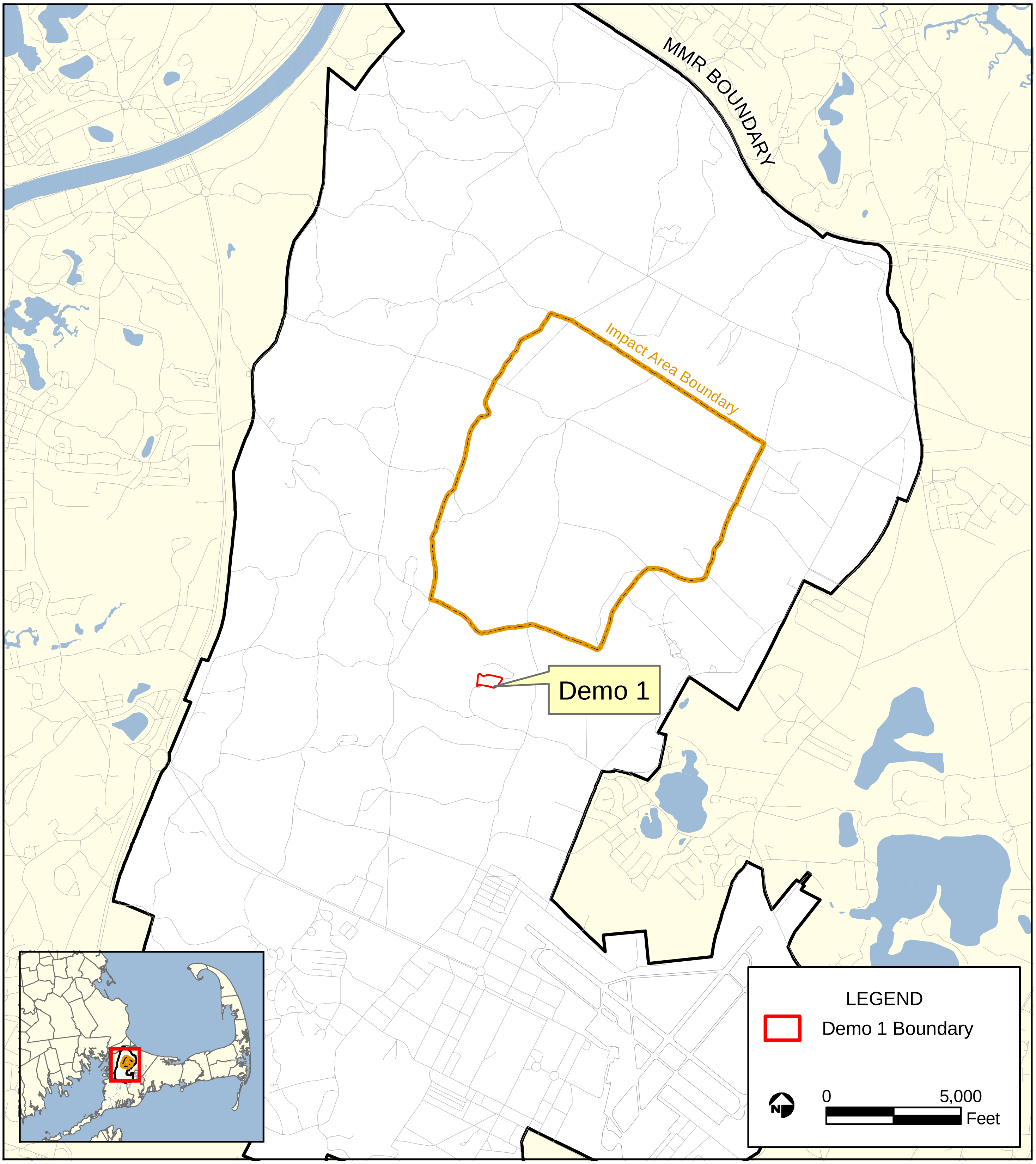


NOTES & SOURCES:
Basemap data from US Geological Survey 7 1/2 minute
Topographic Maps. Source: MassGIS

Location of Demo 1
Massachusetts Military Reservation
Final Feasibility Study
Demo 1 Groundwater Operable Unit

AMEC Earth & Environmental, Inc.
Westford, Massachusetts

J:/mmr/ReportFigs2005/D9501/D9501_Fig1-1.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig1-1.mxd
April 15, 2005 ALS JEP JBB

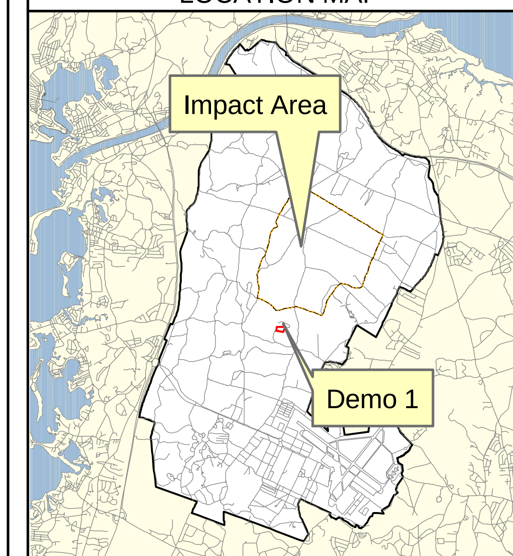
FIGURE
1-1

Impact Area Groundwater Study Program

LEGEND

- Existing Monitoring Well
- Elevation Contour (Labeled in Feet Above NGVD)
- Demo 1

LOCATION MAP



NOTES & SOURCES

Basemap data from US Geological Survey 7 1/2 minute
Topographic Maps. Source: MassGIS
Aerial photos: 1:5000 black & white digital orthophotos
Resolution: 0.5 feet; Date Flown: 1997; Source: Jacobs Eng.

TITLE

Demo 1 Site Plan

Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 100
Feet

N

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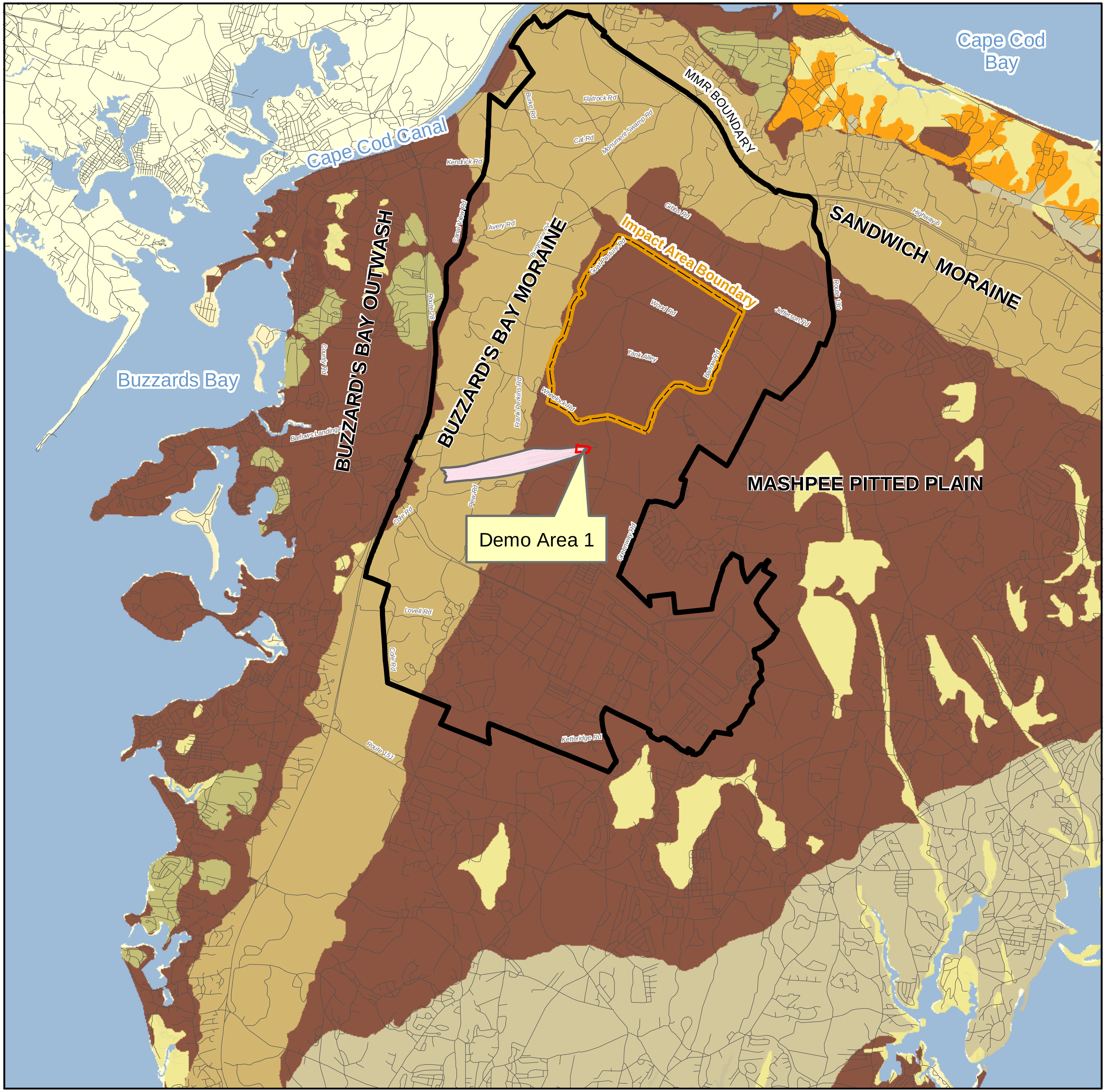
J:/mmr/ReportFigs2005/D9501/D9501_Fig2-1.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-1.mxd
April 15, 2005 ALS JEP JBB

FIGURE
2-1

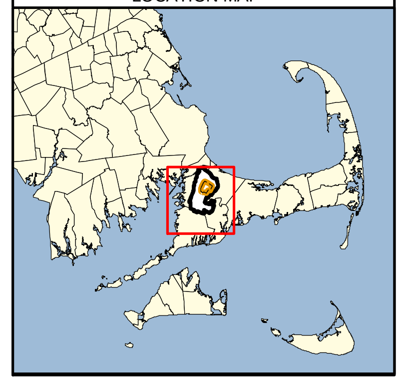


Impact Area
Groundwater Study Program

LEGEND

- Perchlorate Plume Extent
- Sand and Gravel Deposits
- Till or Bedrock
- Sandy Till Over Sand
- End Moraines
- Large Sand Deposits
- Fine-Grained Deposits
- Floodplain Alluvium

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Basemap data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Surficial Geology of Western Cape Cod
Final
Feasibility Study
Demo 1 Groundwater
Operable Unit

0 1 Miles

N

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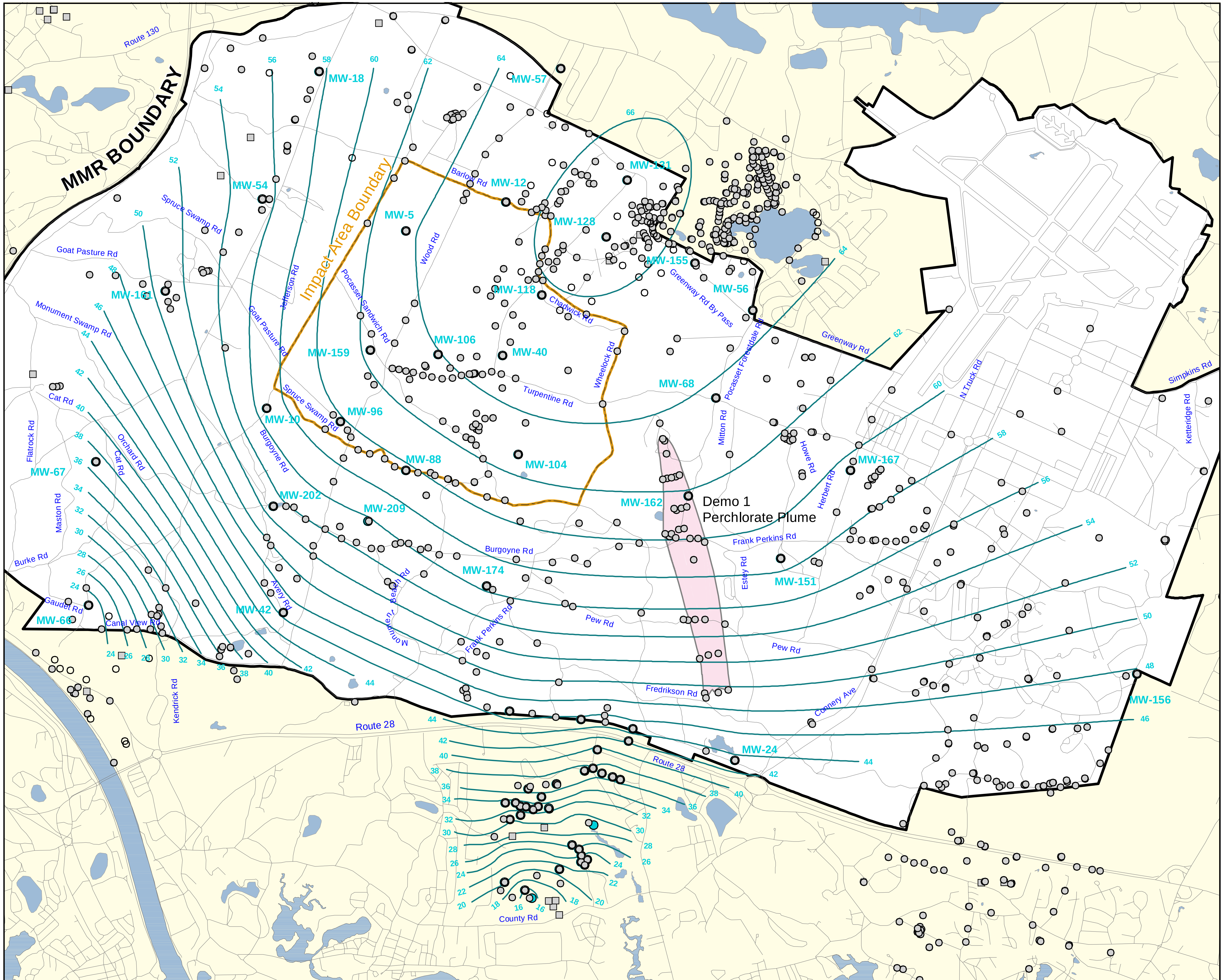
J:/mmr/ReportFigs2005/D9501/D9501_Fig2-2.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-2.mxd
April 15, 2005 ALS JEP JBB

FIGURE
2-2



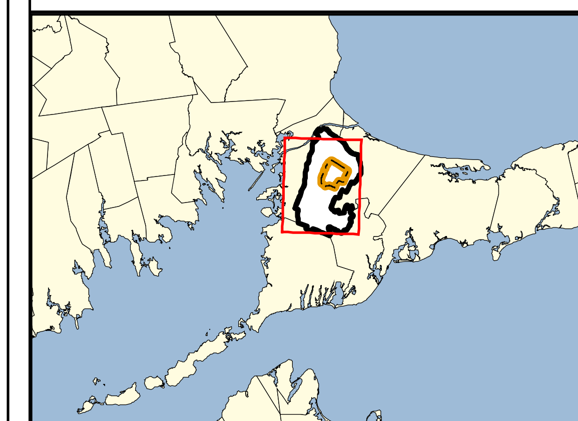
Impact Area Groundwater Study Program

LEGEND

- Water Level Data Point (May 2002)
- Existing Monitoring Well
- Proposed Monitoring Well
- Existing Supply Well
- Perchlorate Greater than Non-Detect
- Groundwater Contours (Ft NGVD)*

Note: This groundwater elevation plan is shown to illustrate where the Demo 1 plume is located relative to the Upper Cape groundwater mound.
*Groundwater contours from AMEC, May 2002

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Base data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Regional Groundwater Elevation Contours (May 2002)
Final Feasibility Study
Demo 1 Gronundwater Operable Unit

0 3,500 Feet

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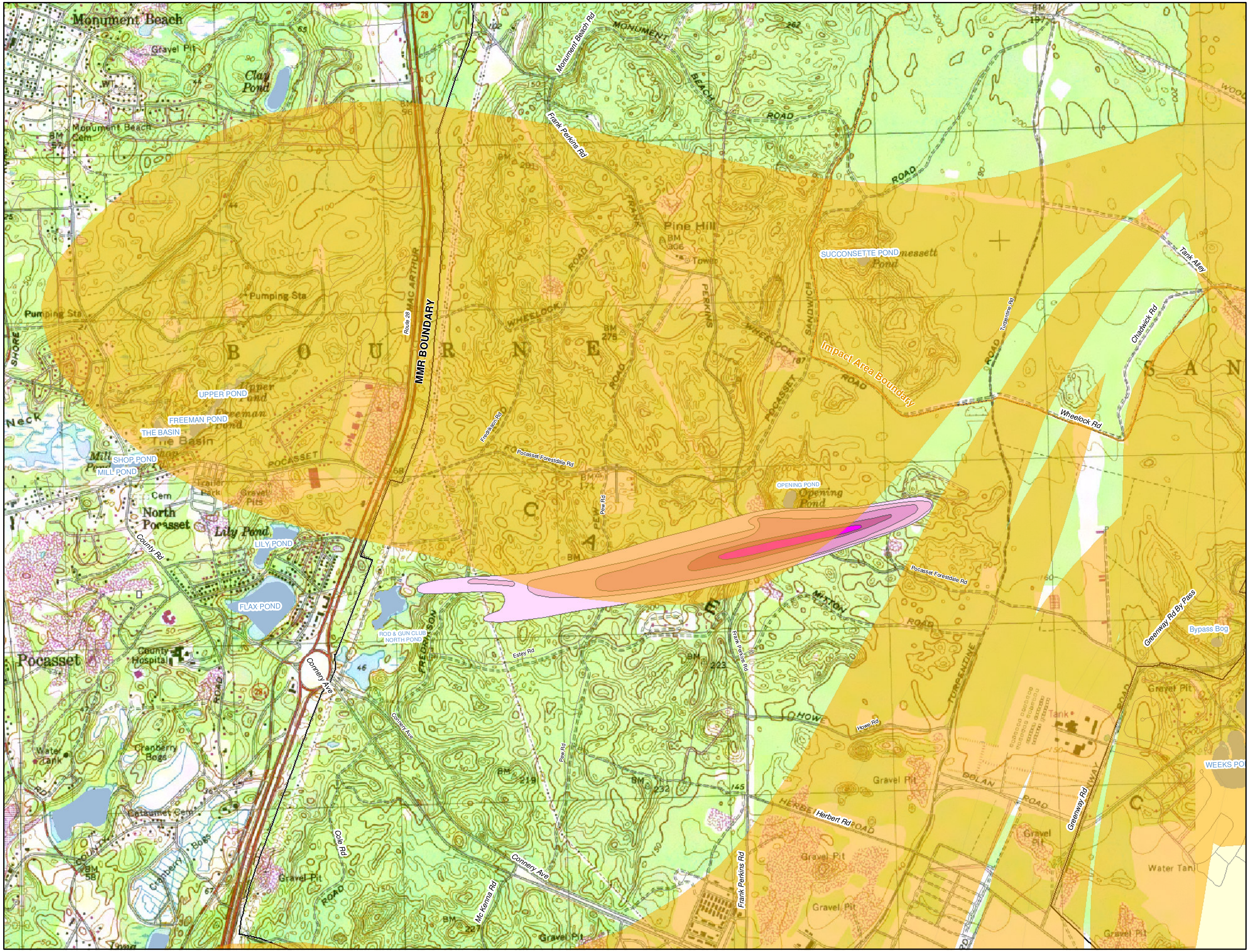
J:/mmr/ReportFigs2005/D9501/D9501_Fig2-3.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-3.mxd
April 15, 2005 ALS JEP JBB

FIGURE
2-3



Impact Area Groundwater Study Program

LEGEND

Approved Wellhead Protection Areas (Zone II)

Perchlorate Concentrations (Revised 11/17/04)

- ND-1
- 1-4
- 4-18
- 18-100
- >100

LOCATION MAP

NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Basemap data from US Geological Survey 7 1/2 minute Topographic Map Source: MassGIS

TITLE

Approved Wellhead Protection Areas (Zone II) Monument Beach

Final Feasibility Study
Demo 1 Groundwater
Operable Unit

0 1,980 Feet

DRAFT

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J:/mmr/ReportFigs2005/D9501/D9501_Fig2-3a.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-3a.mxd
June 9, 2005 DWN: JBB ABF CHKD: BD

FIGURE 2-3a

Impact Area Groundwater Study Program

LEGEND

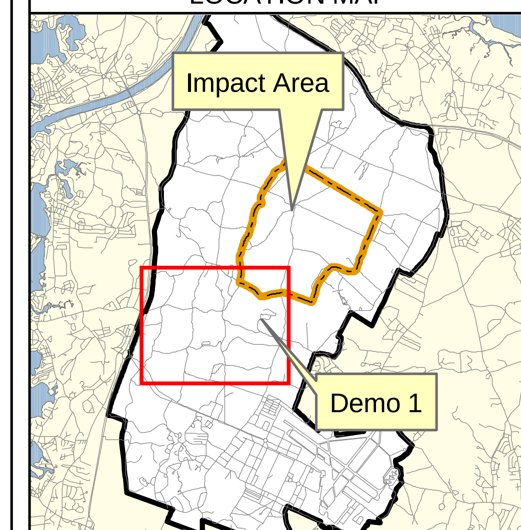
- Existing Monitoring Well
- Zones of Contribution*
- Demo 1 Boundary

Elevation Contours in Feet above NGVD

- 0 - 99
- 100 - 149
- 150 - 199
- 200 - 249
- 250 - 305

*ZOCs modeled under steady state conditions.

LOCATION MAP



NOTES & SOURCES

Basemap data from US Geological Survey 7 1/2 minute Topographic Maps. Source: MassGIS
Aerial photos: 1:5000 black & white digital orthophotos
Resolution: 0.5 meter; Date Flown: 1994; Source: MassGIS

TITLE

Monitoring Well Locations
Final Feasibility Study
Demo 1 Groundwater Operable Unit

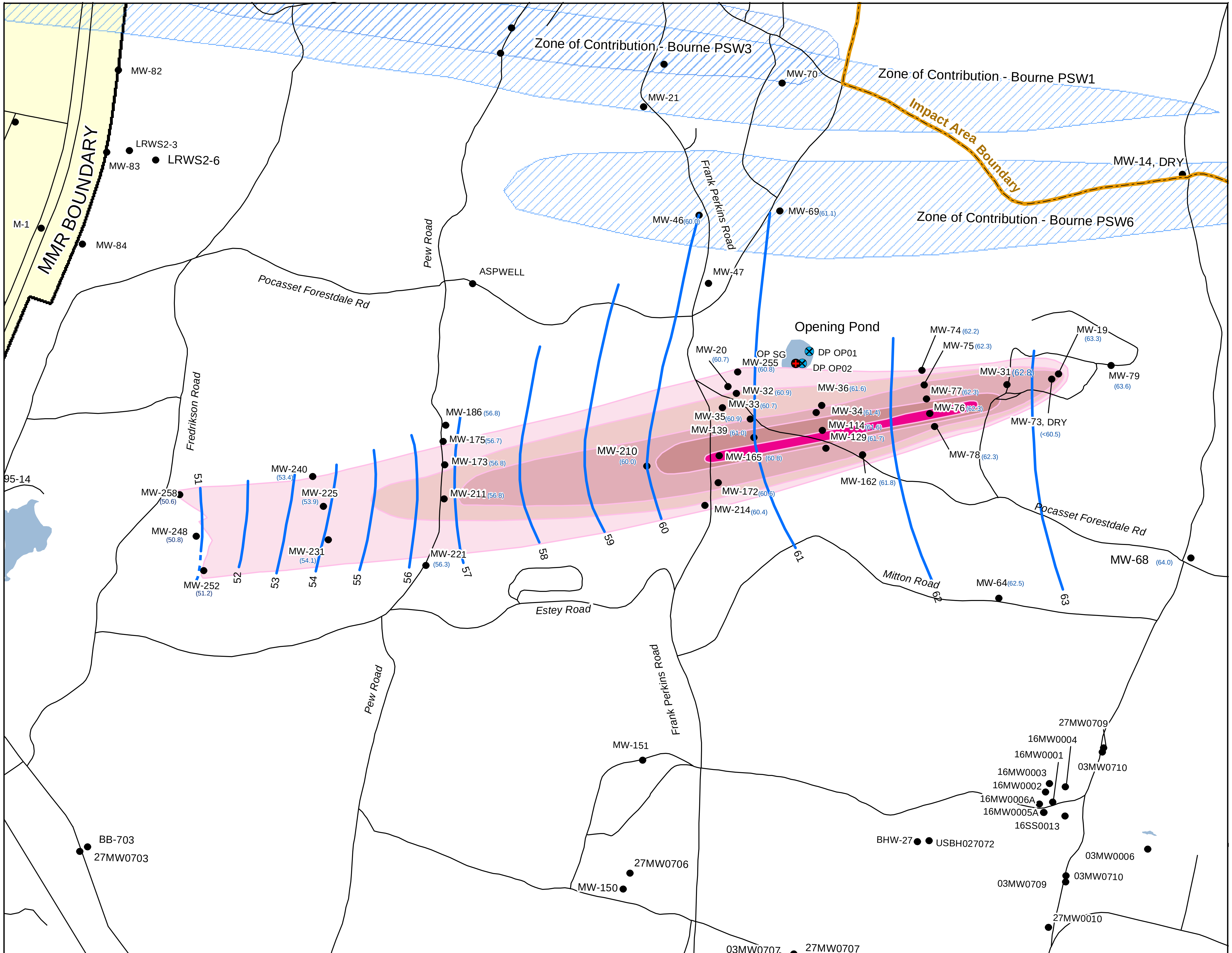
0 1,000 Feet

N

AMEC Earth & Environmental, Inc.
Westford, Massachusetts

J:/mmr/ReportFigs2005/D9501/D9501_Fig2-4.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-4.mxd
April 15, 2005 ALS JEP JBB

FIGURE
2-4



Impact Area Groundwater Study Program

LEGEND

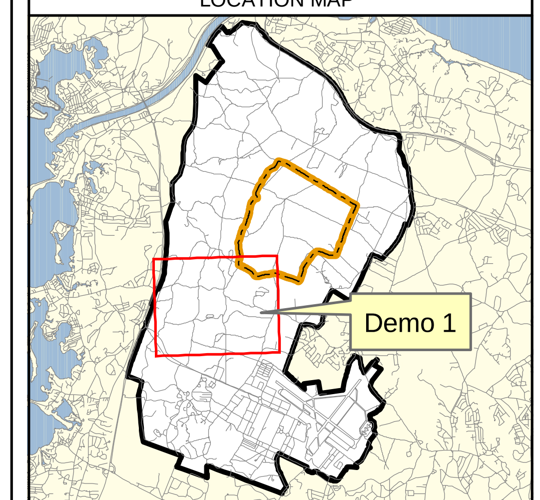
- Existing Monitoring Well
- Piezometer
- Staff Gauge

Perchlorate as of 06/05/03

- Greater than Non-Detect
- Greater than 1 ppb
- Greater than 4 ppb
- Greater than 18 ppb
- Greater than 100 ppb
- Perchlorate Contour
- Perchlorate Contour, Inferred
- Zones of Contribution
- 60 Groundwater Elevation Contour* - 4/11/2003 (Shallowest well used to draw contours)
- (62.4) Groundwater Elevations (feet above NGVD)

Note: Plume shell illustrated is representative of widest observed at each transect cross-section.
*Groundwater Contours by AMEC 04/11/03.
ZOCs modeled under steady state conditions.

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Base data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Groundwater Elevation Contours (May, 2003)
Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000 Feet

N

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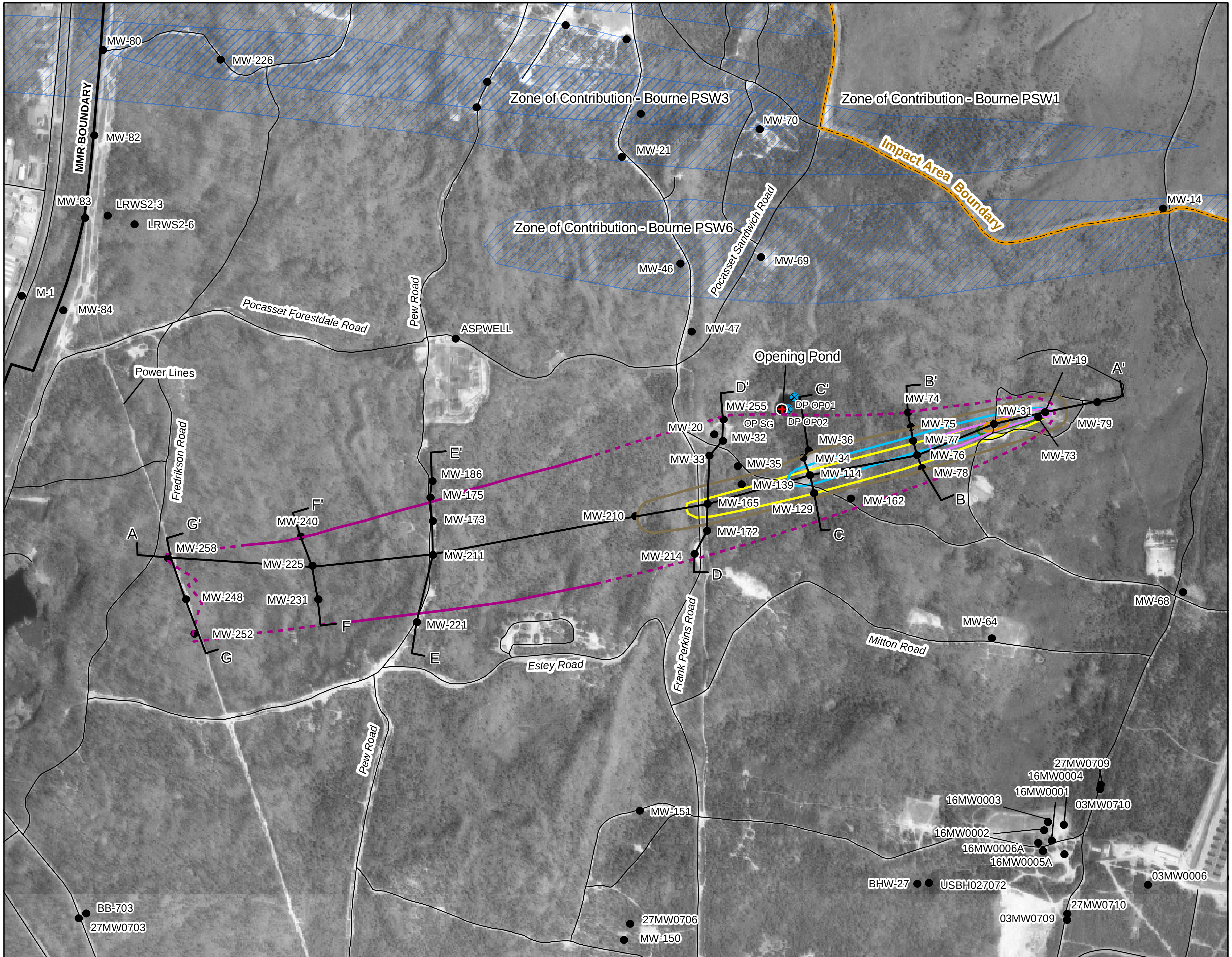
Westford, Massachusetts

J:/mmr/ReportFigs2005/D9501/D9501_Fig2-5.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-5.mxd
April 15, 2005 ALS JEP JBB

FIGURE 2-5

Impact Area Groundwater Study Program



LEGEND

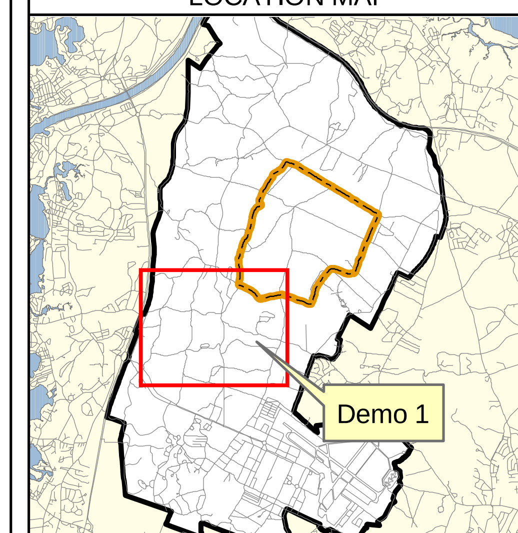
- Existing Monitoring Well
- Piezometer
- Staff Gauge

Non-Detect Contours (Data as of 05/03)

- 2,4-DNT
- 2A-DNT
- 4A-DNT
- HMX
- TNT
- RDX Contour
- Perchlorate
- Zones of Contribution
- A A' Cross Section

Note: Plume shell illustrated is representative of widest observed at each transect cross-section. ZOCs modeled under steady state conditions. Groundwater data through May, 2003.

LOCATION MAP



NOTES & SOURCES

Basemap data from US Geological Survey 7 1/2 minute Topographic Maps. Source: MassGIS
Aerial photos: 1:5000 black & white digital orthophotos
Resolution: 0.5 meter; Date Flown: 1994; Source: MassGIS

TITLE

Extent of COCs in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000 Feet

N

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Westford, Massachusetts

J:/mmr/ReportFigs2005/D9501/D9501_Fig2-6.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-6.mxd
April 15, 2005 ALS JEP JBB

FIGURE 2-6

Impact Area
Groundwater Study Program

LEGEND

- Existing Monitoring Well
- Piezometer
- Staff Gauge

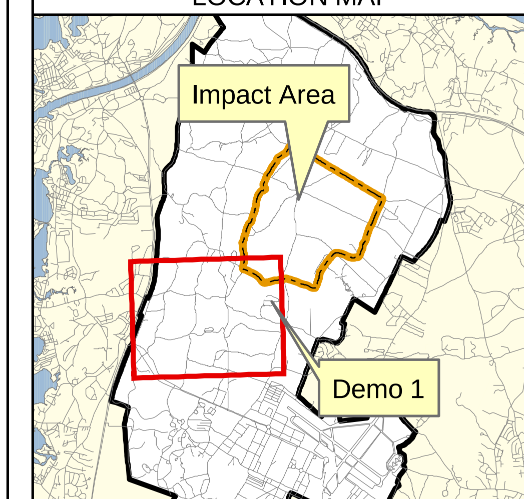
RDX

- Greater than Non-Detect
- Greater than 2 ppb
- Greater than 10 ppb
- Greater than 100 ppb

A A' Cross Section

Note:
* Plume shell illustrated is representative of widest observed at each transect cross-section.
* Groundwater data through May, 2003.

LOCATION MAP



NOTES & SOURCES

Basemap data from US Geological Survey 7 1/2 minute Topographic Maps. Source: MassGIS
Aerial photos: 1:5000 black & white digital orthophotos
Resolution: 0.5 meter; Date Flown: 1997; Source: MassGIS

TITLE

RDX Distribution in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000 Feet

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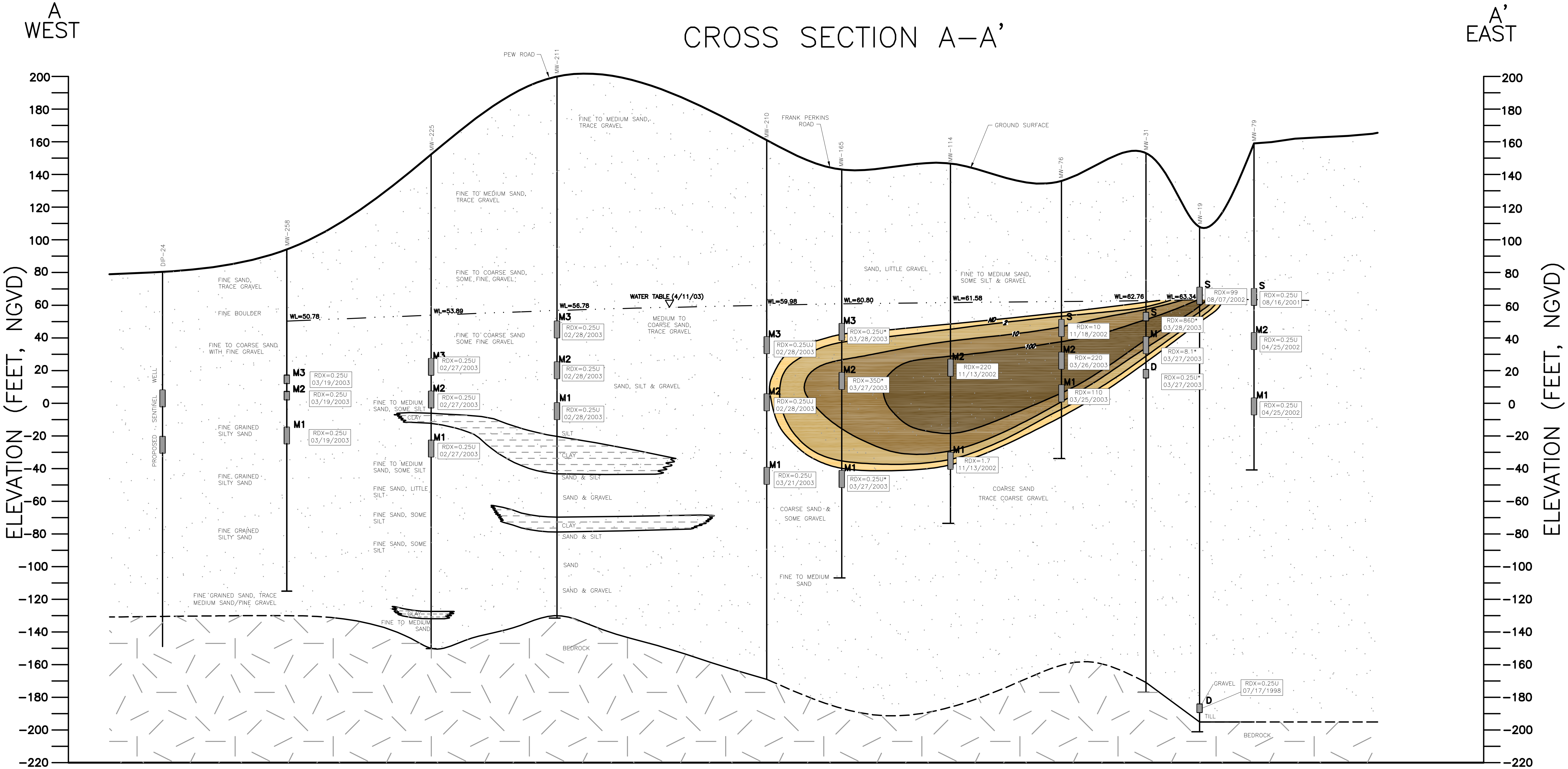
J:/mmr/ReportFigs2005/D9501/D9501_Fig2-7.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-7.mxd
April 15, 2005 ALS JEP JBB

FIGURE
2-7



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–7.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. U* = UNVALIDATED NON–DETECT, 0.25U* = UNVALIDATED NON–DETECT, 0.25U = VALIDATED NON–DETECT.

LEGEND

RDX CONCENTRATIONS
- ND – 2.0 ug/L
- 2.0 ug/L – 10 ug/L
- 10 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS
- FINE TO COARSE SAND
- CLAY
- BEDROCK

SCREEN DESIGNATION
M1
RDX = ND 6/6/02
GROUNDWATER CONCENTRATION AT WELL
WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=1000'
0' 500' 1000'

0' 30' 60'
VERTICAL SCALE: 1"=60'

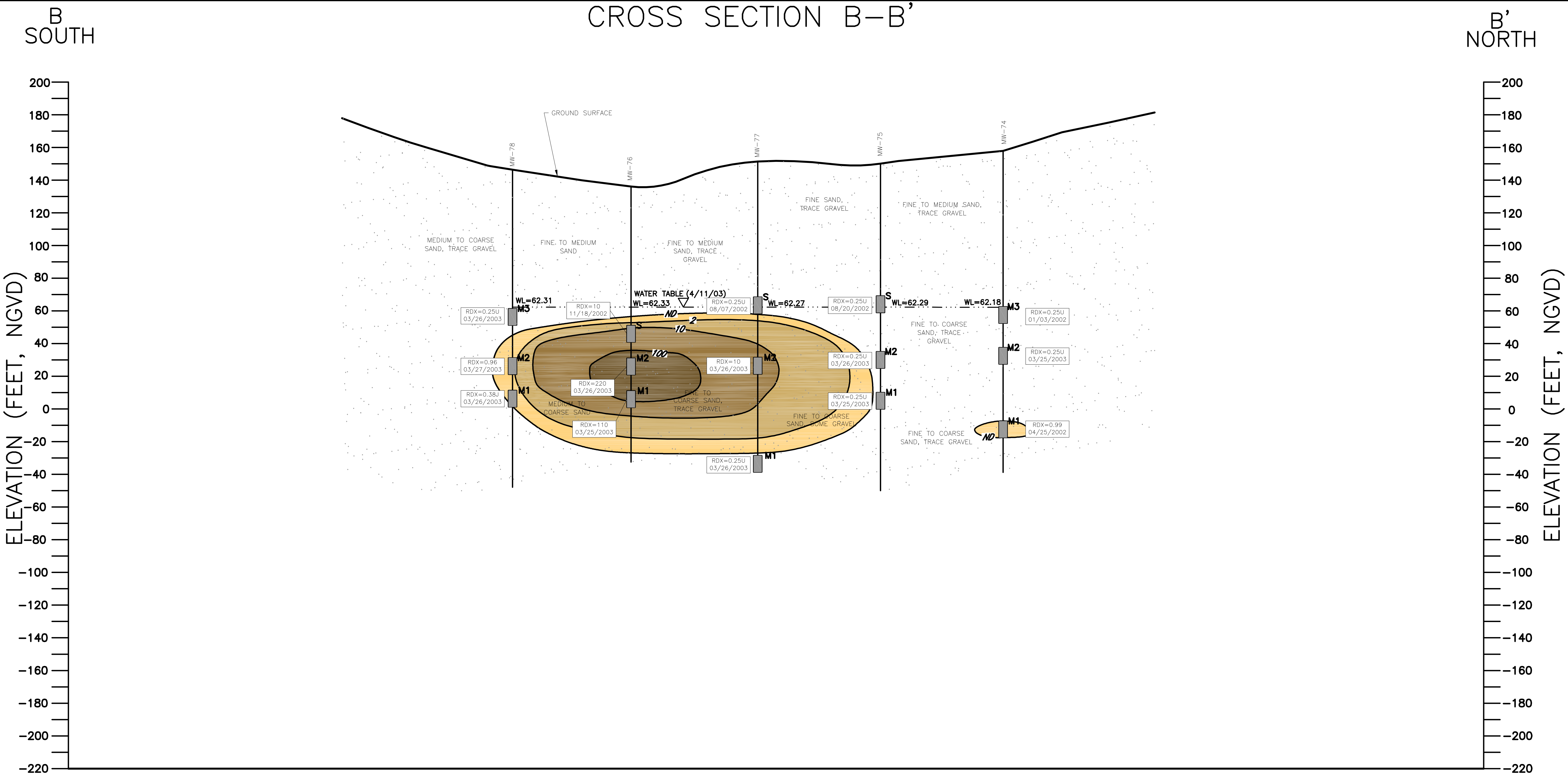
FIGURE 2–8

CROSS SECTION A–A'
RDX DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2–7622–5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\RDX_AA.dwg BY: peter.consius

CROSS SECTION B–B'



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–7.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. U* = UNVALIDATED NON–DETECT, 0.25U* = UNVALIDATED NON–DETECT, 0.25U = VALIDATED NON–DETECT.

