APPENDIX B

TABLES

TABLE 1
Summary of Water Wells with One or More PHC Detection
Low-Level PHC Sampling and Analysis Plan

Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AD213	Corwin #2	09/11/08							**0.649**	< 1 J	
AD213		10/15/08	< 0.5 J	< 0.5 J	< 0.5	< 0.5	< 0.5 J		**0.262**	< 1	
AD213		10/15/08	< 0.5 J	< 0.5 J	< 0.5	< 0.5	< 0.5 J		**0.206**	< 1	
AD213		08/06/09	< 1	< 1	< 1	< 1	< 1		< 0.08	< 1.1	
AD223	Tri County	10/29/08							< 0.04	<1.1 J	
AD223	Sanit. #1	08/04/09							< 0.08	**1.5**	
AD223		12/15/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1	
AD238	DC-6	06/23/09	**18**	< 10	< 10	< 10	**120**		**15.7**	**4.1**	
AD238		07/22/09	**6.4**	< 5	< 5	< 5	**200**		**21.4**	**4.4**	
AD238		11/03/09	< 1	< 1	< 1	< 1	< 1		**0.05**	< 1	
AD238		11/03/09	< 1	< 1	< 1	< 1	< 1		**0.042**	< 1	
AD238		11/03/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1	
AS014	N.W.	06/29/07									< 5
AS014	Squaretop	07/03/08	< 0.5	**13**	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AS014		07/31/08	< 0.5	< 0.5 J	< 0.5	< 0.5	< 0.5		< 0.04		
AS014		07/31/08	< 0.5	**0.79**	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AS014		07/31/08	< 0.5	**0.84**	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AS014		08/01/08	< 0.5	**0.79**	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AS014		08/01/08	< 0.5	**0.84**	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AS014		11/05/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1	
AMI006	SHB 7-23	1/19/2007	< 1	< 5	< 1			< 3	< 0.1	**0.13**	
AMI008	WB 9-23	12/29/2004									ND
AMI008		1/17/2007	< 1	< 5	< 1			< 3	< 0.1	**0.12**	
AMI008		8/28/2008							< 0.04	< 1	
AMI009	LZ 13-28	8/27/2004									ND
AMI009		8/19/2005									ND
AMI009		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.11**	
AMI009		8/20/2008							< 0.04	< 1	
AMI009		5/19/2009							< 0.08	< 1	
AMI010	LZ 11-8	8/27/2004									ND
AMI010		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.12**	
AMI015	AN 14-22	6/5/2006									ND
AMI015		11/17/2006	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI015		1/16/2007	< 1	**31**	< 1			< 3	< 0.1	**0.91**	
AMI015		11/19/2007	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI017	AN 15-4	12/21/04									ND
AMI017		12/13/06	< 1	**99.2**	< 1			< 10	< 0.5	< 0.5	
AMI017		10/16/08							**0.173**	**2.60**	
AMI017		12/2/08	< 1	**15**	< 1	< 1	< 1		< 0.08 J	< 1 J	
AMI017		8/5/09	< 1	**18**	< 1	< 1	< 1		< 0.08	< 1.4	
AMI017		11/10/09	< 1	**8.9**	< 1	< 1	< 1		**0.046**	< 1	
AMI026	NFU 11-24	8/26/04									ND
AMI026		11/16/06	< 0.5	**5.8**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI026		2/14/07	< 1	**2.53**	< 1	< 2	< 1	< 3	< 0.05	< 0.25	
AMI026		2/14/07	< 0.5	**2.4**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI026		10/30/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	

TABLE 1
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Low-Level PHC Sampling and Analysis Plan

Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI027	MS 3-20	10/14/04									ND
AMI027		10/14/04									ND
AMI027		10/22/04									ND
AMI027		10/19/06									ND
AMI027		2/14/07							< 0.02	< 0.5	
AMI027		8/9/07									< 5
AMI027		11/8/07	**1.2**	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI027		9/18/08							< 0.04 H	< 1	
AMI027		9/18/08							< 0.04 H	< 1	
AMI027		8/25/09							< 0.04	< 1.1	
AMI027											ND
AMI028	SP 11-33	10/13/04									ND
AMI028		2/21/07	< 1	**3.8**	< 2			< 2	< 0.02	< 0.5	
AMI028		11/6/07	< 0.5	**3.5**	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI028		9/18/08							< 0.04 H	< 1	
AMI028		8/24/09							< 0.04	< 1.1	
AMI029	MS 13-5	10/13/04									ND
AMI029		5/10/06									ND
AMI029		10/19/06									ND
AMI029		2/21/07	< 1	< 2	< 2			< 2	< 0.02	< 0.5	
AMI029		8/9/07									< 5
AMI029		11/6/07	**0.96**	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI029		9/22/08							< 0.04	< 1	
AMI029		8/24/09							< 0.04	< 1	
AMI029											ND
AMI030	SP 5-20	8/23/04									ND
AMI030		2/14/07							**0.028**	< 0.5	
AMI030		11/9/07	< 0.5	**0.56**	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI030		9/18/08							< 0.04 H	< 1	
AMI030		8/24/09							< 0.04	< 1.1	
AMI033	Hwy #11	8/27/04									ND
AMI033		10/6/08							< 0.04	**1.7**	
AMI033		11/6/08	< 1 J	< 1 J	< 1	< 1	< 1		< 0.08	< 1.1	
AMI033		12/7/09	< 1	**6.3**	< 1	< 1	< 1		< 0.04	< 1.3	
AMI033		12/7/09	< 1	**4.9**	< 1	< 1	< 1		< 0.04	< 1.4	
AMI034	AN 11-4	8/26/2004									ND
AMI034		10/6/2005									ND
AMI034		9/22/2006									ND
AMI034		11/15/2006	< 0.5	**1.6**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI034		2/13/2007	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI034		8/27/2007									< 5
AMI034		11/6/2007	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI034		9/19/2008							< 0.04	< 1 J	
AMI037	RB 7-31	08/26/04									ND
AMI037		11/01/04									ND
AMI037		11/16/06	< 0.5	**5.8**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI037		02/13/07	< 1	**1.35**	< 1	< 2	< 1	< 3	< 0.05	< 0.25	
AMI037		02/13/07	< 0.5	**1.3**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI043	MS 15-8	08/24/04									ND
AMI043		7/1/08							< 0.04	< 1	
AMI043		9/10/09							**0.15**	< 1	

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Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI078	RS 1-4	12/15/04									ND
AMI078		9/22/06	ND	ND	ND	ND	ND		ND		ND
AMI078		1/16/07	< 1	**22**	< 1			< 3	< 0.1	**5.2**	
AMI078		9/12/07									< 5
AMI078		11/28/07	< 0.5	**19**	< 0.5	**0.61**	< 0.5		**0.08**	< 1	
AMI078		8/29/08							< 0.04	< 1	
AMI078		8/29/08							< 0.04	< 1	
AMI078		8/3/09							< 0.08	< 1.1	
AMI078		8/3/09							< 0.08	< 1.1	
AMI079	RS 2-2	8/25/04									ND
AMI079		6/6/06									ND
AMI079		8/26/08	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	**2.2**	
AMI079		9/5/08							< 0.04		
AMI079		9/12/08	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	**2.6**	
AMI079		5/20/09	< 1	< 1	< 1	< 1	< 1		< 0.08	< 1.1	
AMI089	WB 6-26	8/27/2004									ND
AMI089		1/17/2007	< 1	< 5	< 1			< 3	< 0.1	**0.17**	
AMI089		8/27/2008							< 0.04	< 1	
AMI090	MS 4-28	6/1/06									ND
AMI090		11/14/06	< 0.5	**0.66**	< 0.5	**4.8**	< 0.5		**0.107** D	< 2.4	
AMI090		2/15/07	< 0.5	< 0.5	< 0.5	**1.6**	< 0.5		< 0.036 D	< 1	
AMI090		5/17/07									
AMI090		10/29/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI090		5/28/08							< 0.04	< 1	
AMI107	RS 9-2	12/29/2004									ND
AMI107		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.30**	
AMI113	SP 11-21	11/8/2004									ND
AMI113		2/14/2007							< 0.02	< 0.5	
AMI113		11/8/2007	< 0.5	**0.78**	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI113		9/18/2008							< 0.04 H	< 1	
AMI113		8/24/2009							< 0.04	< 1.1	
AMI113		8/24/2009							< 0.04	<1.1	
AMI117	MS 9-16	10/28/2004									ND
AMI117		2/20/2007	< 1	< 2	< 2			< 2	< 0.02	< 0.5	
AMI117		11/16/2007	< 0.5	**1.9**	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI117		9/15/2008							< 0.04 H	< 1 J	
AMI117		9/1/2009							< 0.04 <	< 1	
AMI118	MS 10-16	10/27/2004									ND
AMI118		2/20/2007	< 1	< 2	< 2			< 2	< 0.02	< 0.5	
AMI118		11/16/2007	< 0.5	**2**	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI118		9/12/2008							< 0.04	< 1	
AMI118		9/1/2009							< 0.04	< 1.1	
AMI122	RS 3-3	12/13/2004									ND
AMI122		9/30/2006									ND
AMI122		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.12**	
AMI122		8/26/2008							< 0.04	< 1	
AMI122		5/20/2009							< 0.08	< 1.1	
AMI124	RS 8-3	11/1/2004									ND
AMI124		11/13/2006	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI124		10/26/2007	< 0.5	**0.55**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI124		8/28/2008							< 0.04	< 1	
AMI124		8/3/2009							< 0.08	< 1.1	

