	nd	nd
GP116	5651.9	4835.4	240	710	5926	6216
GP117	5435.5	4793.5	175	nd	nd	175
GP118	5084.4	4798.9	nd	nd	nd	nd
GP119	5777.1	4741.2	16.6	5.2	5.2	32
GP120	5594.5	4625.2	719	131	376	1095
GP121	5393.1	5512.7	4780	4580	11840	16620
GP122	5305.8	5361.2	834	nd	nd	834
GP123	5114.8	5612.9	6000	1590	3680	18600
GP124	5231.1	5606.3	3810	6950	6950	10760
GP125	6234.4	7399.7	nd	nd	nd	nd
GP126	5889.3	4782.9	51.4	nd	nd	67
GP127	5816.6	4591.6	13.4	nd	nd	19
GP128	5587.7	4518.1	nd	506	5376	5376
GP129	5392.9	4629.7	nd	nd	nd	nd
GP130	5275.9	4790.1	168	nd	nd	168
GP131	6088.4	4830.5	ns	ns	ns	ns
GP132	6056.7	4630.5	nd	nd	nd	nd
GP133	5929.2	4450.4	61.6	5.1	5.1	67

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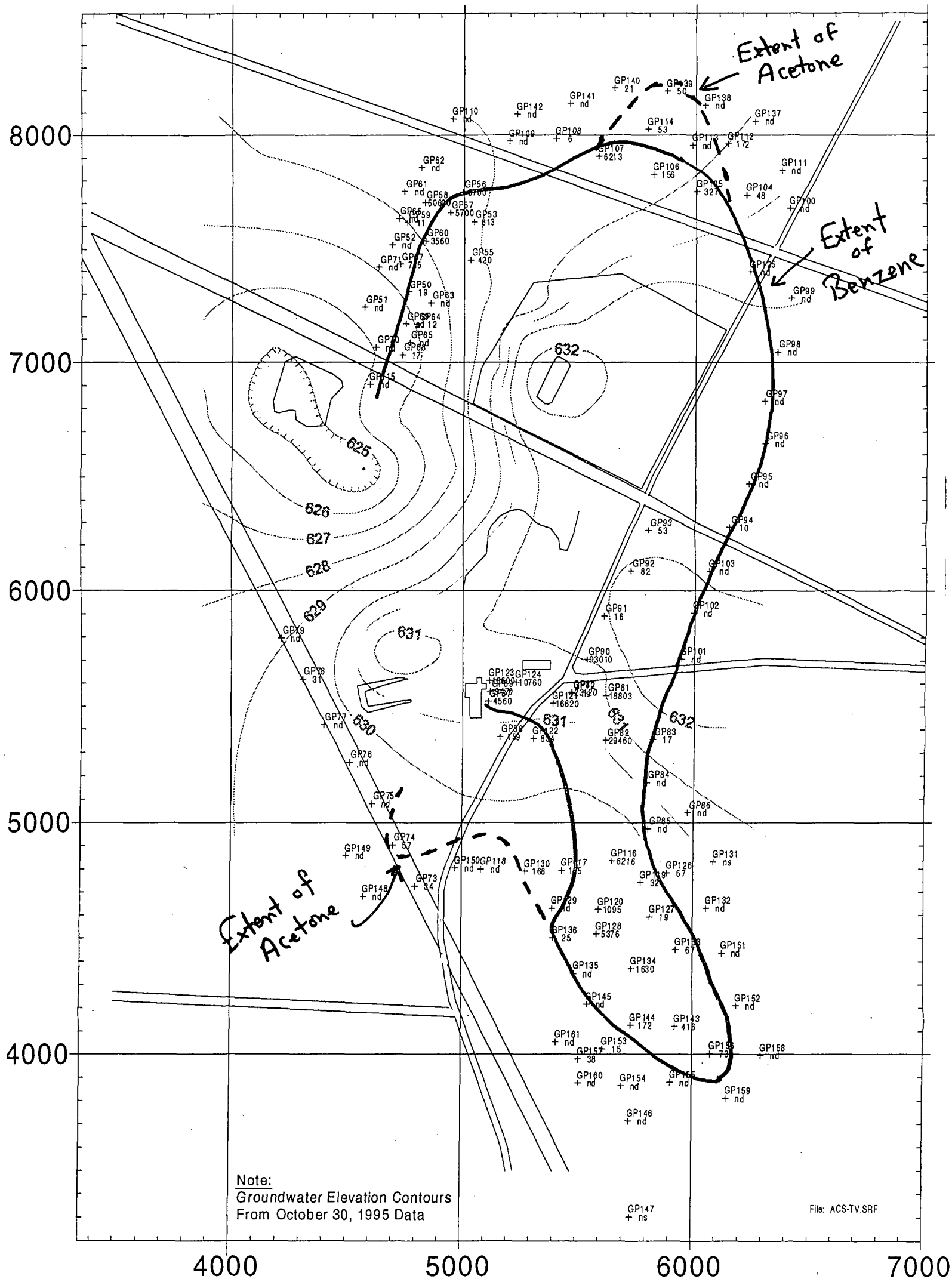
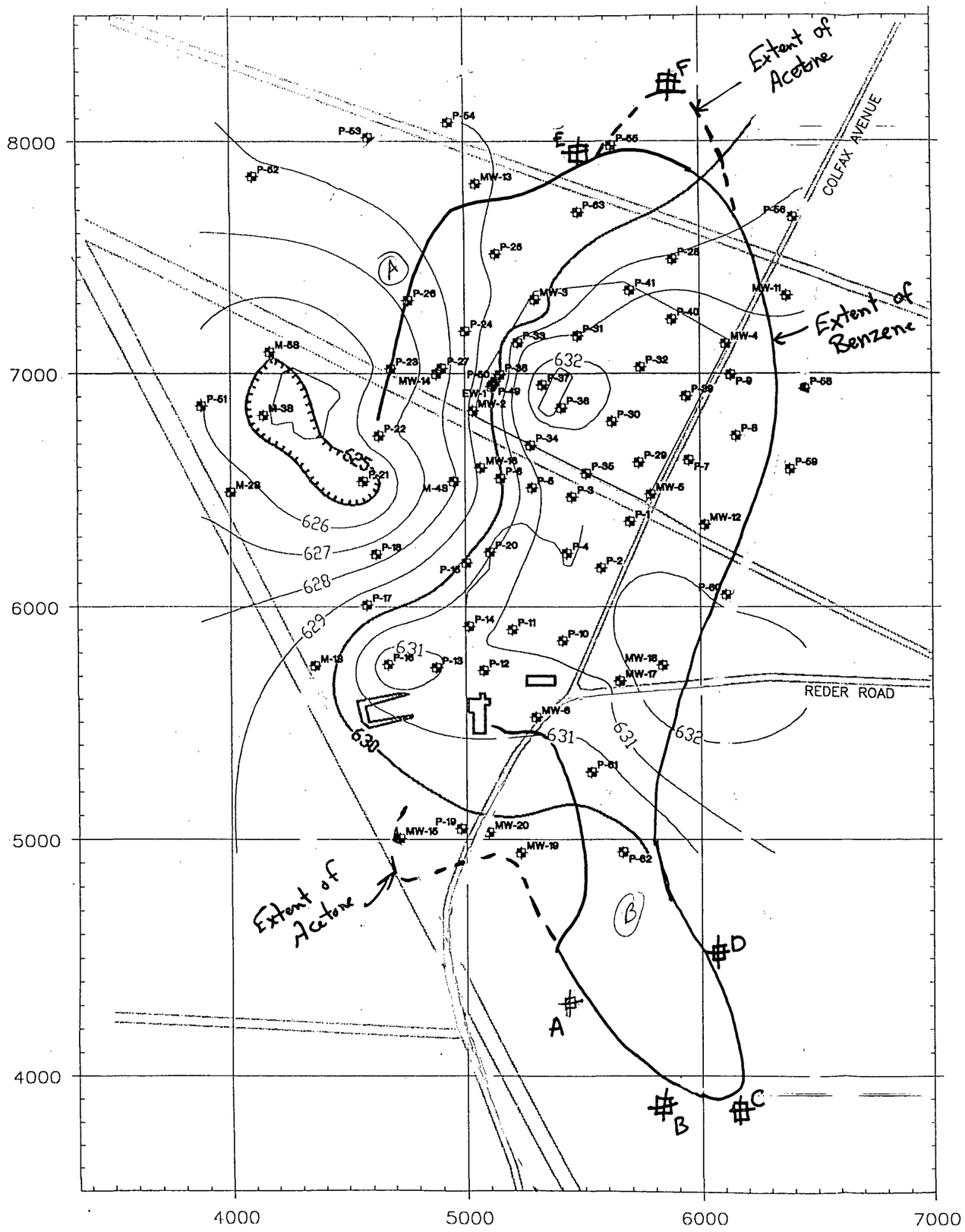
Probe Number	Coordinates Easting	Coordinates Northing	Acetone (ug/L)	Benzene (ug/L)	BETX (ug/L)	Total VOCs (ppb)
