

1 Steroidal Hormones and Other Related Compounds in Shallow Groundwater in Non-Agricultural Areas of Minnesota—Study Design, Methods, and Data, 2009–10

Table 4. Concentrations of steroidal hormones and other endocrine active compounds in environmental and quality-assurance samples analyzed at the U.S. Geological Survey National Water Quality Laboratory.

[Samples were analyzed using schedule 2434 for filtered water samples. ID, identification; IDS, isotope dilution standard; <, less than; --, not analyzed]

Station number	Site ID number (fig. 1)	Date sampled	Time sampled	Sample type	11-Keto-testosterone	17- <i>alpha</i> -Estradiol	17- <i>alpha</i> -Ethinyl estradiol	17- <i>beta</i> -Estradiol	3- <i>beta</i> -Coprostanol	4-Androstene-3,17-dione	Nanograms per liter						
											Bisphenol A	Cholesterol	<i>cis</i> -Androsterone	Dihydro-testosterone	Epitestosterone	Equilenin	Equilin
435328094080601	1	06/17/2010	1530	Environmental	<2.00	<0.80	<0.80	<0.80	<200	<0.80	<200	<200	<0.80	<4.00	<4.00	<2.00	<4.00
440417092254501	2	06/14/2010	1415	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
442913095465601	3	06/17/2010	1030	Field equipment blank	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
442913095465601	3	06/17/2010	1110	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
443811093093301	4	04/26/2010	1250	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
443811093093301	4	04/26/2010	1311	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
443811093093301	4	04/26/2010	1312	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
443825093093401	5	11/09/2009	1125	Field equipment blank	<2.00	<.80	<.80	<.80	<200	<.80	<100	<2,000	<.80	<4.00	<4.00	<2.00	<4.00
443825093093401	5	11/09/2009	1250	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<100	<2,000	<.80	<4.00	<4.00	<2.00	<4.00
445003093290501	6	04/28/2010	1100	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
445443093261401	7	05/19/2010	1250	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
445732093203201	8	05/25/2010	1250	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
445815092541101	9	04/27/2010	1515	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450122093193801	10	06/24/2010	1405	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450122093193801	10	06/24/2010	1406	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450226093203901	11	05/03/2010	1120	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450236093175801	12	05/26/2010	1015	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450333093201701	13	06/23/2010	1325	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450430093220801	14	04/21/2010	1130	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450448093205301	15	05/04/2010	1045	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
450702093185101	16	04/19/2010	1130	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
451346094111901	17	06/24/2010	1125	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
451855093195901	18	06/25/2010	840	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	4,410	<200	<1.33	<4.00	<4.00	<2.00	<4.00
451855093195901	18	06/25/2010	844	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	4,710	<200	<2.02	<4.00	<4.00	<2.00	<4.00
451855093195901	18	06/25/2010	845	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	4,490	<200	<1.01	<4.00	<4.00	<2.00	<4.00
452043093134801	19	05/25/2010	1030	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
452153093133501	20	06/25/2010	1020	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	788	<200	<.80	<4.00	<4.00	<2.00	<4.00
452422093063301	21	06/30/2010	1010	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
452425093071001	22	06/30/2010	1115	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
452657092531801	23	06/30/2010	1245	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453042094102201	24	06/08/2010	1115	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453042094102201	24	06/08/2010	1116	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453247094085701	25	06/15/2010	1050	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453431094190301	26	06/09/2010	1245	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453436094141901	27	06/08/2010	1352	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453453094140501	28	06/09/2010	1415	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453537094182901	29	06/09/2010	1045	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453646094272301	30	06/01/2010	1445	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
453717094264101	31	06/01/2010	1305	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	2,620	<200	<.80	<4.00	<4.00	<2.00	<4.00
454610094440101	32	06/01/2010	1050	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
461743094154301	33	06/03/2010	1400	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
461809092481301	34	06/16/2010	1040	Field equipment blank	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
461809092481301	34	06/16/2010	1135	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
462337093575601	35	06/03/2010	1105	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
464538095050101	36	06/28/2010	1210	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
464616095043101	37	06/28/2010	1315	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
464631096384101	38	06/21/2010	1135	Field equipment blank	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
464631096384101	38	06/21/2010	1150	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
464631096384101	38	06/21/2010	1151	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
472129094562901	39	06/28/2010	1630	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
473750095521601	40	06/29/2010	930	Environmental	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00
473750095521601	40	06/29/2010	931	Field duplicate	<2.00	<.80	<.80	<.80	<200	<.80	<200	<200	<.80	<4.00	<4.00	<2.00	<4.00