TABLE 1
Summary of Water Wells with One or More PHC Detection
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Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI127	MS 7-34	12/8/2004							< 0.1		ND
AMI127		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.25**	
AMI128	MS 9-34	12/8/2004									ND
AMI128		1/16/2007	< 1	**70**	< 1			< 3	< 0.1	**0.14**	
AMI128		1/16/2007	< 1	**67**	< 1			< 3	< 0.1	**0.13**	
AMI128		7/23/2007									< 5
AMI130	RS 4-10	8/24/2004									ND
AMI130		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.66**	
AMI131	AN 5-4	6/13/2005									ND
AMI131		5/9/2006									ND
AMI131		12/14/2006	< 1	**1.2**	< 1			< 10	< 500	< 0.5	
AMI131		6/27/2008							< 0.04	< 1	
AMI131		6/30/2009							< 0.08	< 1.1	
AMI132	RS 15-12	12/9/04									ND
AMI132		1/16/07	< 1	**11**	< 1			< 3	< 0.1	**0.34**	
AMI132		1/16/07	< 1	**16**	< 1			< 3	< 0.1	**0.16**	
AMI132		7/8/08	**0.76**	**100**	**1.8**	**8.9**	**4.4**		**0.346**	**8.8**	
AMI132		7/8/08	**0.58**	**68**	**1.3**	**6.5**	**3.2**		**0.247**	**4.3**	
AMI132		7/24/08	**7600**	**34000**	**1600**	**17000**	**3300**		**143**	**210**	
AMI132		7/24/08	**6400**	**34000**	**2500**	**25000**	**4900**		**241**	**380**	
AMI132		9/26/08	**0.56**	**46**	**1.5**	**16**	**3.7**		**0.228**	**3.1**	
AMI132		10/23/08	< 1 JH	**59 H**	**1.8 H**	**21 H**	**4.7 H**		**0.266**	**3.7**	
AMI132		5/21/09	< 1	**9.7**	< 1	< 1	< 1		< 0.08	< 1.1	
AMI132		11/12/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1.1	
AMI134	RB 13-32	11/2/04									ND
AMI134		9/6/06									ND
AMI134		11/16/06	< 0.5	**3.2**	**0.52**	**7.3**	**1.7**		< 0.036 D	< 2.4	
AMI134		2/13/07	< 0.5	**0.96**	< 0.5	**2.8**	**0.54**		< 0.036 D	< 1	
AMI134		8/29/07									< 5
AMI134		11/6/07	< 0.5	< 0.5	< 0.5	**1.3**	< 0.5		< 0.036 D	< 1	
AMI134		9/19/08							< 0.04	< 1 J	
AMI134		8/31/09							**0.064**	< 1.1	
AMI137	WB 9-26	12/6/04									ND
AMI137		1/17/07	< 1	< 5	< 1			< 3	< 0.1	**0.10**	
AMI140	NM 4-7	11/1/04									ND
AMI140		9/7/06									**456**
AMI140		9/7/06	**290**	**4400**	**1200**	**16000**	**3000**	**19000**	**46**		
AMI140		9/18/06	**21**	**640**	**240**	**2300**	**560**	**2800**	**8.42**		ND
AMI140		10/25/06	**6.9**	**83**	**14**			**325**			
AMI140		2/15/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI140		7/16/07	< 0.5	< 0.5	< 0.5	**1.6**	< 0.5		< 0.036 D	< 1	
AMI140		8/28/07	**1.2**	**3.5**	**2.1**	**22**	**4.2**		**0.149**		< 5 U
AMI140		11/7/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI140		9/3/08							< 0.04	< 1	
AMI140		9/2/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1.3	
AMI145	WB 11-10	11/1/04									ND
AMI145		10/6/05									ND
AMI145		9/29/06									ND
AMI145		11/16/06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI145		8/29/07									< 5
AMI145		11/6/07	0.57	**4.3**	< 0.5	**0.72**	< 0.5		< 0.036 D	< 1	
AMI145		8/28/08							< 0.04	< 1	
AMI145		7/29/09							< 0.08	< 1.1	
AMI145		7/29/09							< 0.08	< 1	

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Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI146	AN 11-10	11/2/04									ND
AMI146		9/19/08							**0.206**	< 1	
AMI146		10/20/08							**0.212**	< 1	
AMI146[C]		10/27/08	**7.5 H**	**1.2 H**	< 1 H	< 1 H	< 1 H		**0.245**	< 1	
AMI146[C]		11/20/08	**5.3**	< 1 J	< 1	< 1	< 1		**0.16**	< 1.1	
AMI146[C]		8/5/09	**7.8**	< 1	< 1	< 1	< 1		**0.19**	< 1	
AMI146[C]		10/28/09	**6.8**	< 1	< 1	< 1	< 1		**0.21**	< 1.1	
AMI147	WB 13-11	5/25/05									ND
AMI147		1/19/07	< 1	**43**	< 1			< 3	< 0.1	**230**	
AMI147		5/10/07	ND	ND	ND	ND	ND		ND		ND
AMI148	WB 13-14	6/17/05									ND
AMI148		11/16/06	< 0.5	**1.9**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI148		2/12/07	< 1	**10.6**	< 1	< 2	< 1	< 3	< 0.05	< 0.25	
AMI148		2/12/07	< 0.5	**8.6**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI148		5/18/07									
AMI148		11/6/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI148		5/29/08							< 0.04	< 1	
AMI148		7/15/09							< 0.08	< 1	
AMI149	Blue Rim	5/17/05									ND
AMI149	State #2	10/9/07	**4.8**	**27**	< 0.5	< 0.5	< 0.5		**0.101**	0.00	< 5
AMI149		11/5/07	**4.8**	**13**	< 0.5	< 0.5	< 0.5		**0.052**	< 1	< 5
AMI149		11/5/07	**5.2**	**13**	< 0.5	< 0.5	< 0.5		**0.051**	< 1	< 5
AMI149		9/23/08							< 0.04	< 1	
AMI151	BO 7-19	12/7/04									ND
AMI151		12/7/04									ND
AMI151		1/16/07	< 1	< 5	< 1			< 3	< 0.1	**0.52**	
AMI151		8/7/08							< 0.04	**1.0**	
AMI151		9/5/08	< 1	**1.8**	< 1	< 1	< 1	< 1		< 1	
AMI151		9/5/08	< 1	< 1	< 1	< 1	< 1	< 1	< 0.04	< 1	
AMI159	MS 11-28	8/25/04									ND
AMI159		11/14/06	< 0.5	**0.62**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI159		2/14/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI159		11/5/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI159		5/23/08	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AMI159		7/14/09							< 0.08	< 1.1	
AMI160	MS 12-28	11/4/04									ND
AMI160		11/13/06	< 0.5	**69**	< 0.5	**0.85**	< 0.5		**0.103 D**	**7.4**	
AMI160		2/14/07	< 0.5	**8.5**	< 0.5	**0.97**	< 0.5		< 0.036 D	**3.4**	
AMI160		5/17/07									ND
AMI160		10/26/07	< 0.5	**0.95**	< 0.5	**2.1**	< 0.5		< 0.036 D	< 1	
AMI160		6/4/08							**0.165**	< 1	
AMI160		7/1/08	**1.3**	**0.98**	**4.6**	**57**	**10**		**0.208**	< 1	
AMI160		5/20/09	< 1	**2.3**	< 1	< 1	< 1		< 0.08	< 1.1	
AMI160		11/12/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1.1	
AMI161	SP 5-29	11/9/2004									ND
AMI161		2/21/2007	< 1	< 2	< 2			< 2	< 0.02	< 0.5	
AMI161		11/8/2007	< 0.5	**0.77**	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI161		9/18/2008							< 0.04 H	< 1	
AMI161		9/1/2009							< 0.04	< 1.2	

TABLE 1
Summary of Water Wells with One or More PHC Detection
Low-Level PHC Sampling and Analysis Plan

Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI162	RB 3-31	5/9/06									ND
AMI162		6/13/05									ND
AMI162		6/13/05									ND
AMI162		1/15/07	< 1	< 1	< 1			< 10	< 500	< 0.5	
AMI162		7/24/08	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AMI162		6/27/08							< 0.04	**1.4**	
AMI162		6/27/08							< 0.04	< 1	
AMI162		10/1/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1.2	
AMI164	MS 1-33	12/8/2004									ND
AMI164		8/16/2005									ND
AMI164		9/30/2006									ND
AMI164		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.12**	
AMI164		7/19/2007									< 5
AMI164		8/27/2008							< 0.04	< 1	
AMI166	MS 10-33	12/15/2004									ND
AMI166		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**1.7**	
AMI166		12/11/2007	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI166		8/26/2008	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AMI166		5/20/2009							< 0.08	< 1.1	
AMI167	MS 12-33	11/1/2004									ND
AMI167		11/13/2006	< 0.5	**17**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI167		2/14/2007	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI167		7/12/2007									< 5
AMI167		10/29/2007	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI167		8/28/2008							< 0.04	< 1	
AMI167		8/3/2009							< 0.08	< 1.1	
AMI182	Hwy #7	12/15/04									ND
AMI182		1/1/07	**5.9**	< 0.5	< 0.5	< 0.5	< 0.5		< 1	**0.052**	
AMI182		12/12/08							**0.189**	< 1.1	
AMI182		12/12/08							**0.165**	< 1.1	
AMI182		1/20/09	**6.9**	< 1	< 1	< 1	< 1		**0.192**	< 1	
AMI182		12/8/09	< 1	**1.4**	< 1	< 1	< 1		**0.15**	< 1.5	
AMI182		12/8/09	< 1	**1.4**	< 1	< 1	< 1		**0.16**	< 1.3	
AMI186	WB 8-6	6/14/05									ND
AMI186		9/29/06	**3.4**	**27**	**3.8**	**54**	**12**	**66**	**0.358**		**22**
AMI186		10/4/06	**0.5**	**2.4**	**0.5**	**3.6**	**0.75**	**4.35**	ND		ND
AMI186		2/13/07									
AMI186		7/16/07	< 0.5	< 0.5	< 0.5	**0.55**	< 0.5		< 0.036 D	< 1	
AMI186		8/29/07	< 0.5	**0.91**	< 0.5	< 0.5	< 0.5		< 0.036		< 5
AMI186		11/6/07	< 0.5	**45**	< 0.5	**3.7**	**1**		0.204 D	**1.80**	
AMI186		8/28/08							< 0.04	< 1	
AMI186		7/29/09	< 1	< 1	< 1	< 1	< 1		< 0.08	< 1.1	
AMI187	AN 1-16	5/10/07	**2.9**	ND	ND	ND	ND		ND		**70**
AMI187		6/8/07	**25**	**1.3**	ND	ND	ND		**0.078**		**53**
AMI187		12/15/08	**6.6**	< 1 J	< 1 J	< 1 J	< 1 J		**0.137**	**78**	
AMI187		12/15/08	**5.5**	< 1 J	< 1 U	< 1 J	< 1		**0.118**	**11.7**	
AMI188	NP 14-8	6/1/06									ND
AMI188		11/17/06	**6.6**	**63**	**1.7**	**17**	**4.3**		**0.12**	< 2.4	
AMI188		2/12/07	**5.58**	**58**	**1.53**	**14**	**3.44**	**17.7**	**0.209**	**0.31**	
AMI188		2/12/07	**5**	**48**	**1.3**	**13**	**3.3**		**0.094**	< 1	
AMI188		6/5/07	ND	ND	ND	ND	ND		ND		ND
AMI188		6/5/07	ND	ND	ND	ND	ND		ND		ND
AMI188		7/16/07	< 0.5	**1.7**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI188		10/26/07	< 0.5	**0.92**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI188		5/28/08							< 0.04	< 1	
AMI188		5/21/09							< 0.08	< 1.1	

TABLE 1
Summary of Water Wells with One or More PHC Detection
Low-Level PHC Sampling and Analysis Plan

Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI190	RS 11-14	7/1/05									ND
AMI190		9/22/06									ND
AMI190		1/16/07	< 1	< 5	< 1			< 3	< 0.1	**7.4**	
AMI190		1/16/07	< 1	< 5	< 1			< 3	< 0.1	**7.6**	
AMI190		12/11/07	< 0.5	**4.4**	< 0.5	< 0.5	< 0.5		**0.08**	< 1	
AMI190		1/13/09							< 0.08	< 1	
AMI190		5/19/09							< 0.08	< 1.1	
AMI191	VB 1-11	11/13/06	< 0.5	**1.4**	< 0.5	**1.6**	< 0.5		< 0.036 D	< 2.4	
AMI191		10/26/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		0.036 D	< 1	
AMI192	RB 13-30	5/26/05									ND
AMI192		9/16/08	< 0.5	**6.2**	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AMI192		1/16/09	< 1	< 1 J	< 1	< 1	< 1		< 0.08	< 1.1	
AMI192		1/16/09	< 1	< 1 J	< 1	< 1	< 1		< 0.08	< 1.1	
AMI192		5/19/09	< 1	< 1	< 1	< 1	< 1		< 0.08	< 1.1	
AMI196	WB 8-22	6/29/05									ND
AMI196		1/17/07	< 1	< 5	< 1			< 3	< 0.1	**0.15**	
AMI196		5/10/07									ND
AMI196		6/10/08							< 0.04	< 1	
AMI198	WB 16-5	5/25/05									ND
AMI198		1/18/07	< 1	< 5	< 1			< 3	< 0.1	**0.13**	
AMI198		5/10/07									ND
AMI198		6/13/08							**0.056**	< 1	
AMI198		7/17/08	**1**	**1**	< 0.5	**0.94**	< 0.5		< 0.04	< 1	
AMI198		7/7/09	**5.5**	**3**	< 1	**4.7**	< 1		< 0.08	< 1	
AMI198		11/12/09	< 1	**3.4**	< 1	< 1	< 1		< 0.04	< 1.1	
AMI198		11/12/09	< 1	**2.9**	< 1	< 1	< 1		< 0.04	< 1.1	
AMI199	MS 16-28	7/21/2005									ND
AMI199		1/16/2007	< 1	< 5	< 1			< 3 U	< 0.1	**0.40**	
AMI199		7/19/2007	< 0.5	< 0.5	< 0.5	**0.89**	< 0.5		< 0.036		< 5
AMI199		8/6/2007	< 0.5	**0.79**	< 0.5	< 0.5	< 0.5		< 0.036		< 5
AMI199		8/26/2008	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AMI199		5/20/2009	< 1	1	< 1	< 1	< 1		< 0.08	< 1.1	
AMI199		5/20/2009	< 1	1	< 1	< 1	< 1		< 0.08	< 1.1	
AMI202	WB 3-3	7/21/2005									ND
AMI202		1/16/2007	< 1	**140**	< 1			< 3	**0.24**	**0.70**	
AMI202		8/19/2008							< 0.04	< 1	
AMI203	WB 16-4	7/6/2005									ND
AMI203		7/19/2006									ND
AMI203		1/18/2007	< 1	< 5	< 1			< 3	< 0.1	**0.42**	
AMI203		1/18/2007	< 1	< 5	< 1			< 3	< 0.1	**0.60**	
AMI203		6/5/2008							< 0.04	< 1	
AMI204	WB 16-10	7/21/2005									ND
AMI204		7/21/2005									ND
AMI204		8/23/2006									ND
AMI204		1/17/2007	< 1	< 5	< 1			< 3	< 0.1	**0.95**	
AMI204		8/28/2008							< 0.04	< 1	
AMI205	SP 8-32	5/18/2005									ND
AMI205		5/10/2006									ND
AMI205		2/21/2007	< 1	< 2	< 2			< 2	< 0.02	< 0.5	
AMI205		5/31/2007									ND
AMI205		11/6/2007	< 0.5	**0.7**	< 0.5	< 0.5	< 0.5		< 0.036	< 1	
AMI205		5/22/2008							< 0.04	< 1	
AMI205		5/26/2009							< 0.08	< 1	

TABLE 1
Summary of Water Wells with One or More PHC Detection
Low-Level PHC Sampling and Analysis Plan

Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI209	WB 15-26	7/6/05									ND
AMI209		7/17/06									
AMI209		1/17/07	< 1	< 5	< 1			< 3	< 0.1	**0.11**	
AMI209		5/22/07									ND
AMI209	WB 15-26	6/5/08							**0.169**	**2.0**	
AMI209		7/1/08	< 0.5	**85**	< 0.5	**2.2**	**0.52**		**0.311**	< 1	
AMI209		7/7/09	< 1	**1.8**	< 1	**1.5**	< 1		0.08	**1.3**	
AMI209		11/12/09	< 1	< 1	< 1	< 1	< 1		< 0.04	< 1.1	
AMI210	WB 10-9	7/6/05									ND
AMI210		7/17/06									
AMI210		1/17/07	< 1	< 5	< 1			< 3	< 0.1	< 0.1	
AMI210		5/11/07									
AMI210		5/29/08							**0.055**	< 1	
AMI210		8/20/08							**0.102**	< 1 J	
AMI212	WB 9-15	5/26/2005									ND
AMI212		1/17/2007	< 1	< 5	< 1			< 3	< 0.1	**0.40**	
AMI212		6/26/2007									< 5
AMI212		5/29/2008							< 0.04	< 1	
AMI212		7/7/2009							< 0.08	< 1	
AMI213	PS 36-9	12/30/04									ND
AMI213		10/07/08							**0.083**	< 1	
AMI213		11/20/08	< 1	**20**	< 1	< 1	< 1		< 0.08 J	< 1.1 J	
AMI213		11/10/09	< 1	**6.3**	< 1	< 1	< 1		< 0.04	< 1	
AMI214	WB 12-9	06/17/05									ND
AMI214		06/02/06									
AMI214		11/16/06	**1**	**0.76**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI214		02/13/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI214		05/17/07									ND
AMI214		11/06/07	**0.59**	**1.7**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI214		05/28/08							< 0.04	< 1	
AMI214		05/19/09							< 0.08	< 1.1	
AMI228	RB 16-30	06/13/05									ND
AMI228		05/09/06									ND
AMI228		12/14/06	< 1	1 U	< 1			10 U	< 500	< 0.5	
AMI228		06/26/08							< 0.04	< 1	
AMI228		06/29/09							< 0.08	**2.9**	
AMI228		10/01/09	< 1	**4.9**	< 1	0.00	< 1 <		< 0.04	**1.4**	
AMI232	WB 5-25	7/18/2006									ND
AMI232		1/18/2007	< 1	< 5	< 1			< 3	< 0.1	**0.13**	
AMI233	BO 15-4	7/5/05									ND
AMI233		7/11/06									
AMI233		1/16/07	< 1	< 5	< 1			< 3	**0.17**	< 0.1	
AMI233		5/8/07									ND
AMI233		6/13/08							**0.347**	< 1	
AMI233		7/17/08	< 0.5	**2.3**	< 0.5	< 0.5	< 0.5		**0.28**	< 1	
AMI233		7/1/09	< 1	**2**	< 1	< 1	< 1		**0.246**	< 1	
AMI235	WB 2-8	5/25/05									ND
AMI235		8/23/06									**21**
AMI235		10/13/06	ND	**1.7**	ND	ND	ND		ND		ND
AMI235		10/13/06	ND	**1.8**	ND	ND	ND		ND		ND
AMI235		10/30/06	ND	**1**	ND	ND	ND		ND		ND
AMI235		1/17/07	< 1	< 5	< 1			< 3	< 0.1	**0.46**	
AMI235		7/10/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036		< 5
AMI235		7/10/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036		< 5
AMI235		8/28/08							< 0.04	< 1	
AMI235		5/19/09	< 1	< 1	< 1	< 1	< 1		< 0.08	< 1.1	

TABLE 1
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Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI237	WB 7-15	1/18/07	**52**	**93**	**2**			**18**	**0.33**	< 0.1	
AMI237		6/1/07	**85**	**95**	**2.4**	**18**	**2.5**		**0.696**		ND
AMI237		6/25/07	**77**	**92**	**2.4**	**18**	**2.4**		**0.648**		< 5
AMI237		7/24/07	**34**	**37**	**1**	**7.5**	**1.1**		**0.265**		< 5
AMI237		5/29/08							**0.761**	< 1	
AMI237		7/29/09	**84**	**150**	**4**	**31**	**4**		**0.665**	<1.1	
AMI237		11/12/09	**79**	**140**	**4.2**	**32**	**4.3**		**0.65**	< 1.1	
AMI242	WB 8-25	1/17/2007	< 1	< 5	< 1			< 3	< 0.1	**0.36**	
AMI242		1/17/2007	< 1	< 5	< 1			< 3	< 0.1	**0.29**	
AMI242		6/1/2007									ND
AMI242		6/5/2008							< 0.04	< 1	
AMI242		5/19/2009							< 0.08	< 1.1	
AMI247	BO 15-18	7/1/2005									ND
AMI247		7/1/2005									ND
AMI247		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.53**	
AMI247		7/24/2007									< 5
AMI248	BO 12A-33	1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.18**	
AMI248		9/16/2008	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AMI248		9/16/2008	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	< 1	
AMI248		7/29/2009							< 0.08	< 1.1	
AMI249	WB 2-3	7/10/2006									ND
AMI249		1/18/2007	< 1	< 5	< 1			< 3	< 0.1	**0.21**	
AMI249		5/10/2007									ND
AMI249		5/29/2008							< 0.04	< 1	
AMI249		5/19/2009							< 0.08	< 1	
AMI251	BO 14-34	7/10/2006									ND
AMI251		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.23**	
AMI251		5/8/2007									ND
AMI251		6/4/2008							< 0.04	< 1	
AMI252	BO 15-7	7/11/06									**20**
AMI252		7/21/06									ND
AMI252		7/25/06							ND		
AMI252		1/16/07	< 1	**110**	< 1			< 3	**0.31**	**4.0**	
AMI252		1/16/07	< 1	**110**	< 1			< 3	**0.35**	**2.8**	
AMI252		7/27/07	**0.81**	**55**	< 0.5	**0.71**	< 0.5		**0.206**		< 5
AMI252		7/27/07	< 0.5	**27**	< 0.5	< 0.5	< 0.5		**0.104**	**1.1**	< 5
AMI252		8/17/07	< 0.5	**44**	< 0.5	**1**	< 0.5		**0.188**	0.00	< 5
AMI255	MS 15-27	7/24/06									ND
AMI255		1/16/07	< 1	< 5	< 1			< 3	< 0.1	< 0.1	
AMI255		8/28/08	< 0.5 J	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	**4.9**	
AMI255		9/12/08	< 0.5 J	< 0.5	< 0.5	< 0.5	< 0.5		< 0.04	**3.0**	
AMI255		5/21/09	< 1	< 1	< 1	< 1	< 1		< 0.08	**3.2**	
AMI258	RS 11-25	6/2/06									ND
AMI258		9/27/06	ND	ND	ND	ND	ND		ND		ND
AMI258		11/13/06	< 0.5	< 0.5	< 0.5	**1**	< 0.5		< 0.036 D	< 2.4	
AMI258		2/13/07	< 0.5	**11**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI258		8/29/07									
AMI258		10/30/07	< 0.5	**2.3**	**1.2**	**8.1**	**3.9**		**0.122 D**	< 1	
AMI258		9/5/08	**0.9**	**50**	**16**	**110**	**44**		**0.906**	**24**	
AMI258		10/17/08							**0.15**	< 1 J	
AMI258		9/2/09	< 1	< 1	< 1	**2.6**	**1.1**		**0.058**	< 1.1	
AMI258		12/18/09	< 1	**2**	**1.8**	**17**	**7**		**0.22**	**6**	

TABLE 1
Summary of Water Wells with One or More PHC Detection
Low-Level PHC Sampling and Analysis Plan

Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI259	RS 13-4	6/2/06									ND
AMI259		11/17/06	< 0.5	**3.8**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI259		2/14/07	< 0.5	**1.9**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI259		6/11/07									
AMI259		11/6/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 DS	< 1	
AMI259		5/27/08							< 0.04	< 1	
AMI259		5/20/09							< 0.08	< 1.2	
AMI261	RS 4-1	7/13/06									ND
AMI261		5/7/07	**0.51**	ND	ND	ND	ND		ND		ND
AMI261		6/8/07	ND	ND	ND	ND	ND		ND		ND
AMI261		5/5/08							< 0.04	< 1	
AMI261		5/20/09	< 1	< 1	< 1	< 1	< 1		< 0.08	< 1.1	
AMI262	RS 4-25	8/23/2006									ND
AMI262		1/16/2007	< 1	< 5	< 1			< 3	< 0.1	**0.10**	
AMI262		8/19/2008							< 0.04	< 1	
AMI262		5/21/2009							< 0.08	< 1	
AMI265	WB 5-15	9/29/2006									ND
AMI265		1/17/2007	< 1	< 5	< 1			< 3	**0.12**	**0.34**	
AMI265		1/16/2009							< 0.08	< 1.1	
AMI265		7/8/2009							< 0.08	**1.00**	
AMI266	WB 6-5	7/12/2006									ND
AMI266		7/12/2006									ND
AMI266		1/17/2007	< 1	< 5	< 1			< 3	< 0.1	**0.14**	
AMI266		5/10/2007									ND
AMI266		6/5/2008							< 0.04	< 1	
AMI270	2 Buttes	11/9/2006	ND	**1.6**	ND	ND	ND		ND		
AMI270	16-15	10/17/2007									< 5
AMI270		8/14/2008							< 0.04	< 1	
AMI270		11/3/2009	< 1	1	< 1	< 1	< 1		< 0.04	< 1.1	
AMI274	RS 7-13	11/13/06	< 0.5	**1.3**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 2.4	
AMI274		2/13/07	< 0.5	**2.7**	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI274		5/18/07									ND
AMI274		10/29/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI274		5/28/08							< 0.04	< 1	
AMI274		7/15/09							< 0.08	< 1.1	
AMI279	WB 1-9	5/18/07									ND
AMI279		10/30/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI279		5/28/08							< 0.04	< 1	
AMI279		7/20/09	< 1	< 1	< 1	< 1	< 1		< 0.08	**2.1**	
AMI279		12/22/09	< 1	**1.8**	< 1	< 1	< 1		< 0.04	< 1.1	
AMI280	BO 14-32	11/13/06	< 0.5	**12**	< 0.5	< 0.5	< 0.5		< 0.036 D	**3.9**	
AMI280		2/13/07	< 1	< 1	< 1	< 2	< 1	< 3	< 0.05	< 0.25	
AMI280		2/13/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI280		5/17/07									ND
AMI280		5/18/07									ND
AMI280		10/30/07	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.036 D	< 1	
AMI280		5/28/08							< 0.04	< 1	
AMI280		5/19/09							< 0.08	< 1	
AMI280		5/19/09							< 0.08	< 1	
AMI285	WB 7-5	5/18/07									ND
AMI285		10/30/07	**28**	**25**	**0.63**	**5.2**	< 0.5		**0.193 D**	< 1	
AMI285		11/26/07	**3**	**2.4**	< 0.5	**0.55**	< 0.5		**0.074 D**	< 1	
AMI285		5/28/08							**0.045**	< 1	
AMI285		7/29/09	< 1	< 1	< 1	< 1	< 1		< 0.08	< 1.1	