LEGEND

RDX CONCENTRATIONS
- ND – 2.0 ug/L
- 2.0 ug/L – 10 ug/L
- 10 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS
- FINE TO COARSE SAND
- CLAY
- BEDROCK

SCREEN DESIGNATION
M1
RDX = ND
6/6/02
GROUNDWATER CONCENTRATION AT WELL
WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=120'
0' 60' 120'

0' 30' 60'
VERTICAL SCALE: 1"=60'

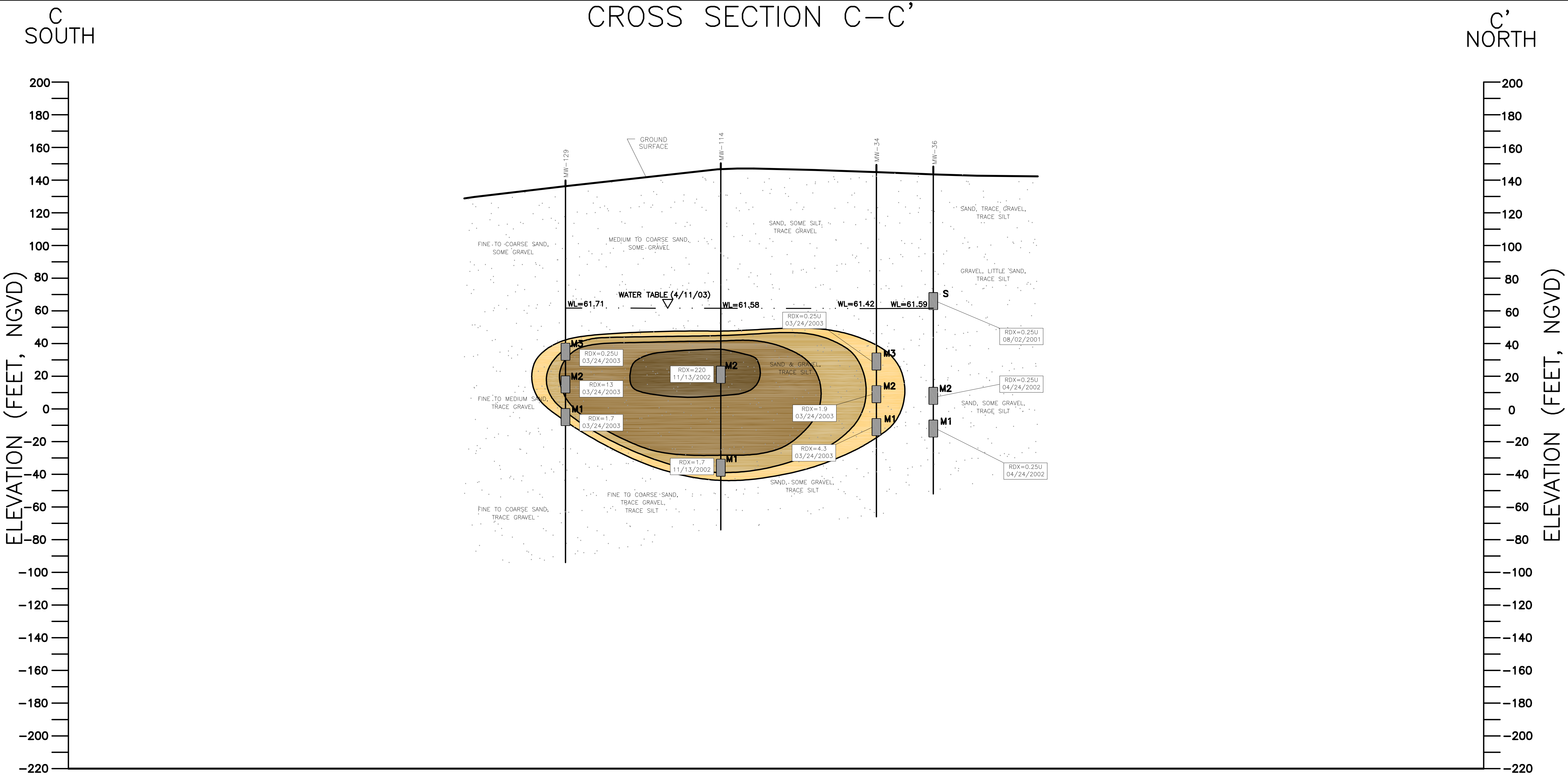
FIGURE 2–9

CROSS SECTION B–B'
RDX DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2–7622–5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR–9501\CAD\RDX_BB.dwg BY: peter.canisius

CROSS SECTION C–C'



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–7.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. U* = UNVALIDATED NON–DETECT, 0.25U* = UNVALIDATED NON–DETECT, 0.25U = VALIDATED NON–DETECT.

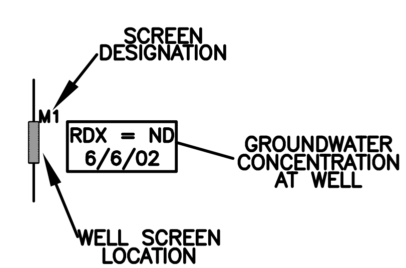
LEGEND

RDX CONCENTRATIONS

- ND – 2.0 ug/L
- 2.0 ug/L – 10 ug/L
- 10 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS

- FINE TO COARSE SAND
- CLAY
- BEDROCK



HORIZONTAL SCALE: 1"=120'
0' 60' 120'

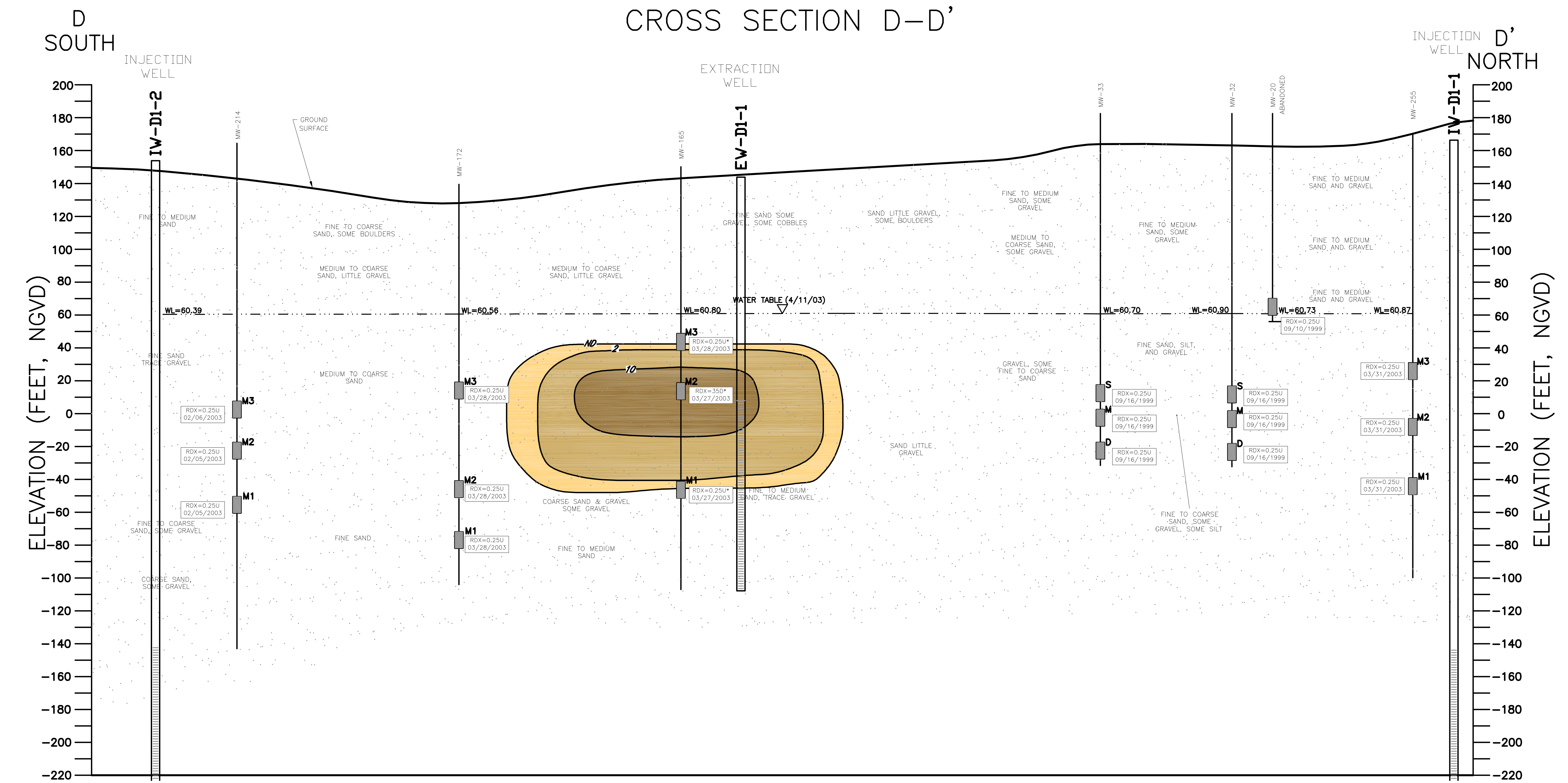
0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–10

CROSS SECTION C–C'
RDX DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2–7622–5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR–9501\CAD\RDX_CC.dwg BY: peter.canisius



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–7.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. U* = UNVALIDATED NON–DETECT, 0.25U* = UNVALIDATED NON–DETECT, 0.25U = VALIDATED NON–DETECT.

LEGEND

RDX CONCENTRATIONS
- ND – 2.0 ug/L
- 2.0 ug/L – 10 ug/L
- 10 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS
- FINE TO COARSE SAND
- CLAY
- BEDROCK

SCREEN DESIGNATION
M1
RDX = ND 6/6/02
GROUNDWATER CONCENTRATION AT WELL
WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=120'
0' 60' 120'

0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–11

CROSS SECTION D–D'
RDX DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2–7622–5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\RDX_DD.dwg BY: peter.canisius

MW-36		(73-83)S	(131-141)M2	(151-161)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/14/2002	0U		
PERCHLORATE	03/25/2003		3.7*	0U*

MW-34		(111-121)M3	(131-141)M2	(151-161)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/24/2003	0U*	10*	8*

MW-255		(136-146)M3	(170-180)M2	(206-216)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/31/2003	0U*	0.54J*	0U*

MW-32		(146.5-151.5)S	(161.5-171.5)M	(181.5-186.5)D
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/31/2003	1.5*	2.5*	0.44J*

MW-33		(146.5-151.5)S	(161.5-171.5)M	(181.5-186.5)D
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/31/2003	1.3*	1.5*	1.6*

MW-35		(84-94)M3	(100-110)M2	(155-165)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	01/14/2002	0U		
PERCHLORATE	04/08/2003		0U*	3.9*

MW-186		(182-192)M2	(202-212)M1
ANALYTE	Date Sampled	UG/L	UG/L
PERCHLORATE	07/29/2002	0U	
PERCHLORATE	07/30/2002		0U

MW-175		(162-167)M3	(199-209)M2	(264-274)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	11/15/2002	0U	0U	0U

MW-173		(188-198)M3	(208-218)M2	(243-253)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	11/14/2002		0U	0U
PERCHLORATE	11/15/2002	0.48J		

MW-240		(105-115)M3	(125-135)M2	(198-208)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/05/2003		0U	0U
PERCHLORATE	03/06/2003	0U		

MW-225		(125-135)M3	(145-155)M2	(175-185)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	02/27/2003	0.62J	0U	0U

MW-258		(77-82)M3	(87-92)M2	(109-119)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/07/2003	0.49J	0.408J	0U

MW-248		(143-153)M3	(178-188)M2	(218-228)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/19/2003	0U*	0U*	0U*

95-14		(102-112)M1
ANALYTE	Date Sampled	UG/L
PERCHLORATE	04/08/2002	0U

MW-24		(6-16)S
ANALYTE	Date Sampled	UG/L
PERCHLORATE	04/08/2002	0U

MW-252		(115-125)M3	(145-155)M2	(174-184)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	05/08/2003	0.56J*	0U*	0U*

MW-231		(115-125)M3	(165-175)M2	(210-220)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	02/06/2003	0U	0.6J	0U

MW-211		(150-160)M3	(175-185)M2	(200-210)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	02/28/2003	0U	3.5	0U

MW-221		(156-166)M3	(178-188)M2	(216-226)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	02/10/2003	0U	0U	0U

MW-210		(121-131)M3	(156-166)M2	(201-211)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	02/28/2003	0U*	12*	
PERCHLORATE	03/21/2003			0U

MW-165		(94.5-104.5)M3	(124.5-134.5)M2	(184.5-194.5)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/27/2003		110*	4*
PERCHLORATE	03/28/2003	0U*		

MW-172		(109-119)M3	(169-179)M2	(199-209)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/28/2003	0U*	6.8*	0U*

MW-214		(140-150)M3	(165-175)M2	(198-208)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	02/04/2003	0U		
PERCHLORATE	02/05/2003		0.72J	0U

MW-79		(89-99)S	(116-126)M2	(156-166)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	08/16/2001	0U	0U	0U
PERCHLORATE	04/25/2002		0U	0U

MW-74		(100-110)M3	(125-135)M2	(170-180)M1	(170-180)M1 Dup
ANALYTE	Date Sampled	UG/L	UG/L	UG/L	UG/L
PERCHLORATE	03/24/2003	0U*		0U*	0.49J*
PERCHLORATE	03/25/2003		0U*		

MW-75		(81-91)S	(115-125)M2	(140-150)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	08/20/2002	0U		
PERCHLORATE	03/25/2003			0U*
PERCHLORATE	03/26/2003		6.8*	

MW-77		(83-93)S	(120-130)M2	(180-190)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	08/07/2002	0U		
PERCHLORATE	03/26/2003		5.4*	0U*

MW-31		(98-103)S	(113-123)M	(133-138)D
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/27/2003		1.8*	0U*
PERCHLORATE	03/28/2003	10*		

MW-19		(38-48)S	(293-298)D
ANALYTE	Date Sampled	UG/L	UG/L
PERCHLORATE	04/23/2002		0U
PERCHLORATE	08/07/2002	4.1J	

MW-73		(38.5-48.5)S
ANALYTE	Date Sampled	UG/L
PERCHLORATE	08/20/2002	1.9

MW-78		(85-95)M3	(115-125)M2	(135-145)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/26/2003	0U*		4.9*
PERCHLORATE	03/27/2003		4.7*	

MW-76		(85-95)S	(105-115)M2	(125-135)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	11/18/2002	26J		
PERCHLORATE	03/25/2003			200*
PERCHLORATE	03/26/2003		500*	

MW-162		(85.5-95.5)M3	(125.5-135.5)M2	(190.5-200.5)M1 Dup	(190.5-200.5)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L	UG/L
PERCHLORATE	03/26/2003				0U*
PERCHLORATE	03/27/2003	0U*	3.5*	3.4*	

MW-114		(120-130)M2	(177-187)M1
ANALYTE	Date Sampled	UG/L	UG/L
PERCHLORATE	11/13/2002	71	11

MW-129		(96-106)M3	(116-126)M2	(136-146)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/21/2003			5.9*
PERCHLORATE	03/24/2003	0U*	14*	

MW-139		(119-129)M3	(154-164)M2	(194-204)M1
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
PERCHLORATE	03/28/2003	0U*	0U*	0.65J*

Impact Area Groundwater Study Program

LEGEND

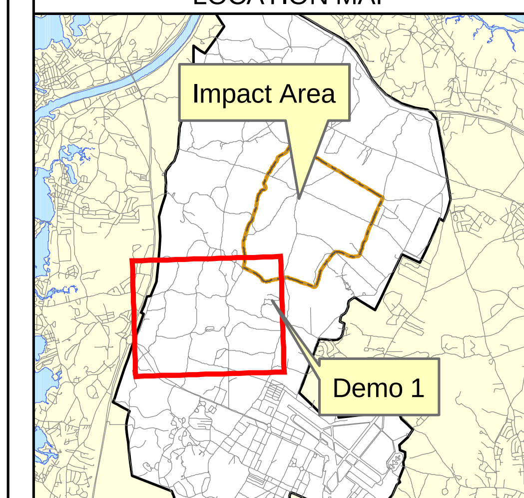
- Existing Monitoring Well
- Piezometer
- Staff Gauge

Perchlorate as of 05/30/03

- Greater than Non-Detect
- Greater than 1 ppb
- Greater than 4 ppb
- Greater than 18 ppb
- Greater than 100 ppb
- Impact Area Boundary
- MMR Boundary
- Roads
- Cross Section

Note: Plume shell illustrated is representative of widest observed at each transect cross-section Groundwater data through May, 2003.

LOCATION MAP



NOTES & SOURCES

Basemap data from US Geological Survey 7 1/2 minute Topographic Maps. Source: MassGIS
Aerial photos: 1:5000 black & white digital orthophotos
Resolution: 0.5 meter; Date Flown: 1997; Source: MassGIS

TITLE

Perchlorate Distribution in Groundwater

Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000 Feet

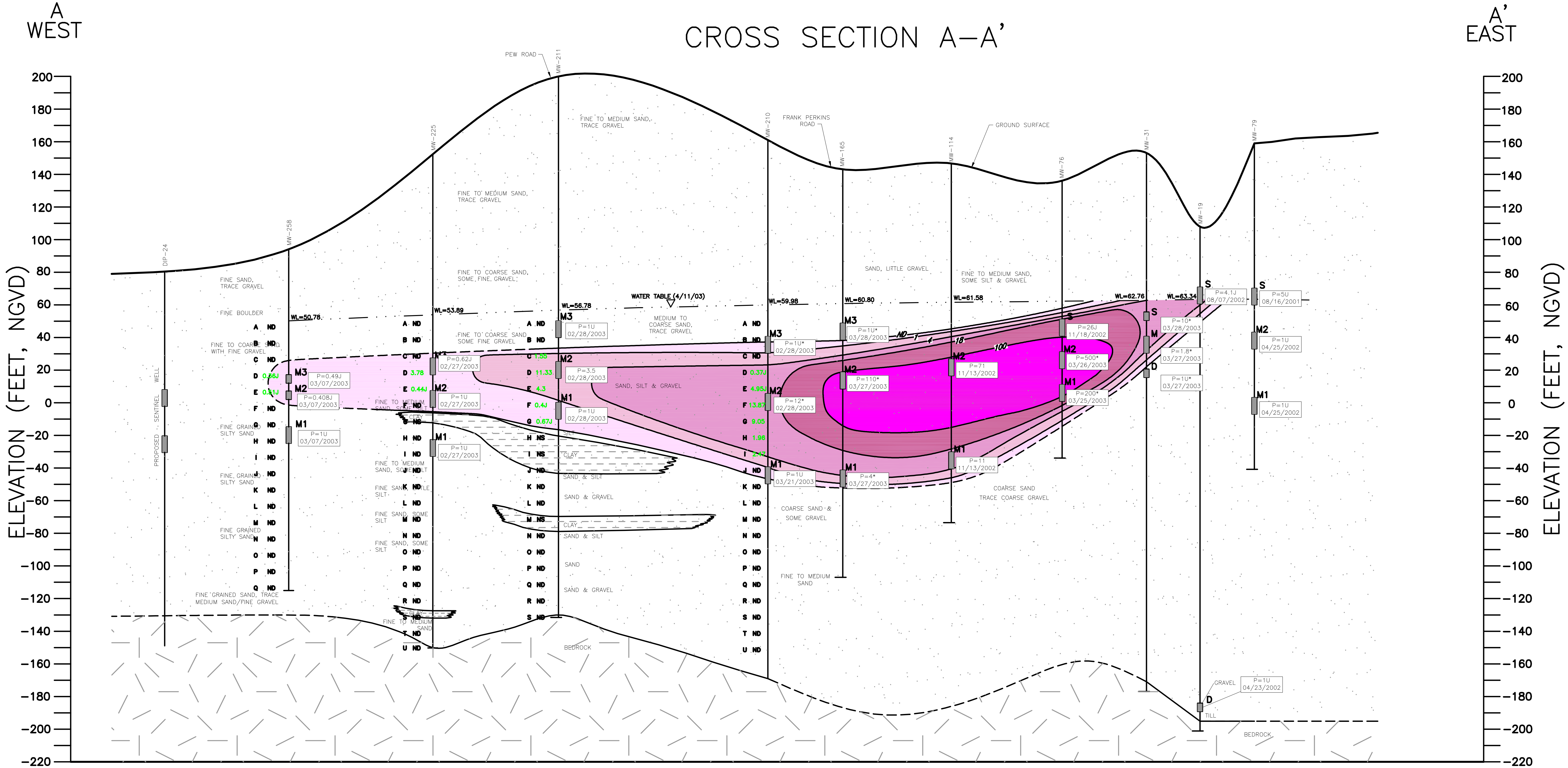
N

AMEC Earth & Environmental, Inc.
Westford, Massachusetts

J:/mmr/ReportFigs2005/D9501/D9501_Fig2-12.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-12.mxd
April 15, 2005 ALS JEP JBB

FIGURE

2-12



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2-12.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. SCREENING CONCENTRATIONS WERE COLLECTED DURING DRILLING. ND = NON-DETECT, (<0.43 ug/L), 1U = NON-DETECT, (<0.43 ug/L), NS = NOT SAMPLED, 1.55 = PERCHLORATE DETECTED IN ug/L.

LEGEND

PERCHLORATE CONCENTRATIONS

- ND – 1.0 ug/L
- 1.0 ug/L – 4 ug/L
- 4 ug/L – 18 ug/L
- 18 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS

- FINE TO COARSE SAND
- CLAY
- BEDROCK

A ND
B ND
C 1.55
M1
SCREEN DESIGNATION
PERCHLORATE SCREENING CONCENTRATION
P = 1.5
6/6/02
GROUNDWATER CONCENTRATION AT WELL
WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=1000'
0' 500' 1000'

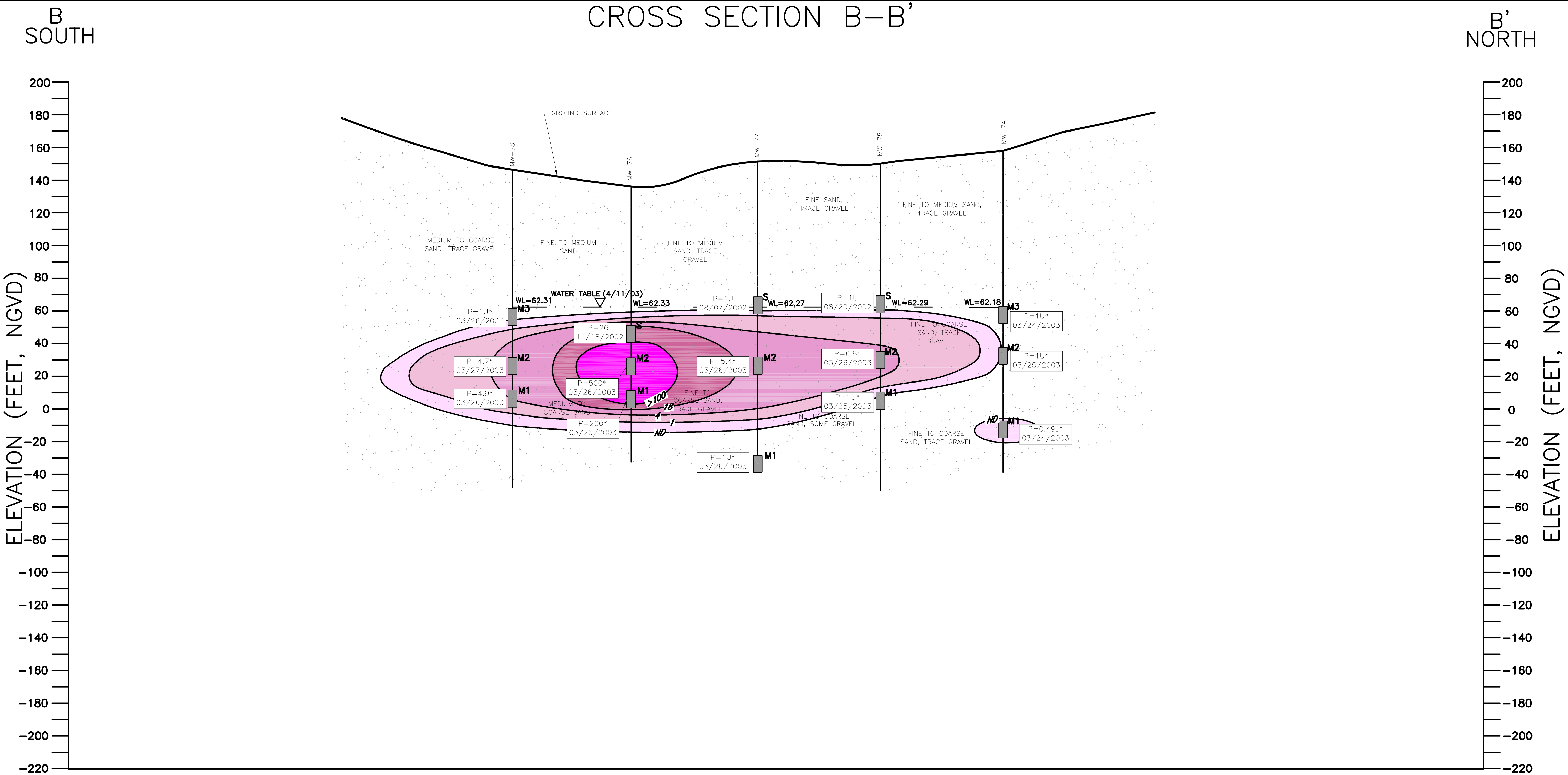
0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2-13

CROSS SECTION A–A'
PERCHLORATE DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2-7622-5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\PERC_AA.dwg BY: peter.consius

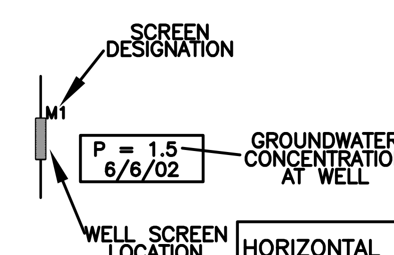


NOTES:
1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–12.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. SCREENING CONCENTRATIONS WERE COLLECTED DURING DRILLING. ND = NON–DETECT, (<0.43 ug/L), 1U = NON–DETECT, (<0.43 ug/L), NS = NOT SAMPLED, 1.55 = PERCHLORATE DETECTED IN ug/L.

LEGEND

PERCHLORATE CONCENTRATIONS
- ND – 1.0 ug/L
- 1.0 ug/L – 4 ug/L
- 4 ug/L – 18 ug/L
- 18 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS
- FINE TO COARSE SAND
- CLAY
- BEDROCK



HORIZONTAL SCALE: 1"=120'
0' 60' 120'

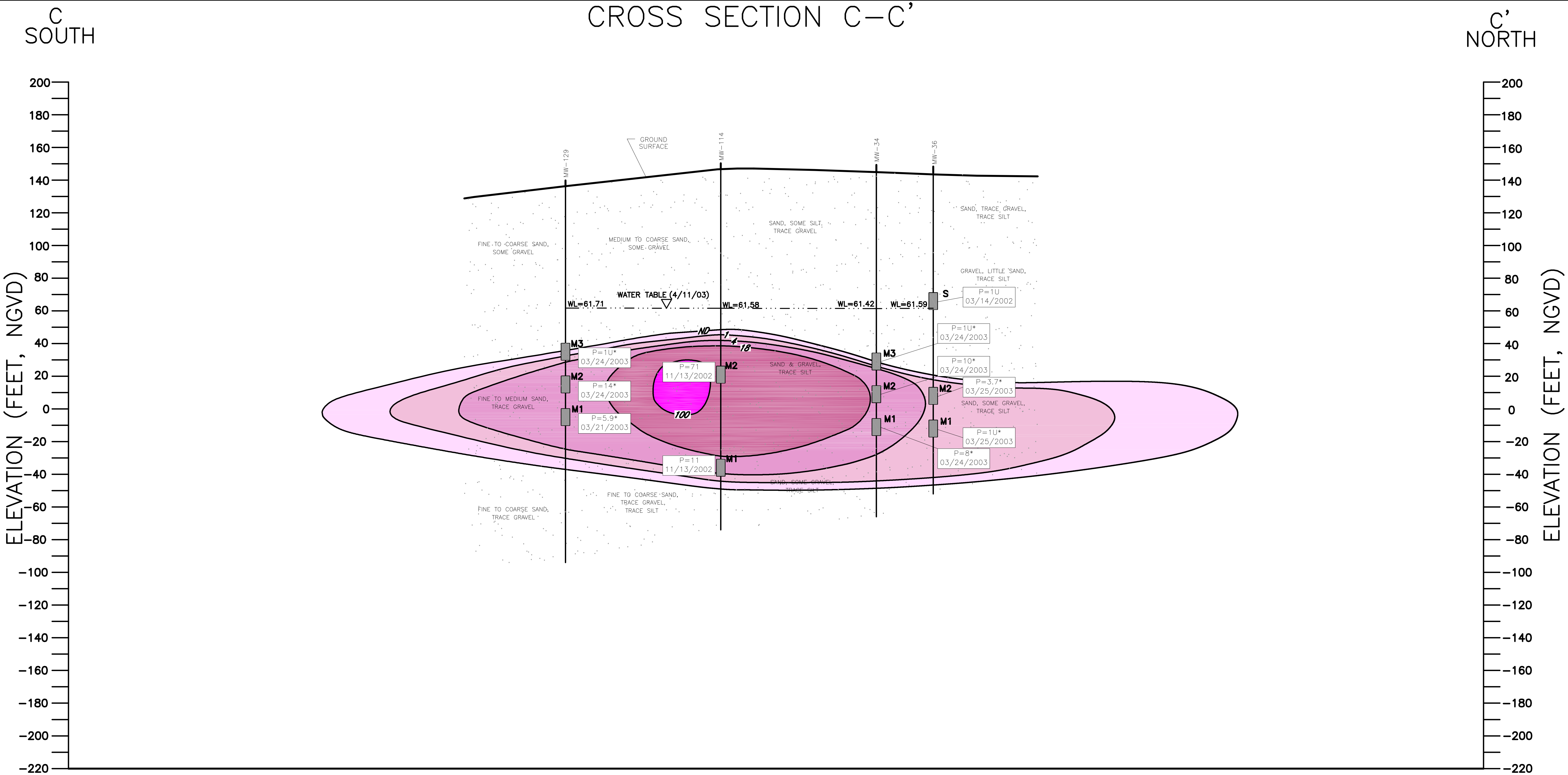
0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–14

CROSS SECTION B–B'
PERCHLORATE DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2-7622-5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\PERC_BB.dwg BY: peter.consius

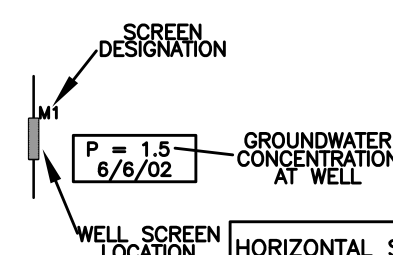


NOTES:
1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–12.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. SCREENING CONCENTRATIONS WERE COLLECTED DURING DRILLING. ND = NON–DETECT, (<0.43 ug/L), 1U = NON–DETECT, (<0.43 ug/L), NS = NOT SAMPLED, 1.55 = PERCHLORATE DETECTED IN ug/L.

LEGEND

PERCHLORATE CONCENTRATIONS
- ND – 1.0 ug/L
- 1.0 ug/L – 4 ug/L
- 4 ug/L – 18 ug/L
- 18 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS
- FINE TO COARSE SAND
- CLAY
- BEDROCK



HORIZONTAL SCALE: 1"=120'
0' 60' 120'

0' 30' 60'
VERTICAL SCALE: 1"=60'

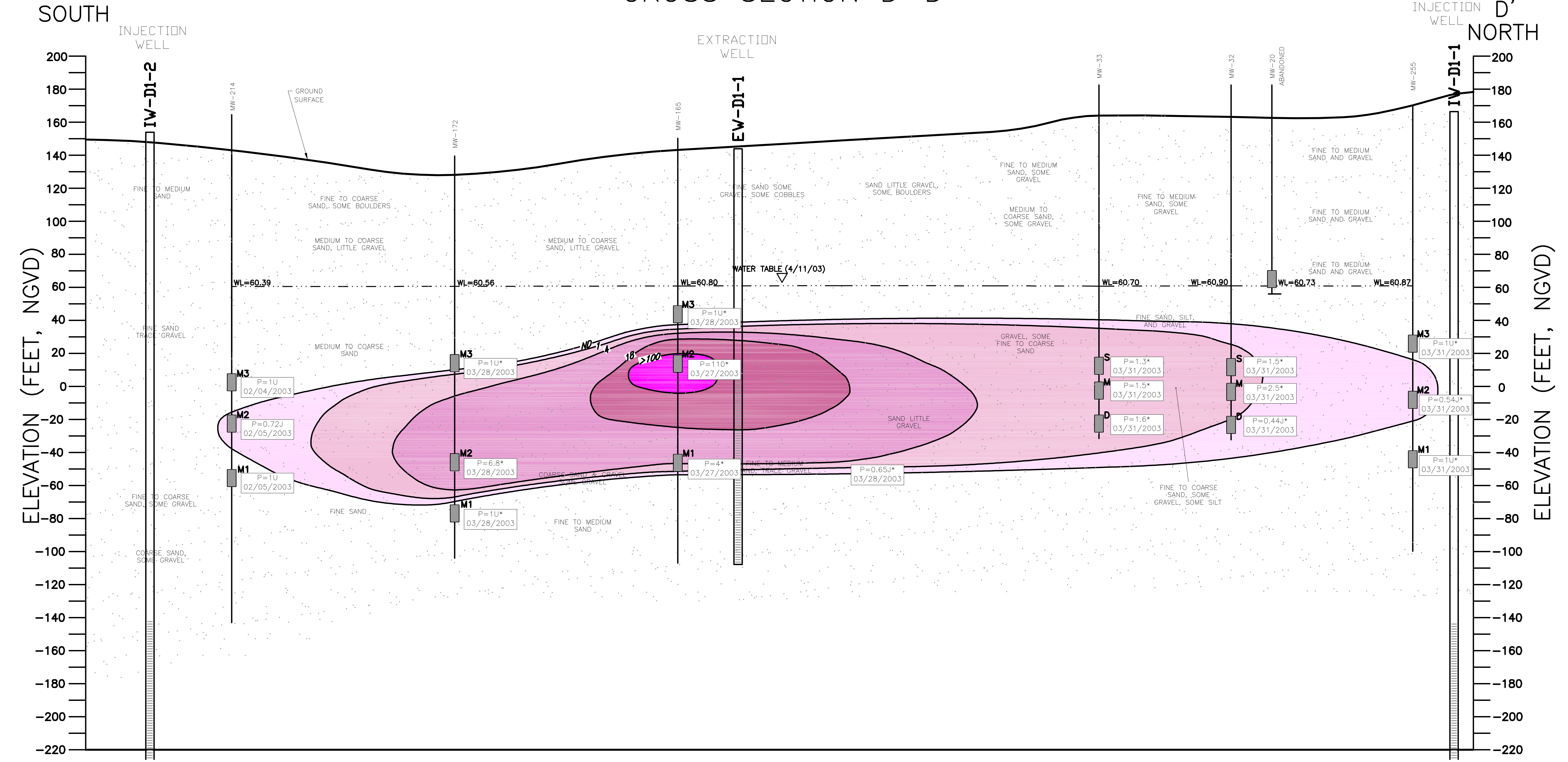
FIGURE 2–15

CROSS SECTION C–C'
PERCHLORATE DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2–7622–5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR–9501\CAD\PERC_CC.dwg BY: peter.conisius

CROSS SECTION D–D'



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–12.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. SCREENING CONCENTRATIONS WERE COLLECTED DURING DRILLING. ND = NON–DETECT, (<0.43 ug/L), 1U = NON–DETECT, (<0.43 ug/L), NS = NOT SAMPLED, 1.55 = PERCHLORATE DETECTED IN ug/L.

LEGEND

PERCHLORATE CONCENTRATIONS

- ND – 1.0 ug/L
- 1.0 ug/L – 4 ug/L
- 4 ug/L – 18 ug/L
- 18 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS

- FINE TO COARSE SAND
- CLAY
- BEDROCK

SCREEN DESIGNATION

M1

P = 1.5
6/6/02

GROUNDWATER CONCENTRATION AT WELL

WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=120'
0' 60' 120'

0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–16

CROSS SECTION D–D'
PERCHLORATE DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS

AMEC Project No: 2–7622–5018

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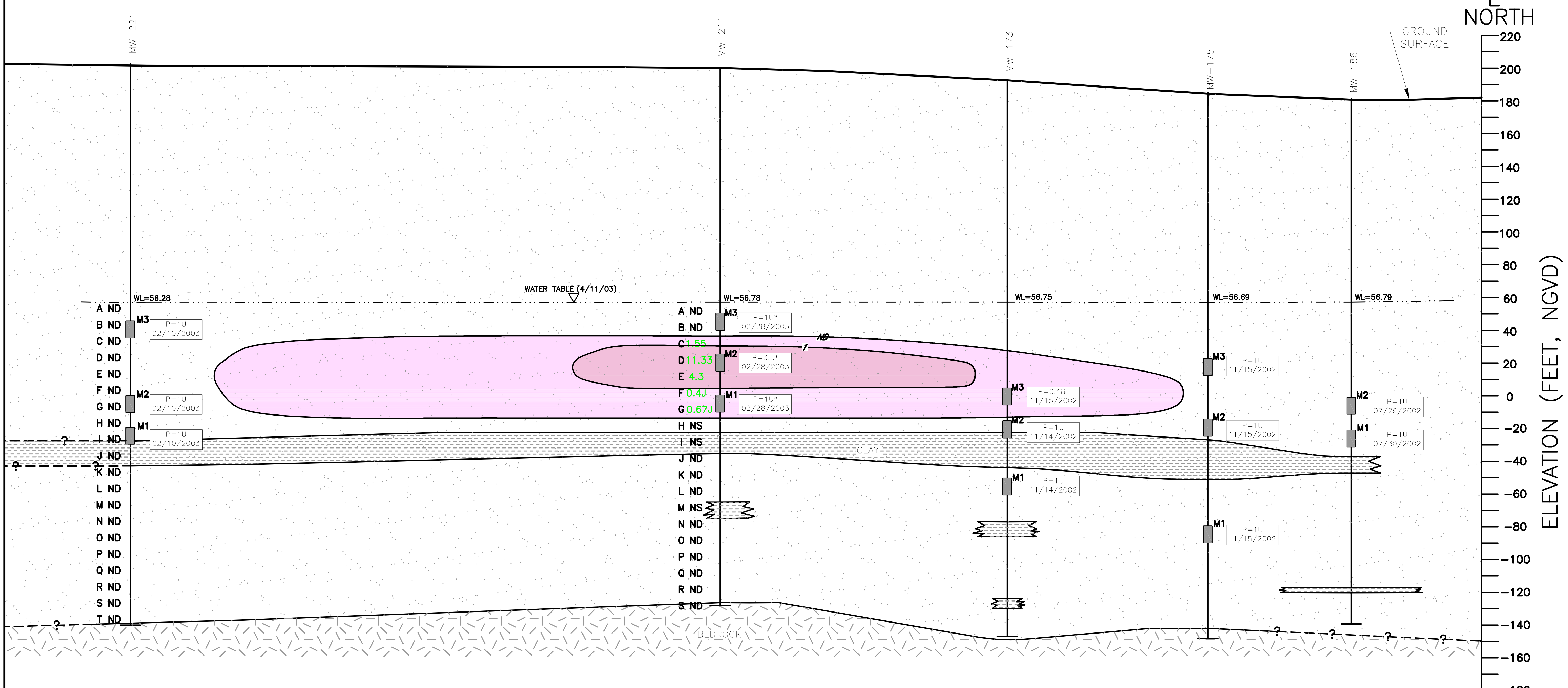
RWB	5/13/2005	
CHECKED BY:		
JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\PERC_DD.DWG BY: peter.conisius

CROSS SECTION E–E'



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–12.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. SCREENING CONCENTRATIONS WERE COLLECTED DURING DRILLING. ND = NON–DETECT, (<0.43 ug/L), 1U = NON–DETECT, (<0.43 ug/L), NS = NOT SAMPLED, 1.55 = PERCHLORATE DETECTED IN ug/L.

