



Sierrita Operations
Environment, Land & Water Department
6200 West Duval Mine Road
PO Box 527
Green Valley, Arizona 85622-0527

Mach 31, 2011

Via Certified Mail # 7009 3410 0002 3634 3333
Return Receipt Requested

Ms. Cynthia S. Campbell
Arizona Department of Environmental Quality
Water Quality Compliance Section
1110 West Washington Street
Phoenix, Arizona 85007-2935

**Re: Mitigation Order on Consent Docket No. P-50-06
January 1st through March 31st, 2011 Status Report**

Dear Ms. Campbell:

In accordance with Section V.A. of the Mitigation Order on Consent Docket No. P-50-06, Freeport-McMoRan Sierrita Inc. (Sierrita) submits the Status Report covering the period from January 1st through March 31st, 2011

Since the last Status Report was submitted, the following measures have been taken under Section III of the Mitigation Order:

- Sierrita is hereby submitting the Semiannual Groundwater Monitoring Report for Samples Collected during the Fourth Quarter 2010 and First Quarter 2011.
- Sierrita completed the 1st quarter 2011 groundwater monitoring activities.
- Held the first CAG meeting of the year on February 9, 2011 to update members of the group of status of the State Trust land purchase, status of Mitigation Plan implementation, and to review results of the 2010 fourth quarter groundwater monitoring activities.
- Continued work towards acquiring State Trust land.
- Continued work on obtaining the easements and/or rights-of-way on public or private land where new wells and associated infrastructure will be placed.
- Attended the annual HOA meetings for Portillo Ridge and Portillo Hills II to present the Mitigation Plan and the alternate locations for wells MC-1 and MC-3, as discussed with ADEQ.
- Met with Fairfield Homes representatives to request an amendment to the existing Esperanza Booster Station easement Sierrita currently holds to include drilling of MC-2 well.
- Completed construction of IW-28.
- Continued work on preparing the engineering design for both State and non-State Land options.
- Continued work on the feasibility study for the new tailings impoundment.

During the next quarter, the following activities will be conducted:

- Continue work to obtain the easements and/or right-of-ways on public or private lands where new wells that are not dependant on the purchase of State Land will be placed.
- Bid and award contract for construction of the new I-wells conveyance system.
- Continue work towards acquiring State Trust land.
- Prepare Operations & Maintenance plan for the interceptor wellfield, to include the new four interceptor wells.
- Begin drilling of PS-wells.

- Continue working on the feasibility study for the new tailings impoundment.
- Continue working on Esperanza Booster Station easement amendment to secure location for MC-2 well.
- Hold the next CAG meeting around mid to late May.
- Conduct quarterly groundwater monitoring according to the revised groundwater monitoring schedule.

Also, please find attached the 2010 Interceptor Well Field Operation Monitoring report, which Sierrita agreed to submit in the Mitigation Plan approval deferral letter sent to ADEQ on March 18, 2009.

Please do not hesitate to contact Mr. Stuart Brown at (602)448-0972 or myself at (520) 393-2696 if you have any question regarding this submittal.

Sincerely,

Martha G. Mottley
Martha G. Mottley
Chief Environmental Engineer
Freeport-McMoRan Sierrita Inc.

MGM:ms

20110331_003

xc: Henry Darwin, Arizona Department of Environmental Quality
John Broderick, Sierrita
Ned Hall, Freeport-McMoRan Copper & Gold
Stuart Brown, Freeport-McMoRan Copper & Gold
Jim Norris, Clear Creek Associates

2010 OPERATIONS MONITORING REPORT OF INTERCEPTOR WELLFIELD PERFORMANCE

**MITIGATION ORDER ON CONSENT
DOCKET NO. P-50-06
PIMA COUNTY, ARIZONA**

**FREEPORT-MCMORAN SIERRITA INC.
6200 West Duval Mine Rd
Green Valley, AZ 85614**

FREEPORT-MCMORAN SIERRITA INC.

2010 OPERATIONS MONITORING REPORT OF INTERCEPTOR WELLFIELD PERFORMANCE

The interceptor well field operated the entirety of 2010, with only small interruptions in operations due to well maintenance, pipeline repair and system power interruptions. The aggregate operational well field run time in 2010 was approximately 95 percent. In April 2010, the well field was temporarily shut down (alternating blocks of wells, and for less than 24 hours) in order to collect static (non-pumping) water levels. Water levels were also monitored in the months of April, August and November during well operation (pumping water levels). Water levels from 2010 were consistent with previous water levels from 2009.

Water levels, pumping rates and sulfate concentrations for all of the interceptor wells are included in Attachment A, with data tracked from 2003. Table 1 displays monthly readings used to calculate annual pumping volumes and run times. Table 1 includes monthly totalizer flow meter readings, pumping rates and hour meter readings. Table 2 displays monthly changes in pumping rates for the interceptor wells in 2010.