TABLE 1
Summary of Water Wells with One or More PHC Detection
Low-Level PHC Sampling and Analysis Plan

Well ID	Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	total Xylenes (ug/L)	GRO (mg/L)	DRO (mg/L)	NPM (mg/L)
DEQ Water Quality Standard			**5**	**1000**	**700**	**10000**	**10000**	**10000**	**7.3**	**1.1[A], 10[B]**	**NE**
AMI301	WB 11-4	7/20/09							**0.175**	**1.10**	
AMI301		12/18/09	< 1	< 1	< 1	**3.3**	< 1		< 0.04	< 1	
SM 14-12		10/26/07	< 0.5	**0.58**	< 0.5	< 0.5	< 0.5	NM	< 0.036	< 1	NM

This summary includes SCCD and Geomatrix records through December 2009.
Shading indicates concentration exceeds DEQ standard or action level.
DEQ = Wyoming Department of Environmental Quality; NPM = Non-Polar Materials
ND = Not Detected; NM = Not Measured; NE = Not Established; ug/l = micrograms per liter; mg/l = milligrams per liter
A - Applicable cleanup level for TPH-DRO is 1.1 mg/l if BTEX, naphthalene and/or 2-methylnaphthalene exceed cleanup levels.
B - If BTEX, naphthalene and/or 2-methylnapthalene are below cleanup levels and no free product is present, the applicable cleanup level for TPH-DRO is 10 mg/l.
C - Re-analysis of groundwater samples collected from AMI146 on 10/27/08 and 11/20/08 by Method 8260 indicated that benzene was misidentified. The compound detected was 2-methylcyclohexane. There are likely no exceedances of the benzene standard at this well.

TABLE 2
PAPA-Wide Potential Source Screening Matrix
Low-Level Petroleum Hydrocarbon Sampling and Analysis Plan

Source Type	General Description	Potential Contaminants of Concern	Target Analytes	Source	Source Location [1]		Source Depth (ft)
					Northing	Easting	
Class II Injection Well[2]	Excursions in Regional Wasatch HSU due to improperly constructed injection wells or conduits intercepting injected water	produced water condensate	common ions, general water quality parameters, metals, silica, VOCs, TPH-GRO	**Petrogulf State 1-36 WDW**	4718400	600000	4,318-4,844
				Riverside 6-16 WDW	4723954	595030	4,589-6,333
				Riverside 11-16 WDW	4723524	594838	5,508-6,300
				Riverside 12-16D WDW	4723520	594836	6,082-6,394
				Riverside 13-16d WDW	4723516	594833	6,554-6,804
				Ross Butte 3-5 WDW	4717920	592929	5,760-6,916
				Ross Butte 4-5 WDW	4717920	592929	6,101-6,790
				Lizard Head 11-8	4724792	602671	5,200-7,350
				Mesa 10-30	4701854	592171	7,684 (TD)
				Mesa 11-30	4701854	592171	7,602 (TD)
				WDW No. 1 NFX	4701932	615185	6,464 (TD)
				Warbonnet 10-26D WDW	4718930	600238	7,735 (TD)
				Warbonnet 11-26D WDW	4709870	608120	6,445-7,640
				Warbonnet 14-26D WDW	4718930	600238	6,308-7,640
				Warbonnet 15-26 WDW	4709870	608120	6,800-7,244
				South Mesa 12-14 IDW1	4713800	597870	5,908-6,124
				South Mesa 12-14 IDW2	4713800	597870	6,113-6,352
				South Mesa 12-14 IDW3	4713800	597870	6,143-6,511
				South Mesa 12-14 IDW4	4713800	597870	6,139-6,466
				South Mesa 12-14 IDW5	4713800	597870	5,501-6,340
				Highway SWD #11 (Highway Fed No.11)	4708050	615890	6,032-7,072

TABLE 2
PAPA-Wide Potential Source Screening Matrix
Low-Level Petroleum Hydrocarbon Sampling and Analysis Plan

Source Type	General Description	Potential Contaminants of Concern	Target Analytes	Source	Source Location [1]		Source Depth (ft)
					Northing	Easting	
Actively Producing, Shut-In, or Improperly Abandoned Gas Wells[2,3]	Drilling, completions, production, and abandonment activities	natural gas, condensate, produced water, oil-based mud, diesel, fuel oil and other completions fluids	dissolved gases (C1 - C5), VOCs & SVOCs by GC/MS, TPH-GRO, TPH-DRO, common ions, general water quality parameters, metals	**Wagon Wheel 1 (WW1)**	4717158	602853	Depths ranging from ground surface to 19,000 feet
				Government 1 (Govt1)	4723700	598543	
				Jensen 1 (Jen 1)	4725336	597720	
				Jenson 2 (Jen 2)	4724359	598943	
				Pinedale 1 (PD 1)	4715197	605304	
				Pinedale 2 (PD 2)	4719765	603205	
				Pinedale 3 (PD 3)	4724563	599538	
				Pinedale 4 (PD 4)	4728828	596311	
				Pinedale 5 (PD 5)	4716605	602963	
				Pinedale 6 (PD 6)	4712369	604547	
				Pinedale 7 (PD 7)	4714200	606691	
				Pinedale 8 (PD 8)	4740762	590572	
				Mesa 1 (MS 1)	4735513	592323	
				Mesa 2 (MS 2)	4733504	594890	
				New Fork 1 (NF 1)	4710823	609800	
				New Fork 2 (NF 2)	4717261	608023	
				New Fork 4 (NF 4)	4718517	598620	
				Tex Unit 1	4700912	619250	
				Stan Unit 1	4742285	591090	
				Baumgartner Fed. 21-24 (BF 21-24)	4741522	587368	

TABLE 2
PAPA-Wide Potential Source Screening Matrix
Low-Level Petroleum Hydrocarbon Sampling and Analysis Plan

Source Type	General Description	Potential Contaminants of Concern	Target Analytes	Source	Source Location [1]		Source Depth (ft)
					Northing	Easting	
Gas Field Pits[3,4]	Pits used for drilling, completions, work-over and production	condensate, produced water, oil-based mud, diesel, fuel oil and other completions fluids	VOCs & SVOCs by GC/MS, TPH-GRO, TPH-DRO, common ions, general water quality parameters, metals	**Active or Former Gas Well Pads**	Throughout PAPA		~ 3 - 5 feet
Contaminated Tanks, Tankers, & Equipment; Lack of Back-Flow Preventors[4]	Use of contaminated tanks to transfer fresh water; lack of back-flow prevention on wells connected to contaminated tanks	contaminated water	VOCs & SVOCs by GC/MS, TPH-GRO, TPH-DRO	**Operator Water Supply Wells**	Throughout PAPA		Perforated zones in wells (>200 ft to <1,000 ft)
Natural Sources[5]	Macroseepage and microseepage	Natural gas and condensate	dissolved gases (C1 - C5), VOCs & SVOCs by GC/MS, TPH-GRO, TPH-DRO	**Wasatch, Fort Union, and/or Lance Formations**	Throughout PAPA, more likely in southern portion		0 to ~ 12,000 ft depending on location in PAPA

TABLE 2
PAPA-Wide Potential Source Screening Matrix
Low-Level Petroleum Hydrocarbon Sampling and Analysis Plan