LEGEND

PERCHLORATE CONCENTRATIONS

- ND – 1.0 ug/L
- 1.0 ug/L – 4 ug/L
- 4 ug/L – 18 ug/L
- 18 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS

- FINE TO COARSE SAND
- CLAY
- BEDROCK

A ND
B ND
C 1.55
M1
P = 1.5
6/6/02

SCREEN DESIGNATION
GROUNDWATER CONCENTRATION AT WELL
PERCHLORATE SCREENING CONCENTRATION
WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=120'
0' 60' 120'

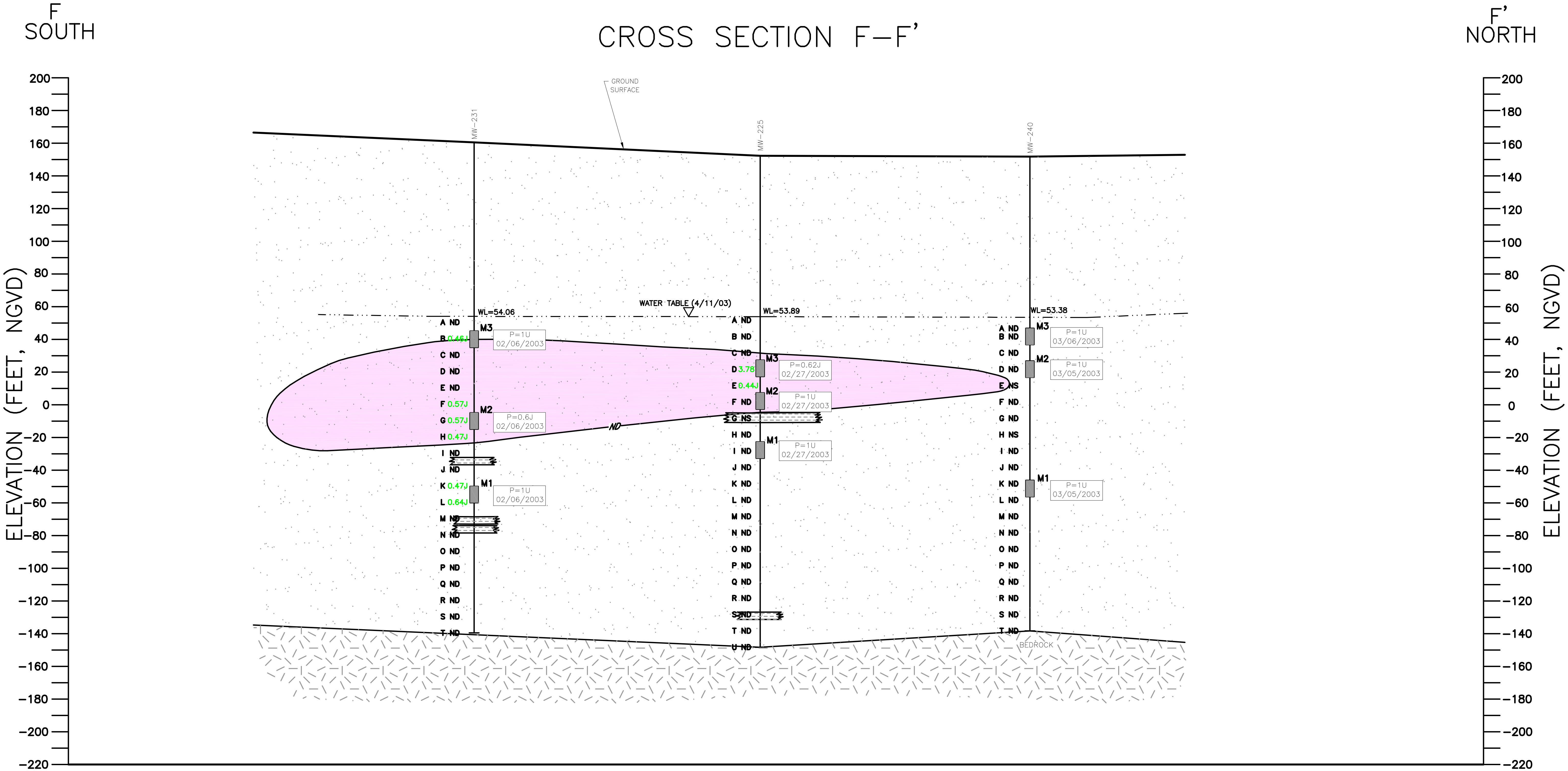
0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–17

CROSS SECTION E–E'
PERCHLORATE DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2-7622-5018	
	DRAWN BY: RWB	DATE: 5/13/2005
	CHECKED BY: JJM	DRAWING NO.

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\PERC_EE.dwg BY: peter.conisius



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–12.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. SCREENING CONCENTRATIONS WERE COLLECTED DURING DRILLING. ND = NON–DETECT, (<0.43 ug/L), 1U = NON–DETECT, (<0.43 ug/L), NS = NOT SAMPLED, 1.55 = PERCHLORATE DETECTED IN ug/L.

LEGEND

PERCHLORATE CONCENTRATIONS

- ND – 1.0 ug/L
- 1.0 ug/L – 4 ug/L
- 4 ug/L – 18 ug/L
- 18 ug/L – 100 ug/L
- > 100 ug/L

GEOLOGIC UNITS

- FINE TO COARSE SAND
- CLAY
- BEDROCK

A ND
B ND
C 1.55
M1
SCREEN DESIGNATION
P = 1.5 6/6/02
GROUNDWATER CONCENTRATION AT WELL
PERCHLORATE SCREENING CONCENTRATION
WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=120'
0' 60' 120'

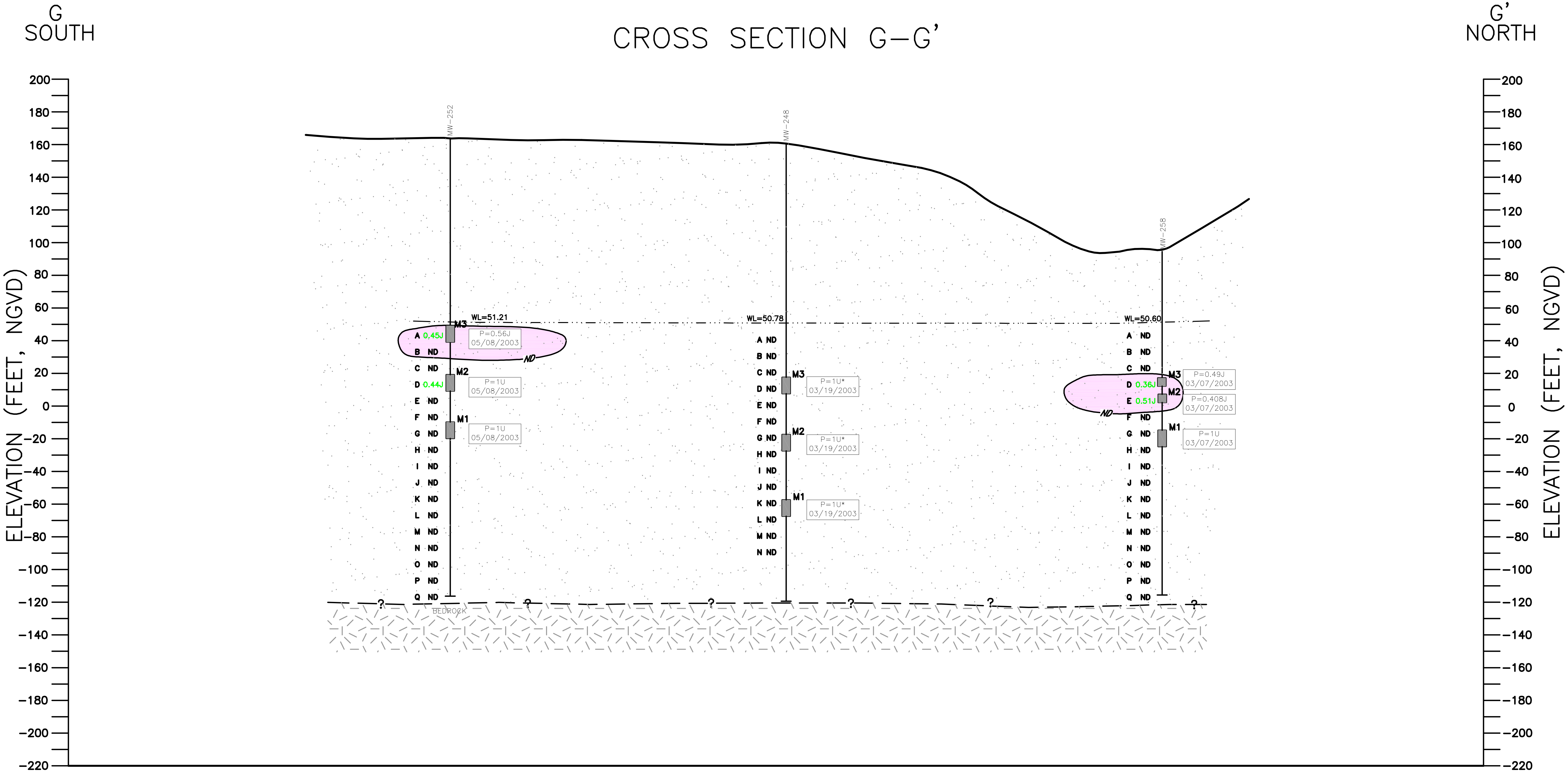
0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–18

CROSS SECTION F–F'
PERCHLORATE DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2-7622-5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\PERC_FF.DWG BY: peter.consius



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–12.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. SCREENING CONCENTRATIONS WERE COLLECTED DURING DRILLING. ND = NON–DETECT, (<0.43 ug/L), 1U = NON–DETECT, (<0.43 ug/L), NS = NOT SAMPLED, 1.55 = PERCHLORATE DETECTED IN ug/L.

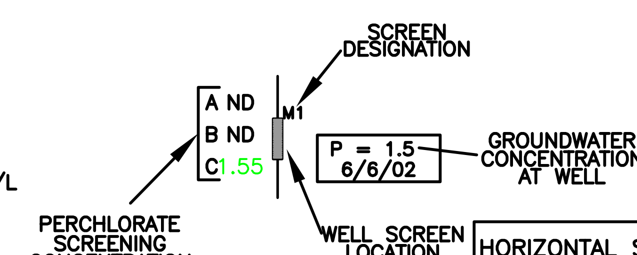
LEGEND

PERCHLORATE CONCENTRATIONS

- ND – 1.0 ug/L
- 1.0 ug/L – 4 ug/L
- 4 ug/L – 18 ug/L
- 18 ug/L – 100 ug/L
- \> 100 ug/L

GEOLOGIC UNITS

- FINE TO COARSE SAND
- CLAY
- BEDROCK



HORIZONTAL SCALE: 1"=120'
0' 60' 120'

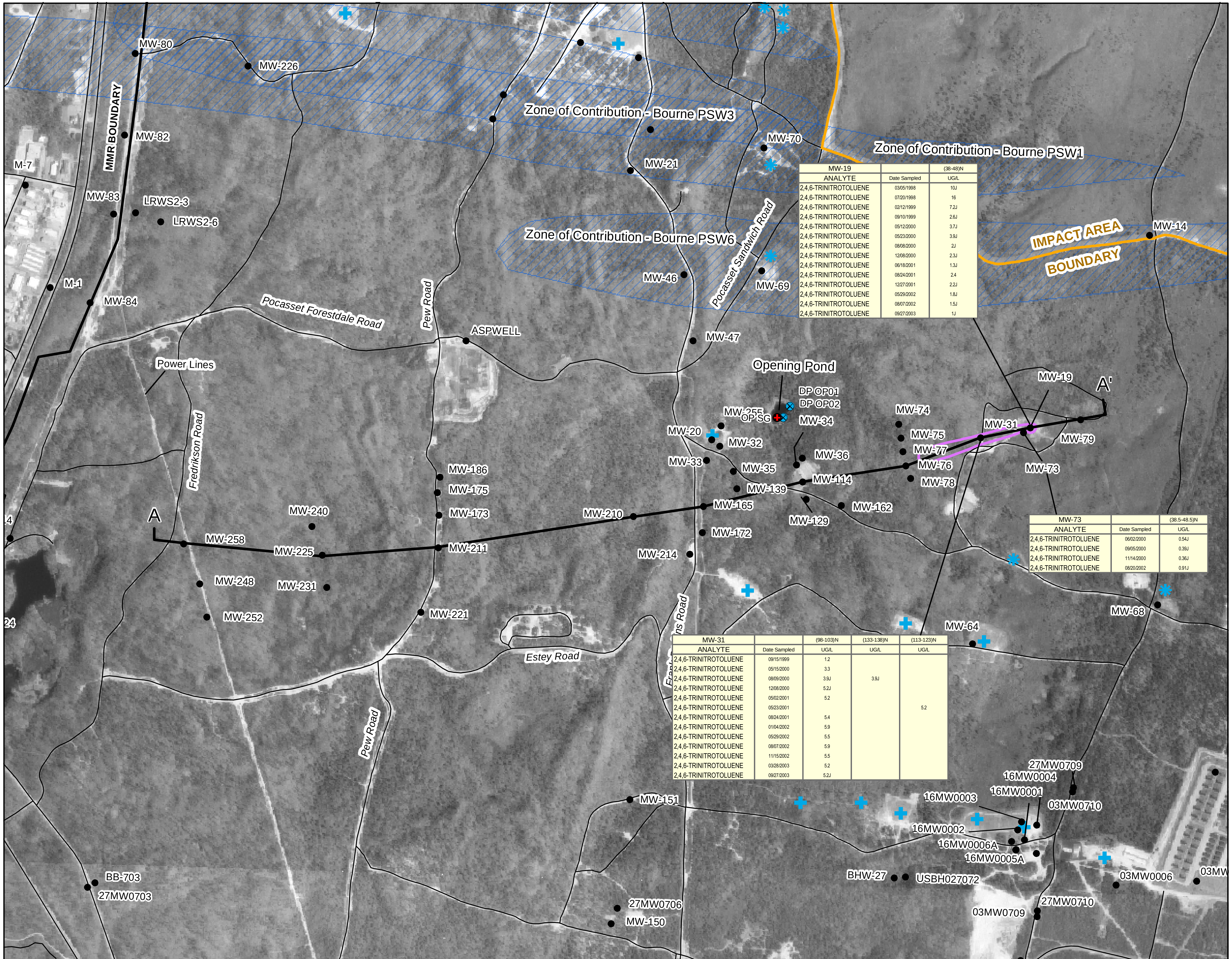
0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–19

CROSS SECTION G–G'
PERCHLORATE DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2–7622–5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\PERC_GG.DWG BY: peter.conisius



MW-19		(38-48)N
ANALYTE	Date Sampled	UG/L
2,4,6-TRINITROTOLUENE	03/05/1998	10J
2,4,6-TRINITROTOLUENE	07/20/1998	16
2,4,6-TRINITROTOLUENE	02/12/1999	7.2J
2,4,6-TRINITROTOLUENE	09/10/1999	2.6J
2,4,6-TRINITROTOLUENE	05/12/2000	3.7J
2,4,6-TRINITROTOLUENE	05/23/2000	3.9J
2,4,6-TRINITROTOLUENE	08/08/2000	2J
2,4,6-TRINITROTOLUENE	12/08/2000	2.3J
2,4,6-TRINITROTOLUENE	06/18/2001	1.3J
2,4,6-TRINITROTOLUENE	08/24/2001	2.4
2,4,6-TRINITROTOLUENE	12/27/2001	2.2J
2,4,6-TRINITROTOLUENE	05/29/2002	1.8J
2,4,6-TRINITROTOLUENE	08/07/2002	1.5J
2,4,6-TRINITROTOLUENE	09/27/2003	1J

MW-73		(38.5-48.5)N
ANALYTE	Date Sampled	UG/L
2,4,6-TRINITROTOLUENE	06/02/2000	0.54J
2,4,6-TRINITROTOLUENE	09/05/2000	0.39J
2,4,6-TRINITROTOLUENE	11/14/2000	0.36J
2,4,6-TRINITROTOLUENE	08/20/2002	0.91J

MW-31		(98-103)N	(133-138)N	(113-123)N
ANALYTE	Date Sampled	UG/L	UG/L	UG/L
2,4,6-TRINITROTOLUENE	09/15/1999	1.2		
2,4,6-TRINITROTOLUENE	05/15/2000	3.3		
2,4,6-TRINITROTOLUENE	08/09/2000	3.9J	3.9J	
2,4,6-TRINITROTOLUENE	12/08/2000	5.2J		
2,4,6-TRINITROTOLUENE	05/02/2001	5.2		
2,4,6-TRINITROTOLUENE	05/23/2001			5.2
2,4,6-TRINITROTOLUENE	08/24/2001	5.4		
2,4,6-TRINITROTOLUENE	01/04/2002	5.9		
2,4,6-TRINITROTOLUENE	05/29/2002	5.5		
2,4,6-TRINITROTOLUENE	08/07/2002	5.9		
2,4,6-TRINITROTOLUENE	11/15/2002	5.5		
2,4,6-TRINITROTOLUENE	03/28/2003	5.2		
2,4,6-TRINITROTOLUENE	09/27/2003	5.2J		

Impact Area Groundwater Study Program

LEGEND

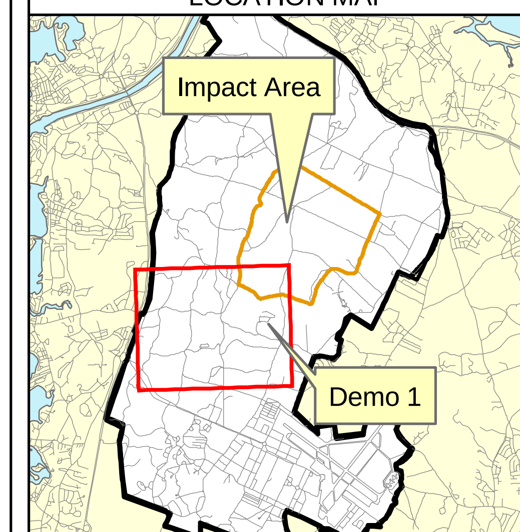
- Existing Monitoring Well
- Old Gun Position
- Current Gun Position
- Current Mortar Position
- Piezometer
- Staff Gauge

Legend

- Zones of Contribution
- Impact Area Boundary
- MMR Boundary
- Roads
- A A' Cross Section
- TNT Non-Detect Contour (Data as of 05/03)

Note: Plume shell illustrated is representative of widest observed at each transect cross-section. ZOCs modeled under steady state conditions.

LOCATION MAP



NOTES & SOURCES

Basemap data from US Geological Survey 7 1/2 minute Topographic Maps. Source: MassGIS
Aerial photos: 1:5000 black & white digital orthophotos
Resolution: 0.5 meter; Date Flown: 1994; Source: MassGIS

TITLE

TNT Distribution in Groundwater

Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000 Feet

N

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J:/mmr/ReportFigs2005/D9501/D9501_Fig2-20.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig2-20.mxd
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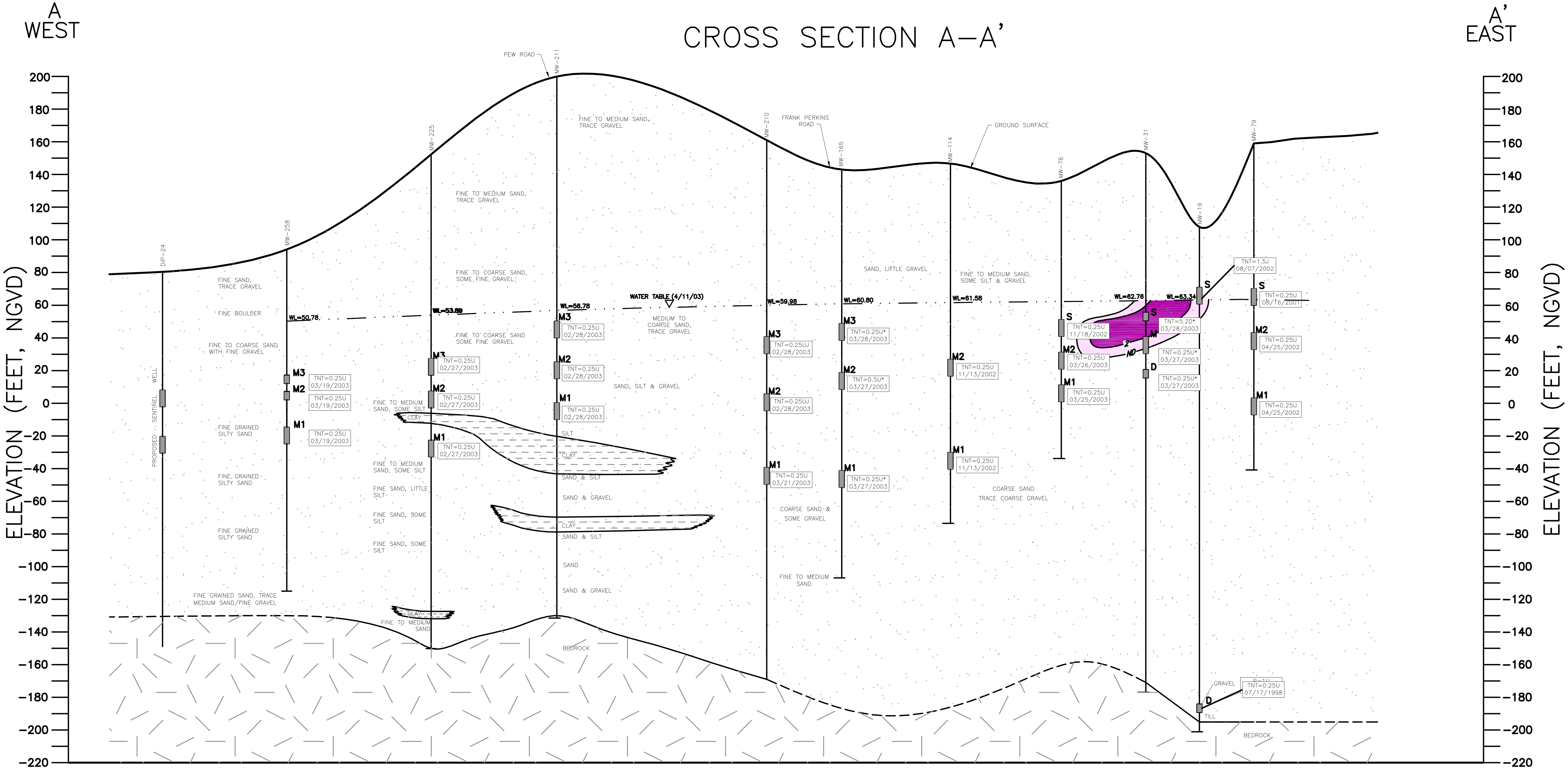
FIGURE 2-20

CROSS SECTION A–A'



NOTES:

1. FOR ORIENTATION OF CROSS SECTION, SEE FIGURE 2–20.
2. GEOLOGIC CONDITION BETWEEN EXPLORATIONS ARE AN INTERPRETATION OF AVAILABLE DATA. ACTUAL CONDITIONS MAY VARY.
3. NGVD = NATIONAL GEODETIC VERTICAL DATUM
4. SAMPLE COLLECTION DATES FOR EACH MONITORING WELL IDENTIFIED ADJACENT TO OR BENEATH RESULTS FOR EACH WELL.
5. CONCENTRATIONS IN ug/L.
6. * = UNVALIDATED DATA, D=DILUTION, J = ESTIMATED CONCENTRATION.
7. RESULTS AND PLUME SHELLS BASED ON MAXIMUM HISTORICAL DETECTION THROUGH MAY 2003. ADDITIONAL DATA CONTINUES TO BE COLLECTED AND EVALUATED.

LEGEND

TNT CONCENTRATIONS

- ND – 2.0 ug/l
- 2.0 ug/l – 10 ug/l
- 10 ug/l – 100 ug/l
- > 100 ug/l

GEOLOGIC UNITS

- FINE TO COARSE SAND
- CLAY
- BEDROCK

SCREEN DESIGNATION
M1
P = 1.5
6/6/02
GROUNDWATER CONCENTRATION AT WELL
WELL SCREEN LOCATION

HORIZONTAL SCALE: 1"=1000'
0' 500' 1000'

0' 30' 60'
VERTICAL SCALE: 1"=60'

FIGURE 2–21

CROSS SECTION A–A'
TNT DISTRIBUTION IN GROUNDWATER
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

REVISIONS	AMEC Project No: 2-7622-5018		
	DRAWN BY: RWB	DATE: 5/13/2005	DRAWING NO.
	CHECKED BY: JJM		

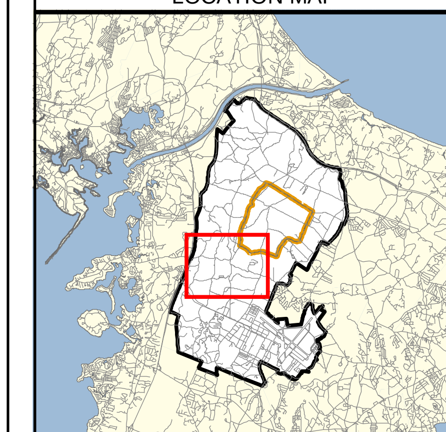
FILE: J:\Demo 1\GW\FS\Final FS MMR-9501\CAD\TNT_AA.dwg BY: peter.conisius

Impact Area
Groundwater Study Program

LEGEND

- Existing Extraction Wells
- Existing Injection Wells
- Proposed Monitoring Wells
- Existing Monitoring Wells
- Extent of Perchlorate Plume
- Extent of RDX Plume
- Existing Piping Locations
- (100) Extraction Rate (gallons per minute)
- (100) Injection Rate (gallons per minute)

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Basemap data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Alternative 2: Baseline Conceptual Layout
Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000
Feet

N

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J:/mmr/ReportFigs2005/D9501/D9501_Fig6-1.pdf
G:/MMR_COE/Work2005/D9501/D9501_Fig6-1.mxd
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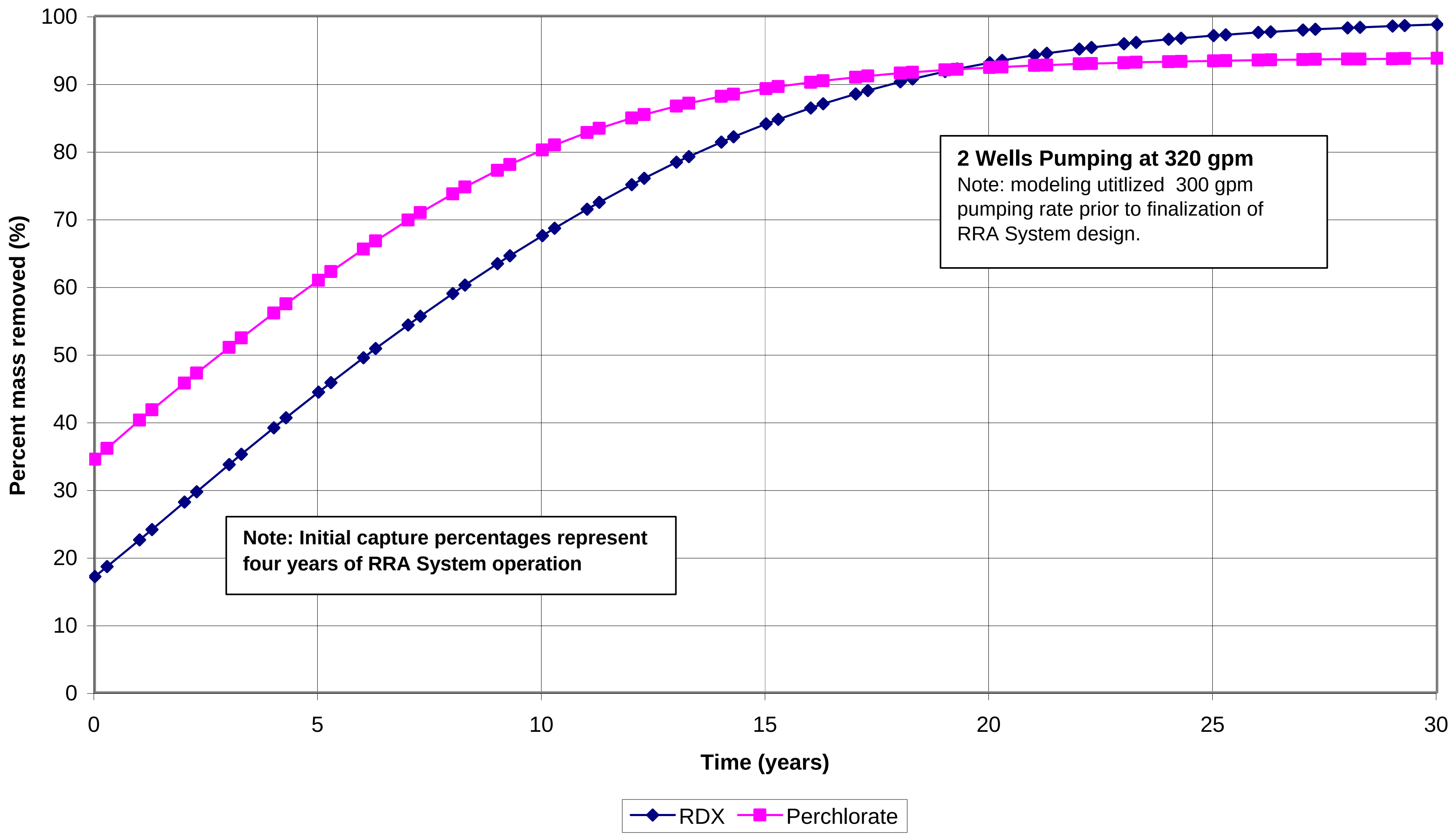
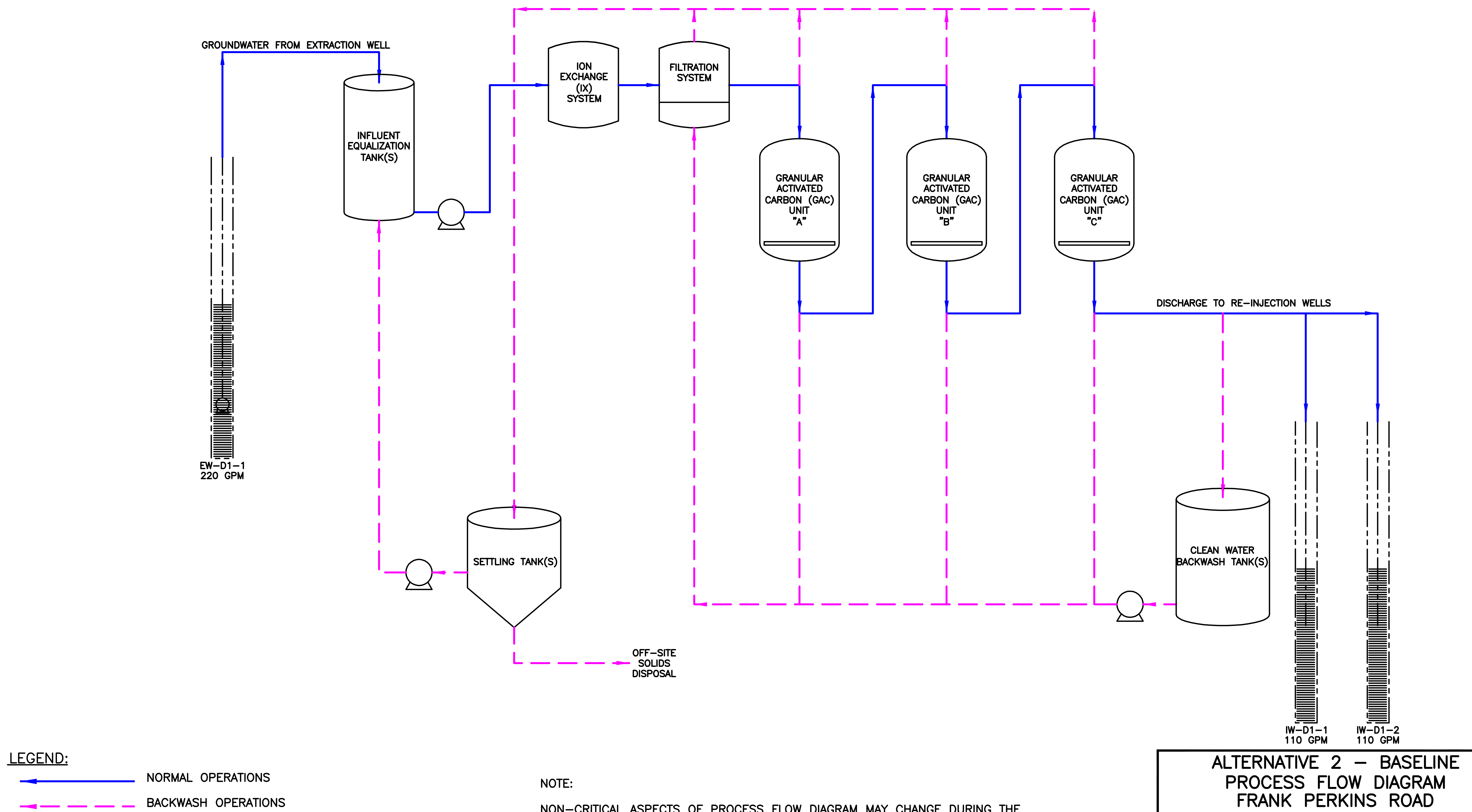
FIGURE
6-1

Figure 6-2
Alternative 2 - Baseline
Estimated Mass Removal vs. Time
Feasibility Study
Demo 1 Groundwater Operable Unit





NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

ALTERNATIVE 2 – BASELINE PROCESS FLOW DIAGRAM FRANK PERKINS ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER FIG6-2.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-3
DATE DRAWN 5/2/2005	

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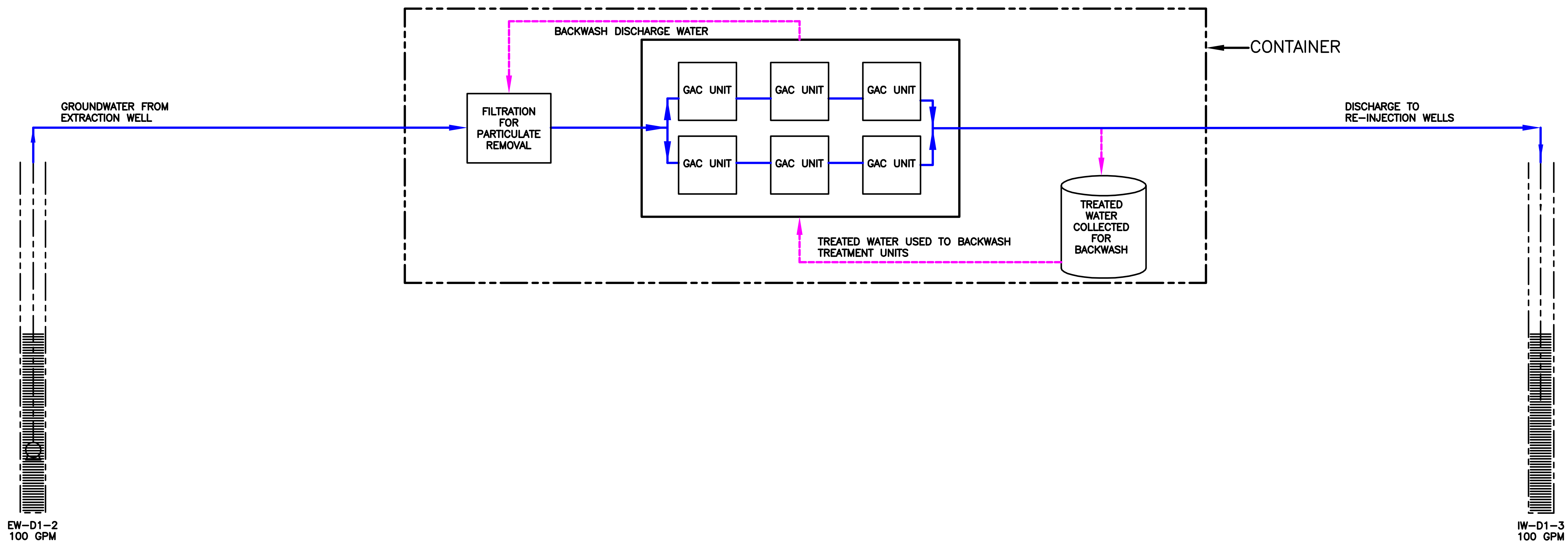

LEGEND:

NORMAL OPERATIONS

BACKWASH OPERATIONS

NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

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ALTERNATIVE 2 – BASELINE
PROCESS FLOW DIAGRAM
PEW ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER FIG6-3.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-4
DATE DRAWN 5/2/2005	

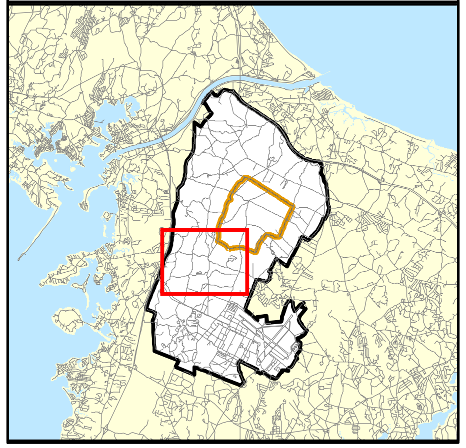
FILE: J:\Demo 1\GW\FS\Client Draft Final FS MMR-9501\CAD\fig6-3.dwg BY: ron.bowman

Impact Area
Groundwater Study Program

LEGEND

- Proposed Extraction Wells
- Existing Extraction Wells
- Proposed Injection Well
- Existing Injection Wells
- Proposed Monitoring Wells
- Existing Monitoring Wells
- Extent of Perchlorate Plume
- Extent of RDX Plume
- Existing Piping Locations
- Proposed Piping Locations
- (100) Extraction Rate (gallons per minute)
- (100) Injection Rate (gallons per minute)

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Basemap data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Alternative 3 - Background Conceptual Layout
Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000
Feet

N

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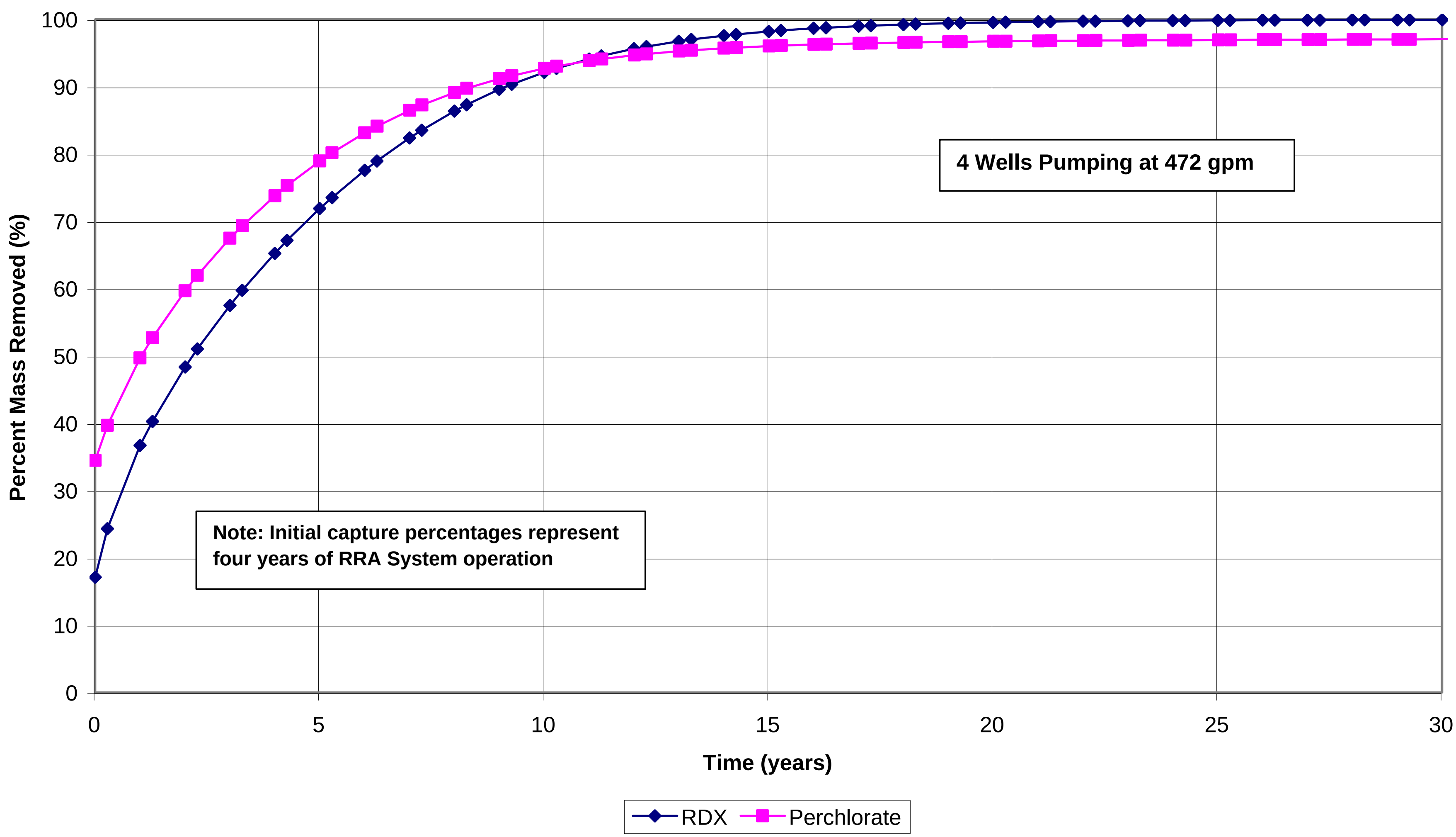
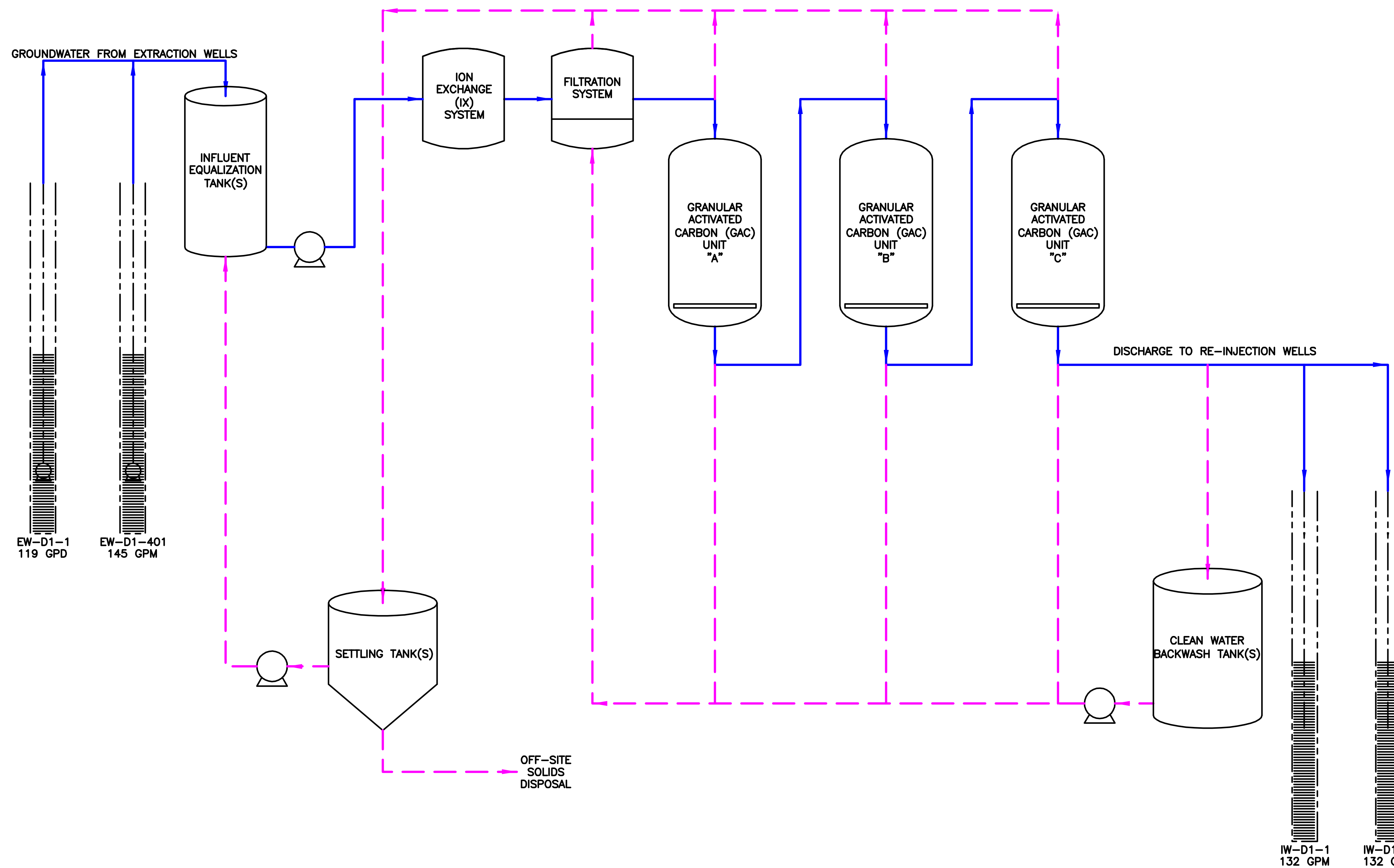
April 15, 2005 DWN: JBB CHKD:

FIGURE
6-5

Figure 6-6
Alternative 3 - Background
Estimated Mass Removal vs. Time
Feasibility Study
Demo 1 Groundwater Operable Unit





LEGEND:

NORMAL OPERATIONS

BACKWASH OPERATIONS

NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

ALTERNATIVE 3 – BACKGROUND
PROCESS FLOW DIAGRAM
FRANK PERKINS ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER BACK-A-FP.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-7
DATE DRAWN 5/2/2005	

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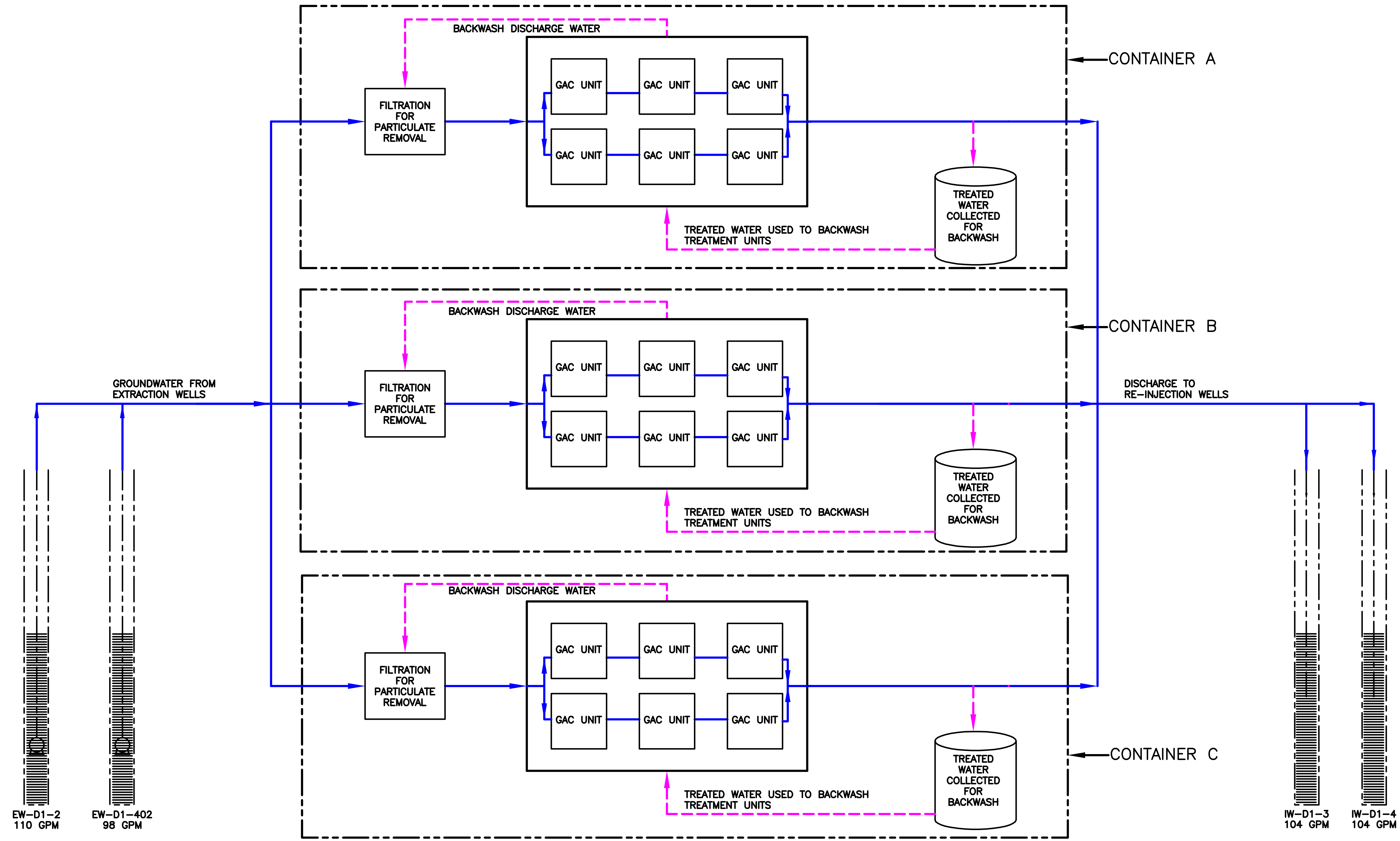

LEGEND:

NORMAL OPERATIONS

BACKWASH OPERATIONS

NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

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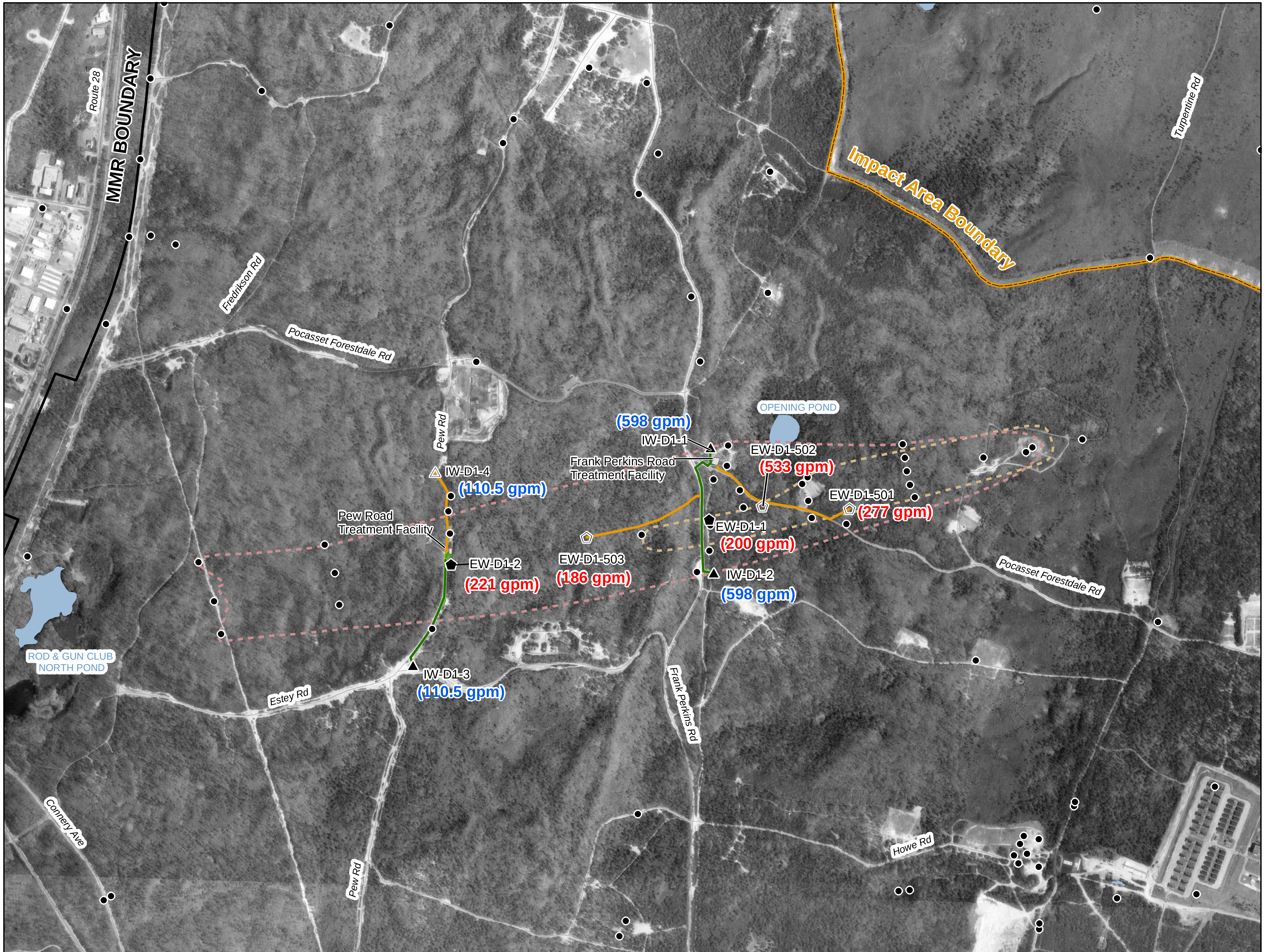
ALTERNATIVE 3 – BACKGROUND PROCESS FLOW DIAGRAM PEW ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER BACK-A-PR.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-8
DATE DRAWN 5/2/2005	

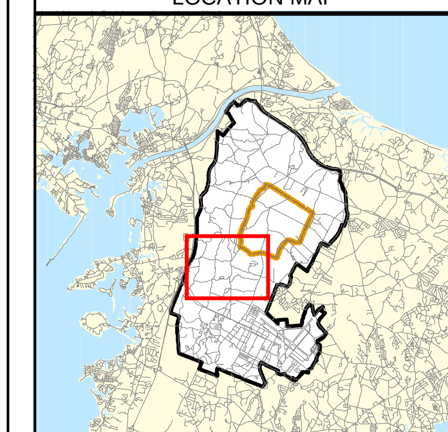


Impact Area
Groundwater Study Program

LEGEND

- Proposed Extraction Wells
- Existing Extraction Wells
- Proposed Injection Well
- Existing Injection Wells
- Proposed Monitoring Wells
- Existing Monitoring Wells
- Extent of Perchlorate Plume
- Extent of RDX Plume
- Existing Piping Locations
- Proposed Piping Locations
- (100) Extraction Rate (gallons per minute)
- (100) Injection Rate (gallons per minute)

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Basemap data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Alternative 4 - 10 Year Conceptual Layout

Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000
Feet

N

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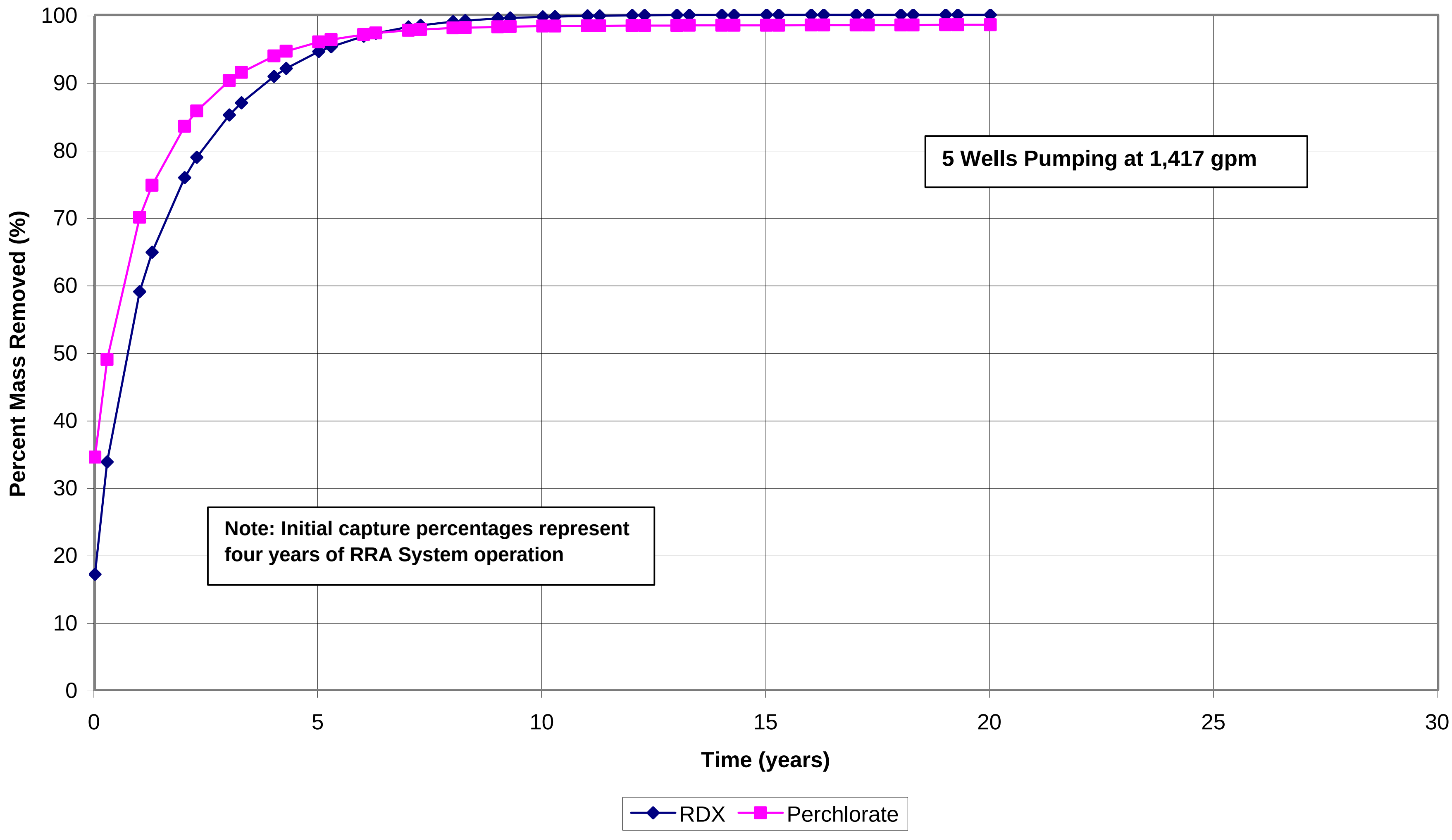
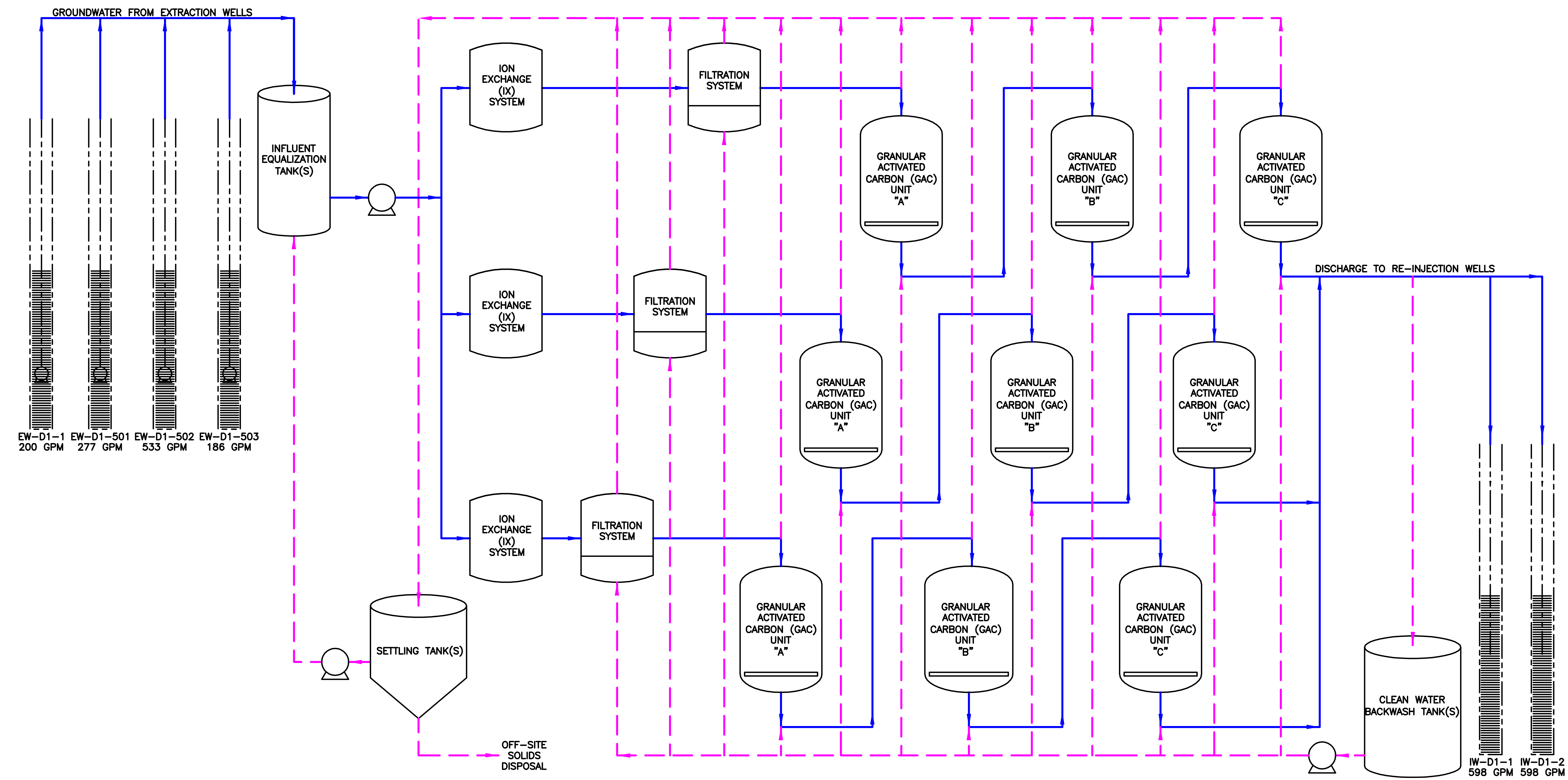
FIGURE
6-9

Figure 6-10
Alternative 4 - 10 Year
Estimated Mass Removal vs. Time
Feasibility Study
Demo 1 Groundwater Operable Unit





LEGEND:

NORMAL OPERATIONS

BACKWASH OPERATIONS

NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

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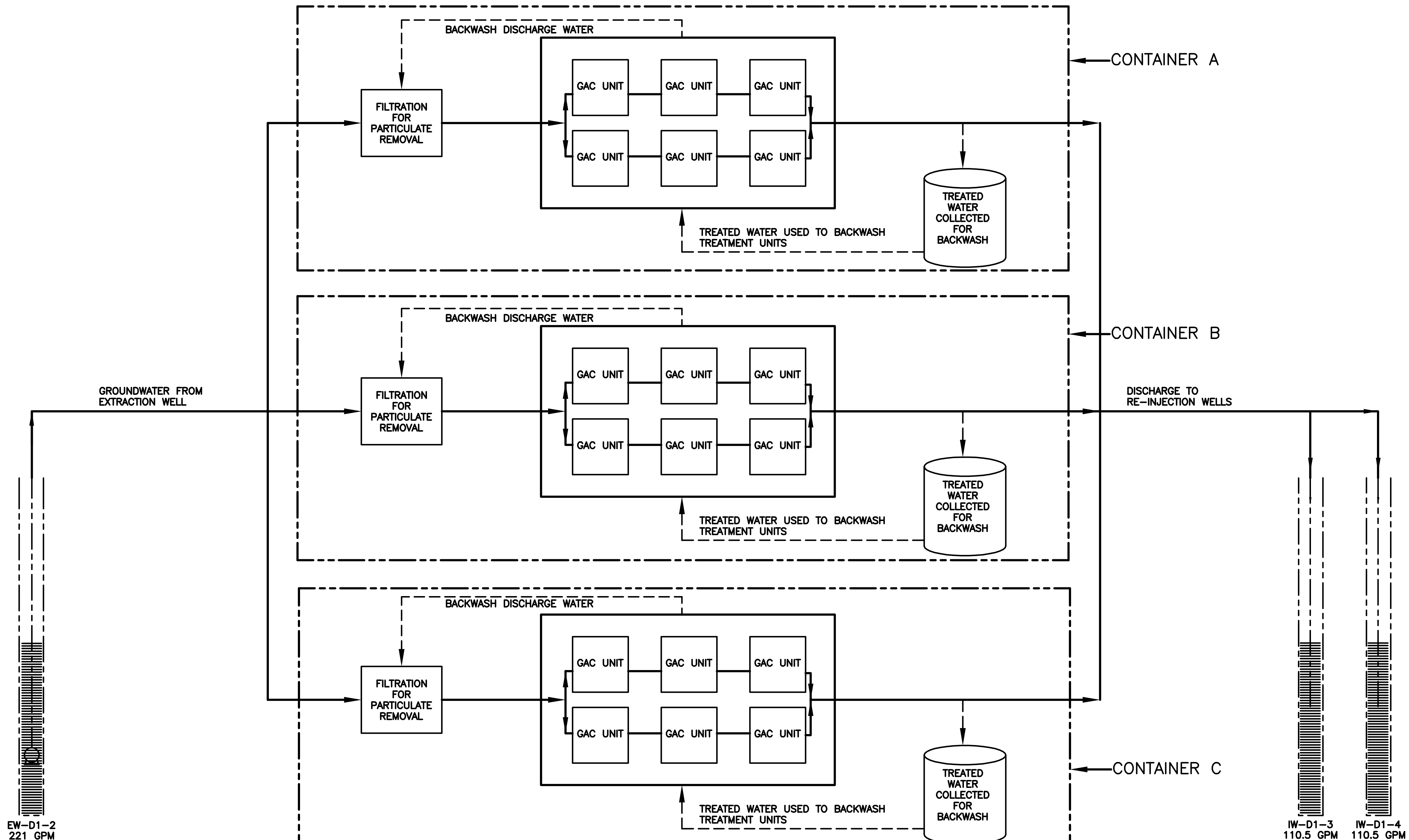
ALTERNATIVE 4 – 10-YEAR PROCESS FLOW DIAGRAM FRANK PERKINS ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER 10YR-ALT-FP.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-11
DATE DRAWN 5/2/2005	

FILE: J:\Demo 1\GW\FS\Client Draft Final FS MMR-9501\CAD\10YR-ALT-FP.dwg BY: ron.bowman

FILE: J:\Demo 1\GW\FS\Client Draft Final FS MMR-9501\CAD\10YR-ALT-PR.dwg BY: ron.bowman



LEGEND:

NORMAL OPERATIONS

BACKWASH OPERATIONS

NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

ALTERNATIVE 4 – 10-YEAR PROCESS FLOW DIAGRAM PEW ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER 10YR-ALT-PR.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-12
DATE DRAWN 5/2/2005	

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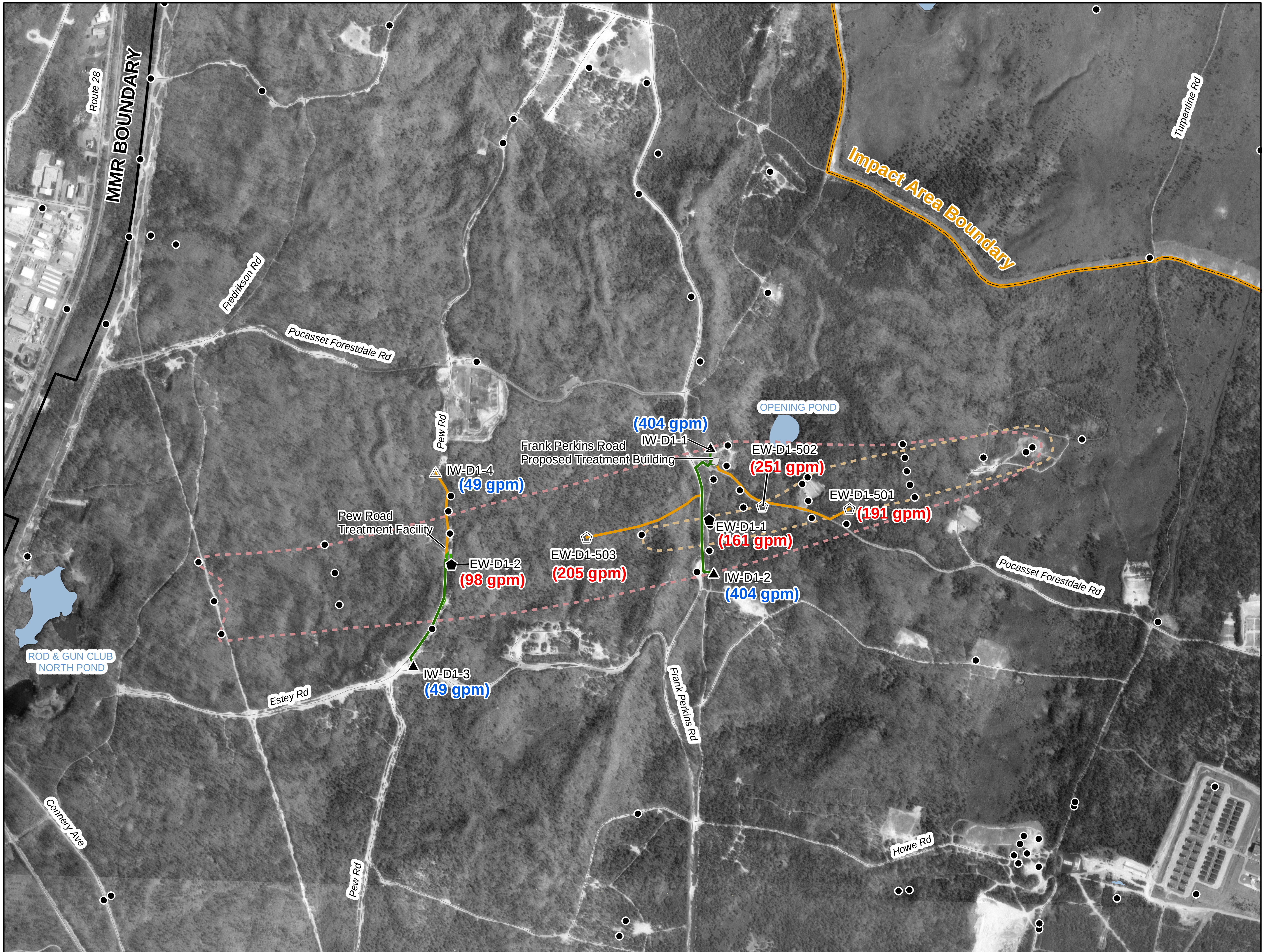
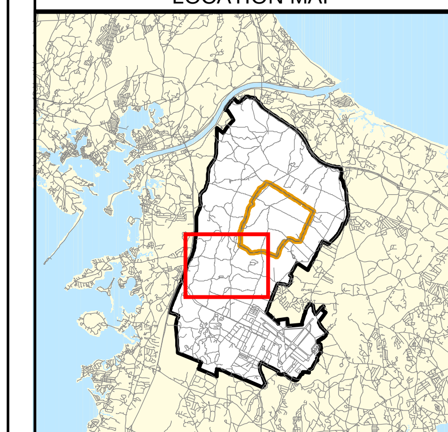


Impact Area
Groundwater Study Program

LEGEND

- Proposed Extraction Wells
- Existing Extraction Wells
- Proposed Injection Well
- Existing Injection Wells
- Proposed Monitoring Wells
- Existing Monitoring Wells
- Extent of Perchlorate Plume
- Extent of RDX Plume
- Existing Piping Locations
- Proposed Piping Locations
- (100) Extraction Rate (gallons per minute)
- (100) Injection Rate (gallons per minute)

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Basemap data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Alternative 5 -
Additional Alternative A
Conceptual Layout
Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000
Feet

N

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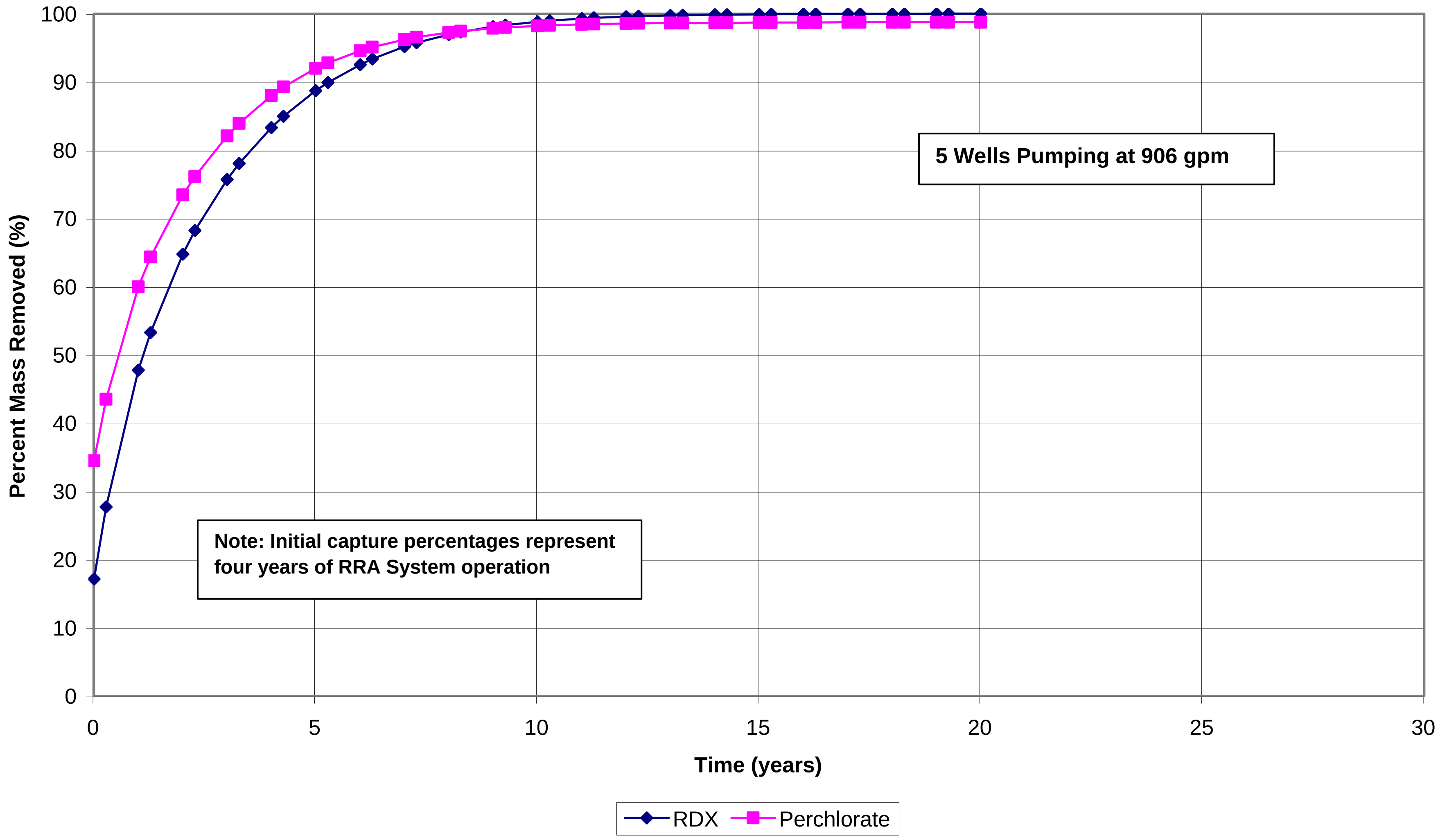
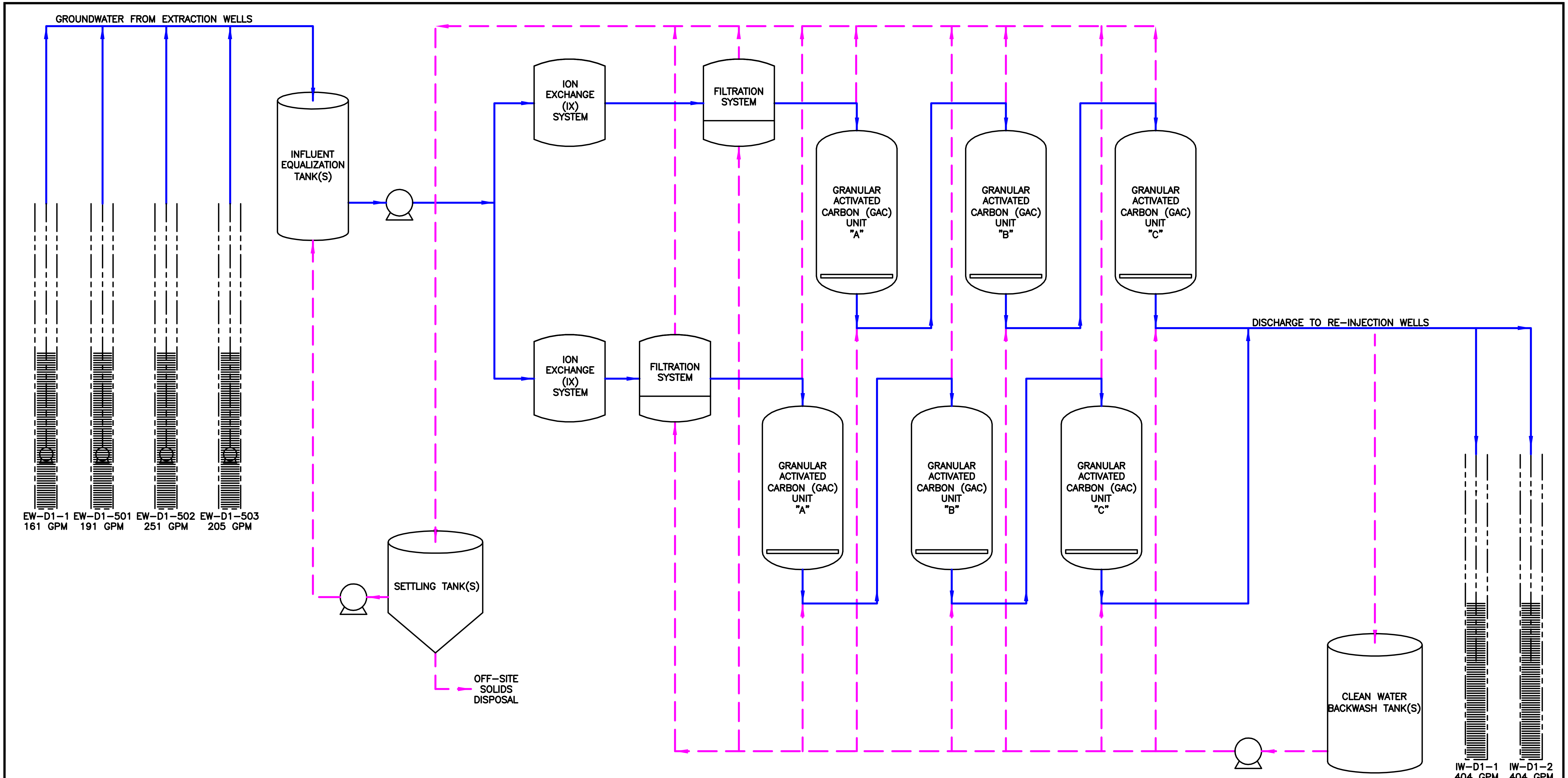
FIGURE
6-13

Figure 6-14
Alternative 5 - Additional Alternative A
Estimated Mass Removal vs. Time
Feasibility Study
Demo 1 Groundwater Operable Unit





LEGEND:

- NORMAL OPERATIONS
- BACKWASH OPERATIONS

NOTE:

NON–CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

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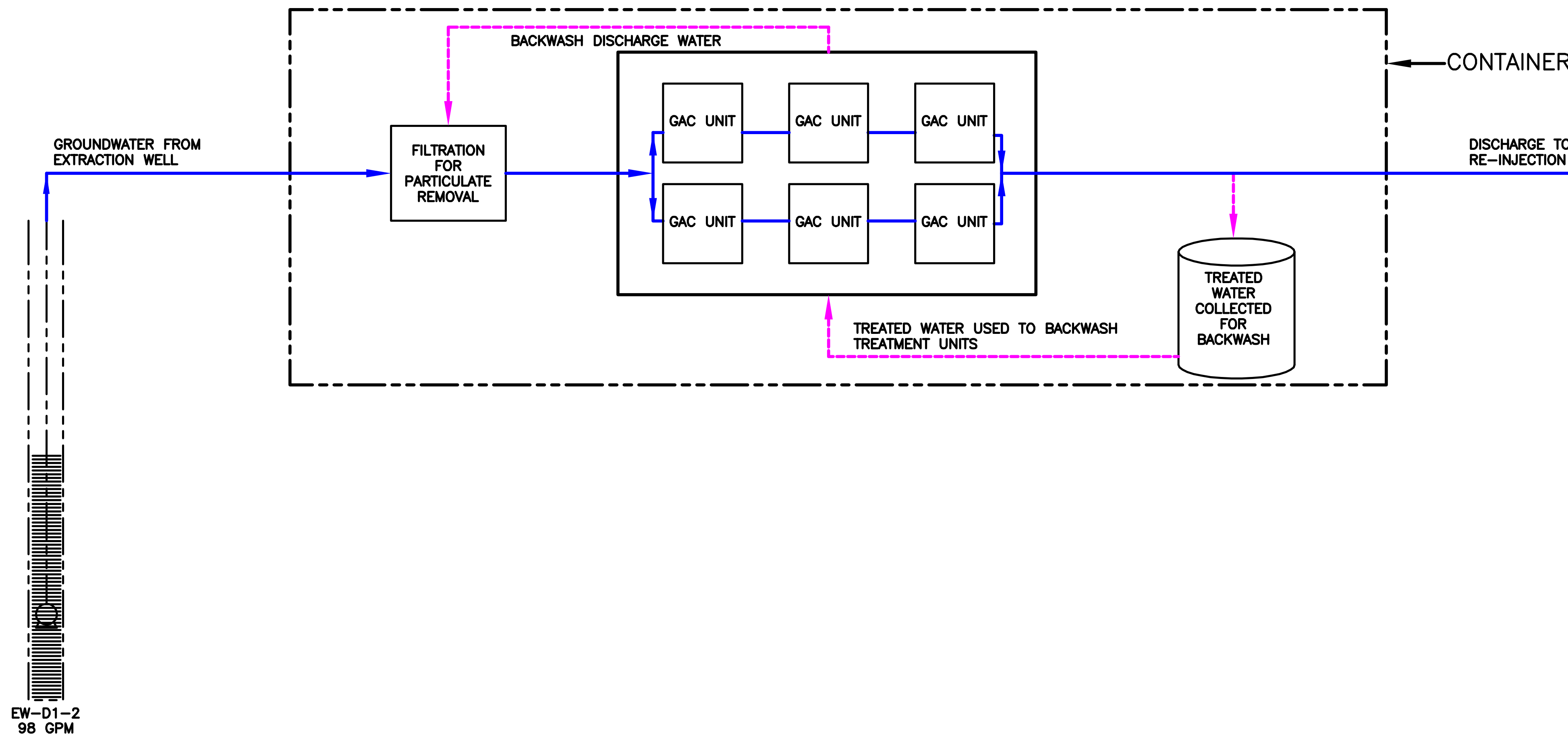
ALTERNATIVE 5 – ADDITIONAL ALTERNATIVE A
PROCESS FLOW DIAGRAM
FRANK PERKINS ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER	M. APPLEBEE	DRAWING NUMBER	RISK–ALT–A–FP.DWG
CHECKED BY	E. JOHNSON	PROJECT NUMBER	2–7622–5018
DRAWN BY	R. BOWMAN	FIGURE NUMBER	6–15
DATE DRAWN	5/2/2005		

FILE: J:\Demo 1\GW\FS\Client Draft Final FS MMR–9501\CAD\RISK–ALT–A–FP.dwg BY: ron.bowman



LEGEND:

NORMAL OPERATIONS

BACKWASH OPERATIONS

NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

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ALTERNATIVE 5 – ADDITIONAL ALTERNATIVE A PROCESS FLOW DIAGRAM PEW ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

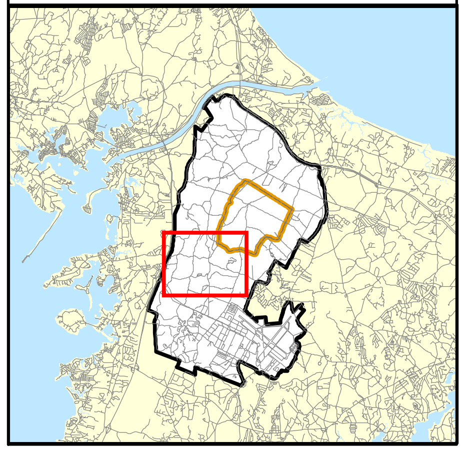
PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER RISK-ALT-A-PR.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-16
DATE DRAWN 5/2/2005	

Impact Area
Groundwater Study Program

LEGEND

- Proposed Extraction Wells
- Existing Extraction Wells
- Proposed Injection Well
- Existing Injection Wells
- Proposed Monitoring Wells
- Existing Monitoring Wells
- Extent of Perchlorate Plume
- Extent of RDX Plume
- Existing Piping Locations
- Proposed Piping Locations
- (100) Extraction Rate (gallons per minute)
- (100) Injection Rate (gallons per minute)

LOCATION MAP



NOTES & SOURCES

Map Coordinates: NAD 83, UTM, Zone 19N, Meters
Basemap data from US Geological Survey 7 1/2 minute
Topographic Map Source: MassGIS