2 Steroidal Hormones and Other Related Compounds in Shallow Groundwater in Non-Agricultural Areas of Minnesota—Study Design, Methods, and Data, 2009–10

Table 4. Concentrations of steroidal hormones and other endocrine active compounds in environmental and quality-assurance samples analyzed at the U.S. Geological Survey National Water Quality Laboratory.—Continued

[Samples were analyzed using schedule 2434 for filtered water samples. ID, identification; IDS, isotope dilution standard; <, less than; --, not analyzed]

Station number	Site ID number (fig. 1)	Date sampled	Time sampled	Sample type	Estriol	Estrone	Mestranol	Norethindrone	Progesterone	Testosterone	<i>trans</i> -Diethylstilbestrol	16-Epiestriol- <i>d</i> <sub>2</sub> , IDS	Ethynylestra-diol- <i>d</i> <sub>4</sub> , IDS	17- <i>beta</i> -Estra-diol- <sup>13</sup> C <sub>6</sub> , IDS	17- <i>beta</i> -Estra-diol- <i>d</i> <sub>4</sub> , IDS	4-Androstenedione- <i>d</i> <sub>7</sub> , IDS	Bisphenol A- <i>d</i> <sub>16</sub> , IDS
					Nanograms per liter										Percent recovery		
435328094080601	1	06/17/2010	1530	Environmental	<2.00	<0.80	<0.80	<0.80	<8.00	<0.80	<0.80	20.5	74.7	77.7	--	--	55.8
440417092254501	2	06/14/2010	1415	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	77.3	81.6	80.1	--	--	84.5
442913095465601	3	06/17/2010	1030	Field equipment blank	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	20.7	73.8	75.1	--	--	60.7
442913095465601	3	06/17/2010	1110	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	15	72.4	68.6	--	--	32.6
443811093093301	4	04/26/2010	1250	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	80.5	89.7	84	--	--	97.6
443811093093301	4	04/26/2010	1311	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	72.1	69.3	69.3	--	--	81.6
443811093093301	4	04/26/2010	1312	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	74.8	72	72.1	--	--	87.7
443825093093401	5	11/09/2009	1125	Field equipment blank	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	--	78.1	--	78.5	62.2	76.8
443825093093401	5	11/09/2009	1250	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	--	75.5	--	76	54.9	75.6
445003093290501	6	04/28/2010	1100	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	73.7	70.4	70.5	--	--	75.6
445443093261401	7	05/19/2010	1250	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	77.2	78.7	76.7	--	--	82.9
445732093203201	8	05/25/2010	1250	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	77.9	86.2	85.3	--	--	89
445815092541101	9	04/27/2010	1515	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	72.5	82.7	79.8	--	--	88.9
450122093193801	10	06/24/2010	1405	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	52.3	86.7	94.2	--	--	102
450122093193801	10	06/24/2010	1406	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	39.6	87	98.2	--	--	96.6
450226093203901	11	05/03/2010	1120	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	83.7	76.4	79	--	--	90.7
450236093175801	12	05/26/2010	1015	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	86.2	79.6	76.2	--	--	82.4
450333093201701	13	06/23/2010	1325	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	23.7	82.1	79.5	--	--	65.9
450430093220801	14	04/21/2010	1130	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	73.1	80	80.2	--	--	84.2
450448093205301	15	05/04/2010	1045	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	83.4	74.8	79.6	--	--	85.5
450702093185101	16	04/19/2010	1130	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	69.1	77.8	73	--	--	87.7
451346094111901	17	06/24/2010	1125	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	35.1	93.9	96.5	--	--	94.1
451855093195901	18	06/25/2010	840	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	46.3	92.6	103	--	--	99.9
451855093195901	18	06/25/2010	844	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	29.6	90.5	87	--	--	57.7