Source Type	General Description	Potential Contaminants of Concern	Target Analytes	Source	Source Location [1]		Source Depth (ft)
					Northing	Easting	
Well/Pump Installation Practices[4]	Use of lubricants during drilling and well installation, no decontamination of well construction materials or pumps	compressor oil, hydraulic oil, pipe dope	VOCs & SVOCs by GC/MS, TPH-GRO, TPH-DRO, metals	**Well Drilling and Well/Pump Installation Equipment**	Throughout PAPA		NA
Permitted Oil Disposal Facility[6,7]	Liner for evaporation ponds perforated and leaking; malfunction of leak-detection monitoring system malfunction; improper landfarming practices	Produced water, condensate, and petroleum-contaminated soil	VOCs & SVOCs by GC/MS, TPH-GRO, TPH-DRO, common ions, general water quality parameters, metals	**Anticline Disposal LLC**	4722800	601300	14-34 (base of cells)
				Newpark Sand Draw Facility	4718000	611400	< 40

TABLE 2
PAPA-Wide Potential Source Screening Matrix
Low-Level Petroleum Hydrocarbon Sampling and Analysis Plan

Source Type	General Description	Potential Contaminants of Concern	Target Analytes	Source	Source Location [1]		Source Depth (ft)
					Northing	Easting	
Landfill[8,9]	Liner perforated and leaking; malfunction of leak-detection monitoring system malfunction; unlined cells	Leachate and landfill gas	methane, ammonia, chloride, TDS, VOCs, metals	**Boulder Landfill Abandoned**	4725753	605506	3-6
				Pinedale #1 Historic Municipal Landfill	4748800	597100	unknown
				Pinedale #2 Closed Municipal Landfill/ Active Transfer Station	4745400	585800	unknown

Notes:

1 - locations expressed in UTM coordinates.

2-Wyoming Oil and Gas Conservation Commission online database search: http://wogcc.state.wy.us/

3-Bureau of Land Management file review; Undesirable Events database search

4-Operator data and information; previous investigations

5-Shell Internship Final Report, Pinedale Groundwater Characterization Project, Compiled for AMEC Geomatrix, Jessica Malone, July 2009;
Shallow Gas Found at the Yates Petroleum Highway 4 Well Pad SW NE 16-29-107, Pinedale Field, Sublette County, WY Memo, Gary Strong, WOGCC, dated 3/30/09.

6-WYDEQ Water and Wastewater Program; http://deq.state.wy.us/wqd/www/Permitting/Downloads/Produced%20Water/Oil-Field-Pits_Active.pdf.

7-Application for Transfer/Treatment/Storage Permit, Newpark PCS Treatment Facility, Inberg-Miller Engineers, Riverton, WY, Revised November, 12 2003.

8-Wyoming Department of Environmental Quality (WYDEQ) Solid and Hazardous Waste Site listings

9-Phase I Groundwater Monitoring Program, Boulder Abandoned Landfill, Sublette County, Wyoming, dated December 19, 2007.

TABLE 3

Location-Specific Source Screening Matrix

Low-Level PHC Sampling and Analysis Plan

Well Name	Well ID	Easting[1]	Northing[1]	Pre-1984 Gas Wells & Associated Facilities[2]	Permitted Oil Disposal Facility[2,3]	Class II Injection Well[3]	Landfill[2,4]	DEQ Storage Tank Program Sites[2]
Wells with PHC detects during last round of sampling								
Antelope 15-4	AMI017	614636	4706860			X		
Highway #11	AMI033	615774	4708011			X		
Mesa Lovatt Draw 15-8	AMI043	593612	4724721			X		
Rainbow 13-32	AMI134	612147	4708453	X				
Antelope 11-10D	AMI146	615649	4705689					
Highway #7 Water Well	AMI182	613938	4705986					
Antelope 1-16-29-107	AMI187	615101	4704954					
Warbonnet 16-5	AMI198	603643	4716368	X		X		
Petrogulf State 36-9	AM213	600494	4718477	X		X		
Rainbow 16-30	AMI228	611871	4710041	X				
Boulder 15-4	AMI233	604844	4726159				X	
Warbonnet 7-15D	AMI237	606789	4714178	X				
Mesa 15B-27D	AMI255	596781	4729400	X				
Riverside 11-25	AMI258	599659	4720069	X		X		
Warbonnet 5D-15D	AMI265	605878	4713892	X				
Warbonnet 1-9	AMI279	605122	4715896	X				
Warbonnet 11-4	AMI301	604516	4716382	X		X		
Wells with historic PHC detects; no detects during last round of sampling								
Corwin 2	AD213	588452	4745008					X
Tri County Sanit. #1	AD223	588789	4745371					X
DC-6	AD238	589335	4745869					X

TABLE 3
Location-Specific Source Screening Matrix
Low-Level PHC Sampling and Analysis Plan

Well Name	Well ID	Easting[1]	Northing[1]	Pre-1984 Gas Wells & Associated Facilities[2]	Permitted Oil Disposal Facility[2,3]	Class II Injection Well[3]	Landfill[2,4]	DEQ Storage Tank Program Sites[2]
Wells with historic PHC detects; no detects during last round of sampling (cont'd)								
N.W. Squaretop	AS014	611680	4711595	X				
Stewart Point 11-33	AMI028	592152	4737427	X				
Stewart Point 5-20	AMI030	590173	4741342	X				
Riverside 1-4	AMI078	595561	4727526	X				
Pinedale 2-2	AMI079	597970	4727444	X				
Mesa 4-28-32-109W	AMI090	594187	4730577	X				
Riverside 15-12	AMI132	600090	4724457	X				
North Mesa 4-7-32-109W	AMI140	590915	4735685	X				
Warbonnet 11-10	AMI145	606084	4715279	X				
Warbonnet 13-14	AMI148	607237	4713171	X				
Blue Rim State #2	AMI149	604966	4714354	X				
Mesa 12-28	AMI160	594484	4729952	X				
Warbonnet 8-6	AMI186	602003	4717261	X		X		
North Pinedale 14-8	AMI188	590463	4743567	X				
Riverside 11-14	AMI190	598099	4723362	X				
Vible 1-11D	AMI191	598895	4725266	X				
Mesa 16-28	AMI199	595539	4729321	X				
Warbonnet 15-26	AMI209	608088	4709805	X		X		
Warbonnet 12-9	AMI214	603987	4715215	X				
Warbonnet 2-8	AMI235	603261	4715909	X		X		

TABLE 3
Location-Specific Source Screening Matrix
Low-Level PHC Sampling and Analysis Plan

Well Name	Well ID	Easting[1]	Northing[1]	Pre-1984 Gas Wells & Associated Facilities[2]	Permitted Oil Disposal Facility[2,3]	Class II Injection Well[3]	Landfill[2,4]	DEQ Storage Tank Program Sites[2]
Wells with historic PHC detects; no detects during last round of sampling (cont'd)								
Riverside 13-4	AMI259	594576	4726470	X				
Riverside 4D-1D	AMI261	599348	4726693	X				
Riverside 7-13	AMI274	600101	4723661	X	X			
Warbonnet 7-5	AMI285	603232	4717174	X		X		
Wells with a one-time detect or sporadic detects of PHCs								
Warbonnet 9-23	AMI008	608526	4711939	X				
Lizard Head 13-28	AMI009	604013	4719499	X				
Mesa 3-20	AMI027	593166	4732419	X				
Mesa 13-5	AMI029	592746	4736017	X				
Stewart Point 11-21	AMI113	592178	4740822	X				
Mesa 9-16	AMI117	595594	4733003	X				
Mesa 10-16	AMI118	595240	4733065	X				
Riverside 3-3	AMI122	596480	4727367	X				
Riverside 8-3	AMI124	597339	4726892	X				
Antelope 5-4	AMI131	613873	4707563					
Mesa 11-28-32-109W	AMI159	594838	4729872	X				
Stewart Point 5-29D	AMI161	589624	4740068	X				
Rainbow 3-31	AMI162	610982	4709537	X				
Mesa 10-33	AMI166	595330	4728214	X				
Mesa 12-33	AMI167	594413	4728309	X				

TABLE 3
Location-Specific Source Screening Matrix
Low-Level PHC Sampling and Analysis Plan