TITLE

Alternative 6 -
Additional Alternative B
Conceptual Layout
Final Feasibility Study
Demo 1 Groundwater Operable Unit

0 1,000 Feet

N

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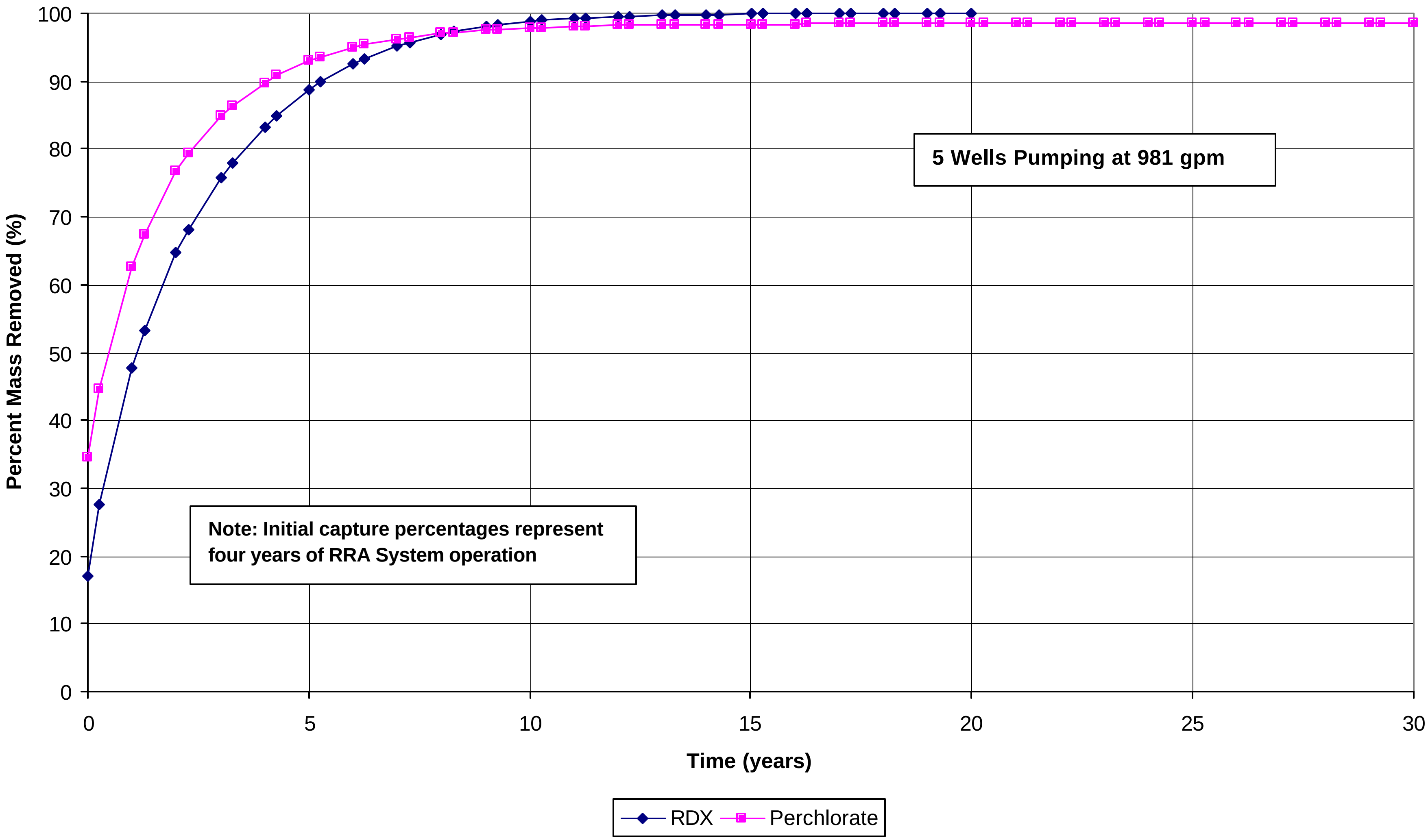
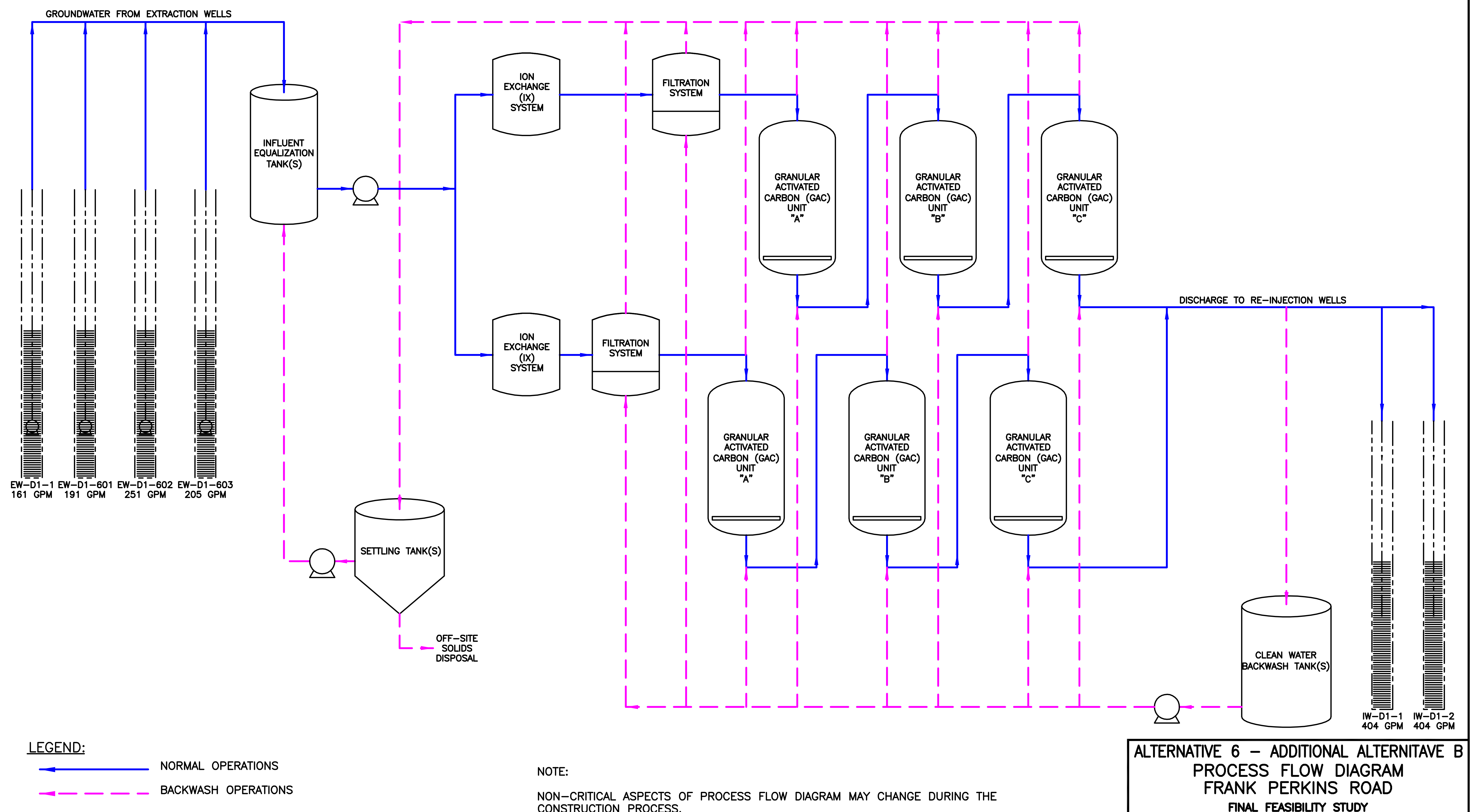
April 15, 2005 DWN: JBB CHKD:

FIGURE
6-17

Figure 6-18
Alternative 6 - Additional Alternative B
Estimated Mass Removal vs. Time
Feasibility Study
Demo 1 Groundwater Operable Unit





NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

ALTERNATIVE 6 – ADDITIONAL ALTERNITAVE B
PROCESS FLOW DIAGRAM
FRANK PERKINS ROAD

FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER BACK-B-FP.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-19
DATE DRAWN 5/2/2005	

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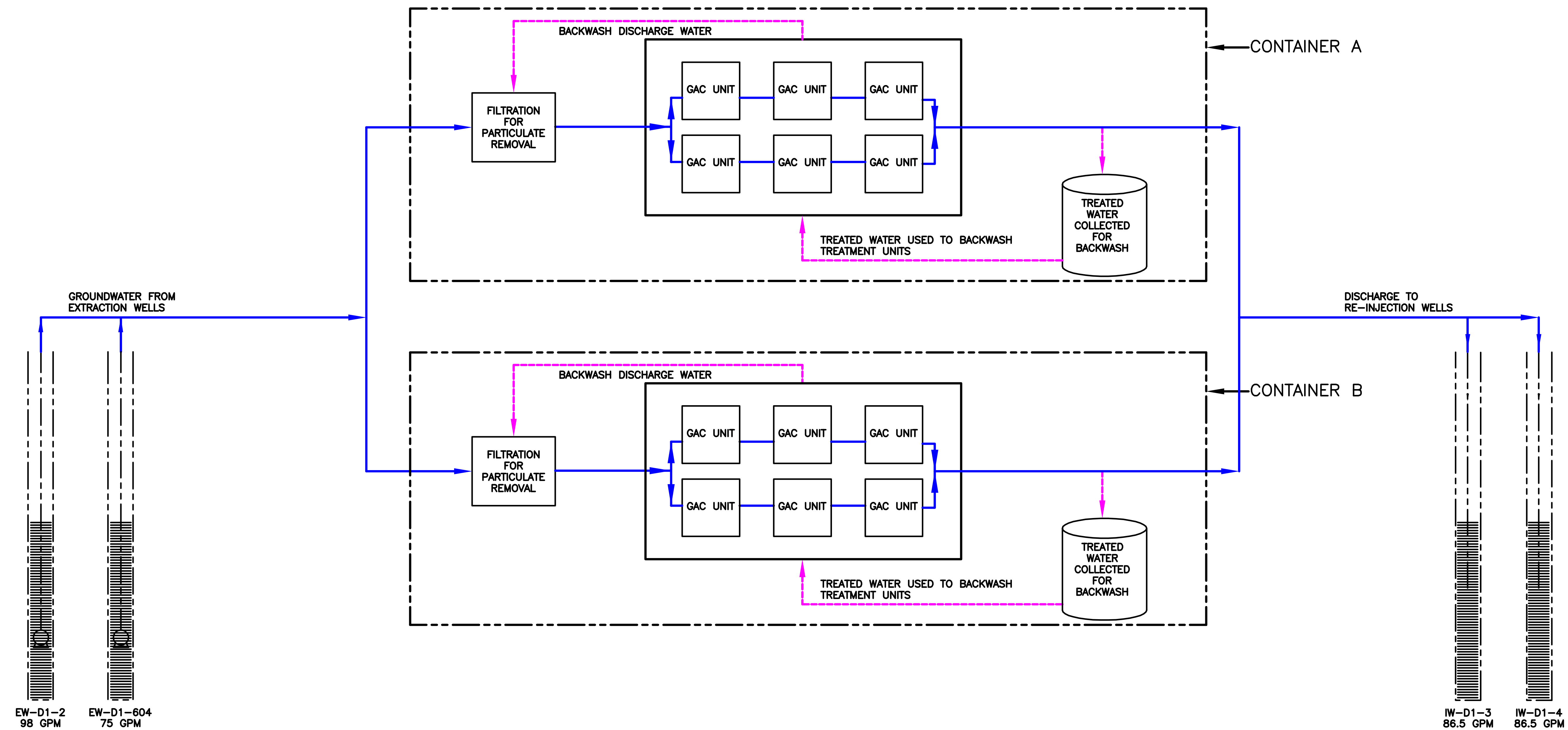
FILE: J:\Demo 1\GW\FS\Client Draft Final FS MMR-9501\CAD\back-B-PR.dwg BY: ron.bowman



LEGEND:

NORMAL OPERATIONS

BACKWASH OPERATIONS

NOTE:

NON-CRITICAL ASPECTS OF PROCESS FLOW DIAGRAM MAY CHANGE DURING THE CONSTRUCTION PROCESS.

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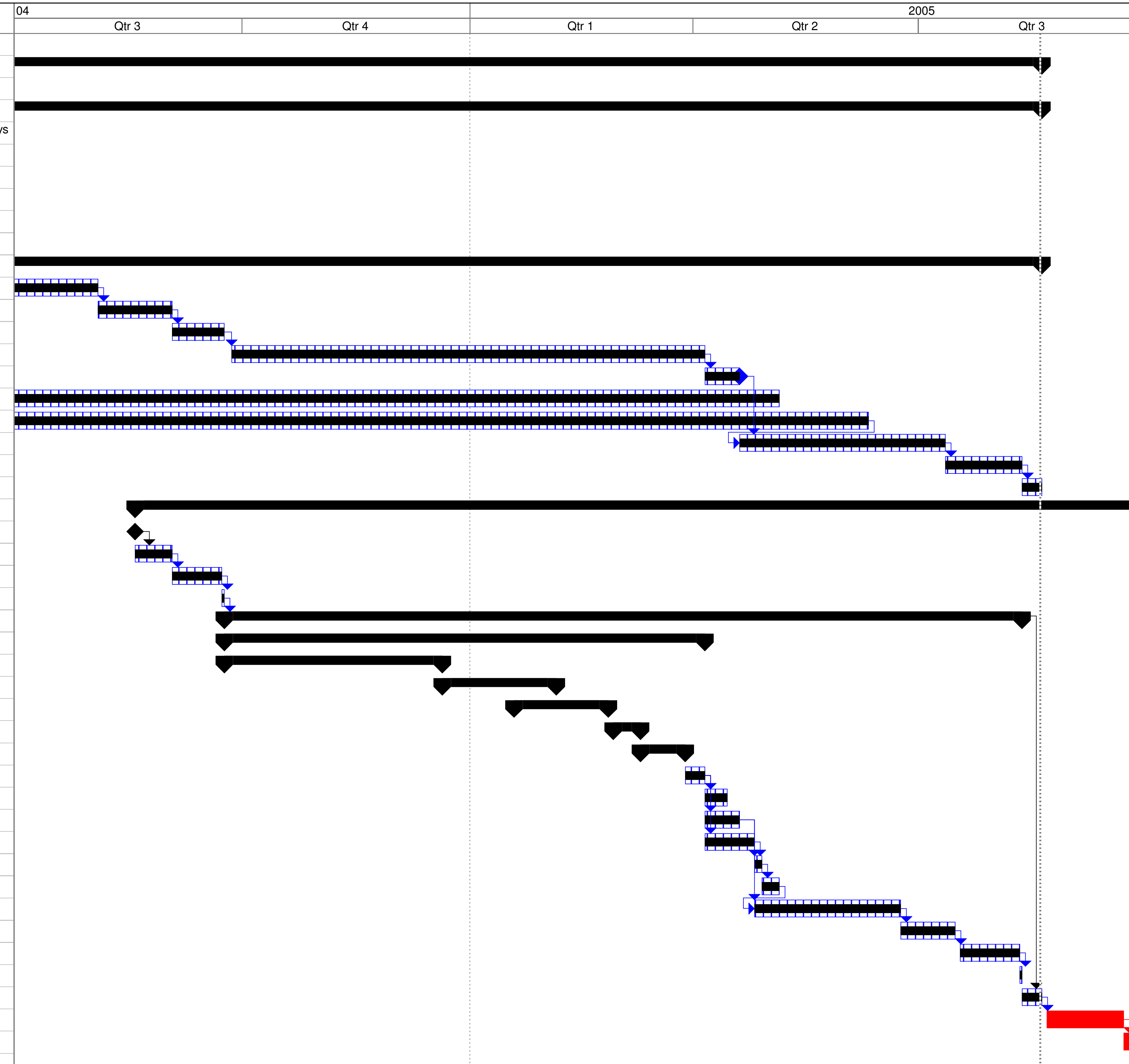
ALTERNATIVE 6 – ADDITIONAL ALTERNATIVE B
PROCESS FLOW DIAGRAM
PEW ROAD
FINAL FEASIBILITY STUDY
DEMO 1 GROUNDWATER OPERABLE UNIT

PROJECT MANAGER M. APPLEBEE	DRAWING NUMBER BACK-B-PR.DWG
CHECKED BY E. JOHNSON	PROJECT NUMBER 2-7622-5018
DRAWN BY R. BOWMAN	FIGURE NUMBER 6-20
DATE DRAWN 5/2/2005	

Figure 8-1
Feasibility Study and Remedy Selection Plan Schedule
Final Feasibility Study
Demo 1 Groundwater Operable Unit

ID	i	Task Name	Duration	Start	Finish	Predecessors
1	✓	**SITE CHARACTERIZATION**	**602 days**	**Mon 11/26/01**	**Wed 04/28/04**	
81	✓	**FEASIBILITY STUDIES**	**970 days**	**Mon 10/01/01**	**Fri 08/19/05**	
82	✓	**Draft FS Review Period and Comment Resolution**	**420 days**	**Mon 10/01/01**	**Wed 06/11/03**	
93	✓	**Revised Draft FS Report**	**583 days**	**Fri 04/25/03**	**Fri 08/19/05**	
94	✓	Develop outline of new remedial alternatives	2 days	Thu 06/12/03	Fri 06/13/03	91,60FS-15 days
95	✓	FS Scoping Meeting	1 day	Thu 09/11/03	Thu 09/11/03	94
96	✓	Agency Approval of Approach	10 days	Fri 09/12/03	Thu 09/25/03	95
97	✓	**Revised Draft FS Activities**	**269 days**	**Fri 04/25/03**	**Thu 05/20/04**	**60FS-15 days**
98	✓	**GW Modelling**	**180 days**	**Fri 04/25/03**	**Wed 01/14/04**	
106	✓	**Prepare/Submit Agency Revised Draft FS**	**89 days**	**Thu 01/15/04**	**Thu 05/20/04**	
125	✓	**Prepare/Submit Final FS**	**314 days**	**Fri 05/21/04**	**Fri 08/19/05**	
126	✓	Agency Review of Revised Draft FS	51 days	Fri 05/21/04	Tue 08/03/04	124
127	✓	Prepare/Submit RCL	22 days	Wed 08/04/04	Thu 09/02/04	126
128	✓	Resolution Meeting No. 1	14 days	Fri 09/03/04	Thu 09/23/04	127
129	✓	Prepare/Submit MOR	130 days	Mon 09/27/04	Tue 04/05/05	128FS+1 day
130	✓	Agency Approval of MOR	10 days	Wed 04/06/05	Tue 04/19/05	129
131	✓	DEP Additional Comments on the Revised Draft FS	240 days	Fri 05/21/04	Thu 05/05/05	106
132	✓	EPA Additional Comments on the Revised Draft FS	265 days	Fri 05/21/04	Fri 06/10/05	106
133	✓	Prepare/Submit MOR#2	57 days	Wed 04/20/05	Mon 07/11/05	132,130
134	✓	Agency Approval of MOR#2	23 days	Tue 07/12/05	Thu 08/11/05	133
135	✓	Prepare/Submit Final FS	6 days	Fri 08/12/05	Fri 08/19/05	134
136		**REMEDY SELECTION**	**284 days**	**Thu 08/19/04**	**Wed 10/05/05**	
137	✓	GW Remedy Selection Plan Scoping Meeting	0 days	Thu 08/19/04	Thu 08/19/04	
138	✓	Prepare Preliminary Draft Remedy Selection Plan	11 days	Thu 08/19/04	Thu 09/02/04	137
139	✓	Agency Review	13 days	Fri 09/03/04	Wed 09/22/04	138
140	✓	Comment Resolution Meeting No. 1	1 day	Thu 09/23/04	Thu 09/23/04	139
141	✓	**Revise Draft Remedy Selection Plan**	**221 days**	**Fri 09/24/04**	**Thu 08/11/05**	**140**
142	✓	**Conduct/Submit Supplemental Evaluations**	**131 days**	**Fri 09/24/04**	**Tue 04/05/05**	
143	✓	**Plume re-interpretation**	**59 days**	**Fri 09/24/04**	**Mon 12/20/04**	
151	✓	**Scenario 5 Re-run**	**31 days**	**Tue 12/21/04**	**Fri 02/04/05**	
156	✓	**Scenario 6 Re-evaluation**	**27 days**	**Wed 01/19/05**	**Fri 02/25/05**	**155**
160	✓	**Presentation of Results**	**9 days**	**Mon 02/28/05**	**Thu 03/10/05**	
164	✓	**Sensitivity Analysis (if needed)**	**12 days**	**Fri 03/11/05**	**Mon 03/28/05**	
169	✓	Prepare/Submit Supplemental Evaluation Documentation	6 days	Tue 03/29/05	Tue 04/05/05	168
170	✓	Meeting with Agencies	7 days	Wed 04/06/05	Thu 04/14/05	169
171	✓	EPA Comments on Supplemental Evaluations	10 days	Wed 04/06/05	Tue 04/19/05	169
172	✓	DEP Comments on Supplemental Evaluations	14 days	Wed 04/06/05	Mon 04/25/05	169
173	✓	Submit Draft RSP	3 days	Tue 04/26/05	Thu 04/28/05	172,171
174	✓	Agency Comments on the Draft RSP	5 days	Fri 04/29/05	Thu 05/05/05	173
175	✓	Presentation for Agencies (based on April 2005 gw results)	42 days	Tue 04/26/05	Thu 06/23/05	171,174
176	✓	Discussions with Agencies	15 days	Fri 06/24/05	Fri 07/15/05	175
177	✓	Prepare/Submit 2nd Draft RSP	18 days	Mon 07/18/05	Wed 08/10/05	176
178	✓	Agency Review/Approval	1 day	Thu 08/11/05	Thu 08/11/05	177
179	✓	Prepare/Submit Remedy Selection Plan for Public Comment	6 days	Fri 08/12/05	Fri 08/19/05	141
180		Public Comment Period	22 days	Mon 08/22/05	Wed 09/21/05	179
181		IAGWSP submit Draft Decision Document/Responsiveness Summary	5 days	Thu 09/22/05	Wed 09/28/05	180
182		EPA Submit Final Decision Document	5 days	Thu 09/29/05	Wed 10/05/05	181



Project: FSRSP Schedule D1 GW OU
Date: Fri 08/19/05

Task | Milestone | Rolled Up Critical Task | Split | Group By Summary
Critical Task | Summary | Rolled Up Milestone | External Tasks
Progress | Rolled Up Task | Rolled Up Progress | Project Summary

Table 2-1
Explosive Mixtures by Munition Type Used at Demo 1
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Ordnance Type	Model	Explosive Filler	Explosive Quantity (g)	Other Information
Detonating Cord		PETN		
Blasting Fuse	M700	Black Powder		Potassium Nitrate = 74%, Sulfur = 11%, Charcoal = 15%
Electric Blasting Cap	M6	RDX		Intermediate charge of Lead Azide and igniter charge of Smokeless Powder
Non-Electric Blasting Cap	M7	RDX		Intermediate charge of Lead Azide and igniter charge of Lead Styphnate
Special Blasting Cap (Non-Electric)	J-1	RDX or PETN		Intermediate charge of Lead Azide and igniter charge of Lead Styphnate and Lead Azide
Special Blasting Cap (Non-Electric)	J-2	RDX or PETN		Intermediate charge of Lead Azide and igniter mixture
Demolition Charge	Block TNT	TNT	TNT = 226 or 453	
Demolition Charge	Block 112	C4	RDX = 516 Polyisobutylene = 51	
Demolition Charge	Block M5	C3	RDX = 854 Plastic Explosive = 249	(1)
Demolition Charge	Block M5A1	C4	RDX = 1032 Polyisobutylene = 92	
Demolition Charge	Block M3	C3 or C4	RDX = 929 Polyisobutylene = 92 or RDX = 796 Plastic Explosive = 224	(1)
Demolition Charge	Block M2	Tetrytol	TNT = 765 Tetryl = 255	
Dynamite	M1	RDX and Nitroglycerine		
EOD Demolition Charge	MK86 Mod 0	CH6	RDX = 32.2 Calcium Stearate = 0.5	

Table 2-1
Explosive Mixtures by Munition Type Used at Demo 1
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Ordnance Type	Model	Explosive Filler	Explosive Quantity (g)	Other Information
			Graphite = 0.15 Polyisobutylene = 0.15	
EOD Demolition Charge	MK87 Mod 0	CH6	RDX = 66.3 Calcium Stearate = 1.0 Graphite = 0.35 Polyisobutylene = 0.35	
EOD Demolition Charge	MK88 Mod 0	CH6	RDX = 97.5 Calcium Stearate = 1.5 Graphite = 0.5 Polyisobutylene = 0.5	
EOD Demolition Charge	MK89 Mod 0	A-3	RDX = 205, Wax = 20	
Shaped Charge (15 pounds)	M2A3, M2A4	Comp B	RDX = 2585 TNT = 1723	Includes 907 g booster of 50/50 Pentolite or 50 g A-3.TNT = 453, PETN = 453 or RDX = 46, Wax = 4
Shaped Charge (40 pounds)	M3, M3A1	Comp B	RDX = 7702 TNT = 5134	Includes 771 g booster of 50/50 Pentolite or 50 g A-3.TNT = 385, PETN = 385 or RDX = 46, Wax = 4
Bangolore Torpedo	M1A1	Amatol & TNT		Amatol = TNT & Ammonium Nitrate
Bangolore Torpedo	M1A2	Comp B & A-3		Comp B = RDX = 60%, TNT = 40% A-3 = RDX = 91%, Wax = 9%
Claymore Mine	M18, M18A1	C4	RDX = 619 Polyisobutylene = 61	

EOD – explosive ordnance disposal
PETN – pentaerythritol tetranitrate
(1) Composition of Plastic Explosives varies by type, however typically contains a large percentage of RDX, HMX, or PETN mixed with a polymeric binder such as polyester, polyurethane, nylon, polystyrene, various types of rubbers, NC or Teflon (Encyclopedia of Explosives and Related Items).

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-19D	W19D2A	07/17/1998	254-259	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-19D	W19DDA	03/04/1998	254-259	0.25U	5U	0.25U	0.25U	0.4J	0.25U		
MW-19D	W19DDA	02/11/1999	254-259	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-19D	W19DDA	09/15/1999	254-259	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-19D	W19DDA	08/08/2000	254-259	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-19D	W19DDA	07/30/2001	254-259	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-19D	W19DDA	04/23/2002	254-259	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-19D	W19DDA	09/27/2003	254-259	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-19S	W19S2A	07/20/1998	0-10	**16**	0.31J	3.4	7.8J	**260**	93		
MW-19S	W19S2D	07/20/1998	0-10	**16**	0.3J	3.4	7.8J	**260**	93		
MW-19S	W19SSA	03/05/1998	0-10	**10**		2.3	4.4	**190**	44		
MW-19S	W19SSA	02/12/1999	0-10	**7.2J**	0.25U	2.9J	4J	**250**	71		
MW-19S	W19SSA	09/10/1999	0-10	**2.6J**	5U	3.1	4.6J	**240**	76		
MW-19S	W19SSA	05/12/2000	0-10	**3.7J**	0.25U	1.4J	1.6J	**150J**	49J		
MW-19S	W19SSA	05/23/2000	0-10	**3.9J**	5UJ	1.5	1.6J	**160**	50J		
MW-19S	W19SSA	06/06/2000	0-10		5U						
MW-19S	W19SSA	08/08/2000	0-10	2J	0.26J	1.7	2.4J	**290**	67	**104J**	1
MW-19S	W19SSA	12/08/2000	0-10	**2.3J**	5.6U	2.2J	2.8J	**200**	61	**12**	1.2
MW-19S	W19SSD	12/08/2000	0-10	1.9J	0.44J	1.6J	2J	**45J**	40J		
MW-19S	W19SSA	06/18/2001	0-10	1.3J	5.3U	1.3	1.4J	**200**	51	**41**	1.5
MW-19S	W19SSD	06/18/2001	0-10	1.3J	0.25U	1.2	1.4J	**210**	52		
MW-19S	W19SSA	08/24/2001	0-10	**2.4**	5.8UJ	1.5J	1.7J	**120**	43	**8.49**	1.5
MW-19S	W19SSA	12/27/2001	0-10	**2.2J**	5.2U	2.2	2.3	**120**	46J	**18.6J**	0.35
MW-19S	W19SSA	05/29/2002	0-10	1.8J	5.2U	1.5	1.4J	**120**	32J	**5.2**	0.43
MW-19S	W19SSA	08/07/2002	0-10	1.5J	5U	1.6	1.8J	**99**	28J	**4.1J**	0.43
MW-19S	W19SSA	09/27/2003	0-10	1J	5U	1.1J	1.3	**80**	31	**7.8J**	0.35
MW-19S	W19SSA	02/28/2004	0-10	0.76*	5U	1.2*	1.3*	**65D*/82E***	24D*/30E*	**2.71**	0.35
MW-20S	W20SSA	11/07/1997	0-10	0.25U	22U	0.25U	0.25U	0.25U	0.25U		
MW-20S	W20SSA	02/12/1999	0-10	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-20S	W20SSA	09/10/1999	0-10	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-31D	W31DDA	07/14/1998	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-31D	W31DDA	02/01/1999	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-31D	W31DDD	02/01/1999	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-31D	W31DDA	09/15/1999	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-31D	W31DDA	05/15/2000	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-31D	W31DDA	08/09/2000	48-53	**3.9J**	0.52J	2.8	2.7J	**150**	29		
MW-31D	W31DDA	12/18/2000	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-31D	W31DDA	05/02/2001	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5UJ	1.5
MW-31D	W31DDA	08/02/2001	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-31D	W31DDA	01/04/2002	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-31D	W31DDA	04/22/2002	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1UJ	0.35
MW-31D	W31DDA	08/07/2002	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-31D	W31DDA	11/15/2002	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-31D	W31DDA	03/27/2003	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-31D	W31DDA	09/27/2003	48-53	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-31D	W31DDA	02/28/2004	48-53	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.398U	0.35
MW-31M	W31M1A	05/15/2000	28-38	0.25U	0.25U	0.38J	0.55	**19**	0.89J		
MW-31M	W31M1A	08/09/2000	28-38	0.25U	0.25U	0.38	0.41J	**14**	1.8J	**46J**	1
MW-31M	W31MMA	07/15/1998	28-38	0.25U	0.25U	0.25U	0.25U	**280**	29		
MW-31M	W31MMA	02/02/1999	28-38	0.25UJ	0.25UJ	0.25UJ	1.3J	**370**	27		
MW-31M	W31MMA	09/15/1999	28-38	0.5U	0.5U	0.5U	1.7J	**29**	13		
MW-31M	W31MMA	12/08/2000	28-38	0.25U	5.1U	0.36J	0.3J	1.6J	1.2J	5U	1.5
MW-31M	W31MMA	05/23/2001	28-38	**5.2**	0.39J	3.3	3.8	**70**	26	**19**	1.5
MW-31M	W31MMA	08/02/2001	28-38	0.25U	0.25U	0.3	0.25U	0.25U	0.25U	5U	1.5
MW-31M	W31MMA	01/04/2002	28-38	0.25U	0.25U	0.27	0.25U	1.2	0.25U	**1.66J**	0.35
MW-31M	W31MMA	04/22/2002	28-38	0.25U	0.25U	0.25U	0.25U	**7.4**	0.31	**2.98J**	0.35
MW-31M	W31MMD	04/22/2002	28-38	0.25U	0.25U	0.25U	0.25U	**7.2**	0.32	**3.04J**	0.35
MW-31M	W31MMA	08/07/2002	28-38	0.25U	0.25U	0.25U	0.25U	**7.8**	1.3	**10J**	0.43
MW-31M	W31MMA	11/15/2002	28-38	0.25U	0.25U	0.25U	0.25U	**4.6**	1.3	**5.2**	0.43
MW-31M	W31MMA	03/27/2003	28-38	0.25U	0.25U	0.25U	0.25U	**8.1**	1.1J	**1.8J**	0.43
MW-31M	W31MMA	09/27/2003	28-38	0.25U*	0.25U*	0.25U*	0.25U*	1.4	0.28	**2.9**	0.35
MW-31M	W31MMA	02/28/2004	28-38	0.25U*	0.25U*	0.25U*	0.25U*	1.2*	0.68*	0.628J	0.35

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-31S	W31SSA	07/15/1998	13-18	0.25U	0.34	1.3	0.9J	**64**	16		
MW-31S	W31SSA	02/01/1999	13-18	0.25U	0.39J	1.8J	1.5J	**210**	24		
MW-31S	W31SSA	09/15/1999	13-18	1.2	0.75U	1.5	4.3J	**50**	35		
MW-31S	W31SSA	05/15/2000	13-18	**3.3**	0.52J	2.4	3	**110**	28J		
MW-31S	W31SSA	08/09/2000	13-18	**3.9J**	0.46J	2.7	2.6J	**140**	28	**43J**	1
MW-31S	W31SSA	12/08/2000	13-18	**5.2J**	0.46J	3.2J	3.3J	**120**	43J	**30**	1.5
MW-31S	W31SSA	05/02/2001	13-18	**5.2**	0.36J	3.2	3.8	**81**	29	**20J**	1.5
MW-31S	W31SSA	08/24/2001	13-18	**5.4**	0.4J	3.6J	3J	**88**	20	**16.2**	1.5
MW-31S	W31SSA	01/04/2002	13-18	**5.9**	0.46J	3.6	3.2	**31**	11J	**12.5**	0.35
MW-31S	W31SSA	05/29/2002	13-18	**5.5**	0.38	3.4J	2.4J	**130**	24J	**12**	0.43
MW-31S	W31SSA	08/07/2002	13-18	**5.9**	0.41J	3	3.1J	**85**	31J	**7.2J**	0.43
MW-31S	W31SSA	11/15/2002	13-18	**5.5**	0.36J	2.8	3	**11**	16	**4.9**	0.43
MW-31S	W31SSA	03/28/2003	13-18	**5.2**	0.44U	2.5	1.6J	**86**	13	**10**	0.43
MW-31S	W31SSA	09/27/2003	13-18	**5.2J**	0.46J	2.5J	2.3	**63**	29	**4.6**	0.35
MW-31S	W31SSD	09/27/2003	13-18	**5.2J**	0.44J	2.5	2.2	**62**	28	**5.3**	0.35
MW-31S	W31SSA	02/28/2004	13-18	**5.6D*/5.7***	0.42*	2.1D*/2.2*	1.5D8/1.6*	**21D*/21E***	9.4*/9.5D*	**7.77**	0.35
MW-32D	W32DDA	07/16/1998	85-90	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32D	W32DDA	02/02/1999	85-90	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32D	W32DDA	09/16/1999	85-90	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32D	W32DDA	04/22/2002	85-90							0.64J	0.35
MW-32D	W32DDA	01/29/2003	85-90							0.66J	0.43
MW-32D	W32DDA	03/31/2003	85-90							0.44J	0.43
MW-32D	W32DDA	11/18/2003	85-90							**2.2J**	0.35
MW-32D	W32DDA	03/04/2004	85-90							**2.2***	0.35
MW-32M	W32MMA	07/16/1998	65-75	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32M	W32MMA	02/03/1999	65-75	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32M	W32MMA	09/16/1999	65-75	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32M	W32MMA	04/22/2002	65-75							**1.97**	0.35
MW-32M	W32MMA	01/29/2003	65-75							**2.3**	0.43
MW-32M	W32MMD	01/29/2003	65-75							**2.3**	0.43
MW-32M	W32MMA	03/31/2003	65-75							**2.5**	0.43
MW-32M	W32MMA	11/18/2003	65-75							**2.6J**	0.35
MW-32M	W32MMD	11/18/2003	65-75							**2.8J**	0.35
MW-32M	W32MMA	03/04/2004	65-75							**3.93***	0.35
MW-32S	W32SSA	07/22/1998	50-55	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32S	W32SSA	02/03/1999	50-55	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32S	W32SSA	09/16/1999	50-55	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-32S	W32SSA	04/23/2002	50-55							**1.38**	0.35
MW-32S	W32SSA	01/29/2003	50-55							**2.1**	0.43
MW-32S	W32SSA	03/31/2003	50-55							**1.5J**	0.43
MW-32S	W32SSA	11/18/2003	50-55							**2J**	0.35
MW-32S	W32SSA	03/04/2004	50-55							**1.69***	0.35
MW-33D	W33DDA	07/21/1998	85-90	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33D	W33DDA	02/03/1999	85-90	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33D	W33DDA	09/16/1999	85-90	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33D	W33DDA	12/18/2000	85-90							5U	1.5
MW-33D	W33DDA	05/07/2001	85-90							5U	1.5
MW-33D	W33DDA	07/30/2001	85-90							5U	1.5
MW-33D	W33DDA	12/26/2001	85-90							**1.54J**	0.35
MW-33D	W33DDA	04/23/2002	85-90							**2.02**	0.35
MW-33D	W33DDA	08/08/2002	85-90							**2J**	0.43
MW-33D	W33DDA	11/15/2002	85-90							**2.2**	0.43
MW-33D	W33DDD	11/15/2002	85-90							**2.2**	0.43
MW-33D	W33DDA	02/06/2003	85-90							**3**	0.43
MW-33D	W33DDA	03/31/2003	85-90							**1.6J**	0.43
MW-33D	W33DDA	12/03/2003	85-90							**1.1**	0.35
MW-33D	W33DDA	03/05/2004	85-90							0.839*	0.35
MW-33M	W33MMA	07/20/1998	65-75	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33M	W33MMA	02/03/1999	65-75	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33M	W33MMD	02/03/1999	65-75	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33M	W33MMA	09/16/1999	65-75	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33M	W33MMA	12/18/2000	65-75							5U	1.5
MW-33M	W33MMA	05/07/2001	65-75							5U	1.5
MW-33M	W33MMD	05/07/2001	65-75							5U	1.5
MW-33M	W33MMA	07/30/2001	65-75							5U	1.5
MW-33M	W33MMA	12/26/2001	65-75							**1.38J**	0.35
MW-33M	W33MMA	04/23/2002	65-75							**1.72**	0.35

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	MDL
MW-33M	W33MMA	08/08/2002	65-75							**2.1J**	0.43
MW-33M	W33MMA	11/18/2002	65-75							**1.9J**	0.43
MW-33M	W33MMA	02/06/2003	65-75							**1.7J**	0.43
MW-33M	W33MMA	03/31/2003	65-75							**1.5J**	0.43
MW-33M	W33MMA	12/03/2003	65-75							**1.1**	0.35
MW-33M	W33MMA	03/05/2004	65-75							**1.06***	0.35
MW-33S	W33SSA	07/21/1998	50-55	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33S	W33SSA	02/04/1999	50-55	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33S	W33SSA	09/16/1999	50-55	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-33S	W33SSA	12/18/2000	50-55							5U	1.5
MW-33S	W33SSA	07/30/2001	50-55							5U	1.5
MW-33S	W33SSA	04/23/2002	50-55							**1.72**	0.35
MW-33S	W33SSA	08/08/2002	50-55							**1.6J**	0.43
MW-33S	W33SSA	11/18/2002	50-55							**1.6J**	0.43
MW-33S	W33SSA	02/06/2003	50-55							**1.3J**	0.43
MW-33S	W33SSA	03/31/2003	50-55							**1.3J**	0.43
MW-33S	W33SSA	12/03/2003	50-55							0.56J	0.35
MW-33S	W33SSA	03/05/2004	50-55							1U*	0.35
MW-34M1	W34M1A	02/19/1999	73-83	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-34M1	W34M1A	08/16/1999	73-83	0.25U	5U	0.25U	0.25U	0.39	0.25U		
MW-34M1	W34M1A	10/25/1999	73-83	0.25U	0.25U	0.25U	0.25U	0.79	0.25U		
MW-34M1	W34M1D	10/25/1999	73-83	0.25U	0.25U	0.25U	0.25U	0.8	0.25U		
MW-34M1	W34M1A	05/17/2000	73-83	0.25U	0.25U	0.25U	0.25U	**2.2**	0.25U		
MW-34M1	W34M1A	08/11/2000	73-83	0.25U	0.25U	0.25U	0.25U	**5**	0.25U		
MW-34M1	W34M1A	11/17/2000	73-83	0.25U	0.25U	0.25U	0.25U	**4.5**	0.25U		
MW-34M1	W34M1A	12/18/2000	73-83							**109**	1.5
MW-34M1	W34M1A	05/05/2001	73-83	0.25U	0.25U	0.25U	0.25U	1.5	0.25U	**46**	1.5
MW-34M1	W34M1A	07/31/2001	73-83	0.25U	0.25U	0.25U	0.25U	0.87J	0.25U	**30.8**	1.5
MW-34M1	W34M1D	07/31/2001	73-83	0.25U	0.25U	0.25U	0.25U	0.85	0.25U	**31.4**	1.5
MW-34M1	W34M1A	12/26/2001	73-83	0.25U	0.25U	0.25U	0.25U	0.53	0.25U	**17.7**	0.35
MW-34M1	W34M1A	04/24/2002	73-83	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**7.9**	0.35
MW-34M1	W34M1A	08/20/2002	73-83	0.25U	0.25U	0.25U	0.25U	0.28J	0.25U	**7.1J**	0.43
MW-34M1	W34M1D	08/20/2002	73-83							**7.3**	0.43
MW-34M1	W34M1A	11/15/2002	73-83	0.25U	0.25U	0.25U	0.25U	0.32J	0.25U	**8**	0.43
MW-34M1	W34M1A	03/24/2003	73-83	0.25U	0.25U	0.25U	0.25U	**4.3**	0.25U	**8J**	0.43
MW-34M1	W34M1A	11/12/2003	73-83	0.25U	0.25U	0.25U	0.25U	**4.9**	0.25U	**6.9**	0.35
MW-34M1	W34M1A	03/05/2004	73-83	0.25U*	0.25U*	0.25U*	0.25U*	**2.6***	0.25U*	**3.43**	0.35
MW-34M2	W34M2A	02/19/1999	53-63	0.25U	0.25U	0.25U	0.25U	**6.2**	0.3		
MW-34M2	W34M2A	08/16/1999	53-63	0.25U	6U	0.25U	0.25U	1.3	0.25U		
MW-34M2	W34M2A	10/25/1999	53-63	0.25U	0.25U	0.25U	0.25U	1.9	0.25U		
MW-34M2	W34M2A	05/18/2000	53-63	0.25U	0.25U	0.25U	0.25U	**4.7**	0.25U		
MW-34M2	W34M2A	08/10/2000	53-63	0.25U	0.25U	0.25U	0.25U	**3.1**	0.25U	**56J**	1
MW-34M2	W34M2A	11/17/2000	53-63	0.25U	0.25U	0.25U	0.25U	**2.5**	0.25U		
MW-34M2	W34M2A	12/18/2000	53-63							**34**	1.5
MW-34M2	W34M2A	05/01/2001	53-63	0.25U	0.25U	0.25U	0.25U	0.87	0.25U	**28J**	1.5
MW-34M2	W34M2A	07/30/2001	53-63	0.25U	0.25U	0.25U	0.25U	0.37	0.25U	**16.2**	1.5
MW-34M2	W34M2A	12/26/2001	53-63	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**5.85J**	0.35
MW-34M2	W34M2A	04/24/2002	53-63	0.25U	0.25U	0.25U	0.25U	0.5	0.25U	**19.6**	0.35
MW-34M2	W34M2A	08/20/2002	53-63	0.25U	0.25U	0.25U	0.25U	0.66J	0.25U	**17**	0.43
MW-34M2	W34M2A	11/15/2002	53-63	0.25U	0.25U	0.25U	0.25U	1.2	0.25U	**14**	0.43
MW-34M2	W34M2A	03/24/2003	53-63	0.25U	0.25U	0.25U	0.25U	1.9	0.25U	**10J**	0.43
MW-34M2	W34M2A	11/12/2003	53-63	0.25U	0.25U	0.25U	0.25U	**3.9**	0.34	**7.3**	0.35
MW-34M2	W34M2A	03/05/2004	53-63	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	**7.02**	0.35
MW-34M3	W34M3A	02/19/1999	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-34M3	W34M3A	08/16/1999	33-43	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-34M3	W34M3A	10/25/1999	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-34M3	W34M3A	05/18/2000	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-34M3	W34M3A	08/10/2000	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-34M3	W34M3A	11/17/2000	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-34M3	W34M3A	12/18/2000	33-43							5U	1.5
MW-34M3	W34M3A	05/01/2001	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5UJ	1.5
MW-34M3	W34M3A	07/31/2001	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-34M3	W34M3A	12/26/2001	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-34M3	W34M3A	04/24/2002	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-34M3	W34M3A	08/20/2002	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-34M3	W34M3A	11/15/2002	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-34M3	W34M3A	03/24/2003	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-34M3	W34M3D	03/24/2003	33-43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43