The average operational pumping rate was approximately 4,130 gallons per minute (gpm), based on monthly monitoring (Table 1). The approximate total volume of groundwater pumped in 2010 was 6,338 acre-feet. Groundwater samples collected in April 2010 showed sulfate concentrations consistent with previous sulfate levels from 2009. In wells IW-1 and IW-2A, sulfate was reported at concentrations of 940 milligrams per liter (mg/L) and 77 mg/L, respectively (Attachment A). The remaining wells reported sulfate concentrations between 1,500 mg/L and 1,900 mg/L.

Pumping rates in 2010 for the interceptor wells show a decreasing trend in all the wells except IW-6A, IW-23, and IW-24. Based on decreasing pumping rates in 2010, it is possible that IW-4, IW-14 and IW-21 may require maintenance in 2011. Critical to the efficient operation of the well field is routine maintenance and pump and column repair and maintenance.

WELLFIELD AND CONVEYANCE SYSTEM MAINTENANCE ACTIVITES YEAR 2010

Interceptor Well #1

No major maintenance was completed in 2010.

Interceptor Well #2A

In October 2010, the pump showed signs of abrasion from sand. Further investigation led to the replacement of the motor, pump, and 30 sections of column pipe. Repair work commenced on 10/16/10 and was completed on 11/22/10. Well was put back into service the same day repair work was completed, pumping at an average rate of 398 gpm.

Interceptor Well #3A

No major maintenance was completed in 2010.

Interceptor Well #4

In September 2010 the well motor was replaced.

Interceptor Well #5

On 08/12/10 an electrical issue was discovered where well wouldn't start up. The issue was resolved on 08/13/10. On 10/10/2010, the well was taken out of service until it could be abandoned in early 2011. The well was replaced by IW-5A.

Interceptor Well #5A

Pilot drilling for IW-5A was conducted in April 2010, with well installation beginning in May 2010. Testing and sampling of the well equipment and aquifer were conducted from May 2010 to August 2010. The well was put into service on 12/28/10, pumping an average 103 gpm.

Interceptor Well #6A

On April 13, 2010, IW-6A was brushed and bailed. In August 27, 2010 low flow rates triggered alarm. On 8/30/11 the well was inspected and a hole in the column pipe was discovered. The column pipe was replaced on 9/10/11 and the well was back online on the same day. On 9/17/10 noise in pump was detected. A new pump and motor were installed. Work was completed and well was back on line on 9/24/11.

Interceptor Well #8

On 12/6/2010, a totalizer malfunction was detected and the totalizer was replaced on 12/8/2010.

Interceptor Well #9

On 11/30/2010 the header was rebuilt, well was off-line only for a few hours.

Interceptor Well #10

On 12/10/2010, the hour meter was replaced.

Interceptor Well #11

On 12/9/2010 the hour meter was replaced. On 12/10/2010, the totalizer was replaced.

Interceptor Well #13

No major maintenance was completed in 2010.

Interceptor Well #14

In April 1st, 2010, integrity issues were discovered in the column pipe. A brush and bail was conducted, as well as replacement of the sounding pipe and 10 sections of column pipe. The motor was also rebuilt at this time. The well was back online on 04/15/10.

Interceptor Well #15

No major maintenance was completed in 2010.

Interceptor Well #16

No major maintenance was completed in 2010.

Interceptor Well #17

No major maintenance was completed in 2010.

Interceptor Well #18

On 6/7/2010, the hour meter was replaced.

Interceptor Well #19

No major maintenance was completed in 2010.

Interceptor Well #20

No major maintenance was completed in 2010.

Interceptor Well #21

No major maintenance was completed in 2010.

Interceptor Well #22

No major maintenance was completed in 2010.

Interceptor Well #23

In June 2010, integrity issues were discovered in the column pipe. A brush and bail was conducted, as well as replacement of damaged column pipe sections. Repair work started on 07/01/10 and was completed and well was back on line on 8/5/10. On 12/9/2010, the hour meter was replaced.

Interceptor Well #24

No major maintenance was completed in 2010.