Well Name	Well ID	Easting[1]	Northing[1]	Pre-1984 Gas Wells & Associated Facilities[2]	Permitted Oil Disposal Facility[2,3]	Class II Injection Well[3]	Landfill[2,4]	DEQ Storage Tank Program Sites[2]
Wells with a one-time detect or sporadic detects of PHCs (cont'd)								
Rainbow 13-30	AMI192	611347	4708389	X				
Stewart Point 8-32D	AMI205	591412	4737780	X				
Warbonnet 9-15	AMI212	606855	4713605	X				
Warbonnet 8-25	AMI242	610177	4710788	X				
Boulder 12A-33	AMI248	604183	4718326	X		X		
Warbonnet 2D-3D	AMI249	606435	4717111	X		X		
2 Buttes 16-15CD	AMI270	596946	4732674	X				
Boulder 14-32	AMI280	602879	4718043	X		X		
Wells with historic PHC detects,that have been abandoned								
Lizard Head 11-8	AMI010	602671	4724792					
Antelope 14-22	AMI015	616002	4702192					
New Fork Unit #11-24W	AMI026	599788	4721648	X				
Antelope 11-4	AMI034	614171	4707304					
Rainbow 7-31	AMI037	611364	4709188	X				
Warbonnet 6-26	AMI089	607577	4710842	X		X		
Riverside 9-2	AMI107	598917	4726522	X				
Mesa 7-34	AMI127	597088	4728594	X				
Mesa 9-34	AMI128	597207	4728224	X				
Riverside 4-10	AMI130	596055	4725847	X				
Warbonnet 9-26	AMI137	608594	4710224	X		X		

TABLE 3
Location-Specific Source Screening Matrix
Low-Level PHC Sampling and Analysis Plan

Well Name	Well ID	Easting[1]	Northing[1]	Pre-1984 Gas Wells & Associated Facilities[2]	Permitted Oil Disposal Facility[2,3]	Class II Injection Well[3]	Landfill[2,4]	DEQ Storage Tank Program Sites[2]
Wells with historic PHC detects,that have been abandoned (cont'd)								
Warbonnet 13-11	AMI147	607261	4714772	X				
Boulder 7-19	AMI151	601514	4721941	X	X			
Mesa 1-33	AMI164	595516	4729115	X				
Warbonnet 8-22	AMI196	607032	4712394	X				
Warbonnet 3-3	AMI202	605967	4717487	X				
Warbonnet 16-4	AMI203	605175	4716335	X				
Warbonnet 16-10	AMI204	606865	4714713	X				
Warbonnet 10-9D	AMI210	604987	4715099	X				
Warbonnet 5-25	AMI232	609021	4710841	X		X		
Boulder 15-18	AMI247	601517	4722715	X	X			
Boulder 14-34	AMI251	605942	4717849	X				
Boulder 15D-7D	AMI252	601714	4724650	X				
Riverside 4D-25D	AMI262	599277	4720683	X				
Warbonnet 6-5	AMI266	602836	4717143	X		X		
South Mesa 14-12	SM 14-12	UNK	UNK	UNK	UNK	UNK	UNK	UNK

Notes:

1 - Locations expressed in UTM coordinates.

2- Assume potential source is located within approximately one mile of water supply well, except in the case of pre-1984 gas wells, which is within approximately two miles.

3-Wells within one mile of permitted oil disposal facility are for Anticline Disposal Facility; no wells are within one mile of the Newpark Facility.

4-Well within one mile of landfill is for Old Boulder Landfill; no wells are within one mile of the Pinedale #1 and #2 Landfills.

TABLE 4
Sampling and Analysis Well Network
Low Level Petroleum Hydrocarbon Sampling and Analysis Plan

SCCD Well ID	Well Name/ Production Area	Owner	Well Status [1]	Easting [2]	Northing [2]	Reference Elevation [2]	SAP Well Type	LEL Well	Date Drilled	Total Depth[4]	Type of Seal	TOP of Seal	Bottom of Seal	Multiple Casings	Production Casing Diameter	Casing Depth	Perforated (P) or Screened (S)	Top of Perforated or Screened Interval	Bottom of Perforated or Screened Interval
AMI017	Antelope 15-4 WSW	BP America Production Company	UNK	614636.4735	4706866.346	7155.71	PHC		UNK	712	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
AMI028	Stewart Point 11-33	Questar Exploration and Production	A	592152	4737436.333	7559.00	PHC		8/28/2000	980	UNK	0	500	YES	6.625	980	P	690	965
AMI030	STEWART POINT WATER WELL #05-20	WEXPRO Company	A	590174.1446	4741351.406	7346.55	PHC		9/26/2000	745	Cement	0	480	YES	6	745	P	493	745
AMI160	MESA 12-28	Shell Rocky Mountain Production	A	594484	4729951.5	7440.00	PHC		7/6/2006	1020	Tremie - Pumped Bentonite	0	500	YES	6	1020	P	820	1000
AMI213	PETROGULF STATE 36-9	Petrogulf Corporation	UNK	600494.3333	4718477.333	7048.67	PHC		3/21/2004	730	Neat Cement	0	500	YES	6.625	730	P	638	730
AMI228	Rainbow 16-30 Water Well	Newfield Production Company	UNK	611871	4710041	7329.33	PHC		UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
AMI233	Boulder 15-4	Ultra Resources	A	604844.3333	4726158.667	7011.67	PHC		8/13/2004	410	Bentonite	0	200	NO	6.625	410	P	230	410
AMI237	Warbonnet 7-15D	Ultra Resources	A	606794.75	4714189.25	7387.25	PHC	x	10/21/2004	750	Bentonite Pellets	0	200	NO	6.625	750	P	590	750
AMI255	Mesa 15B-27D	Ultra Resources	A	596781	4729400	7183.00	PHC		5/9/2006	600	Bentonite	0	200	NO	6.625	600	P	500	600
AMI258	Riverside 11-25	Shell Rocky Mountain Production	A	599654.5	4720081.5	7036.50	PHC		9/8/2005	800	Cement	0	20	YES	6	800	P	350	760
AMI078	Riverside 1-4	Ultra Resources	A	595563.7177	4727534.608	7108.06	PHC		8/7/2001	610	Grout Mix	0	500	YES	6.625	610	SLOTTED	530	610
AMI079	Riverside 2-2 (a.k.a. Pinedale 2-2)	ULTRA RESOURCES	A	597970.2658	4727443.886	6962.36	PHC		8/19/2001	410	UNK	UNK	UNK	NO	6.625	410	SLOTTED	290	410
AMI186	WARBONNET 8-6	Shell Rocky Mountain Production	A	602004.8333	4717275.333	7051.50	PHC		10/12/2004	740	Cement	0	200	YES	6	740	P	530	715
AMI116	Mesa 14-16 Water Source Well	WEXPRO Company	A	594866.3333	4732833.667	7471.67	PHC	x	2/14/2002	930	Cement	0	450	YES	6.625	930	P	730	930
AMI146	Antelope 11-10D	Shell Rocky Mountain Production	A	615649	4705688.5	7214.00	PHC	x	3/5/2003	680	Cement and Bentonite	0	200	YES	6	680	P	470	660
AMI182	HIGHWAY #7 WATER WELL	Yates Petroleum Company	A	613929	4705998.5	7292.50	PHC	x	6/7/2003	610	Bentonite	0	300	NO	6.625	610	P	490	610
AMI187	ANTELOPE 1-16-29-107	JED Oil	Not drilled?	615101	4704954	7279.50	PHC	x	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
AMI190	RIVERSIDE 11-14	Ultra Resources	A	598100	4723371.5	6963.00	PHC	x	8/12/2003	510	Bentonite	0	110	NO	6.625	410	P	165	410
AMI192	RAINBOW 13-30	Ultra Resources	A	610541	4710085.333	7300.67	PHC	x	9/10/2003	650	Bentonite	0	200	NO	6.625	650	P	440	650
AMI212	WARBONNET 9-15	Ultra Resources	A	606854.6667	4713605.333	7415.33	PHC		3/1/2004	730	Bentonite	0	200	NO	6.625	730	P	480	730
AMI248	Boulder 12A-33	Ultra Resources	A	604184	4718338.5	7191.00	PHC	x	11/16/2004	450	Bentonite Pellets	0	200	NO	6.625	450	P	330	450
AMI285	WARBONNET 7-5	Shell Rocky Mountain Production	A	603230	4717182	7091.00	PHC	x	12/27/2006	700	Neat Cement Slurry (tremied)	0	200	YES	6.625	700	P	300	680
AMI018	Antelope 15-23 WSW	Newfield Production Company	UNK	617960.7814	4702144.021	7112.20	Control		2/15/2000	650	UNK	UNK	UNK	UNK	6.625	650	P	180	650
AMI019	Stewart Point 11-34	Questar Exploration and Production Co.	A	593450.3333	4737141	7529.67	Control		7/6/1999	930	UNK	UNK	UNK	NO	6	910	P	890	930
AMI115	Mesa 12-16 Water Source Well	WEXPRO Company	A	594336.6667	4733274.333	7477.33	Control		11/6/2001	1000	Cement	0	500	UNK	6.625	1000	P	700	1000
AMI135	Warbonnet 7-4 Water Well	Ultra Resources	A	604808	4717084	7149.00	Control		11/12/2001	470	Grout Mix	0	120	YES	6.625	470	SLOTTED	350	470
AMI156	Riverside 2-24	Shell Rocky Mountain Production	A	600027.5	4722417.5	6989.00	Control		6/15/2003	700	Bentonite	0	200	YES	6	700	P	448	658
AMI250	Boulder 1-32	Shell Rocky Mountain Production	A	603532.5	4719193.5	7093.50	Control		10/4/2006	770	Bentonite	0	200	YES	6.625	770	P	240	700
AMI297	Rainbow 13-29	Shell	A	UNK	UNK	UNK	Control		7/2/2007	900	Cement	0	200	YES	6	900	P	500	890
T-1-SW	North Pinedale	Bureau of Land Management	A	-	-	-	Study		-	150 (TD)	-	-	-	-	-	-	-	-	-
T-1-RW	North Pinedale	Bureau of Land Management	A	-	-	-	Study		-	650 (TD)	-	-	-	-	-	-	-	-	-
T-2-SW	Mesa	State of Wyoming	A	-	-	-	Study		6/29/2010	375	-	-	-	-	-	-	S	335	375
T-2-RW	Mesa	State of Wyoming	A	-	-	-	Study		6/27/2010	790	-	-	-	-	-	-	S	730	770
T-3-SW	Warbonnet	Bureau of Land Management	A	-	-	-	Study		-	400 (TD)	-	-	-	-	-	-	-	-	-
T-3-RW	Warbonnet	Bureau of Land Management	A	-	-	-	Study		-	750 (TD)	-	-	-	-	-	-	-	-	-
T-4-SW	Antelope	Bureau of Land Management	A	-	-	-	Study		5/18/2010	200	-	-	-	-	-	-	S	175	190
T-4-RW-a	Antelope	Bureau of Land Management	A	-	-	-	Study		6/2/2010	475	-	-	-	-	-	-	S	430	460
T-4-RW-b	Antelope	Bureau of Land Management	A	-	-	-	Study		-	600 (TD)	-	-	-	-	-	-	-	-	-
T-5-RW	Sand Draw Spring	Bureau of Land Management- Ultra	A	-	-	-	Study		-	600 (TD)	-	-	-	-	-	-	-	-	-
	Total No. of Wells																		
	39																		