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Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-34M3	W34M3A	11/12/2003	33-43	0.25U	0.25U	0.25U	0.25U	0.37	0.25U	1U	0.35
MW-34M3	W34M3A	03/05/2004	33-43	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	U*	0.35
MW-35M1	W35M1A	02/19/1999	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1A	08/20/1999	68-78	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1A	10/28/1999	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1A	05/22/2000	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1A	08/09/2000	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1A	11/17/2000	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1D	11/17/2000	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1A	12/18/2000	68-78							5U	1.5
MW-35M1	W35M1A	04/27/2001	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1A	05/04/2001	68-78							**4J**	1.5
MW-35M1	W35M1A	08/03/2001	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**5.4**	1.5
MW-35M1	W35M1A	12/21/2001	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**6.34J**	0.35
MW-35M1	W35M1A	04/24/2002	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**6.44J**	0.35
MW-35M1	W35M1A	08/19/2002	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**5**	0.43
MW-35M1	W35M1A	11/18/2002	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**4.2**	0.43
MW-35M1	W35M1A	04/08/2003	68-78							**3.9**	0.43
MW-35M1	W35M1A	07/01/2003	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M1	W35M1D	07/01/2003	68-78	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	02/22/1999	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2D	02/22/1999	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	08/19/1999	13-23	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	10/28/1999	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	05/22/2000	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	08/09/2000	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	11/17/2000	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	12/18/2000	13-23							5U	1.5
MW-35M2	W35M2A	04/27/2001	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35M2	W35M2A	05/07/2001	13-23							5U	1.5
MW-35M2	W35M2A	08/03/2001	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-35M2	W35M2A	12/21/2001	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-35M2	W35M2A	04/24/2002	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-35M2	W35M2A	08/20/2002	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-35M2	W35M2A	11/18/2002	13-23	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-35M2	W35M2A	04/08/2003	13-23							2U	0.43
MW-35S	W35SSA	02/22/1999	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35S	W35SSA	08/19/1999	0-10	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-35S	W35SSD	08/19/1999	0-10	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-35S	W35SSA	10/28/1999	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35S	W35SSA	05/22/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35S	W35SSA	08/10/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35S	W35SSA	12/18/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-35S	W35SSA	04/27/2001	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-35S	W35SSA	05/22/2001	0-10							5U	1.5
MW-35S	W35SSA	08/03/2001	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-35S	W35SSA	01/14/2002	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-36M1	W36M1A	05/05/1999	74-84	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36M1	W36M1A	08/17/1999	74-84	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-36M1	W36M1A	10/25/1999	74-84	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36M1	W36M1A	08/10/2000	74-84	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36M1	W36M1A	12/18/2000	74-84							5U	1.5
MW-36M1	W36M1A	05/15/2001	74-84							5U	1.5
MW-36M1	W36M1A	08/02/2001	74-84	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-36M1	W36M1A	01/08/2002	74-84							2U	0.35
MW-36M1	W36M1A	04/24/2002	74-84	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-36M1	W36M1A	08/08/2002	74-84							2U	0.43
MW-36M1	W36M1A	11/18/2002	74-84							2U	0.43
MW-36M1	W36M1A	03/25/2003	74-84							2U	0.43
MW-36M1	W36M1A	11/12/2003	74-84	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-36M1	W36M1A	03/03/2004	74-84							1U*	1.35
MW-36M2	W36M2A	05/05/1999	54-64	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36M2	W36M2A	08/17/1999	54-64	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-36M2	W36M2A	10/25/1999	54-64	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36M2	W36M2A	08/10/2000	54-64	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36M2	W36M2A	12/18/2000	54-64							5U	1.5
MW-36M2	W36M2A	05/17/2001	54-64							5U	1.5

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MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	MDL
MW-36M2	W36M2A	08/02/2001	54-64	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-36M2	W36M2A	01/08/2002	54-64							**1.86J**	0.35
MW-36M2	W36M2D	01/08/2002	54-64							**2.16**	0.35
MW-36M2	W36M2A	04/24/2002	54-64	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3.44**	0.35
MW-36M2	W36M2A	08/08/2002	54-64							**4J**	0.43
MW-36M2	W36M2A	11/18/2002	54-64							**4.2J**	0.43
MW-36M2	W36M2A	03/25/2003	54-64							**3.7J**	0.43
MW-36M2	W36M2A	11/12/2003	54-64	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**4.8**	0.35
MW-36M2	W36M2A	03/03/2004	54-64							**3.13***	0.35
MW-36M3	W36M2D	03/03/2004	54-64							**3.09***	0.35
MW-36S	W36SSA	05/05/1999	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36S	W36SSA	08/03/1999	0-10		5U						
MW-36S	W36SSA	08/17/1999	0-10	0.25U	5U	0.25U	0.25U	0.25U	0.25U		
MW-36S	W36SSA	10/25/1999	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36S	W36SSA	09/20/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-36S	W36SSA	12/18/2000	0-10							5U	1.5
MW-36S	W36SSD	12/18/2000	0-10							5U	1.5
MW-36S	W36SSA	08/02/2001	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-36S	W36SSA	03/14/2002	0-10							1U	0.35
MW-36S	W36SSA	11/12/2003	0-10							1U	0.35
MW-36S	W36SSD	11/12/2003	0-10							1U	0.35
MW-36S	W36SSA	03/03/2004	0-10							1U*	1.35
MW-73S	W73SSA	07/09/1999	0-10	0.75U	0.75U	0.75U	0.75J	**50J**	12J		
MW-73S	W73SSA	09/16/1999	0-10	1U	1U	1U	1.3J	**63**	18		
MW-73S	W73SSA	11/02/1999	0-10	0.75U	0.75U	0.97	1.1J	**57**	16		
MW-73S	W73SSA	06/02/2000	0-10	0.54J	0.25U	0.74	0.68J	**44**	8.6J		
MW-73S	W73SSA	09/05/2000	0-10	0.39J	0.25U	0.54	0.33J	**29**	6.8		
MW-73S	W73SSA	11/14/2000	0-10	0.36J	0.25U	0.39	0.26J	**28**	8.4		
MW-73S	W73SSD	11/14/2000	0-10	0.36J	0.25U	0.38	0.29J	**29**	8.4		
MW-73S	W73SSA	12/19/2000	0-10							5U	1.5
MW-73S	W73SSD	12/19/2000	0-10		5U					**6**	1.5
MW-73S	W73SSA	06/14/2001	0-10	0.25U	0.25U	0.25U	0.25U	**22**	4.4	**10**	1.5
MW-73S	W73SSA	01/11/2002	0-10	0.25UJ	0.25UJ	0.31J	0.79J	**79**	20J	**3.3**	0.35
MW-73S	W73SSA	08/20/2002	0-10	0.91J	0.25U	0.65J	0.53J	**34J**	6.3J	**1.9J**	0.43
MW-73S	W73SSA	09/27/2003	0-10	0.25U	0.25U	0.25U	0.25U	**12**	2.2	**3.9**	0.35
MW-73S	W73SSA	02/28/2004	0-10	0.25U	0.25U	0.25U	0.25U	**18***	4.7*	**3**	0.35
MW-74M1	W74M1A	02/14/2000	76-86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M1	W74M1A	05/01/2000	76-86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M1	W74M1A	08/01/2000	76-86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M1	W74M1A	12/06/2000	76-86							5U	1.5
MW-74M1	W74M1A	05/02/2001	76-86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M1	W74M1A	05/08/2001	76-86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M1	W74M1A	08/13/2001	76-86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-74M1	W74M1A	01/03/2002	76-86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M1	W74M1A	04/25/2002	76-86	0.25U	0.25U	0.25U	0.25U	0.99	0.25U		
MW-74M1	W74M1A	06/05/2002	76-86							2U	0.43
MW-74M1	W74M1A	08/08/2002	76-86							2U	0.43
MW-74M1	W74M1A	11/18/2002	76-86							2U	0.43
MW-74M1	W74M1A	03/24/2003	76-86							2U	0.43
MW-74M1	W74M1D	03/24/2003	76-86							0.49J	0.43
MW-74M1	W74M1A	12/04/2003	76-86							0.9J	0.35
MW-74M2	W74M2A	02/14/2000	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M2	W74M2D	02/14/2000	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M2	W74M2A	05/01/2000	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M2	W74M2A	08/01/2000	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M2	W74M2A	12/06/2000	31-41							5U	1.5
MW-74M2	W74M2D	12/06/2000	31-41							5U	1.5
MW-74M2	W74M2A	05/02/2001	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M2	W74M2A	08/10/2001	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-74M2	W74M2A	01/03/2002	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M2	W74M2A	04/25/2002	31-41							0.73J	0.35
MW-74M2	W74M2A	04/30/2002	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.45J	0.35
MW-74M2	W74M2A	08/08/2002	31-41							2U	0.43
MW-74M2	W74M2A	11/18/2002	31-41							1U	0.43
MW-74M2	W74M2A	03/25/2003	31-41	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-74M2	W74M2A	12/04/2003	31-41							0.39J	0.35
MW-74M2	W74M2D	12/04/2003	31-41							0.41J	0.35

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-74M3	W74M3A	02/14/2000	6-16	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M3	W74M3A	05/01/2000	6-16	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M3	W74M3A	08/01/2000	6-16	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M3	W74M3A	12/07/2000	6-16							5U	1.5
MW-74M3	W74M3A	05/10/2001	6-16	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M3	W74M3A	08/13/2001	6-16	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M3	W74M3A	08/13/2001	6-16							5U	1.5
MW-74M3	W74M3A	01/03/2002	6-16	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-74M3	W74M3A	06/05/2002	6-16							2U	0.43
MW-74M3	W74M3A	08/08/2002	6-16							2U	0.43
MW-74M3	W74M3A	11/19/2002	6-16							2U	0.43
MW-74M3	W74M3D	11/19/2002	6-16							2U	0.43
MW-74M3	W74M3A	03/24/2003	6-16							2U	0.43
MW-74M3	W74M3A	12/04/2003	6-16							1U	0.35
MW-75M1	W75M1A	01/27/2000	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-75M1	W75M1A	05/01/2000	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-75M1	W75M1A	08/01/2000	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-75M1	W75M1A	12/07/2000	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-75M1	W75M1A	05/09/2001	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-75M1	W75M1A	08/09/2001	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-75M1	W75M1A	01/04/2002	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-75M1	W75M1A	04/24/2002	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.57J	0.35
MW-75M1	W75M1A	08/19/2002	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-75M1	W75M1A	11/18/2002	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-75M1	W75M1A	03/25/2003	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-75M1	W75M1A	12/03/2003	59-69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.61J	0.35
MW-75M1	W75M1A	02/25/2004	59-69	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.37J	0.35
MW-75M2	W75M2A	01/27/2000	34-44	0.25U	0.25U	0.25U	0.25U	1.6	0.25U		
MW-75M2	W75M2A	05/01/2000	34-44	0.25U	0.25U	0.25U	0.25U	1.6J	0.25U		
MW-75M2	W75M2A	08/02/2000	34-44	0.25U	0.25U	0.25U	0.25U	0.69	0.25U		
MW-75M2	W75M2A	12/07/2000	34-44	0.25U	0.25U	0.25U	0.25U	1.2J	0.25U	5U	1.5
MW-75M2	W75M2A	05/09/2001	34-44	0.25U	0.25U	0.25U	0.25U	1.4	0.25U	**9J**	1.5
MW-75M2	W75M2D	05/09/2001	34-44	0.25U	0.25U	0.25U	0.25U	1.4	0.25U	**9J**	1.5
MW-75M2	W75M2A	08/09/2001	34-44	0.25U	0.25U	0.25U	0.25U	1.6	0.25U	**6.24**	1.5
MW-75M2	W75M2A	01/07/2002	34-44	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.81J	0.25UJ	**4.08**	0.35
MW-75M2	W75M2A	04/25/2002	34-44	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**4.89**	0.35
MW-75M2	W75M2A	06/28/2002	34-44	0.25U	0.25U	0.25U	0.25U	0.76J	0.25U		
MW-75M2	W75M2A	08/19/2002	34-44	0.25U	0.25U	0.25U	0.25U	0.5J	0.25U	**2.8**	0.43
MW-75M2	W75M2D	08/19/2002	34-44	0.25U	0.25U	0.25U	0.25U	0.5J	0.25U	**3.2**	0.43
MW-75M2	W75M2A	11/18/2002	34-44	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3.6J**	0.43
MW-75M2	W75M2A	03/26/2003	34-44	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**6.8J**	0.43
MW-75M2	W75M2A	12/04/2003	34-44	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**4.2**	0.35
MW-75M2	W75M2A	02/25/2004	34-44	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	**3.08**	0.35
MW-75M2	W75M2D	02/25/2004	34-44	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	**2.84**	0.35
MW-75S	W75SSA	01/27/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-75S	W75SSA	05/02/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-75S	W75SSA	08/01/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-75S	W75SSA	12/07/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-75S	W75SSA	05/09/2001	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-75S	W75SSA	08/10/2001	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-75S	W75SSA	01/03/2002	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-75S	W75SSA	08/20/2002	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-75S	W75SSA	12/04/2003	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-75S	W75SSA	02/25/2004	0-10	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	1U	0.35
MW-76M1	W76M1A	01/24/2000	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-76M1	W76M1A	05/02/2000	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-76M1	W76M1A	08/01/2000	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-76M1	W76M1A	12/06/2000	58-68							5U	1.5
MW-76M1	W76M1A	12/07/2000	58-68	0.25U	0.25U	0.25U	0.25U	**5.3**	0.69J		
MW-76M1	W76M1A	05/07/2001	58-68	0.25U	0.25U	0.25U	0.25U	**28**	1	**8**	1.5
MW-76M1	W76M1A	08/13/2001	58-68	0.25U	0.25U	0.25U	0.25U	**90**	2.1	**16**	1.5
MW-76M1	W76M1A	12/28/2001	58-68	0.25U	0.25U	0.25U	0.25U	**110**	3.5J	**30.6**	0.35
MW-76M1	W76M1A	04/24/2002	58-68	0.25U	0.25U	0.25U	0.25U	**79**	5.3J	**15.3**	0.35
MW-76M1	W76M1A	08/19/2002	58-68	0.25U	0.25U	0.25U	0.25U	**14J**	4	**3.1**	0.43
MW-76M1	W76M1A	11/18/2002	58-68	0.25U	0.25U	0.25U	0.25U	**2.7**	1.7	**11J**	0.43
MW-76M1	W76M1A	03/25/2003	58-68	0.25U	0.25U	0.25U	0.25U	**110**	4.8	**200J**	0.43
MW-76M1	W76M1A	09/27/2003	58-68	0.25U	0.25U	0.25U	0.25U	**170**	19J	**97J**	0.35
MW-76M1	W76M1A	02/24/2004	58-68	0.25U	0.25U	0.25U	0.25U	**51D*/51E***	16D*/17*	**16.4**	0.35

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Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-76M2	W76M2A	01/24/2000	38-48	0.25U	0.25U	0.25U	0.25U	**31**	4.2J		
MW-76M2	W76M2D	01/24/2000	38-48	0.25U	0.25U	0.25U	0.25U	**29**	3.9		
MW-76M2	W76M2A	05/02/2000	38-48	0.25U	0.25U	0.25U	0.25U	**37J**	5J		
MW-76M2	W76M2A	08/02/2000	38-48	0.25U	0.25U	0.25U	0.25U	**31**	5.1		
MW-76M2	W76M2A	12/06/2000	38-48							**11**	1.5
MW-76M2	W76M2A	12/07/2000	38-48	0.25U	0.25U	0.25U	0.25U	**46**	5.5J		
MW-76M2	W76M2A	05/07/2001	38-48	0.25U	0.25U	0.25U	0.25U	**56**	6.4	**17**	1.5
MW-76M2	W76M2A	08/13/2001	38-48	0.25U	0.25U	0.25U	0.25U	**51**	6.2	**22.1**	1.5
MW-76M2	W76M2D	08/13/2001	38-48	0.25U	0.25U	0.25U	0.25U	**48**	6	**22.5**	1.5
MW-76M2	W76M2A	01/07/2002	38-48	0.25UJ	0.25UJ	0.25UJ	0.25UJ	**92**	9J	**126**	0.35
MW-76M2	W76M2A	04/24/2002	38-48	0.25U	0.25U	0.25U	0.25U	**130**	9.2J	**174**	0.35
MW-76M2	W76M2A	08/19/2002	38-48	0.25U	0.25U	0.25U	0.25U	**160J**	13J	**250**	0.43
MW-76M2	W76M2A	11/20/2002	38-48	0.25U	0.25U	0.25U	0.25U	**160**	16	**290**	0.43
MW-76M2	W76M2A	03/26/2003	38-48	0.25U	0.25U	0.25U	0.27J	**220**	23	**500***	0.43
MW-76M2	W76M2D	03/26/2003	38-48	0.25U	0.25U	0.25U	0.27J	**220**	22	**500J**	0.43
MW-76M2	W76M2A	12/03/2003	38-48	0.25U	0.25U	0.25U	0.25U	**150**	29	**210**	0.35
MW-76M2	W76M2A	02/24/2004	38-48	0.25U	0.25U	0.25U	0.32*	**160D*/160E***	32D*/32E*	**115**	0.35
MW-76S	W76SSA	01/20/2000	18-28	0.25U	0.25U	0.25U	0.25U	**11**	0.9		
MW-76S	W76SSA	05/02/2000	18-28	0.25U	0.25U	0.25U	0.25U	**7.5J**	2.5J		
MW-76S	W76SSA	08/01/2000	18-28	0.25U	0.25U	0.25U	0.25U	**4.1**	2.1		
MW-76S	W76SSA	12/07/2000	18-28	0.25U	0.25U	0.25U	0.25U	1.3	0.58J	**5**	1.5
MW-76S	W76SSA	05/07/2001	18-28	0.25U	0.25U	0.25U	0.25U	**2.1**	0.25U	**7**	1.5
MW-76S	W76SSA	08/10/2001	18-28	0.25U	0.25U	0.25U	0.25U	**4.5**	0.25U	**13.3**	1.5
MW-76S	W76SSA	12/28/2001	18-28	0.25UJ	0.25UJ	0.25UJ	0.25UJ	**9.9J**	1J	**41.2**	0.35
MW-76S	W76SSA	04/24/2002	18-28	0.25U	0.25U	0.25U	0.25U	**25**	1.3	**175**	0.35
MW-76S	W76SSA	08/20/2002	18-28	0.25U	0.25U	0.25U	0.25U	**31J**	5.5J	**88**	0.43
MW-76S	W76SSA	11/18/2002	18-28	0.25U	0.25U	0.25U	0.25U	**10**	5.4	**26J**	0.43
MW-76S	W76SSA	09/27/2003	18-28	0.25U	0.25U	0.25U	0.25U	**18**	5.8	**19**	0.35
MW-76S	W76SSA	02/24/2004	18-28	0.25U	0.25U	0.25U	0.25U	**28D*/29E***	11*/11D*	**19.1**	0.35
MW-77M1	W77M1A	01/24/2000	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77M1	W77M1A	05/02/2000	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77M1	W77M1A	08/01/2000	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77M1	W77M1A	12/06/2000	98-108							5U	1.5
MW-77M1	W77M1A	12/07/2000	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77M1	W77M1A	05/11/2001	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-77M1	W77M1A	08/13/2001	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-77M1	W77M1A	12/26/2001	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.44J	0.35
MW-77M1	W77M1A	04/24/2002	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-77M1	W77M1A	08/07/2002	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-77M1	W77M1A	11/19/2002	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-77M1	W77M1D	11/19/2002	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-77M1	W77M1A	03/26/2003	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-77M1	W77M1A	09/27/2003	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.81J	0.35
MW-77M1	W77M1A	02/12/2004	98-108	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-77M2	W77M2A	01/25/2000	38-48	0.25U	0.25U	0.25U	1.8NJ	**150**	24		
MW-77M2	W77M2A	05/02/2000	38-48	0.25U	0.25U	0.25U	1.8J	**100J**	25J		
MW-77M2	W77M2A	08/01/2000	38-48	0.25U	0.25U	0.25U	2J	**97J**	20J		
MW-77M2	W77M2A	12/06/2000	38-48							**28**	1.5
MW-77M2	W77M2A	12/07/2000	38-48	0.25U	0.25U	0.25U	2.2J	**93**	18J		
MW-77M2	W77M2A	05/10/2001	38-48	0.25U	0.25U	0.25U	1.5	**39**	9.3J	**16J**	1.5
MW-77M2	W77M2A	08/10/2001	38-48	0.25U	0.25U	0.25U	1.6J	**29**	7.1	**13.9**	1.5
MW-77M2	W77M2A	12/26/2001	38-48	0.25U	0.25U	0.25U	1J	**26**	3.2	**12.3**	0.35
MW-77M2	W77M2A	04/24/2002	38-48	0.25U	0.25U	0.25U	0.89	**5.4**	1.5J	**8.01**	0.35
MW-77M2	W77M2A	08/07/2002	38-48	0.25U	0.25U	0.25U	0.65	**5**	0.61	**7.2J**	0.43
MW-77M2	W77M2A	11/19/2002	38-48	0.25U	0.25U	0.25U	0.48J	**8**	0.54	**7.2**	0.43
MW-77M2	W77M2A	03/26/2003	38-48	0.25U	0.25U	0.25U	0.6	**10**	1	**5.4J**	0.43
MW-77M2	W77M2A	09/27/2003	38-48	0.25U	0.25U	0.25U	0.69	**14**	2.3	**9.1**	0.35
MW-77M2	W77M2A	02/12/2004	38-48	0.25U	0.25U	0.25U	0.57	**12**	2	**5.32**	0.35
MW-77S	W77SSA	01/24/2000	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77S	W77SSA	05/02/2000	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77S	W77SSA	08/01/2000	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77S	W77SSA	12/06/2000	1-11							5U	1.5
MW-77S	W77SSA	12/07/2000	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77S	W77SSD	12/07/2000	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-77S	W77SSA	05/10/2001	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-77S	W77SSD	05/10/2001	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-77S	W77SSA	08/24/2001	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5

Table 2-2
Summary of COCs Detected in Groundwater
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Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-77S	W77SSA	12/26/2001	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-77S	W77SSA	05/29/2002	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-77S	W77SSD	05/29/2002	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-77S	W77SSA	08/07/2002	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-77S	W77SSA	09/27/2003	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-77S	W77SSA	02/12/2004	1-11	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-78M1	W78M1A	02/07/2000	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M1	W78M1A	05/08/2000	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M1	W78M1A	08/02/2000	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M1	W78M1A	12/06/2000	58-68							5U	1.5
MW-78M1	W78M1A	05/10/2001	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-78M1	W78M1A	08/14/2001	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-78M1	W78M1A	12/27/2001	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.4J	0.35
MW-78M1	W78M1A	04/25/2002	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**2.07**	0.35
MW-78M1	W78M1A	08/20/2002	58-68	0.25U	0.25U	0.25U	0.25U	0.4J	0.25U	**4.6J**	0.43
MW-78M1	W78M1D	08/20/2002	58-68	0.25U	0.25U	0.25U	0.25U	0.42J	0.25U	**3J**	0.43
MW-78M1	W78M1A	11/20/2002	58-68	0.25U	0.25U	0.25U	0.25U	0.35	0.25U	**4.1**	0.43
MW-78M1	W78M1A	03/26/2003	58-68	0.25U	0.25U	0.25U	0.25U	0.38J	0.25U	**4.9J**	0.43
MW-78M1	W78M1A	12/04/2003	58-68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**5.3**	0.35
MW-78M1	W78M1A	02/23/2004	58-68	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	**4.83**	0.35
MW-78M2	W78M2A	02/07/2000	38-48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M2	W78M2D	02/07/2000	38-48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M2	W78M2A	05/09/2000	38-48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M2	W78M2A	08/03/2000	38-48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M2	W78M2A	12/06/2000	38-48							**19**	1.5
MW-78M2	W78M2A	05/10/2001	38-48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**9J**	1.5
MW-78M2	W78M2A	08/15/2001	38-48	0.25U	0.25U	0.25U	0.25U	0.48	0.25U	**11.4**	1.5
MW-78M2	W78M2A	12/28/2001	38-48	0.25U	0.25U	0.25U	0.25U	0.8	0.25U	**4.43**	0.35
MW-78M2	W78M2A	04/25/2002	38-48	0.25U	0.25U	0.25U	0.25U	0.38	0.25U	**4.75**	0.35
MW-78M2	W78M2A	08/20/2002	38-48	0.25U	0.25U	0.25U	0.25U	0.65J	0.25U	**6.3J**	0.43
MW-78M2	W78M2A	11/20/2002	38-48	0.25U	0.25U	0.25U	0.25U	0.87	0.25U	**8.7**	0.43
MW-78M2	W78M2A	03/27/2003	38-48	0.25U	0.25U	0.25U	0.25U	0.96	0.25U	**4.7J**	0.43
MW-78M2	W78M2A	12/04/2003	38-48	0.25U	0.25U	0.25U	0.25U	0.45	0.25U	**11**	0.35
MW-78M2	W78M2A	02/24/2004	38-48	0.25U*	0.25U*	0.25U*	0.25U*	0.94*	0.25U*	**8.34**	0.35
MW-78M2	W78M2D	02/24/2004	38-48	0.25U*	0.25U*	0.25U*	0.25U*	1*	0.25U*	**8.18**	0.35
MW-78M3	W78M3A	02/07/2000	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M3	W78M3A	05/09/2000	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M3	W78M3A	08/02/2000	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-78M3	W78M3A	12/06/2000	8-18							5U	1.5
MW-78M3	W78M3A	05/11/2001	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-78M3	W78M3A	08/15/2001	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-78M3	W78M3A	12/28/2001	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-78M3	W78M3A	04/25/2002	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-78M3	W78M3A	08/20/2002	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-78M3	W78M3A	11/20/2002	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-78M3	W78M3A	03/26/2003	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-78M3	W78M3A	12/04/2003	8-18	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-78M3	W78M3A	02/23/2004	8-18	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	1U	0.35
MW-79M1	W79M1A	01/25/2000	67-77	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79M1	W79M1A	05/10/2000	67-77	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79M1	W79M1A	08/01/2000	67-77	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79M1	W79M1A	12/07/2000	67-77							5U	1.5
MW-79M1	W79M1A	08/16/2001	67-77	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-79M1	W79M1A	04/25/2002	67-77	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-79M1	W79M1A	05/15/2003	67-77	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-79M2	W79M2A	01/25/2000	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79M2	W79M2A	05/09/2000	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79M2	W79M2D	05/09/2000	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79M2	W79M2A	08/01/2000	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79M2	W79M2A	12/07/2000	27-37							5U	1.5
MW-79M2	W79M2A	08/16/2001	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-79M2	W79M2A	04/25/2002	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-79M2	W79M2A	05/15/2003	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-79M2	W79M2D	05/15/2003	27-37	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-79S	W79SSA	01/25/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79S	W79SSA	05/08/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		

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MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-79S	W79SSA	08/01/2000	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-79S	W79SSA	12/07/2000	0-10							5U	1.5
MW-79S	W79SSA	08/16/2001	0-10	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-114M1	W114M1A	10/24/2000	96-106	0.25U	0.25U	0.25U	0.25U	0.4	0.25U		
MW-114M1	W114M1A	12/28/2000	96-106							**11**	1.5
MW-114M1	W114M1A	03/14/2001	96-106	0.25U	0.25U	0.25U	0.25U	2J	0.25U	**13**	1.5
MW-114M1	W114M1A	06/18/2001	96-106	0.25U	0.25U	0.25U	0.25U	1.6	0.25U	**10**	1.5
MW-114M1	W114M1A	12/21/2001	96-106	0.25U	0.25U	0.25U	0.25U	**3.3**	0.25U	**22.1**	0.35
MW-114M1	W114M1A	06/21/2002	96-106	0.25U	0.25U	0.25U	0.25U	**2.1**	0.25U	**12**	0.43
MW-114M1	W114M1A	08/09/2002	96-106	0.25U	0.25U	0.25U	0.25U	**2.5**	0.25U	**14**	0.43
MW-114M1	W114M1A	11/13/2002	96-106	0.25U	0.25U	0.25U	0.25U	1.7	0.25U	**11**	0.43
MW-114M1	W114M1A	05/27/2003	96-106	0.25U	0.25U	0.25U	0.25U	1.2	0.25U	**9.6**	0.35
MW-114M1	W114M1A	10/02/2003	96-106	0.25U	0.25U	0.25U	0.25U	1.1	0.25U	**7.7J**	0.35
MW-114M1	W114M1A	02/09/2004	96-106	0.25U	0.25U	0.25U	0.25U	1.6	0.25U	**13.4**	0.35
MW-114M2	W114M2A	10/24/2000	39-49	0.25U	0.25U	0.25U	0.25U	**140**	14		
MW-114M2	W114M2D	10/24/2000	39-49	0.25U	0.25U	0.25U	0.5J	**140**	14		
MW-114M2	W114M2A	12/29/2000	39-49							**300**	1.5
MW-114M2	W114M2A	03/14/2001	39-49	0.25U	0.25U	0.25U	0.53J	**120J**	10J	**260**	1.5
MW-114M2	W114M2A	06/19/2001	39-49	0.25U	0.25U	0.25U	0.5J	**140**	9.3J	**207**	1.5
MW-114M2	W114M2A	01/07/2002	39-49	0.25UJ	0.25UJ	0.25UJ	0.69J	**170**	15J		
MW-114M2	W114M2A	01/10/2002	39-49							**127**	0.35
MW-114M2	W114M2A	05/29/2002	39-49	0.25U	0.25U	0.25U	1.1J	**190**	19J	**72**	0.43
MW-114M2	W114M2A	08/09/2002	39-49	0.25U	0.25U	0.25U	1.3J	**210**	24	**64**	0.43
MW-114M2	W114M2A	11/13/2002	39-49	0.25U	0.25U	0.25U	1.4J	**220**	28	**71**	0.43
MW-114M2	W114M2A	05/27/2003	39-49	0.25U	0.25U	0.25U	1.5J	**200**	31	**56**	0.35
MW-114M2	W114M2A	10/01/2003	39-49	0.25U	0.25U	0.25U	1.4	**220**	26	**52J**	0.35
MW-114M2	W114M2A	02/09/2004	39-49	0.25U	0.25U	0.25U	1.4	**210**	27	**42.3**	0.35
MW-129M1	W129M1A	11/03/2000	66-76	0.25U	0.25U	0.25U	0.25U	0.66J	0.25U		
MW-129M1	W129M1A	01/02/2001	66-76							**10**	1.5
MW-129M1	W129M1A	03/14/2001	66-76	0.25U	0.25U	0.25U	0.25U	0.62J	0.25U	**9**	1.5
MW-129M1	W129M1A	06/19/2001	66-76	0.25U	0.25U	0.25U	0.25U	0.48	0.25U	**6**	1.5
MW-129M1	W129M1A	12/21/2001	66-76	0.25U	0.25U	0.25U	0.25U	1.5	0.25U	**5.92J**	0.35
MW-129M1	W129M1A	04/12/2002	66-76	0.25U	0.25U	0.25U	0.25U	1.7	0.25U	**4.63**	0.35
MW-129M1	W129M1A	06/27/2002	66-76	0.25U	0.25U	0.25U	0.25U	0.72	0.25U		
MW-129M1	W129M1A	07/10/2002	66-76	0.25U	0.25U	0.25U	0.25U	0.5	0.25U		
MW-129M1	W129M1A	08/19/2002	66-76	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.9J**	0.43
MW-129M1	W129M1A	11/13/2002	66-76	0.25U	0.25U	0.25U	0.25U	0.26	0.25U	**2.2**	0.43
MW-129M1	W129M1A	03/21/2003	66-76							**5.9J**	0.43
MW-129M1	W129M1A	03/24/2003	66-76	0.25U	0.25U	0.25U	0.25U	1.7	0.25U		
MW-129M1	W129M1A	10/02/2003	66-76	0.25U	0.25U	0.25U	0.25U	1.6	0.25U	**8.5J**	0.35
MW-129M1	W129M1A	02/10/2004	66-76	0.25U*	0.25U*	0.25U*	0.25U*	**2.2***	0.25U*	**6.62**	0.35
MW-129M2	W129M2A	11/03/2000	46-56	0.25U	0.25U	0.25U	0.25U	1.7	0.25U		
MW-129M2	W129M2A	01/02/2001	46-56							5U	1.5
MW-129M2	W129M2A	03/14/2001	46-56	0.25U	0.25U	0.25U	0.25U	1.2J	0.25U	**6**	1.5
MW-129M2	W129M2A	06/20/2001	46-56	0.25U	0.25U	0.25U	0.25U	1.8	0.25U	**8**	1.5
MW-129M2	W129M2A	12/21/2001	46-56	0.25U	0.25U	0.25U	0.25U	**10**	0.25U	**6.93J**	0.35
MW-129M2	W129M2A	04/12/2002	46-56	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.72J	0.35
MW-129M2	W129M2A	06/27/2002	46-56	0.25U	0.25U	0.25U	0.25U	**7.6**	0.75		
MW-129M2	W129M2D	06/27/2002	46-56	0.25U	0.25U	0.25U	0.25U	**7.9**	0.77		
MW-129M2	W129M2A	07/10/2002	46-56	0.25U	0.25U	0.25U	0.25U	**7.9**	0.77		
MW-129M2	W129M2A	08/19/2002	46-56	0.25U	0.25U	0.25U	0.25U	**8.4**	0.82	**13**	0.43
MW-129M2	W129M2A	11/13/2002	46-56	0.25UJ	0.25UJ	0.25UJ	0.25UJ	**13J**	1.5J	**16**	0.43
MW-129M2	W129M2D	11/13/2002	46-56	0.25U	0.25U	0.25U	0.25U	**13**	1.5	**15**	0.43
MW-129M2	W129M2A	03/24/2003	46-56	0.25U	0.25U	0.25U	0.25U	**13**	1.4	**14J**	0.43
MW-129M2	W129M2A	10/02/2003	46-56	0.25U	0.25U	0.25U	0.25U	**3.8**	0.56	**6.7J**	0.35
MW-129M2	W129M2A	02/10/2004	46-56	0.25U	0.25U	0.25U	0.25U	**2.8***	0.52*	**5.13**	0.35
MW-129M3	W129M3A	11/03/2000	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-129M3	W129M3A	01/02/2001	26-36							5U	1.5
MW-129M3	W129M3A	03/14/2001	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-129M3	W129M3A	06/20/2001	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-129M3	W129M3D	06/20/2001	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-129M3	W129M3A	12/21/2001	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-129M3	W129M3A	04/15/2002	26-36	0.25U	0.25U	0.25U	0.25U	0.32	0.25U	0.69J	0.35
MW-129M3	W129M3A	08/19/2002	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**2J**	0.43
MW-129M3	W129M3D	08/19/2002	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.5J**	0.43
MW-129M3	W129M3A	11/13/2002	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.7J	0.43
MW-129M3	W129M3A	03/24/2003	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-129M3	W129M3A	10/02/2003	26-36	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.59J	0.35
MW-129M3	W129M3A	02/10/2004	26-36	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	1U*	0.35
MW-139M1	W139M1A	12/29/2000	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-139M1	W139M1A	03/15/2001	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-139M1	W139M1A	06/20/2001	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-139M1	W139M1A	12/27/2001	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-139M1	W139M1A	04/17/2002	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25UJ	**1.86**	0.35
MW-139M1	W139M1A	08/09/2002	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.6J**	0.43
MW-139M1	W139M1A	11/13/2002	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.4J**	0.43
MW-139M1	W139M1A	03/28/2003	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.65J	0.43
MW-139M1	W139M1A	10/10/2003	110-120	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.42J	0.35
MW-139M1	W139M1A	02/27/2004	110-120	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.401J	0.35
MW-139M2	W139M2A	12/29/2000	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**8**	1.5
MW-139M2	W139M2A	03/15/2001	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**11J**	1.5
MW-139M2	W139M2A	06/20/2001	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3J**	1.5
MW-139M2	W139M2A	12/27/2001	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-139M2	W139M2A	04/17/2002	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25UJ	**2.77**	0.35
MW-139M2	W139M2A	08/09/2002	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.2J**	0.43
MW-139M2	W139M2D	08/09/2002	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.3J**	0.43
MW-139M2	W139M2A	11/13/2002	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-139M2	W139M2A	03/28/2003	70-80	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-139M2	W139M2A	10/10/2003	70-80	0.25U	0.25U	0.25U	0.25U	0.32	0.25U	**13**	0.35
MW-139M2	W139M2A	02/27/2004	70-80	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	1U	0.35
MW-139M3	W139M3A	12/29/2000	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-139M3	W139M3A	03/15/2001	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-139M3	W139M3A	06/20/2001	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-139M3	W139M3A	12/27/2001	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-139M3	W139M3A	04/17/2002	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25UJ	1U	0.35
MW-139M3	W139M3A	08/09/2002	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-139M3	W139M3A	11/13/2002	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-139M3	W139M3A	03/28/2003	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-139M3	W139M3D	03/28/2003	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-139M3	W139M3A	10/10/2003	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-139M3	W139M3A	02/27/2004	35-45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-162M1	W162M1A	05/04/2001	114.28-124.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-162M1	W162M1A	08/15/2001	114.28-124.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-162M1	W162M1A	01/18/2002	114.28-124.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-162M1	W162M1A	04/17/2002	114.28-124.28							1U	0.35
MW-162M1	W162M1A	08/08/2002	114.28-124.28							2U	0.43
MW-162M1	W162M1A	11/13/2002	114.28-124.28							2U	0.43
MW-162M1	W162M1A	03/26/2003	114.28-124.28							2U	0.43
MW-162M1	W162M1A	10/10/2003	114.28-124.28							1U	0.35
MW-162M2	W162M2A	05/05/2001	49.28-59.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-162M2	W162M2A	08/15/2001	49.28-59.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-162M2	W162M2A	01/18/2002	49.28-59.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.55J**	0.35
MW-162M2	W162M2A	04/18/2002	49.28-59.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**2.03**	0.35
MW-162M2	W162M2A	08/08/2002	49.28-59.28							**2.4J**	0.43
MW-162M2	W162M2D	08/08/2002	49.28-59.28							**2J**	0.43
MW-162M2	W162M2A	11/14/2002	49.28-59.28							**1.9J**	0.43
MW-162M2	W162M2A	03/27/2003	49.28-59.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3.5J**	0.43
MW-162M2	W162M2D	03/27/2003	49.28-59.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3.4J**	0.43
MW-162M2	W162M2A	10/10/2003	49.28-59.28							**4.4**	0.35
MW-162M3	W162M3A	05/05/2001	9.28-19.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-162M3	W162M3A	08/16/2001	9.28-19.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-162M3	W162M3A	01/22/2002	9.28-19.28	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-162M3	W162M3A	04/18/2002	9.28-19.28							1U	0.35
MW-162M3	W162M3D	04/18/2002	9.28-19.28							1U	0.35
MW-162M3	W162M3A	08/08/2002	9.28-19.28							2U	0.43
MW-162M3	W162M3A	11/15/2002	9.28-19.28							2U	0.43
MW-162M3	W162M3A	03/27/2003	9.28-19.28							2U	0.43
MW-162M3	W162M3A	10/10/2003	9.28-19.28							1U	0.35
MW-165M1	W165M1A	05/07/2001	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-165M1	W165M1A	08/16/2001	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-165M1	W165M1A	02/07/2002	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-165M1	W165M1A	04/18/2002	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35