GP134	5737.9	4367.5	412	1100	1132.6	1630
GP135	5489.0	4348.2	nd	nd	nd	nd
GP136	5398.1	4501.4	19.2	5.3	5.3	25
GP137	6252.8	8061.6	nd	nd	nd	nd
GP138	6039.3	8131.7	nd	nd	nd	nd
GP139	5877.2	8195.5	50.2	nd	nd	50
GP140	5650.8	8208.5	21.3	nd	nd	21
GP141	5458.5	8139.6	nd	nd	nd	nd
GP142	5229.5	8092.5	nd	nd	nd	nd
GP143	5923.7	4120.5	58.5	252	357	416
GP144	5735.3	4126.4	nd	172	172	172
GP145	5545.9	4217.0	nd	nd	nd	nd
GP146	5728.0	3713.4	nd	nd	nd	nd
GP147	5737.9	3303.0	ns	ns	ns	ns
GP148	4571.6	4681.2	nd	nd	nd	nd
GP149	4495.9	4858.4	nd	nd	nd	nd
GP150	4971.8	4804.2	nd	nd	nd	nd
GP151	6125.5	4434.9	nd	nd	nd	nd
GP152	6186.9	4209.7	nd	nd	nd	nd
GP153	5616.1	4023.2	15	nd	nd	15
GP154	5696.9	3863.9	nd	nd	nd	nd
GP155	5907.7	3879.7	nd	nd	nd	nd
GP156	6077.8	4003.6	34	38.8	38.8	73
GP157	5511.0	3980.2	38	nd	nd	38
GP158	6296.3	3994.5	nd	nd	nd	nd
GP159	6147.1	3809.8	nd	nd	nd	nd
GP160	5511.0	3877.1	nd	nd	nd	nd
GP161	5413.9	4054.1	nd	nd	nd	nd

notes:

1. nd - not detected
2. ns - no sample collected
3. total VOCs - sum total of target VOCs (Appendix A)

Figure 6. Total VOC Concentrations (ppb) Upper Aquifer





LEGEND

- #A — Proposed New Upper Aquifer Monitoring Wells
- MW-12 — UPPER AQUIFER WELL LOCATION AND NUMBER
- M-18 — LEACHATE/UPPER AQUIFER WELL LOCATION AND NUMBER
- P-61 — PIEZOMETER LOCATION AND NUMBER
- 626 — GROUNDWATER ELEVATION CONTOUR

LEGEND

1. GROUNDWATER ELEVATION WAS MEASURED AT THE SITE ON OCTOBER 30, 1995.

north

0 500 1000

SCALE IN FEET

FIGURE 1

Developed By PV | Drawn By CCM

Approved By | Date

Reference

Revisions

UPPER AQUIFER SAMPLING AREAS

Existing and Proposed Monitoring Well Locations

Drawing Number 4077.0072 B1

MONTGOMERY WATSON

Management Review | Other

Technical Review | Project Manager

Graphic Standards CCM | Lead Professional

QUALITY CONTROL

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