Notes:
SCCD Sublette County Conservation District Original Source: SCCD (September 10, 2008)
1 - A = active (or soon active); PA = plugged and abandoned; UNK = unknown
2 - Value based on SCCD location/elevation information; coordinates and reference elevation for study wells to be determined
3- SAP = Sampling and Analysis Plan; PHC = Wells with Petroleum Hydrocarbon Detects; Control = Well in control group; Study = Well installed as part Hydrogeological Data Gaps Study
4 - TD = Target Depth; well not yet installed.

TABLE 5
Media-Specific Parameters for Laboratory Analysis
Low-Level PHC Sampling and Analysis Plan

Parameter [1]	Analytical Method or Equivalent	Laboratory Reporting Limit [2,3]	Preservation Method [4]	Holding Time	Container Type & Size [5]
Water Parameters					
Methane	RSK 175/AM20GAx[6]	0.025 µg/l	<6 °C, TSP (pH >10)	14 days	G, 4 - 40 mL VOA
Ethane	RSK 175/AM20GAx[6]	0.025 µg/l	<6 °C, TSP (pH >10)	14 days	G, 4 - 40 mL VOA
Ethene, Iso-butane, n-butane, propane, propene	RSK 175/AM20GAx[6]	0.05 µg/l	<6 °C, TSP (pH >10)	14 days	G, 4 - 40 mL VOA
TPH-GRO	EPA Method 8015	0.02 mg/L	<4°C, HCL (pH<2)	14 days	G, 3-40 mL VOA
TPH-DRO	EPA Method 8015	0.3 mg/L	<4°C, HCL (pH<2)	14 days	AG, 2 - 1L
VOC	EPA Method 8260	1-20 µg/l	<4°C, HCL (pH<2)	14 days	G, 3-40 mL VOA
SVOC	EPA Method 8270	10-100 µg/l	<4°C, Na-thio	7 days	AG, 2 - 1L
TAL Metals (total) + B, Sr, Si	EPA Method 200.7/6010	0.1 mg/l (cations up to 5 mg/l)	<4°C, HNO_3 (pH<2)	6 months	P, 250 ml
TDS	SM 2540C	10 mg/l	none	7 days	P, 250 ml
Alkalinity	SM 2320 B	1 mg/l	none	14 days	P, 250 ml
Anions: Cl, SO_4, F, PO_4, Br	EPA Method 300.0	Up to 1 mg/l	<4°C	28 days	P, 250 ml
Nitrate, nitrate, ammonia	EPA Method 353.2/350.1	0.05 mg/l	<6 °C, H2SO4	28 days	P, 500 ml
Methane: Carbon (^{13}C) & Hydrogen (D) isotopes	Isotech [7]	-1000 ‰ [8]	Benzalkonium Chloride	14 days	P, 1L w/ septum & bacteriocide
Water: Oxygen (^{18}O) & Hydrogen (D) isotopes	Isotech [7]	-1000 ‰ [8]	Benzalkonium Chloride	28 days	P, 1L w/ septum
Benzene: Compound Specific Isotope Analysis	Microseeps [9]	-1000 ‰ [8]	<6 °C, TSP (pH >10)	14 days	G, 18-40 ml VOA
Gas Parameters					
Hydrogen Sulfide, Carbon Dioxide, Nitrogen	S2_BTEX,H2S(low) [10]	0.0001 Mole%	None	NA [11]	NA [11]
Methane, Ethane, Propane, iso-Butane, n-Butane, iso-Pentane, n-Pentane, Hexanes, Heptanes, Octanes, Nonanes, Decanes	S2_BTEX,H2S(low) [10]	0.0001 Mole%	None	NA [11]	NA [11]
Benzene, Toluene, Ethylbenzene, Xylenes	S2_BTEX,H2S(low) [10]	0.0001 Mole%	None	NA [11]	NA [11]
Carbon (^{13}C) & Hydrogen (D) isotopes: Methane	Isotech [9]	-1000 ‰ [10]	None	14 days	Summa Canister, 1 L

TABLE 5
Media-Specific Parameters for Laboratory Analysis
Low-Level PHC Sampling and Analysis Plan

Notes:
1 – TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; VOC = volatile organic compounds; SVOC = semi-volatile organic compounds; NA = not applicable
2 – Stated laboratory reporting limits are method detection limits or practical quantitation limits and are minimum requirements for project; reporting limits for dissolved gases in groundwater per Microseeps, Inc.; reporting limits for well headspace gases, production well gases and subsurface soil gas per Precision Analysis; and stable Isotopes per Isotech
3 – mg/l = milligrams per liter; µg/l = micrograms per liter; µmhos/cm = micromhos per centimeter; s.u. = standard units.
4 – C = degrees Celsius; TSP = trisodium phosphate; HCL = hydrochloric acid; Na-thio = sodium thiosulfate
5 – Container types and sizes are abbreviated as: VOA = volatile organic analysis vials; G = glass; A = amber; L = liter; ml = milliliters. Tedlar bags may be used for the collection of subsurface soil gas samples for temporary storage (< 8 hours).
6 – Analytical Method AM20GAx, Standard Operating Procedure for Analysis of Biodegradation Indicator Gases, Microseeps, Inc., Revision 9.0, November 21, 2008.
7 - Isotech Laboratories Inc. internal laboratory procedure for isotope analysis.
8 – Reporting limits in parts per thousand calculated versus a standard. -1000 ‰ indicates no isotope present is present, 0 would indicate concentration is equivalent to standard concentration.
9 – Microseeps internal laboratory procedure for compound specific isotope analysis.
10 – Precision Analysis internal laboratory procedure for compound specific isotope analysis.
11 – Gas samples are analyzed immediately; no holding time applicable.

TABLE 6
Precision, Accuracy, and Completeness Goals
Low-Level PHC Sampling and Analysis Plan

Measurement Parameter	Precision	Accuracy	Completeness
Field Water Quality Parameters (pH, temperature, specific conductance)	± 20% (compare to lab data, where applicable)	Variable (depends on parameter)	90%
Laboratory Analysis (inorganic common ions in water)	±20% RPD [1]	80 – 120% [2] 75 – 125% [2]	95% [3]
Laboratory Analysis (PHC in water)	±20% RPD [1]	80 – 120% [2] 75 – 125% [2]	95% [3]
Laboratory Analysis (dissolved gases in water)	no analytes in method blanks; ±20% RPD [1]	70-130% [2] 75-125% [2]	95% [3]
Laboratory Analysis (extended gases in headspace)	±20% RPD [1]	±3% compared to calibration standard	95% [3]
Laboratory Analysis (stable isotopes of methane in headspace)	±20% RPD [1]	≤0.09‰	95% [3]

Note:
1 – Refer to Section 4.1.1; RPD = relative percent difference.
2 – Refer to Section 4.1.2
3 – Refer to Section 4.1.3