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Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-165M1	W165M1A	08/10/2002	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-165M1	W165M1A	11/13/2002	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-165M1	W165M1A	03/27/2003	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**4J**	0.43
MW-165M1	W165M1A	09/10/2003	106-116	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**2.5**	0.35
MW-165M1	W165M1A	03/01/2004	106-116	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	**3.15**	0.35
MW-165M2	W165M2A	05/08/2001	46-56	0.25U	0.25U	0.25U	0.25U	**60**	4.1	**122J**	1.5
MW-165M2	W165M2A	08/16/2001	46-56	0.25U	0.25U	0.25U	0.25U	**50**	3.6	**102**	1.5
MW-165M2	W165M2A	01/07/2002	46-56	0.25U	0.25U	0.25U	0.25U	**27J**	2.3		
MW-165M2	W165M2A	01/10/2002	46-56							**81.2**	0.35
MW-165M2	W165M2A	04/18/2002	46-56	0.25U	0.25U	0.25U	0.25U	**26**	2.2J	**83.5**	0.35
MW-165M2	W165M2A	08/10/2002	46-56	0.25U	0.25U	0.25U	0.25U	**23**	2.2	**64**	0.43
MW-165M2	W165M2A	11/26/2002	46-56	0.25U	0.25U	0.25U	0.25U	**19**	2	**78**	0.43
MW-165M2	W165M2A	03/27/2003	46-56	0.25U	0.25U	0.25U	0.25U	**35**	2.5	**110J**	0.43
MW-165M2	W165M2A	09/11/2003	46-56	0.25U	0.25U	0.25U	0.25U	**12**	1.5J	**57J**	0.35
MW-165M2	W165M2D	09/11/2003	46-56	0.25U	0.25U	0.25U	0.25U	**12**	1.6	**58J**	0.35
MW-165M2	W165M2A	03/01/2004	46-56	0.25U*	0.25U*	0.25U*	0.25U*	**13***	2.1*	**50.9**	0.35
MW-165M2	W165M2D	03/01/2004	46-56	0.25U*	0.25U*	0.25U*	0.25U*	**13***	2.1*	**50.9**	0.35
MW-165M3	W165M3A	05/09/2001	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-165M3	W165M3D	05/09/2001	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-165M3	W165M3A	08/16/2001	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-165M3	W165M3A	02/13/2002	16-26	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.35
MW-165M3	W165M3A	04/19/2002	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1UJ	0.35
MW-165M3	W165M3A	08/10/2002	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-165M3	W165M3A	11/26/2002	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-165M3	W165M3A	03/28/2003	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-165M3	W165M3A	10/14/2003	16-26	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-165M3	W165M3A	03/01/2004	16-26	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	0.25U*	1U	0.35
MW-172M1	W172M1A	06/21/2001	134-144	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-172M1	W172M1A	09/21/2001	134-144	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-172M1	W172M1A	02/08/2002	134-144	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.35
MW-172M1	W172M1A	09/18/2002	134-144	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-172M1	W172M1A	02/03/2003	134-144	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-172M1	W172M1A	03/28/2003	134-144	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-172M1	W172M1A	10/14/2003	134-144	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-172M1	W172M1A	02/10/2004	134-144	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U*	0.35
MW-172M2	W172M2A	06/21/2001	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3J**	1.5
MW-172M2	W172M2A	09/21/2001	104-114	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	**3.94J**	1.5
MW-172M2	W172M2A	02/08/2002	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**5.45**	0.35
MW-172M2	W172M2A	09/18/2002	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**7.1**	0.43
MW-172M2	W172M2A	11/26/2002	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**6.8**	0.43
MW-172M2	W172M2A	03/28/2003	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**6.8J**	0.43
MW-172M2	W172M2A	10/15/2003	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**6.8**	0.35
MW-172M2	W172M2A	02/10/2004	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**4.45**	0.35
MW-172M2	W172M2D	02/10/2004	104-114	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**4.44**	0.35
MW-172M3	W172M3A	06/21/2001	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-172M3	W172M3A	09/24/2001	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-172M3	W172M3A	02/08/2002	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-172M3	W172M3D	02/08/2002	44-54	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.35
MW-172M3	W172M3A	09/18/2002	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-172M3	W172M3A	02/03/2003	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-172M3	W172M3A	03/28/2003	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-172M3	W172M3A	10/15/2003	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-172M3	W172M3A	02/10/2004	44-54	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U*	0.35
MW-173M1	W173M1A	07/18/2001	104.2-114.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-173M1	W173M1A	11/08/2001	104.2-114.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	0.85
MW-173M1	W173M1A	01/25/2002	104.2-114.2	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.35
MW-173M1	W173M1A	03/15/2002	104.2-114.2							1U	0.35
MW-173M1	W173M1A	04/23/2002	104.2-114.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-173M1	W173M1A	09/03/2002	104.2-114.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-173M1	W173M1A	11/14/2002	104.2-114.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-173M1	W173M1A	05/28/2003	104.2-114.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-173M2	W173M2A	07/19/2001	72.2-82.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-173M2	W173M2A	11/08/2001	72.2-82.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	0.85
MW-173M2	W173M2A	01/25/2002	72.2-82.2	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.35
MW-173M2	W173M2A	03/13/2002	72.2-82.2							2U	0.35

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	MDL
MW-173M2	W173M2A	04/19/2002	72.2-82.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-173M2	W173M2A	08/09/2002	72.2-82.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-173M2	W173M2A	11/14/2002	72.2-82.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-173M2	W173M2A	05/28/2003	72.2-82.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-173M2	W173M2D	05/28/2003	72.2-82.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-173M2	W173M2A	11/14/2003	72.2-82.2							1U	0.35
MW-173M2	W173M2A	02/10/2004	72.2-82.2							1U*	0.35
MW-173M3	W173M3A	07/19/2001	52.2-62.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-173M3	W173M3A	11/08/2001	52.2-62.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	0.85
MW-173M3	W173M3A	01/25/2002	52.2-62.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.63J	0.35
MW-173M3	W173M3A	03/12/2002	52.2-62.2							0.67J	0.35
MW-173M3	W173M3A	04/19/2002	52.2-62.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.88J	0.35
MW-173M3	W173M3A	08/09/2002	52.2-62.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.7J	0.43
MW-173M3	W173M3A	11/15/2002	52.2-62.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.48J	0.43
MW-173M3	W173M3A	05/27/2003	52.2-62.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.1**	0.35
MW-173M3	W173M3A	11/14/2003	52.2-62.2							0.653J	0.35
MW-173M3	W173M3D	11/14/2003								0.602J	0.35
MW-173M3	W173M3A	02/11/2004	52.2-62.2							0.842	0.35
MW-175M1	W175M1A	08/13/2001	136.4-146.4							5U	1.5
MW-175M1	W175M1A	08/22/2001	136.4-146.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-175M1	W175M1A	11/07/2001	136.4-146.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	0.85
MW-175M1	W175M1A	01/28/2002	136.4-146.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-175M1	W175M1A	04/18/2002	136.4-146.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-175M1	W175M1A	08/12/2002	136.4-146.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-175M1	W175M1A	11/15/2002	136.4-146.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-175M1	W175M1A	05/22/2003	136.4-146.4							1U	0.35
MW-175M1	W175M1A	09/30/2003	136.4-146.4							1UJ	0.35
MW-175M1	W175M1A	12/31/2003	136.4-146.4							1UJ	0.35
MW-175M2	W175M2A	08/14/2001	71.66-81.66	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-175M2	W175M2A	11/08/2001	71.66-81.66	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	0.85
MW-175M2	W175M2A	01/28/2002	71.66-81.66	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-175M2	W175M2A	04/18/2002	71.66-81.66	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-175M2	W175M2A	08/13/2002	71.66-81.66	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-175M2	W175M2D	08/13/2002	71.66-81.66	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-175M2	W175M2A	11/15/2002	71.66-81.66	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-175M2	W175M2A	05/22/2003	71.66-81.66							1U	0.35
MW-175M2	W175M2A	09/30/2003	71.66-81.66							1UJ	0.35
MW-175M2	W175M2A	12/31/2003	71.66-81.66							1UJ	0.35
MW-175M3	W175M3A	08/15/2001	34.65-39.65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	1.5
MW-175M3	W175M3A	11/08/2001	34.65-39.65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	5U	0.85
MW-175M3	W175M3A	01/28/2002	34.65-39.65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-175M3	W175M3A	04/18/2002	34.65-39.65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-175M3	W175M3D	04/18/2002	34.65-39.65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-175M3	W175M3A	08/13/2002	34.65-39.65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-175M3	W175M3A	11/15/2002	34.65-39.65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-175M3	W175M3A	05/22/2003	34.65-39.65							1U	0.35
MW-175M3	W175M3A	09/30/2003	34.65-39.65							1UJ	0.35
MW-175M3	W175M3A	12/31/2003	34.65-39.65							1UJ	0.35
MW-186M1	W186M1A	01/24/2002	79.5-89.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.35
MW-186M1	W186M1A	04/08/2002	79.5-89.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-186M1	W186M1A	07/30/2002	79.5-89.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-186M2	W186M2A	01/23/2002	59.6-69.6	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.35
MW-186M2	W186M2A	04/08/2002	59.6-69.6	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-186M2	W186M2A	07/29/2002	59.6-69.6	0.25U	0.25U	0.25U	0.25U	0.25U	0.25UJ	2U	0.43
MW-210M1	W210M1A	06/06/2002	99.69-109.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-210M1	W210M1A	10/28/2002	99.69-109.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-210M1	W210M1A	03/21/2003	99.69-109.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-210M1	W210M1D	03/21/2003	99.69-109.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-210M1	W210M1A	02/05/2004	99.69-109.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U*	0.35
MW-210M2	W210M2A	06/06/2002	54.69-64.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**12**	0.43
MW-210M2	W210M2D	06/06/2002	54.69-64.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**11**	0.43
MW-210M2	W210M2A	10/28/2002	54.69-64.69	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**9.93**	0.35
MW-210M2	W210M2A	02/28/2003	54.69-64.69	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	**12J**	0.43
MW-210M2	W210M2A	02/05/2004	54.69-64.69	0.25U	0.25U	0.25U	0.25U	0.88	0.25U	**19***	0.35

Table 2-2
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Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	MDL
MW-210M3	W210M3A	06/06/2002	19.68-29.68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-210M3	W210M3A	10/25/2002	19.68-29.68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-210M3	W210M3A	02/28/2003	19.68-29.68	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2UJ	0.43
MW-210M3	W210M3A	02/05/2004	19.68-29.68	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U*	0.35
MW-211M1	W211M1A	06/06/2002	55-65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-211M1	W211M1A	10/28/2002	55-65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-211M1	W211M1D	10/28/2002	55-65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.51J	0.35
MW-211M1	W211M1A	02/28/2003	55-65	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-211M1	W211M1A	02/04/2004	55-65	0.25U	0.25U	0.25U	0.25U	0.56	0.25U	**5.6***	0.35
MW-211M1	W211M1A	03/10/2004	55-65							**9.8***	0.35
MW-211M2	W211M2A	06/06/2002	29.7-39.7	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3**	0.43
MW-211M2	W211M2A	10/29/2002	29.7-39.7	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3.02**	0.35
MW-211M2	W211M2A	02/28/2003	29.7-39.7	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**3.5**	0.43
MW-211M2	W211M2A	02/04/2004	29.7-39.7	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U*	0.35
MW-211M3	W211M3A	06/06/2002	5.01-15.01	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-211M3	W211M3A	10/28/2002	5.01-15.01	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-211M3	W211M3A	02/28/2003	5.01-15.01	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-211M3	W211M3A	02/04/2004	5.01-15.01							1U*	0.35
MW-211M3	W211M3D	02/04/2004	5.01-15.01							1U*	0.35
MW-214M1	W214M1A	06/21/2002	111.4-121.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-214M1	W214M1A	11/04/2002	111.4-121.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-214M1	W214M1A	02/05/2003	111.4-121.4	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-214M1	W214M1A	02/05/2004	111.4-121.4							1U*	0.35
MW-214M2	W214M2A	06/21/2002	78.45-88.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-214M2	W214M2A	11/04/2002	78.45-88.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.6J	0.43
MW-214M2	W214M2A	02/05/2003	78.45-88.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.72J	0.43
MW-214M2	W214M2A	02/05/2004	78.45-88.45							1U*	0.35
MW-214M3	W214M3A	06/21/2002	53.45-63.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-214M3	W214M3A	11/04/2002	53.45-63.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-214M3	W214M3A	02/04/2003	53.45-63.45							2U	0.43
MW-214M3	W214M3A	02/06/2003	53.45-63.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U		
MW-214M3	W214M3A	02/05/2004	53.45-63.45							1U*	0.35
MW-221M1	W221M1A	07/30/2002	70.79-80.79	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-221M1	W221M1A	11/01/2002	70.79-80.79	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-221M1	W221M1D	11/01/2002	70.79-80.79	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-221M1	W221M1A	02/10/2003	70.79-80.79	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-221M1	W221M1A	02/04/2004	70.79-80.79							1U	0.35
MW-221M2	W221M2A	07/30/2002	32.85-42.85	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2UJ	0.43
MW-221M2	W221M2D	07/30/2002	32.85-42.85	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2UJ	0.43
MW-221M2	W221M2A	11/01/2002	32.85-42.85	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-221M2	W221M2A	02/10/2003	32.85-42.85	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-221M2	W221M2A	02/04/2004	32.85-42.85							1U	0.35
MW-221M3	W221M3A	07/30/2002	10.86-20.86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2UJ	0.43
MW-221M3	W221M3A	11/01/2002	10.86-20.86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-221M3	W221M3A	02/10/2003	10.86-20.86	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-221M3	W221M3A	02/04/2004	10.86-20.86							1U	0.35
MW-221M3	W221M3D	02/04/2004	10.86-20.86							1U	0.35
MW-225M1	W225M1A	08/05/2002	77.1-87.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-225M1	W225M1A	11/12/2002	77.1-87.1	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.43
MW-225M1	W225M1D	11/12/2002	77.1-87.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-225M1	W225M1A	02/27/2003	77.1-87.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-225M1	W225M1A	02/04/2004	77.1-87.1							1U	0.35
MW-225M2	W225M2A	08/05/2002	46.48-56.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-225M2	W225M2A	11/14/2002	46.48-56.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-225M2	W225M2A	02/27/2003	46.48-56.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-225M2	W225M2D	02/27/2003	46.48-56.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-225M2	W225M2A	02/04/2004	46.48-56.48							1U	0.35
MW-225M2	W225M2D	02/04/2004	46.48-56.48							1U	0.35
MW-225M3	W225M3A	08/06/2002	26.48-36.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**2.9**	0.43

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	PERCHLORATE MDL
MW-225M3	W225M3A	11/14/2002	26.48-36.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.5J**	0.43
MW-225M3	W225M3A	02/27/2003	26.48-36.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.62J	0.43
MW-225M3	W225M3A	02/04/2004	26.48-36.48	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.9**	0.35
MW-231M1	W231M1A	08/26/2002	104.15-114.15	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.51J	0.43
MW-231M1	W231M1A	11/14/2002	104.15-114.15	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-231M1	W231M1A	02/06/2003	104.15-114.15	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-231M1	W231M1A	01/30/2004	104.15-114.15							1U*	0.35
MW-231M2	W231M2A	08/26/2002	58.33-68.33	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.5J**	0.43
MW-231M2	W231M2A	11/14/2002	58.33-68.33	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.54J	0.43
MW-231M2	W231M2A	02/06/2003	58.33-68.33	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.6J	0.43
MW-231M2	W231M2D	02/06/2003	58.33-68.33	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-231M2	W231M2A	01/30/2004	58.33-68.33							0.582J*	0.35
MW-231M3	W231M3A	08/26/2002	8.27-18.27	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-231M3	W231M3A	02/06/2003	8.27-18.27	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-231M3	W231M3A	06/12/2003	8.27-18.27	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-231M3	W231M3A	02/02/2004	8.27-18.27							1U*	0.35
MW-231M3	W231M3D	02/02/2004	8.27-18.27							1U*	0.35
MW-240M1	W240M1A	11/12/2002	100-110	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-240M1	W240M1A	03/05/2003	100-110	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	1U	0.35
MW-240M1	W240M1A	08/12/2003	100-110	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-240M2	W240M2A	11/14/2002	26.45-36.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2UJ	0.43
MW-240M2	W240M2A	03/05/2003	26.45-36.45	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	1U	0.35
MW-240M2	W240M2A	06/12/2003	26.45-36.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-240M2	W240M2D	06/12/2003	26.45-36.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-240M3	W240M3A	11/14/2002	6.45-16.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-240M3	W240M3A	03/06/2003	6.45-16.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-240M3	W240M3D	03/06/2003	6.45-16.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-240M3	W240M3A	06/12/2003	6.45-16.45	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-248M1	W248M1A	01/06/2003	106.34-116.34	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-248M1	W248M1A	03/19/2003	106.34-116.34	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-248M1	W248M1A	06/26/2003	106.34-116.34	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-248M2	W248M2A	01/08/2003	66.5-76.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-248M2	W248M2A	03/19/2003	66.5-76.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-248M2	W248M2A	06/25/2003	66.5-76.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-248M3	W248M3A	01/08/2003	31.5-41.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-248M3	W248M3A	03/19/2003	31.5-41.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-248M3	W248M3A	06/25/2003	31.5-41.5	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-252M1	W252M1A	02/26/2003	60.6-70.6	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-252M1	W252M1A	05/08/2003	60.6-70.6	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-252M1	W252M1A	08/06/2003	60.6-70.6	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-252M2	W252M2A	02/26/2003	31.62-41.61	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	2U	0.43
MW-252M2	W252M2A	05/08/2003	31.62-41.61	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-252M2	W252M2A	08/06/2003	31.62-41.61	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-252M3	W252M3A	02/26/2003	1.63-11.63	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-252M3	W252M3A	05/08/2003	1.63-11.63	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.555J	0.35
MW-252M3	W252M3A	08/06/2003	1.63-11.63	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-255M1	W255M1A	03/31/2003	96.3-106.3	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-255M1	W255M1A	07/31/2003	96.3-106.3	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-255M1	W255M1A	12/03/2003	96.3-106.3	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-255M2	W255M2A	03/31/2003	60.43-70.43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.54J	0.43
MW-255M2	W255M2A	07/31/2003	60.43-70.43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	**1.1**	0.35
MW-255M2	W255M2A	12/03/2003	60.43-70.43	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.36J	0.35
MW-255M3	W255M3A	03/31/2003	26.1-36.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-255M3	W255M3A	07/31/2003	26.1-36.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-255M3	W255M3D	07/31/2003	26.1-36.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-255M3	W255M3A	12/11/2003	26.1-36.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35

Table 2-2
Summary of COCs Detected in Groundwater
Final Feasibility Study
Demo 1 Groundwater Operable Unit

MW ID	AMEC ID	DATE SAMPLED	SCREEN DEPTH (feet BWT)	TNT	2,4-DNT	2A-DNT	4A-DNT	RDX	HMX	PERCHLORATE CONC.	MDL
MW-258M1	W258M1A	03/07/2003	64.1-74.1	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	1U	0.35
MW-258M1	W258M1A	06/12/2003	64.1-74.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-258M1	W258M1A	09/24/2003	64.1-74.1	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.36J	0.35
MW-258M2	W258M2A	03/07/2003	42.2-47.2	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.25UJ	0.408J	0.35
MW-258M2	W258M2A	06/12/2003	42.2-47.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.4J	0.35
MW-258M2	W258M2A	09/24/2003	42.2-47.2	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.51J	0.35
MW-258M3	W258M3A	03/07/2003	32.25-37.25	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.49J	0.43
MW-258M3	W258M3D	03/07/2003	32.25-37.25	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	2U	0.43
MW-258M3	W258M3A	06/12/2003	32.25-37.25	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1U	0.35
MW-258M3	W258M3A	09/24/2003	32.25-37.25	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	1UJ	0.35
PHOP01	PHOP01-A	04/17/2003	39.06-41.06							1U	0.35
PHOP01	PHOP01-A	07/10/2003	39.06-41.06							1UJ	0.35
PHOP01	PHOP01-A	12/10/2003	39.06-41.06							1U	0.35
PHOP02	PHOP02-A	04/17/2003	61.2-63.2							1U	0.35
PHOP02	PHOP02-A	07/10/2003	61.2-63.2							1UJ	0.35
PHOP02	PHOP02-A	12/10/2003	61.2-63.2							1U	0.35

Notes:

BWT = Below water table

BOLD values indicate exceedances of Lifetime Health Advisory for TNT and RDX (2 ug/l), for HMX (400 ug/l) and DEP guideline for perchlorate (1.0 ug/l).

SHADED cells indicate values that exceed the low end of the range of EPA's relevant standard for perchlorate of 4-18 ug/l (>4 ug/l shaded)

Includes data for all groundwater sampling events at Demo 1 conducted through March 2004.

J = Estimated concentration

E = Result exceeded upper level of calibration range

D = Dilution - Re-analysis

U = Compound non-detect at listed concentration

* = Unvalidated result

Table 2-3
Summary of Groundwater Analytical Detections
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Method	Analyte	Units	No. of Detects	No. of Samples	No. of Rejects	Frequency of Detection	Maximum Concentration	Maximum Sample ID	Mean of Detects	Mean of All Samples(1)
8330N/8330NX	1,3,5-TRINITROBENZENE	UG/L	0	652	82	0.0%				
8330N/8330NX	1,3-DINITROBENZENE	UG/L	0	652	82	0.0%				
8330N/8330NX	2,4-DIAMINO-6-NITROTOLUENE	UG/L	0	652	82	0.0%				
8330N/8330NX	2-AMINO-4,6-DINITROTOLUENE	UG/L	39	652	82	7.0%	3.6 J	W31SSA	1.87	0.25
8330N/8330NX	2-NITROTOLUENE	UG/L	0	652	82	0.0%				
8330N/8330NX	3-NITROTOLUENE	UG/L	0	652	82	0.0%				
8330N/8330NX	4-AMINO-2,6-DINITROTOLUENE	UG/L	59	652	82	10.0%	7.8 J	W19S2A	1.87	0.31
8330N/8330NX	4-NITROTOLUENE	UG/L	0	652	82	0.0%				
8330N/8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	UG/L	172	652	82	30.0%	370	W31MMA	50.44	15.31
8330N/8330NX	NITROGLYCERIN	UG/L	0	652	82	0.0%				
8330N/8330NX	PENTAERYTHRITOL TETRANITRATE	UG/L	0	652	82	0.0%				
8330N/8330NX	TETRYL	UG/L	0	652	82	0.0%				
8330NX	HEXAHYDRO-1,3,5-TRINITROSO-1,3,5-TRIAZIN	UG/L	12	106	27	15.0%	4.4 J	W19SSA	1.23	0.29
8330NX	HEXAHYDRO-1,3-DINITROSO-5-MONONITRO-1,3,	UG/L	11	106	27	14.0%	1.8	W19SSA	0.69	0.2
8330NX	HEXAHYDRO-1-MONONITROSO-3,5-DINITRO-1,3,	UG/L	32	106	27	41.0%	12	W19SSA	2.61	1.13
8330NX/8330N	2,6-DIAMINO-4-NITROTOLUENE	UG/L	0	652	82	0.0%				
8330NX/8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	UG/L	105	652	82	18.0%	93	W19S2A	15.81	3.01
8330NX/8330N	PICRIC ACID	UG/L	0	652	125	0.0%				
8330NX/8330N/OC21B/SW8270	2,4-DINITROTOLUENE	UG/L	16	682	82	3.0%	0.52 J	W31DDA	0.39	0.13
8330NX8330N	2,4,6-TRINITROTOLUENE	UG/L	30	652	82	5.0%	16	W19S2A	4.01	0.33
E314.0	PERCHLORATE	UG/L	219	497	1	44.0%	500 *	W76M2A	23.87	11.24
ILSBTL/IM40/IM40MB/IM40SB	ANTIMONY	UG/L	7	71	9	11.0%	6.9 J	W35SSA	5.57	2.38
IM40/IM40CA/IM40MB	MAGNESIUM	UG/L	63	64	0	98.0%	5680	W35SSA	1803.37	1776.18
IM40/IM40CA/IM40MB	MANGANESE	UG/L	51	64	0	80.0%	465	W19SSL	37.02	29.59
IM40/IM40MB	NICKEL	UG/L	5	55	0	9.0%	3.1	W20SSA	2.56	1.59
IM40/IM40MB	ZINC	UG/L	23	55	0	42.0%	49.4 J	W19DDA	9.74	4.73
IM40HD/130.2	HARDNESS (AS CACO3)	MG/L	6	52	0	12.0%	34	W19DDA	20	20
IM40HG	MERCURY	UG/L	3	55	0	5.0%	0.19 J	W36SSA	0.14	0.06
IM40MB	BORON	UG/L	33	53	0	62.0%	20.7	W19SSA	9.82	6.89
IM40MB	MOLYBDENUM	UG/L	5	53	0	9.0%	3.2	W19DDL	2.52	0.96
IM40MB/ILSBTL/IM40	THALLIUM	UG/L	5	63	8	9.0%	4.3	W73SSA	3.66	1.73
IM40MB/IM40	ALUMINUM	UG/L	3	55	0	5.0%	1870	W19DDA	1546.67	93.44
IM40MB/IM40	ARSENIC	UG/L	2	55	0	4.0%	3.1 J	W35M2A	3	1.8
IM40MB/IM40	BARIUM	UG/L	31	55	0	56.0%	125	W19SSL	34.75	21.87
IM40MB/IM40	BERYLLIUM	UG/L	1	55	0	2.0%	0.4	W19SSA	0.4	0.13
IM40MB/IM40	CADMIUM	UG/L	0	55	0	0.0%				
IM40MB/IM40	CHROMIUM, TOTAL	UG/L	2	55	0	4.0%	1.4 J	W19DDA	1.25	0.7
IM40MB/IM40	COBALT	UG/L	4	55	0	7.0%	6.3 J	W19SSL	4.15	1.52
IM40MB/IM40	COPPER	UG/L	16	55	0	29.0%	238	W35SSA	18.05	5.96
IM40MB/IM40	LEAD	UG/L	4	55	0	7.0%	2	W20SSA	1.55	0.79
IM40MB/IM40	POTASSIUM	UG/L	44	55	0	80.0%	4840	W19SSA	1431.18	1184.77
IM40MB/IM40	SELENIUM	UG/L	2	55	0	4.0%	4.2 J	W19SSA	4.05	1.65
IM40MB/IM40	SILVER	UG/L	1	55	0	2.0%	2.7 J	W73SSA	2.7	0.92
IM40MB/IM40	SODIUM	UG/L	54	55	0	98.0%	18200	W35SSA	6890.19	6772.52
IM40MB/IM40	VANADIUM	UG/L	3	55	0	5.0%	2.9	W19DDA	1.83	1.28
IM40MB/IM40/IM40CA	CALCIUM	UG/L	63	64	0	98.0%	10000	W19DDA	3171.38	3125.07
IM40MB/IM40/IM40CA/IM40FE	IRON	UG/L	9	67	0	13.0%	2060	W19DDA	668.21	103.01
8021W	TERT-BUTYL METHYL ETHER	UG/L	1	22	0	5.0%	1 J	W36M2A	1	0.28
OC21B/8151/SW8270	PENTACHLOROPHENOL	UG/L	0	61	3	0.0%				
OC21B/OC21V/SW8270	1,2-DICHLOROBENZENE	UG/L	0	76	3	0.0%				
OC21B/SW8270	4-BROMOPHENYL PHENYL ETHER	UG/L	0	30	0	0.0%				
OC21B/SW8270	4-METHYLPHENOL (P-CRESOL)	UG/L	0	30	0	0.0%				
OC21B/SW8270	BENZYL ALCOHOL	UG/L	0	26	0	0.0%				
OC21B/SW8270	BIS(2-ETHYLHEXYL) PHTHALATE	UG/L	6	30	0	20.0%	280	W20SSA	50.22	12.1
OC21B/SW8270	CARBAZOLE	UG/L	0	30	0	0.0%				
OC21B/SW8270	DIMETHYL PHTHALATE	UG/L	0	30	0	0.0%				
OC21B/SW8270	DI-N-BUTYL PHTHALATE	UG/L	0	30	0	0.0%				
OC21B/SW8270	FLUORANTHENE	UG/L	0	30	0	0.0%				
OC21B/SW8270	INDENO(1,2,3-C,D)PYRENE	UG/L	0	30	0	0.0%				
OC21B/SW8270	N-NITROSODIMETHYLAMINE	UG/L	0	26	0	0.0%				
OC21B/SW8270	PYRENE	UG/L	0	30	0	0.0%				
OC21V	1,1,1-TRICHLOROETHANE	UG/L	0	64	0	0.0%				
OC21V	1,1,2,2-TETRACHLOROETHANE	UG/L	0	64	0	0.0%				
OC21V	1,1,2-TRICHLOROETHANE	UG/L	0	64	0	0.0%				
OC21V	1,1-DICHLOROETHANE	UG/L	0	64	0	0.0%				
OC21V	1,1-DICHLOROETHENE	UG/L	0	64	0	0.0%				
OC21V	1,2-DIBROMO-3-CHLOROPROPANE	UG/L	0	64	0	0.0%				
OC21V	1,2-DICHLOROETHANE	UG/L	0	64	0	0.0%				
OC21V	1,2-DICHLOROPROPANE	UG/L	0	64	0	0.0%				
OC21V	2-CHLOROETHYL VINYL ETHER	UG/L	0	61	0	0.0%				
OC21V	2-HEXANONE	UG/L	0	64	0	0.0%				
OC21V	ACETONE	UG/L	3	64	9	5.0%	7 J	W19DDA	3.67	2.56
OC21V	BENZENE	UG/L	1	64	0	2.0%	4	W19DDA	4	0.55
OC21V	BROMOCHLOROMETHANE	UG/L	0	64	0	0.0%				
OC21V	BROMODICHLOROMETHANE	UG/L	0	64	0	0.0%				
OC21V	BROMOFORM	UG/L	0	64	0	0.0%				
OC21V	BROMOMETHANE	UG/L	0	64	0	0.0%				
OC21V	CARBON DISULFIDE	UG/L	0	64	0	0.0%				
OC21V	CARBON TETRACHLORIDE	UG/L	0	64	0	0.0%				
OC21V	CHLOROBENZENE	UG/L	0	64	0	0.0%				
OC21V	CHLOROETHANE	UG/L	0	64	0	0.0%				
OC21V	CHLOROFORM	UG/L	33	64	0	52.0%	4	W211M3A	0.78	0.64
OC21V	CHLOROMETHANE	UG/L	2	64	0	3.0%	0.8 J	W114M2A	0.55	0.5

Table 2-3
Summary of Groundwater Analytical Detections
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Method	Analyte	Units	No. of Detects	No. of Samples	No. of Rejects	Frequency of Detection	Maximum Concentration	Maximum Sample ID	Mean of Detects	Mean of All Samples(1)
OC21V	CIS-1,2-DICHLOROETHYLENE	UG/L	0	64	0	0.0%				
OC21V	CIS-1,3-DICHLOROPROPENE	UG/L	0	64	0	0.0%				
OC21V	DIBROMOCHLOROMETHANE	UG/L	0	64	0	0.0%				
OC21V	DIBROMOMETHANE	UG/L	0	61	0	0.0%				
OC21V	ETHYLBENZENE	UG/L	0	64	0	0.0%				
OC21V	METHYL ETHYL KETONE (2-BUTANONE)	UG/L	0	64	0	0.0%				
OC21V	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTA	UG/L	0	64	0	0.0%				
OC21V	METHYLENE CHLORIDE	UG/L	0	64	0	0.0%				
OC21V	STYRENE	UG/L	0	64	0	0.0%				
OC21V	TETRACHLOROETHYLENE(PCE)	UG/L	16	64	0	25.0%	1	W114M2A	0.58	0.52
OC21V	TOLUENE	UG/L	6	64	0	9.0%	2	W19DDA	0.6	0.51
OC21V	TRANS-1,2-DICHLOROETHENE	UG/L	0	64	0	0.0%				
OC21V	TRANS-1,3-DICHLOROPROPENE	UG/L	0	64	0	0.0%				
OC21V	TRICHLOROETHYLENE (TCE)	UG/L	0	64	0	0.0%				
OC21V	VINYL ACETATE	UG/L	0	61	0	0.0%				
OC21V	VINYL CHLORIDE	UG/L	0	64	0	0.0%				
OC21V	XYLENES, TOTAL	UG/L	0	64	0	0.0%				
OC21V/504	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	UG/L	0	83	0	0.0%				
OL21P	ALDRIN	UG/L	0	26	1	0.0%				
OL21P	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	UG/L	0	26	1	0.0%				
OL21P	ALPHA ENDOSULFAN	UG/L	0	26	1	0.0%				
OL21P	ALPHA-CHLORDANE	UG/L	0	26	1	0.0%				
OL21P	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	UG/L	0	26	1	0.0%				
OL21P	BETA ENDOSULFAN	UG/L	0	26	1	0.0%				
OL21P	DDD (1,1-BIS(CHLOROPHENYL)-2,2-DICHLOROE	UG/L	0	26	1	0.0%				
OL21P	DDE (1,1-BIS(CHLOROPHENYL)-2,2-DICHLOROE	UG/L	0	26	1	0.0%				
OL21P	DDT (1,1-BIS(CHLOROPHENYL)-2,2,2-TRICHLO	UG/L	0	26	1	0.0%				
OL21P	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	UG/L	0	26	1	0.0%				
OL21P	DIELDRIN	UG/L	1	26	1	4.0%	0.01 NJ	W19SSA	0.01	0.01
OL21P	ENDOSULFAN SULFATE	UG/L	0	26	1	0.0%				
OL21P	ENDRIN	UG/L	0	26	1	0.0%				
OL21P	ENDRIN ALDEHYDE	UG/L	0	26	1	0.0%				
OL21P	ENDRIN KETONE	UG/L	0	26	1	0.0%				
OL21P	GAMMA BHC (LINDANE)	UG/L	0	26	1	0.0%				
OL21P	GAMMA-CHLORDANE	UG/L	0	26	1	0.0%				
OL21P	HEPTACHLOR	UG/L	0	26	1	0.0%				
OL21P	HEPTACHLOR EPOXIDE	UG/L	0	26	1	0.0%				
OL21P	METHOXYCHLOR	UG/L	0	26	1	0.0%				
OL21P	PCB-1016 (AROCHLOR 1016)	UG/L	0	26	1	0.0%				
OL21P	PCB-1221 (AROCHLOR 1221)	UG/L	0	26	1	0.0%				
OL21P	PCB-1232 (AROCHLOR 1232)	UG/L	0	26	1	0.0%				
OL21P	PCB-1242 (AROCHLOR 1242)	UG/L	0	26	1	0.0%				
OL21P	PCB-1248 (AROCHLOR 1248)	UG/L	0	26	1	0.0%				
OL21P	PCB-1254 (AROCHLOR 1254)	UG/L	0	26	1	0.0%				
OL21P	PCB-1260 (AROCHLOR 1260)	UG/L	0	26	1	0.0%				
OL21P	TOXAPHENE	UG/L	0	26	1	0.0%				
SW8270	1,3-DIETHYL-1,3-DIPHENYL UREA	UG/L	0	8	0	0.0%				
SW8270	2-CHLOROBENZALDEHYDE	UG/L	0	8	0	0.0%				
SW8270	2-CHLOROBENZOIC ACID	UG/L	0	8	6	0.0%				
SW8270	2-METHYL-3-NITROANILINE	UG/L	0	8	0	0.0%				
SW8270	2-METHYL-5-NITROANILINE	UG/L	0	8	0	0.0%				
SW8270	2-NITRODIPHENYLAMINE	UG/L	0	8	0	0.0%				
SW8270	3,5-DINITROANILINE	UG/L	0	8	1	0.0%				
SW8270	3-CHLOROBENZALDEHYDE	UG/L	0	8	0	0.0%				
SW8270	4-CHLOROBENZALDEHYDE	UG/L	0	8	0	0.0%				
SW8270	DI-N-PROPYL ADIPATE	UG/L	0	8	0	0.0%				
SW8270/8151/OC21B	4-NITROPHENOL	UG/L	0	58	0	0.0%				
SW8270/8330N/8330NX/OC21B	2,6-DINITROTOLUENE	UG/L	2	682	82	0.0%	0.42 J	W114M2A	0.35	0.13
SW8270/8330N/8330NX/OC21B	NITROBENZENE	UG/L	0	682	82	0.0%				
SW8270/OC21B	2,2'-OXYBIS(1-CHLORO)PROPANE	UG/L	0	30	0	0.0%				
SW8270/OC21B	2,4,5-TRICHLOROPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	2,4,6-TRICHLOROPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	2,4-DICHLOROPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	2,4-DIMETHYLPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	2,4-DINITROPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	2-CHLORONAPHTHALENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	2-CHLOROPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	2-METHYLNAPHTHALENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	2-METHYLPHENOL (O-CRESOL)	UG/L	0	30	0	0.0%				
SW8270/OC21B	2-NITROANILINE	UG/L	0	30	0	0.0%				
SW8270/OC21B	2-NITROPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	3,3'-DICHLOROBENZIDINE	UG/L	0	30	0	0.0%				
SW8270/OC21B	3-NITROANILINE	UG/L	0	30	0	0.0%				
SW8270/OC21B	4,6-DINITRO-2-METHYLPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	4-CHLORO-3-METHYLPHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B	4-CHLOROANILINE	UG/L	0	30	0	0.0%				
SW8270/OC21B	4-CHLOROPHENYL PHENYL ETHER	UG/L	0	30	0	0.0%				
SW8270/OC21B	4-NITROANILINE	UG/L	0	30	0	0.0%				
SW8270/OC21B	ACENAPHTHENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	ACENAPHTHYLENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	ANILINE	UG/L	0	26	0	0.0%				
SW8270/OC21B	ANTHRACENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	BENZO(A)ANTHRACENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	BENZO(A)PYRENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	BENZO(B)FLUORANTHENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	BENZO(G,H,I)PERYLENE	UG/L	0	30	0	0.0%				

Table 2-3
Summary of Groundwater Analytical Detections
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Method	Analyte	Units	No. of Detects	No. of Samples	No. of Rejects	Frequency of Detection	Maximum Concentration	Maximum Sample ID	Mean of Detects	Mean of All Samples(1)
SW8270/OC21B	BENZO(K)FLUORANTHENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	BENZOIC ACID	UG/L	0	26	1	0.0%				
SW8270/OC21B	BENZYL BUTYL PHTHALATE	UG/L	0	30	0	0.0%				
SW8270/OC21B	BIS(2-CHLOROETHOXY) METHANE	UG/L	0	30	0	0.0%				
SW8270/OC21B	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL	UG/L	0	30	0	0.0%				
SW8270/OC21B	CHRYSENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	DIBENZ(A,H)ANTHRACENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	DIBENZOFURAN	UG/L	0	30	0	0.0%				
SW8270/OC21B	DIETHYL PHTHALATE	UG/L	0	30	0	0.0%				
SW8270/OC21B	DI-N-OCTYLPHTHALATE	UG/L	0	30	0	0.0%				
SW8270/OC21B	FLUORENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	HEXACHLOROBENZENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	HEXACHLOROBUTADIENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	HEXACHLOROCYCLOPENTADIENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	HEXACHLOROETHANE	UG/L	0	30	0	0.0%				
SW8270/OC21B	ISOPHORONE	UG/L	0	30	0	0.0%				
SW8270/OC21B	NAPHTHALENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	N-NITROSODI-N-PROPYLAMINE	UG/L	0	30	0	0.0%				
SW8270/OC21B	N-NITROSODIPHENYLAMINE	UG/L	0	30	0	0.0%				
SW8270/OC21B	PHENANTHRENE	UG/L	0	30	0	0.0%				
SW8270/OC21B	PHENOL	UG/L	0	30	0	0.0%				
SW8270/OC21B/OC21V	1,2,4-TRICHLOROBENZENE	UG/L	0	73	0	0.0%				
SW8270/OC21B/OC21V	1,3-DICHLOROBENZENE	UG/L	0	76	3	0.0%				
SW8270/OC21B/OC21V	1,4-DICHLOROBENZENE	UG/L	0	76	3	0.0%				
8151	2,4 DB	UG/L	0	31	0	0.0%				
8151	2,4,5-T (TRICHLOROPHENOXYACETIC ACID)	UG/L	0	31	0	0.0%				
8151	2,4-D (DICHLOROPHENOXYACETIC ACID)	UG/L	0	31	0	0.0%				
8151	3,5-DICHLOROBENZOIC ACID	UG/L	0	31	0	0.0%				
8151	ACIFLUORFEN	UG/L	0	31	0	0.0%				
8151	BENTAZON	UG/L	0	31	10	0.0%				
8151	CHLORAMBEN	UG/L	2	31	7	8.0%	0.15 J	W19DDA	0.15	0.07
8151	DALAPON	UG/L	0	31	0	0.0%				
8151	DCPA (DACTHAL)	UG/L	0	28	0	0.0%				
8151	DICAMBA	UG/L	0	31	0	0.0%				
8151	DICHLOROPROP	UG/L	0	31	0	0.0%				
8151	DINOSEB	UG/L	0	31	8	0.0%				
8151	MCPA	UG/L	0	31	0	0.0%				
8151	MCPP	UG/L	0	31	0	0.0%				
8151	PICLORAM	UG/L	0	31	15	0.0%				
8151	SILVEX (2,4,5-TP)	UG/L	1	31	0	3.0%	0.1 NJ	W19DDA	0.1	0.05
8321D	1-(METHYLAMINO) - ANTHRAQUINONE	UG/L	0	8	0	0.0%				
8321D	1,4-BIS (P-TOLUIDINO) ANTHRAQUINONE	UG/L	0	8	0	0.0%				
8321D	1,4-DIAMINO-2,3-DIHYDROANTHRAQUINONE	UG/L	0	8	0	0.0%				
8321D	BENZANTHRONE	UG/L	0	8	0	0.0%				
SW8290	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	PG/L	2	8	0	25.0%	3.8 J	W19SSA	3	1.36
SW8290	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXI	PG/L	3	8	0	38.0%	20.5 J	W79SSA	12.6	5.34
SW8290	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	PG/L	0	8	0	0.0%				
SW8290	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	PG/L	1	8	0	13.0%	1.7 J	W19SSA	1.7	0.53
SW8290	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	PG/L	0	8	0	0.0%				
SW8290	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	PG/L	0	8	0	0.0%				
SW8290	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	PG/L	0	8	0	0.0%				
SW8290	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	PG/L	0	8	0	0.0%				
SW8290	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	PG/L	0	8	0	0.0%				
SW8290	1,2,3,7,8-PENTACHLORODIBENZOFURAN	PG/L	0	8	0	0.0%				
SW8290	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	PG/L	0	8	0	0.0%				
SW8290	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	PG/L	0	8	0	0.0%				
SW8290	2,3,4,7,8-PENTACHLORODIBENZOFURAN	PG/L	0	8	0	0.0%				
SW8290	2,3,7,8-TETRACHLORODIBENZOFURAN	PG/L	0	8	0	0.0%				
SW8290	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	PG/L	0	8	0	0.0%				
SW8290	HEPTACHLORINATED DIBENZOFURANS, (TOTAL)	PG/L	2	8	0	25.0%	10.2	W19SSA	6.2	2.26
SW8290	HEPTACHLORINATED DIBENZO-P-DIOXINS, (TOT	PG/L	3	8	0	38.0%	41.2	W79SSA	24.77	9.9
SW8290	HEXACHLORINATED DIBENZOFURANS, (TOTAL)	PG/L	1	8	0	13.0%	5.9	W19SSA	5.9	1.1
SW8290	HEXACHLORINATED DIBENZO-P-DIOXINS, (TOTA	PG/L	0	8	0	0.0%				
SW8290	OCTACHLORODIBENZOFURAN	PG/L	3	8	0	38.0%	133	W19SSA	54.03	21.96
SW8290	OCTACHLORODIBENZO-P-DIOXIN	PG/L	4	8	0	50.0%	209 J	W79SSA	85.9	47.67
SW8290	PENTACHLORINATED DIBENZOFURANS, (TOTAL)	PG/L	0	8	0	0.0%				
SW8290	PENTACHLORINATED DIBENZO-P-DIOXINS, (TOT	PG/L	0	8	0	0.0%				
SW8290	TETRACHLORINATED DIBENZOFURANS, (TOTAL)	PG/L	1	8	0	13.0%	2.8	W19SSA	2.8	0.73
SW8290	TETRACHLORINATED DIBENZO-P-DIOXINS, (TOT	PG/L	0	8	0	0.0%				
CYAN	CYANIDE	UG/L	0	19	0	0.0%				
310.1	ALKALINITY, BICARBONATE (AS CACO3)	MG/L	28	28	0	100.0%	38	W19DDA	8.92	8.92
310.1	ALKALINITY, CARBONATE (AS CACO3)	MG/L	0	28	0	0.0%				
310.1	ALKALINITY, HYDROXIDE (AS CACO3)	MG/L	0	28	0	0.0%				
310.1	ALKALINITY, TOTAL (AS CACO3)	MG/L	28	28	0	100.0%	38	W19DDA	8.92	8.92
300	CHLORIDE (AS CL)	MG/L	19	19	0	100.0%	14.5	W35SSA	7.56	7.56
300	SULFATE (AS SO4)	MG/L	28	28	0	100.0%	17.7	W19SSA	6.74	6.74
E405.1	BIOCHEMICAL OXYGEN DEMAND, 5 DAY	MG/L	0	13	0	0.0%				
E410.4	COD - CHEMICAL OXYGEN DEMAND	MG/L	7	13	0	54.0%	70.6	W165M3A	22.7	14.53
350.2M	NITROGEN, AMMONIA (AS N)	MG/L	14	28	0	50.0%	0.18 J	W248M2A	0.04	0.03

Table 2-3
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Final Feasibility Study
Demo 1 Groundwater Operable Unit

Method	Analyte	Units	No. of Detects	No. of Samples	No. of Rejects	Frequency of Detection	Maximum Concentration	Maximum Sample ID	Mean of Detects	Mean of All Samples(1)
353.2M	NITRATE/NITRITE (AS N)	MG/L	23	28	0	82.0%	2	W19SSA	0.45	0.37
365.2	PHOSPHORUS, TOTAL ORTHOPHOSPHATE (AS PO4	MG/L	11	28	0	39.0%	0.2 J	W19DDA	0.05	0.02
E160.1	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERA	MG/L	15	15	0	100.0%	90	W139M2A	56	56
E160.2	SUSPENDED SOLIDS (RESIDUE, NON-FILTERABL	MG/L	8	14	0	57.0%	2	W248M3A	0.81	0.57
E180.1	TURBIDITY	NTU	1	1	0	100.0%	0.42	W35SSA	0.42	0.42
TOC	TOTAL ORGANIC CARBON	MG/L	5	28	2	19.0%	1.3 J	W19SSA	0.7	0.41

Footnotes:

(1) = Includes use of one-half the detection limit for non-detects.
* = Unvalidated Data
J = Estimated concentration
NJ = Analyte tentatively identified and the associated numerical value represents its approximate concentration.
Includes data for all groundwater sampling events at Demo 1 conducted through May 2003.