451855093195901	18	06/25/2010	845	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	35.9	78.2	86.9	--	--	108
452043093134801	19	05/25/2010	1030	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	71.7	69.4	71.3	--	--	77.2
452153093133501	20	06/25/2010	1020	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	.49	30	87	82.5	--	--	62.9
452422093063301	21	06/30/2010	1010	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	18.9	82.5	86.3	--	--	63.7
452425093071001	22	06/30/2010	1115	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	18.8	78.5	84.4	--	--	54.7
452657092531801	23	06/30/2010	1245	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	14.7	84.2	83.6	--	--	49
453042094102201	24	06/08/2010	1115	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	72.4	92	102	--	--	102
453042094102201	24	06/08/2010	1116	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	69.7	91.7	97.1	--	--	102
453247094085701	25	06/15/2010	1050	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	38.6	77.2	75.6	--	--	64.6
453431094190301	26	06/09/2010	1245	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	73.8	90.4	99.2	--	--	103
453436094141901	27	06/08/2010	1352	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	68.4	88.9	98.5	--	--	98.9
453453094140501	28	06/09/2010	1415	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	72.8	93.8	101	--	--	93.4
453537094182901	29	06/09/2010	1045	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	67.8	86.1	91.6	--	--	89.9
453646094272301	30	06/01/2010	1445	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	89.2	100	103	--	--	92.3
453717094264101	31	06/01/2010	1305	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	78.1	92.1	102	--	--	102
454610094440101	32	06/01/2010	1050	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	80.3	100	100	--	--	95.3
461743094154301	33	06/03/2010	1400	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	86.6	101	105	--	--	104
461809092481301	34	06/16/2010	1040	Field equipment blank	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	29.2	76	74.9	--	--	53
461809092481301	34	06/16/2010	1135	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	33.8	77.5	76.2	--	--	64.7
462337093575601	35	06/03/2010	1105	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	77.6	102	103	--	--	101
464538095050101	36	06/28/2010	1210	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	30.8	90.5	87.7	--	--	48.1
464616095043101	37	06/28/2010	1315	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	69.4	85.7	73.6	--	--	88.4
464631096384101	38	06/21/2010	1135	Field equipment blank	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	19.4	79.6	79.1	--	--	47.7
464631096384101	38	06/21/2010	1150	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	13.7	66.7	75.5	--	--	53.3
464631096384101	38	06/21/2010	1151	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	20.8	80.7	86.9	--	--	52.6
472129094562901	39	06/28/2010	1630	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	16	84	86.7	--	--	39.3
473750095521601	40	06/29/2010	930	Environmental	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	14.9	78.1	96.9	--	--	42.5
473750095521601	40	06/29/2010	931	Field duplicate	<2.00	<.80	<.80	<.80	<8.00	<8.00	<.80	20.5	89.8	88.4	--	--	56.8

3 Steroidal Hormones and Other Related Compounds in Shallow Groundwater in Non-Agricultural Areas of Minnesota—Study Design, Methods, and Data, 2009–10

Table 4. Concentrations of steroidal hormones and other endocrine active compounds in environmental and quality-assurance samples analyzed at the U.S. Geological Survey National Water Quality Laboratory.—Continued

[Samples were analyzed using schedule 2434 for filtered water samples. ID, identification; IDS, isotope dilution standard; <, less than; --, not analyzed]