Table 2-4

Demo 1 Hydraulic Conductivity Estimates

Final Feasibility Study

Demo 1 Groundwater Operable Unit

WELL NAME	SCREEN DESIGNATION	TEST NUMBER	YDRAULIC CONDUCTIVITY ESTIMATE (ft/day)	YDRAULIC CONDUCTIVITY AT WELL SCREEN (ft/day)	SCREEN ELEVATION (ft NAD 27)	Screen Elevation Midpoint (ft NAD 27)
MW-32	D	1	207	207	-18 to -23	-21
MW-165	M3	1	137		39 to 49	44
		5	121	129		
	M2	1	224		9 to 19	14
		2	231	227.5		
	M1	1	194		-41 to -51	-46
		2	190	192		
MW-175	M3	1	161		17 to 22	20
		2	176	168.5		
	M2	1	41.8	41.8	-15 to -25	-20
	M1	1	205		-80 to -90	-85
		2	230	217.5		
MW-211	M3	1	99.4	99.4	40 to 50	45
	M2	1	51.8	51.8	15 to 25	20
	M1	1	70.4	70.4	0 to -10	-5
MW-210	M3	1	134		30.5 to 41	36
		2	144	139		
	M2	1	220		-4.5 to 5.5	1
		2	220	220		
	M1	1	188		-39.5 to -50	-45
		2	195	191.5		
MW-221	M3	1	97.3		36 to 46	41
		2	97.3	97.3		
	M2	1	195		14 to 24	19
		2	195	195		
	M1	1	26.7		-19 to -29	-24
		2	26.7	26.7		
MW-225	M3	1	158		17 to 27	22
		2	159	158.5		
	M2	1	42.7		-3 to 7	2
		2	38.4	40.6		
	M1	1	33.5		-22 to -32	-27
		2	32.3	32.9		
MW-240	M3	1	97.9		36 to 46	41
		2	110	104.0		
	M2	1	169		16 to 26	21
		2	186	177.5		
	M1	1	175		-47 to -57	-52
		2	169	172		
MW-248	M3	1	76.9		18 to 8	13
		2	76.9	76.9		
	M2	1	135		-16 to -26	-21
		2	137	136		
	M1	1	64.5		-55 to -65	-60
		2	55.9	60.2		
MW-252	M3	1	88.5		18 to 8	13
		2	na	88.5		
	M2	1	74.5		-16 to -26	-21
		2	74.5	74.5		
	M1	1	26.4		-55 to -65	-60
		2	29.5	28.0		
			Geometric Mean	105.7		

Notes:

1. Tests conducted using pneumatic slug testing method.
2. Analysis performed using Butler, J.J, and Garnett, E.J., 2000, Simple Procedures for Analysis of Slug Tests in Formations of High Hydraulic Conductivity Using Spreadsheet and Scientific Graphics Software", KGS Open File Report 2000-40.
3. Results for MW-258 M3 & M2 are representative of 10-foot screen length due to short circuitiing of 5-foot screens.

Table 4-1
Remediation Levels
Final Feasibility Study
Demo 1 Groundwater Operable Unit

In Transport Model?	COC	Current Max. Conc. (ug/L)	Method Detection Limit, MDL (ug/L)	Reporting Limit (ug/L)	Proposed Background Conc. (ug/L)	Risk-Based Concentration, RBC (ug/L)		Regulatory Goals					Proposed RBC or Regulatory Goal (ug/L)
						Non-Cancer	Cancer	MCLs (ug/L)	MMCLs (ug/L)	GW-1[2] (ug/L)	Lifetime HAs (ug/L)	DWELs (ug/L)	
Y	RDX	220	0.028	0.25	0.25	110	0.6	NA	NA	0.8[3]	2	100	0.6
Y	TNT	5.2	0.030	0.25	0.25	18	2.2	NA	NA	2.2	2	20	2.0
Y	Perchlorate Draft Rfd (MADEP 2000)	500	0.35	1.0	0.35	1.1	NC	NA	NA	NA	NA	NA	1^{+}
	Perchlorate (EPA 1999 – provisional RfD)					3.7-18						24.5*	4-18 EPA interim policy

1 – Source of Toxicity Information (RfD and CSF) is IRIS (EPA 2003).
2 – Note that GW-1 Standards are not typically used as cleanup goals.
3 – Received MADEP number verbally from Leonard Pinaud, promulgation expected in Spring 2004.
Provisional RfD_{oral} for perchlorate are as follows:
Draft RfD represents MADEP Interim reference dose. (Massachusetts Interim Drinking Water Advice for Perchlorate. Office of Research and Standards. April 2002.)
EPA provisional RfD represents reference dose derived from 0.0001-0.0005 mg/kg/day (Memorandum on "Interim Assessment Guidance for Perchlorate from EPA Assistant Administrator Norine Noonan to all EPA Regions, dated January 18, 1999.)
*On February 18, 2005, EPA established an official reference dose (RfD) of 0.0007 mg/kg/day for perchlorate. EPA's reference dose translates to a DWEL of approximately 24.5 ug/L assuming all of the contaminant comes from drinking water.
COC – Contaminant of Concern
DWEL – USEPA Drinking Water Equivalent Level
HA – USEPA Lifetime Health Advisory
NA – Not Applicable
NC – Non-cancer
MCL – USEPA Maximum Contaminant Level
MMCL – MA Maximum Contaminant Level from Spring 2001 Standards and Guidelines for Chemicals in Massachusetts Drinking Waters
$^{+}$ - Number based on unpromulgated DEP reference dose.

Table 4-2
Basis for Selection of the Technology Process Option
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Criterion	Ion Exchange (IX)	Granular Activated Carbon (GAC)	Fluidized Bed Reactor (FBR)
Effectiveness	IX resins remove ions such as perchlorate from the water and exchanges them for chloride ions bound to the resin. IX resins have been demonstrated to sorb perchlorate, however, those same resins do not sorb the target explosive compounds (RDX, TNT, HMX). Information is not readily available on whether IX resins can remove perchlorate to below the analytical method detection limit of 0.35 µg/L. IX concentrates contaminants such that the spent resin requires further treatment (e.g. incineration) and/or disposal.	Several ITE studies have been conducted to test the effectiveness of GAC media for the treatment of perchlorate and explosives. The results indicate that GAC media would be effective in treating explosives and low levels of perchlorate. GAC media has not been demonstrated for treatment of low levels of perchlorate at full-scale operation. GAC concentrates contaminants such that the spent media requires regeneration and/or disposal.	Bench scale studies conducted with water collected from MMR have demonstrated the FBR technology to be effective in reducing perchlorate concentrations to below the analytical method detection limit of 0.35 µg/L and RDX to below 2.0 µg/L. The FBR would transform perchlorate into chlorate and then chloride, permanently destroying the perchlorate.
Implementability	Readily implementable. ITE studies are currently being conducted to determine if IX resins can treat perchlorate to 0.35 µg/L.	Readily implementable.	Implementable. Operation and maintenance of a FBR is more complex than IX or GAC technologies.
Cost	Moderate capital costs. Moderate O&M costs. Resin costs in recent years have been driven down by competition.	Moderate capital costs. Low O&M costs.	High capital cost. Moderate O&M costs.

IX = Ion Exchange
GAC = Granular Activated Carbon
FBR = Fluidized Bed Reactor
ITE = Innovative Technology Evaluation
O&M = Operation and Maintenance

Table 5-1
Range of Alternatives for the Detailed Analysis
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Remedial Objective	Alternative 1 Minimal Action	Alternative 2 Baseline	Alternative 3 Background	Alternative 4 10 Year	Alternative 5 Additional Alternative A	Alternative 6 Additional Alternative B
Achieve background levels	N	N	Y	N	N	Y
Meet risk-based standards within 10 years	N	N	N	Y	N	N
No action	Y	N	N	N	N	N
Reduce toxicity, mobility, volume; treat principle threats but vary in degree of treatment and residuals	N	Y	Y	Y	Y	Y
Innovative technologies	N	Y	Y	Y	Y	Y

Note: The AO requires that alternatives should represent a range of treatment and containment options, including but not limited to alternatives that satisfy these remedial objectives.
Treatment of low levels of perchlorate via granular activated carbon media is considered an innovative technology.
N – No, cannot meet objective.
Y – Yes, should be able to meet objective.

Table 6-1
Comparison of Effectiveness of Design Alternatives
Final Feasibility Study
Demo 1 Groundwater Operable Unit

				Design Details			Perchlorate Remediation			RDX Remediation		
Alternative Number	**Design Alternative**	**Concentration Objectives**	**Time Objective (years)**	**Number of Extraction Wells**	**Total Extraction Rate (gpm)**	**Number of Injection Wells**	**Years to achieve RBC**	**Years to achieve* Background**	**% Mass Removed after 10 Years**	**Years to achieve RBC**	**Years to achieve Background**	**% Mass Removed after 10 Years**
2	Baseline (RRA System)	-	-	2	320	3	36	35/>50	80.2	36	50	67.5
3	Background	Background	30	4	472	4	23	23/21	92.7	23	27	92.1
4	10 Year	Risk-based	10	5	1417	4	10	15/15	98.3	11	15	99.7
5	Additional Alternative A	Risk-based	<20	5	906	4	13	15/20	98.3	14	16	98.8
6	Additional Alternative B	Background	<20	6	981	4	14	15/17	97.9	14	16	99.0

* upgradient/downgradient of Pew Road

Note 1: All percentages reflect cumulative mass removed including 4 years of RRA operation prior to startup of selected alternative

Note 2: The optimization iteration routine never "placed" a well at the leading edge of the plume because this area represents less than one percent fo the total mass of the plume. Therefore, the percentage of mass removed after 10 years is less in Alt. 6 than in Alt. 5

RBC = Risk-Based Concentrations

gpm = gallons per minute

Table 6-2
Extraction Well Influent Concentration Estimate from Modeling Results
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Alternative Number	Description	Flow (gpm) FPR	Flow (gpm) PR	Year	Perchlorate Conc (ug/L) FPR	Perchlorate Conc (ug/L) PR	RDX Conc (ug/L) FPR	RDX Conc (ug/L) PR
3	Background 4 wells 472 gpm	264	208	1	9.5	0.8	8.5	Note 2
				3	5.0	0.8	4.8	
				5	3.0	0.9	3.5	
				10	0.6	0.5	1.3	
				15	0.1	0.1	0.3	
				20	0.02	0.05	0.07	
				27	<0.01	--	<0.01	
4	10 Year 5 wells 1417 gpm	1196	221	1	3.7	1.0	3.1	Note 2
				3	0.8	0.7	0.8	
				5	0.2	0.4	0.3	
				11	<0.01	0.01	0.01	
5	Additional Alternative A 5 wells 906 gpm	808	98	1	5.3	1.4	4.6	Note 2
				3	1.6	1.3	1.7	
				5	0.6	0.9	0.8	
				10	0.04	0.1	0.1	
				14	<0.01	0.01	0.01	
6	Additional Alternative B 6 wells 981 gpm	808	173	1	5.4	0.9	Note 1	
				3	1.6	0.8		
				5	0.6	0.6		
				11	0.03	0.09		

FPR = Frank Perkins Road

PR = Pew Road

gpm = gallons per minute

System optimization would likely alter predicted concentrations after year 5, however influent concentrations are not expected to exceed the first year concentrations.

1. Additional Alternative B simulation was not run for RDX because the results would be exactly the same as in Additional Alternative A.
2. RDX was not detected in any monitoring wells downgradient of Frank Perkins Road as of May 2003. RDX was recently detected at monitoring well location MW-211, which is located on Pew Road, at a concentration of 0.56 ug/L. Updated chemical monitoring results will be incorporated into the detailed design of the selected alternative.
3. Current detection limits for Perchlorate = 0.35 ug/L and RDX = 0.25 ug/L.

Table 7-1
Summary of Detailed Analysis of Alternatives
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Criterion	Evaluation					
	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**	**Alternative 6**
	Minimal Action	**Baseline**	**Background**	**10 Year**	**Additional Alternative A**	**Additional Alternative B**
	Minimal action. *Long-term groundwater monitoring* *Institutional Controls*	*Continued operation of RRA Systems.* *2 Extraction Wells - 320 gpm* *3 Injection Wells*	*Achieve background concentrations within 30 years.* *4 Extraction Wells – 472 gpm* *4 Injection Wells*	*Achieve risk-based goals within 10 years.* *5 Extraction Wells – 1,417 gpm* *4 Injection Wells*	*Achieve risk-based goals within 20 years.* *5 Extraction Wells – 906 gpm* *4 Injection Wells*	*Achieve background concentrations within 20 years.* *6 Extraction Wells – 981 gpm* *4 Injection Wells*
Overall protection of human health and the environment	Alternative 1 will not prevent the migration of the plume and may not be protective of human health if the aquifer were to be used as a water supply. The areas downgradient of the Demo 1 source area would likely be impacted by groundwater above risk-based levels and be unavailable for groundwater source development. Short-term impacts would be limited. Some limited vegetated areas could be impacted for the installation of additional monitoring wells. Otherwise, ecological impacts would be minimal because Alternative 1 simply entails long-term monitoring of groundwater, which is currently on-going. As with all alternatives under consideration, additional monitoring wells will be installed for long-term monitoring of the remedy and may cause some ecological impacts.	This alternative will protect human health by restoring the aquifer. The system proposed in Alternative 2 would reduce concentrations everywhere in the plume to background levels within 50 years for perchlorate and RDX, including natural attenuation downgradient of Pew Road and east of the Base boundary based on the transport model predictions. More than 80% of the perchlorate mass and 67% of RDX mass would be removed from the aquifer after 10 years from selection of the comprehensive remedy. Short-term impacts would be limited. Minimal vegetation will be impacted by future construction because Alternative 2 simply entails the use of the RRA System, which is currently under construction. Establishment and adherence to a site health and safety plan would limit risk to construction workers. All contaminated media would be contained and disposed of in accordance with applicable regulations.	This alternative will protect human health by restoring the aquifer. This alternative would prevent the migration of the plume outside of MMR. Groundwater models indicate that background levels could be achieved in 27 years for RDX and 23 years for perchlorate. After 27 years of operation (i.e., completion of Alternative 3), all the mass is expected to be addressed since evaluation of the total plume mass is based on all concentrations above background. Short-term impacts would be limited. Other than trenching along Pew, Estey, and Frederickson Roads to EW-D1-402, minimal vegetation would be impacted by construction since the conceptual design focuses on using existing roadways and previously disturbed areas. Establishment and adherence to a site health and safety plan would limit the risk to construction workers. All contaminated media would be contained and disposed of in accordance with applicable regulations.	The system proposed in Alternative 4 would reduce concentrations everywhere in the plume to below risk-based levels in approximately 10 years for perchlorate and RDX, including natural attenuation downgradient of Pew Road and east of the Base boundary based on the transport model predictions. For perchlorate, target concentrations would be achieved in less than 10 years and would represent 98.9% of the total mass (98.8 lbs of perchlorate mass is above the risk-based level compared with 99.85 lbs or perchlorate above the detection limit). For RDX, target concentrations would be achieved in just over 10 years; after 10 years of operation, an estimated 99.7% of the RDX mass would have been captured. Short-term impacts would be limited. Other than road construction to EW-D1-503, minimal vegetation would be impacted by construction since the conceptual design focuses on using existing roadways and previously disturbed areas. Establishment and adherence to a site health and safety plan would limit risk to construction workers. All contaminated media would be contained and disposed of in accordance with applicable regulations.	This alternative will protect human health by restoring the aquifer. The system proposed in Alternative 5 would reduce concentrations everywhere in the plume to below risk-based levels in approximately 13 years for perchlorate and 14 years for RDX, including natural attenuation downgradient of Pew Road and east of the Base boundary based on the transport model predictions. Target concentrations would be achieved in less than 14 years for RDX and 13 years for perchlorate, according to the modeling performed for this FS. Achieving risk-based levels for perchlorate and RDX would result in removal of 98.9% of the perchlorate mass and 99.9% of the RDX mass. Short-term impacts would be limited. Other than road construction to EW-D1-503, minimal vegetation would be impacted by construction since the conceptual design focuses on using existing roadways and previously disturbed areas. Establishment of and adherence to a site health and safety plan would limit the risk to construction workers. All contaminated media would be contained and disposed of in accordance with applicable regulations.	This alternative will protect human health by restoring the aquifer. This alternative would prevent the migration of the plume off-base and remove contaminant mass from the groundwater plume. According to the groundwater model, background levels would be achieved in 16 years for RDX and 17 years for perchlorate. After 17 years of operation (i.e., completion of Alternative 6), all the mass is expected to be addressed since evaluation of the total plume mass is based on all concentrations above background. Short-term impacts would limited with this alternative. Other than trenching along Pew, Estey and Frederikson Roads to EW-D1-605, minimal vegetation would be impacted by construction since the conceptual design focuses on using existing roadways and previously disturbed areas. Establishment and adherence to a site health and safety plan would limit risk to construction workers. All contaminated media would be contained and disposed of in accordance with applicable regulations.
Compliance with Regulations	Alternative 1 could comply with applicable regulations but would not meet the objectives of AO3. Supporting information is provided in Appendix D.	Alternative 2 will comply with applicable regulations. Supporting information is provided in Appendix D.	Alternative 3 will comply with applicable regulations. Supporting information is provided in Appendix D.	Alternative 4 will comply with applicable regulations. Supporting information is provided in Appendix D.	Alternative 5 will comply with applicable regulations. Supporting information is provided in Appendix D.	Alternative 6 will comply with applicable regulations. Supporting information is provided in Appendix D.

Table 7-1
Summary of Detailed Analysis of Alternatives
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Criterion	Evaluation					
	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**	**Alternative 6**
	Minimal Action	**Baseline**	**Background**	**10 Year**	**Additional Alternative A**	**Additional Alternative B**
	Minimal action. *Long-term groundwater monitoring* *Institutional Controls*	*Continued operation of RRA Systems.* *2 Extraction Wells - 320 gpm* *3 Injection Wells*	*Achieve background concentrations within 30 years.* *4 Extraction Wells – 472 gpm* *4 Injection Wells*	*Achieve risk-based goals within 10 years.* *5 Extraction Wells – 1,417 gpm* *4 Injection Wells*	*Achieve risk-based goals within 20 years.* *5 Extraction Wells – 906 gpm* *4 Injection Wells*	*Achieve background concentrations within 20 years.* *6 Extraction Wells – 981 gpm* *4 Injection Wells*
Long-term effectiveness and permanence	No action would be taken to reduce the residual risk at this site. No one is currently drinking contaminated groundwater as a result of the Demo 1 groundwater plume. Long-term migration of the plume is not expected to flow into a zone of contribution for the Bourne public water supply wells. Residual site risk is expected to be moderate.	Groundwater extraction and treatment will remove the COCs from groundwater permanently. However, since the intent of the extraction well locations and pumping rates was to provide hydraulic capture of the majority of the groundwater plume, the COC concentrations in groundwater will be reduced slowly. The treatment mediums would adsorb the explosives and perchlorate compounds, removing them from the water. Spent GAC would be disposed of at a permitted waste treatment facility or regenerated. Spent IX resin would also be transported off-site to a permitted waste facility, likely to be incinerated. Residual site risk is expected to be very low.	Groundwater extraction and treatment would remove the COCs from groundwater permanently. However, the well locations and pumping rates incorporated in this alternative would primarily control groundwater contaminated above background levels, rather than remove contaminated groundwater as quickly as possible. The treatment media would adsorb the explosives and perchlorate compounds, removing them from the water. Spent carbon would be disposed of at a permitted waste treatment facility or regenerated. Spent IX resin would also be transported off-site to a permitted waste facility, likely to be incinerated. The residual site risk is expected to be very low.	Groundwater extraction and treatment will remove the COCs from groundwater permanently. Based on the design objective for this alternative, the COC concentrations in groundwater would decrease quickly. The treatment media would adsorb the explosives and perchlorate compounds, removing them from the water. Spent carbon would be disposed of at a permitted waste treatment facility or regenerated. Spent IX resin would also be transported off-site to a permitted waste facility, likely to be incinerated. The residual site risk is expected to be very low.	Groundwater extraction and treatment will remove the COCs from groundwater permanently. Since the design focuses on aggressively extracting and treating groundwater to meet the remedial objective, the COC concentrations in groundwater would be reduced relatively quickly. The treatment media would adsorb the explosives and perchlorate compounds, removing them from the water. Spent carbon would be disposed of at a permitted waste treatment facility or regenerated. Spent IX resin would also be transported off-site to a permitted waste facility, likely to be incinerated. The residual site risk is expected to be very low.	Groundwater extraction and treatment would remove the COCs from groundwater permanently. Since the design focuses on aggressively extracting and treating groundwater to meet the remedial objective, the COC concentrations in groundwater would be reduced quickly. The treatment media would adsorb the explosives and perchlorate compounds, removing them from the water. Spent GAC media would be disposed of at a permitted waste treatment facility or regenerated. Spent IX resin would also be transported off-site to a permitted waste facility, potentially for incineration. The residual site risk is expected to be very low.
Reduction of toxicity, mobility, and volume through treatment	No treatment would occur, therefore no reduction in toxicity, mobility, or volume would occur through treatment. With this alternative, groundwater in the area would not be available for drinking water purposes in the foreseeable future.	Extraction and treatment of groundwater would reduce the toxicity, mobility and volume of the COCs at the site by removing these compounds permanently from the aquifer. The GAC media would adsorb explosives and low levels of perchlorate and the IX media would remove the perchlorate. Therefore, the treatment would reduce the mobility of the contaminants. Spent GAC media, IX resin, and other contaminated solid wastes would require removal and disposal. Approximately 13 tons of waste material would potentially be generated each year during the initial years of operation. It is anticipated that this quantity would decrease as the influent concentrations decrease over time.	Extraction and treatment of groundwater would reduce the toxicity, mobility and volume of the COCs at the site by removing these compounds permanently from the aquifer. Explosives and low levels of perchlorate would be adsorbed by the GAC media and perchlorate would be removed by the IX resin. Thus, treatment would reduce the mobility of the contaminants. Spent GAC media, IX resin, and other contaminated solid wastes would require removal and disposal. Approximately 39 tons of waste material would potentially be generated each year. This alternative satisfies the preference for treatment as the principal element of the alternative.	Extraction and treatment of groundwater would reduce the toxicity, mobility and volume of the COCs at the site by removing these compounds permanently from the aquifer. Explosives and low levels of perchlorate would be adsorbed by the GAC media and perchlorate would be removed by the IX resin. Therefore, this treatment would reduce the mobility of the contaminants. Spent GAC, IX resin, and other solid contaminated wastes would require removal and disposal. Approximately 93 tons of waste material would potentially be generated each year. This alternative satisfies the preference for treatment as the principal element of the alternative.	Extraction and treatment of groundwater would reduce the toxicity, mobility and volume of the COCs at the site by removing these compounds permanently from the aquifer. Explosives and low levels of perchlorate would be adsorbed by the GAC media and perchlorate would be removed by the IX resin. Therefore, this alternative would reduce the mobility of the contaminants. Spent GAC, IX resin, and other solid contaminated wastes would require removal and disposal. Approximately 58 tons of waste material would potentially be generated each year. This alternative satisfies the regulatory preference for treatment as the principal element of the alternative.	Extraction and treatment of groundwater would reduce the toxicity, mobility and volume of the COCs at the site by removing these compounds permanently from the aquifer. Explosives and low levels of perchlorate would be adsorbed by the GAC media and perchlorate would be removed by the IX resin. Therefore this treatment would reduce the mobility of the contaminants. Spent GAC, IX resin, and other solid contaminated wastes would require removal and disposal. Approximately 62 tons of waste material would potentially be generated each year. This alternative satisfies the preference for treatment as the principal element of the alternative.

Table 7-1
Summary of Detailed Analysis of Alternatives
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Criterion	Evaluation					
	Alternative 1 **Minimal Action**	**Alternative 2** **Baseline**	**Alternative 3** **Background**	**Alternative 4** **10 Year**	**Alternative 5** **Additional Alternative A**	**Alternative 6** **Additional Alternative B**
	Minimal action. *Long-term groundwater monitoring* *Institutional Controls*	*Continued operation of RRA Systems.* *2 Extraction Wells - 320 gpm* *3 Injection Wells*	*Achieve background concentrations within 30 years.* *4 Extraction Wells – 472 gpm* *4 Injection Wells*	*Achieve risk-based goals within 10 years.* *5 Extraction Wells – 1,417 gpm* *4 Injection Wells*	*Achieve risk-based goals within 20 years.* *5 Extraction Wells – 906 gpm* *4 Injection Wells*	*Achieve background concentrations within 20 years.* *6 Extraction Wells – 981 gpm* *4 Injection Wells*
Short-term effectiveness	There would be little effect on the community from implementing Alternative 1 because no construction work would be involved. A site-specific health and safety plan (HASP) would be followed during long-term groundwater monitoring and personal protective equipment (PPE) would be used as necessary to prevent potential exposure to COCs. Minimal impact would occur to the environment as a result of this Alternative since long-term monitoring of groundwater would continue. The Minimal Action Alternative would not meet the Remedial Response or Action Objectives.	There would be little effect on the community from implementing Alternative 2 because the construction work would be conducted on Camp Edwards. Material, equipment, and personnel transport would cause negligible impact on roads leading to Camp Edwards. Wastes generated from the groundwater treatment system would be trucked off-site for disposal periodically. A site-specific health and safety plan (HASP) would be followed during system construction where engineering controls and personal protective equipment (PPE) would be used as necessary to prevent potential exposure to COCs. The potential for short-term worker exposure would increase during equipment maintenance (e.g., GAC and IX media replacement) but would be mitigated by the use of engineering controls and proper personal protective equipment (PPE). Vegetated area clearance in order to construct the treatment facility at Frank Perkins Road has been minimized by siting the facility in already-disturbed areas. Based on groundwater modeling results, remediation of this contaminant plume to restore the sole source aquifer to background conditions is expected to take approximately 50 years.	There would be little effect on the community from implementing Alternative 3 because the construction work would be conducted on Camp Edwards. Material, equipment, and personnel transport would cause negligible impact on roads leading to Camp Edwards. Wastes generated from the groundwater treatment system would be trucked off-site for disposal periodically. A site-specific HASP would be followed during system construction where engineering controls and PPE would be used as necessary to limit potential exposure to COCs. To date, health and safety precautions at Demo 1 for UXO clearance, soil excavation, construction activities, groundwater sampling, and drilling have been adequate to protect workers. The potential for short-term worker exposure would increase during equipment maintenance (e.g., GAC media and IX resin replacement) but would be mitigated by the use of engineering controls and proper PPE. To the extent feasible, previously disturbed areas have been utilized for the installation of wells, subsurface piping and treatment facilities to minimize impact on cultural and natural resources. Based on groundwater modeling results, remediation of this contaminant plume to restore the sole source aquifer to background conditions is expected to take approximately 27 years.	Alternative 4 would have little effect on the community because the construction work would be conducted on Camp Edwards. Material, equipment, and personnel transport would cause negligible impact on roads leading to Camp Edwards. Wastes generated from the groundwater treatment system would be trucked off-site for disposal periodically. A site-specific HASP would be followed during system construction. Workers would use engineering controls and PPE as necessary to control potential exposure to COCs. To date, health and safety precautions at Demo 1 for UXO clearance, soil excavation, construction activities, groundwater sampling, and drilling have been adequate to protect workers. The potential for short-term worker exposure would increase during equipment maintenance (e.g., GAC media and IX resin replacement) but would be mitigated by the use of engineering controls and proper PPE. To the extent feasible, previously disturbed areas have been utilized for the installation of wells, subsurface piping and treatment facilities to minimize impact on cultural and natural resources. Based on groundwater modeling results, remediation of this contaminant plume to restore the sole source aquifer to risk-based levels is expected to take approximately 11 years.	Alternative 5 would have little effect on the community because the construction work would be conducted on Camp Edwards. Material, equipment, and personnel transport would cause negligible impact on roads leading to Camp Edwards. Wastes generated from the groundwater treatment system would be trucked off-site for disposal periodically. A site-specific HASP would be followed during system construction where engineering controls and PPE would be used as necessary to limit potential exposure to COCs. To date, health and safety precautions at Demo 1 for UXO clearance, soil excavation, construction activities, groundwater sampling, and drilling have been adequate to protect workers. The potential for short-term worker exposure would increase during equipment maintenance (e.g., GAC media and IX resin replacement) but would be mitigated by the use of engineering controls and proper PPE. To the extent feasible, previously disturbed areas have been utilized for the installation of wells, subsurface piping and treatment facilities to minimize impact on cultural and natural resources. Based on groundwater modeling results, remediation of this contaminant plume to restore the sole source aquifer to risk-based levels is expected to take approximately 14 years.	Alternative 6 would have little effect on the community because the construction work would be conducted on Camp Edwards. Material, equipment, and personnel transport would cause negligible impact on roads leading to Camp Edwards. Wastes generated from the groundwater treatment system would be trucked off-site for disposal periodically. A site-specific HASP would be followed during system construction. Workers would use engineering controls and PPE as necessary to limit potential exposure to COCs. To date, health and safety precautions at Demo 1 for UXO clearance, soil excavation, construction activities, groundwater sampling, and drilling have been adequate to protect workers. The potential for short-term worker exposure would increase during equipment maintenance (e.g., GAC media and IX resin replacement) but would be mitigated by the use of engineering controls and proper PPE. To the extent feasible, previously disturbed areas have been utilized for the installation of wells, subsurface piping and treatment facilities to minimize impact on cultural and natural resources. However, a significant length of vegetation clearance would be required for the installation of subsurface piping from EW-D1-603 to the Frank Perkins Treatment Facility and from EW-D1-604 to the Pew Road Treatment Facility. Based on groundwater modeling results, remediation of this contaminant plume to restore the

Table 7-1
Summary of Detailed Analysis of Alternatives
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Criterion	Evaluation					
	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**	**Alternative 6**
	Minimal Action	**Baseline**	**Background**	**10 Year**	**Additional Alternative A**	**Additional Alternative B**
	Minimal action. *Long-term groundwater monitoring* *Institutional Controls*	*Continued operation of RRA Systems.* *2 Extraction Wells - 320 gpm* *3 Injection Wells*	*Achieve background concentrations within 30 years.* *4 Extraction Wells – 472 gpm* *4 Injection Wells*	*Achieve risk-based goals within 10 years.* *5 Extraction Wells – 1,417 gpm* *4 Injection Wells*	*Achieve risk-based goals within 20 years.* *5 Extraction Wells – 906 gpm* *4 Injection Wells*	*Achieve background concentrations within 20 years.* *6 Extraction Wells – 981 gpm* *4 Injection Wells*
Implementability	Alternative 1 is a minimal action alternative that requires no technical implementation. Long-term groundwater monitoring associated with the Demo 1 plume would continue using the same sampling and analytical protocols currently in use. Baseline monitoring of the site conditions and potential environmental impacts would be monitored according to the SPEIM Plan, which will be submitted in June 2004 and will outline all sampling associated with system operation and maintenance. Administratively, this alternative is feasible. If the existing lease is terminated, expires, or is transferred, deed restrictions prohibiting the installation of water supply wells within the area of impacted groundwater would be negotiated with the Commonwealth of Massachusetts. In the interim, the Army would restrict any development of drinking water supplies in areas that would be impacted by the existing groundwater plume.	Alternative 2 is currently being implemented as an interim action for groundwater. The system is expected to be operational in September 2004. Installation of a treatment facility at Frank Perkins Road extraction wells, pumps, and piping would be technically feasible. Standard GAC and IX resin are available technologies and have been shown to be effective in treating the applicable COCs. In addition, the efficacy of standard GAC and IX resin will be tested during the initial four years of operation of the RRA system. The treatment systems would require regular maintenance and monitoring. Experience at other sites suggests that the components should be relatively reliable. If a pumping well or treatment system failed, the system might require a period of a few days to approximately two months to bring back to full operational status. The design would include an evaluation of the need for redundant systems to minimize down time in order to protect human health and the environment (AMEC, 2003b). Long-term groundwater monitoring associated with the Demo 1 plume would continue using the same sampling and analytical protocols currently in use. Influent and effluent sampling of the treatment system will also	Installation of extraction wells, pumps, piping, and treatment facilities at Frank Perkins Road and Pew Road would be technically feasible. GAC and IX are available technologies and, as summarized in Appendix B, have been shown to be effective in treating the COCs. The treatment systems would require regular maintenance and monitoring. Experience at other sites suggests that the components should be relatively reliable. If a pumping wells or treatment system failed, the system might require a period of a few days to approximately two months to bring back to full operational status. If this alternative were selected for implementation, the design would include an evaluation of the need for redundant systems to minimize down time in order to protect human health and the environment. Long-term groundwater monitoring associated with the Demo 1 plume would continue using the same sampling and analytical protocols currently in use. Sampling and monitoring would be easily implemented. Administratively, this alternative would be feasible. Critical administrative aspects of this alternative would include: 1) Preparation of a Record of Action; and 2) Waste classification of spent GAC media, IX resin, and other wastes, and resulting	Installation of extraction wells, pumps, piping and treatment facilities at the Frank Perkins Road and Pew Road locations would be technically feasible. GAC and IX are available technologies and, as summarized in Appendix B, have been shown to be effective in treating the applicable COCs. The treatment systems would require regular maintenance and monitoring. Experience at other sites suggests that the components should be relatively reliable. If a pumping well or treatment system failed, the system might require a period of a few days to approximately two months to bring back to full operational status. If this alternative were selected for implementation, the design would include an evaluation of the need for redundant systems to minimize down time in order to protect human health and the environment. Long-term groundwater monitoring associated with the Demo 1 plume would continue using the same sampling and analytical protocols currently in use. Influent and effluent sampling of the treatment system would also take place to estimate mass removal of contaminants and ensure compliance with discharge requirements. Sampling and monitoring would be easily implemented. Administratively, this alternative would be feasible. Critical	Installation of extraction wells, pumps, piping and a treatment facility at the Frank Perkins Road location would be technically feasible. GAC and IX are available technologies and, as summarized in Appendix B, have been shown to be effective in treating the applicable COCs. The treatment systems would require regular maintenance and monitoring. Experience at other sites suggests that the components should be relatively reliable. If a pumping well or treatment system failed, the system might require a period of a few days to approximately two months to bring back to full operational status. If this alternative were selected for implementation, the design would include an evaluation of the need for redundant systems to minimize down time in order to protect human health and the environment. Long-term groundwater monitoring associated with the Demo 1 plume would continue using the same sampling and analytical protocols currently in use. Influent and effluent sampling of the treatment system would also take place to estimate mass removal of contaminants and ensure compliance with discharge requirements. Sampling and monitoring would be easily implemented. Administratively, this alternative would be feasible. Critical	Installation of extraction wells, pumps, piping and treatment facilities at Frank Perkins Road and Pew Road would be technically feasible. GAC and IX are available technologies and, as summarized in Appendix B, have been shown to be effective in treating the applicable COCs. The treatment systems would require regular maintenance and monitoring. Experience at other sites suggests that the components should be relatively reliable. If a pumping well or treatment system failed, the system might require a period of a few days to approximately two months to bring back to full operational status. If this alternative were selected for implementation, the design would include an evaluation of the need for redundant systems to minimize down time in order to protect human health and the environment. Long-term groundwater monitoring associated with the Demo 1 plume would continue using the same sampling and analytical protocols currently in use. Sampling and monitoring would be easily implemented. Administratively, this alternative would be feasible. Critical administrative aspects of this alternative would include: 1) Preparation of a Record of Action; and 2) Waste classification of spent GAC, IX resin and other wastes, and resulting management

Table 7-1
Summary of Detailed Analysis of Alternatives
Final Feasibility Study
Demo 1 Groundwater Operable Unit

Criterion	**Evaluation**					
	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**	**Alternative 6**
	Minimal Action	**Baseline**	**Background**	**10 Year**	**Additional Alternative A**	**Additional Alternative B**
	Minimal action. *Long-term groundwater monitoring* *Institutional Controls*	*Continued operation of RRA Systems.* *2 Extraction Wells - 320 gpm* *3 Injection Wells*	*Achieve background concentrations within 30 years.* *4 Extraction Wells – 472 gpm* *4 Injection Wells*	*Achieve risk-based goals within 10 years.* *5 Extraction Wells – 1,417 gpm* *4 Injection Wells*	*Achieve risk-based goals within 20 years.* *5 Extraction Wells – 906 gpm* *4 Injection Wells*	*Achieve background concentrations within 20 years.* *6 Extraction Wells – 981 gpm* *4 Injection Wells*
		take place to estimate mass removal of contaminants and ensure compliance with discharge requirements. Services and materials are readily available. Multiple vendors can provide each component of the alternative. If the existing lease is terminated, expires, or is transferred, deed restrictions prohibiting the installation of water supply wells within the area of impacted groundwater would be negotiated with the Commonwealth of Massachusetts. In the interim, the Army would restrict any development of drinking water supplies in areas that would be impacted by the existing groundwater plume.	management requirements. Services and materials are readily available. Multiple vendors can provide each component of the alternative. If the existing lease is terminated, expires, or is transferred, deed restrictions prohibiting the installation of water supply wells within the area of impacted groundwater would be negotiated with the Commonwealth of Massachusetts. In the interim, the Army would restrict any development of drinking water supplies in areas that would be impacted by the existing groundwater plume.	administrative aspects of this alternative would include: 1) Preparation of a Record of Action; 2) Waste classification of spent GAC, IX resin and other wastes, and resulting management requirements. Services and materials are readily available. Multiple vendors can provide each component of the alternative. If the existing lease is terminated, expires, or is transferred, deed restrictions prohibiting the installation of water supply wells within the area of impacted groundwater would be negotiated with the Commonwealth of Massachusetts. In the interim, the Army would restrict any development of drinking water supplies in areas that would be impacted by the existing groundwater plume.	administrative aspects of this alternative would include: 1) Preparation of a Record of Action; and 2) Waste classification of spent GAC, IX resin and other wastes, and resulting management requirements. Services and materials are readily available. Multiple vendors are available for each component of the alternative. If the existing lease is terminated, expires, or is transferred, deed restrictions prohibiting the installation of water supply wells within the area of impacted groundwater would be negotiated with the Commonwealth of Massachusetts. In the interim, the Army would restrict any development of drinking water supplies in areas that would be impacted by the existing groundwater plume.	requirements. Services and materials are readily available. Multiple vendors can provide each component of the alternative. If the existing lease is terminated, expires, or is transferred, deed restrictions prohibiting the installation of water supply wells within the area of impacted groundwater would be negotiated with the Commonwealth of Massachusetts. In the interim, the Army would restrict any development of drinking water supplies in areas that would be impacted by the existing groundwater plume.
Cost* Capital Present worth of O&M Total present worth	 $ 1,550,000 $ 1,300,000 $ 2,850,000	 $ 3,640,000 $ 11,400,000 $ 15,000,000.	 $ 6,350,000 $ 14,700,000 $ 21,100,000	 $ 10,200,000 $ 15,500,000 $ 25,700,000	 $ 8,340,000 $ 12,700,000 $ 21,000,000	 $ 9,860,000 $ 16,700,000 $ 26,600,000

*Estimates intended to be +50%/-30%, more details provided in Appendix C.