Station number	Site ID number (fig. 1)	Date sampled	Time sampled	Sample type	Cholesterol- $d_7$ , IDS	Dihydrotestosterone- $d_4$ , IDS	Estriol- $d_3$ , IDS	Estrone- $^{13}C_6$ , IDS	Estrone- $d_4$ , IDS	Medroxyprogesterone- $d_3$ , IDS	Mestranol- $d_4$ , IDS	Nandrolone- $d_3$ , IDS	Norethindrone- $d_6$ , IDS	Progesterone- $d_5$ , IDS	Testosterone- $d_5$ , IDS	<i>trans</i> -Diethylstilbestrol- $d_8$ , IDS
Percent recovery																
435328094080601	1	06/17/2010	1530	Environmental	69.4	--	--	69.2	--	54.4	72.3	56.1	--	--	--	64.6
440417092254501	2	06/14/2010	1415	Environmental	51.4	--	--	78	--	73.8	74.8	78.8	--	--	--	61
442913095465601	3	06/17/2010	1030	Field equipment blank	66.3	--	--	73.4	--	65.3	73.2	66.9	--	--	--	69.5
442913095465601	3	06/17/2010	1110	Environmental	57.8	--	--	63.8	--	65.2	73.2	34.5	--	--	--	65.3
443811093093301	4	04/26/2010	1250	Environmental	64	--	--	89.8	--	83.9	83.1	84	--	--	--	78.9
443811093093301	4	04/26/2010	1311	Field duplicate	71	--	--	74.1	--	89	68.6	70.3	--	--	--	62.3
443811093093301	4	04/26/2010	1312	Field duplicate	73.5	--	--	77.8	--	93.1	72.4	75.2	--	--	--	67.9
443825093093401	5	11/09/2009	1125	Field equipment blank	77.7	91.7	62.8	--	56.9	--	74.6	--	70.9	45.5	72.8	67.9
443825093093401	5	11/09/2009	1250	Environmental	73.4	78.2	58.3	--	60.3	--	74.1	--	60.9	40.3	65.6	66.2
445003093290501	6	04/28/2010	1100	Environmental	73.6	--	--	66.7	--	96.3	77.4	74.2	--	--	--	58.1
445443093261401	7	05/19/2010	1250	Environmental	71.3	--	--	74.1	--	88.3	71.4	60.3	--	--	--	64.8
445732093203201	8	05/25/2010	1250	Environmental	68.9	--	--	81.8	--	91.3	81.4	80.1	--	--	--	63.7
445815092541101	9	04/27/2010	1515	Environmental	56.2	--	--	78.6	--	68.8	75	78.8	--	--	--	72.7
450122093193801	10	06/24/2010	1405	Environmental	94.3	--	--	87.3	--	67.5	86.2	96.3	--	--	--	81.3
450122093193801	10	06/24/2010	1406	Field duplicate	94.7	--	--	87	--	56.4	87.1	91.7	--	--	--	79.6
450226093203901	11	05/03/2010	1120	Environmental	74.4	--	--	78.5	--	99.7	75.1	78.7	--	--	--	68.5
450236093175801	12	05/26/2010	1015	Environmental	74	--	--	80.2	--	114	76.1	80.9	--	--	--	61.3
450333093201701	13	06/23/2010	1325	Environmental	71.6	--	--	77.3	--	70.8	80.8	67.4	--	--	--	71.2
450430093220801	14	04/21/2010	1130	Environmental	58.2	--	--	79.9	--	84.4	76	79.5	--	--	--	64.1
450448093205301	15	05/04/2010	1045	Environmental	67.4	--	--	78.3	--	97.9	73.6	77.9	--	--	--	54.3
450702093185101	16	04/19/2010	1130	Environmental	57.5	--	--	78.8	--	80.5	72.9	80.7	--	--	--	71
451346094111901	17	06/24/2010	1125	Environmental	90.4	--	--	96.5	--	69.4	90.2	96.1	--	--	--	85.8
451855093195901	18	06/25/2010	840	Environmental	93	--	--	101	--	72.4	88.4	104	--	--	--	94.4
451855093195901	18	06/25/2010	844	Field duplicate	88.2	--	--	87.2	--	70.8	88.6	64.4	--	--	--	101
451855093195901	18	06/25/2010	845	Field duplicate	92.2	--	--	85.2	--	21.3	78.5	79.4	--	--	--	101
452043093134801	19	05/25/2010	1030	Environmental	63.4	--	--	66.2	--	74	65	61.2	--	--	--	57.9
452153093133501	20	06/25/2010	1020	Environmental	85.4	--	--	88.1	--	70.1	89.1	63.7	--	--	--	97.4
452422093063301	21	06/30/2010	1010	Environmental	92.8	--	--	80.5	--	41.3	79.9	59.8	--	--	--	66.2
452425093071001	22	06/30/2010	1115	Environmental	93	--	--	79.7	--	37.8	79.8	53.8	--	--	--	70.4
452657092531801	23	06/30/2010	1245	Environmental	92.3	--	--	76.9	--	44.1	81.5	53.3	--	--	--	73
453042094102201	24	06/08/2010	1115	Environmental	58.7	--	--	98.9	--	64.4	90.4	91.1	--	--	--	77.7
453042094102201	24	06/08/2010	1116	Field duplicate	58.1	--	--	104	--	65.2	91.9	92.7	--	--	--	78.3
453247094085701	25	06/15/2010	1050	Environmental	62.9	--	--	75.1	--	79.4	72.9	69.3	--	--	--	71
453431094190301	26	06/09/2010	1245	Environmental	56.9	--	--	101	--	58.4	87.3	84.2	--	--	--	75.9
453436094141901	27	06/08/2010	1352	Environmental	56.5	--	--	103	--	71.9	89.5	90.4	--	--	--	75.1
453453094140501	28	06/09/2010	1415	Environmental	65.8	--	--	102	--	66.1	91.5	86.9	--	--	--	70.9
453537094182901	29	06/09/2010	1045	Environmental	57.2	--	--	97.9	--	56.5	82.4	77.4	--	--	--	68.9
453646094272301	30	06/01/2010	1445	Environmental	72.2	--	--	106	--	88.6	89.6	91.5	--	--	--	81.5
453717094264101	31	06/01/2010	1305	Environmental	63.8	--	--	109	--	83.6	93.2	107	--	--	--	88.3
454610094440101	32	06/01/2010	1050	Environmental	61.5	--	--	108	--	77.3	93	95.8	--	--	--	78.9
461743094154301	33	06/03/2010	1400	Environmental	66.6	--	--	109	--	77	95	103	--	--	--	78.4
461809092481301	34	06/16/2010	1040	Field equipment blank	64.7	--	--	74.3	--	72.7	76.3	58	--	--	--	64.9
461809092481301	34	06/16/2010	1135	Environmental	57.8	--	--	74.5	--	72.9	68.1	65.2	--	--	--	74
462337093575601	35	06/03/2010	1105	Environmental	61	--	--	109	--	75.3	93.6	96.7	--	--	--	84
464538095050101	36	06/28/2010	1210	Environmental	69.6	--	--	83	--	41.8	86.4	61.5	--	--	--	75.5
464616095043101	37	06/28/2010	1315	Environmental	73.2	--	--	86.6	--	31.1	83.8	98.6	--	--	--	72.8
464631096384101	38	06/21/2010	1135	Field equipment blank	87.2	--	--	76.2	--	88.2	84.8	52	--	--	--	76.6
464631096384101	38	06/21/2010	1150	Environmental	72.7	--	--	78.3	--	51.1	68.2	56.5	--	--	--	78.4
464631096384101	38	06/21/2010	1151	Field duplicate	72.3	--	--	80.7	--	44.9	83.9	60.5	--	--	--	81.8
472129094562901	39	06/28/2010	1630	Environmental	84.7	--	--	79.3	--	29.2	81.6	35.1	--	--	--	72
473750095521601	40	06/29/2010	930	Environmental	93.9	--	--	79	--	31.2	78.5	50.1	--	--	--	58.5
473750095521601	40	06/29/2010	931	Field duplicate	83.5	--	--	0	--	7.2	87.2	1.6	--	--	--	63