**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-1	31-Dec-2009	1,213,837,000	21,196	248
	29-Jan-2010	1,224,064,000	21,880	263
	26-Feb-2010	1,234,218,000	22,552	247
	31-Mar-2010	1,245,466,000	23,331	242
	30-Apr-2010	1,255,822,000	24,054	246
	31-May-2010	1,264,948,000	24,710	234
	June-2010	---	---	---
	30-Jul-2010	1,285,213,000	26,195	226
	31-Aug-2010	1,295,690,000	26,966	229
	30-Sep-2010	1,305,428,000	---	223
	27-Oct-2010	1,313,282,000	---	225
	26-Nov-2010	1,321,938,000	28,916	224
	31-Dec-2010	1,334,205,000	29,823	220
Total Gallons Pumped:				120,368,000
Total Hours of Operation:				8,627
Percent Run Time:				98%
Average Operational Pumping Rate (gpm):				236
<p>Note: IW-1 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.</p>				
IW-2A	31-Dec-2009	2,033,653,000	58,990	442
	29-Jan-2010	2,051,413,000	59,665	431
	26-Feb-2010	2,068,917,000	60,338	430
	31-Mar-2010	2,089,100,000	61,117	430
	30-Apr-2010	2,107,636,000	61,840	427
	31-May-2010	2,124,729,000	62,513	416
	June-2010	---	---	---
	30-Jul-2010	2,160,735,000	64,000	398
	31-Aug-2010	2,178,813,000	64,772	383
	30-Sep-2010	2,193,758,000	---	229
	27-Oct-2010	2,194,679,000	---	0
	26-Nov-2010	2,194,777,000	65,580	406
	31-Dec-2010	2,216,462,000	66,486	397
Total Gallons Pumped:				182,809,000
Total Hours of Operation:				7,496
Percent Run Time:				86%
Average Operational Pumping Rate (gpm):				399
<p>Note: IW-2A was shut down in October and November for routine maintenance activities.</p>				
IW-3A	31-Dec-2009	1,342,575,000	75,742	647
	29-Jan-2010	1,369,160,000	76,435	631
	26-Feb-2010	1,394,556,000	77,107	628
	31-Mar-2010	1,423,714,000	77,886	628
	30-Apr-2010	1,450,302,000	78,601	615
	31-May-2010	1,475,131,000	79,274	612
	June-2010	---	---	---
	30-Jul-2010	1,529,431,000	80,760	599
	31-Aug-2010	1,557,339,000	81,532	606
	30-Sep-2010	1,583,163,000	---	600
	27-Oct-2010	1,603,899,000	---	599
	26-Nov-2010	1,627,018,000	83,476	597
	31-Dec-2010	1,659,192,000	84,382	588
Total Gallons Pumped:				316,617,000
Total Hours of Operation:				8,640
Percent Run Time:				99%
Average Operational Pumping Rate (gpm):				613
<p>Note: IW-3A operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.</p>				

**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-4	31-Dec-2009	720,985,000	8,743	96
	29-Jan-2010	724,840,000	9,435	92
	26-Feb-2010	728,438,000	10,107	86
	31-Mar-2010	732,391,000	10,892	82
	30-Apr-2010	735,825,000	11,615	77
	31-May-2010	738,969,000	12,285	77
	June-2010	---	---	---
	30-Jul-2010	745,852,000	13,772	76
	31-Aug-2010	749,348,000	14,545	78
	30-Sep-2010	752,546,000	---	70
	27-Oct-2010	755,196,000	---	79
	26-Nov-2010	758,096,000	16,497	75
	31-Dec-2010	762,105,000	17,400	80
Total Gallons Pumped:				41,120,000
Total Hours of Operation:				8,657
Percent Run Time:				99%
Average Operational Pumping Rate (gpm):				81
Note: IW-4 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.				
IW-5	31-Dec-2009	228,140,000	5,840	97
	29-Jan-2010	232,120,000	6,533	93
	26-Feb-2010	235,838,000	7,205	90
	31-Mar-2010	240,044,000	7,983	90
	30-Apr-2010	243,896,000	8,706	89
	31-May-2010	247,499,000	9,379	90
	June-2010	---	---	---
	30-Jul-2010	255,466,000	10,867	89
	31-Aug-2010	259,218,000	11,584	85
	30-Sep-2010	262,784,000	---	80
	27-Oct-2010	265,699,000	---	85
	26-Nov-2010	---	13,221	0
	31-Dec-2010	267,703,000	49	103
Total Gallons Pumped (IW-5 and IW-5A combined):				39,563,000
Total Hours of Operation (IW-5 and IW-5A combined):				7,430
Percent Run Time (IW-5 and IW-5A combined):				85%
Average Operational Pumping Rate of IW-5 (gpm):				89
Operational Pumping Rate of IW-5A (gpm):				103
Note: IW-5 operated continuously until October with one brief shutdown in March to measure non-pumping water level. IW-5 was taken out of service on October 29, 2010. Operation of replacement well IW-5A began on December 28, 2010. Readings from both wells were used to calculate operation totals above.				
IW-6A	31-Dec-2009	248,177,400	11,987	92
	29-Jan-2010	251,844,300	12,646	93
	26-Feb-2010	255,814,900	13,307	92
	31-Mar-2010	256,323,700	14,054	60
	30-Apr-2010	258,870,000	14,222	0
	31-May-2010	266,762,500	14,652	100
	June-2010	---	---	---
	30-Jul-2010	267,733,800	16,072	62
	31-Aug-2010	269,627,200	16,365	0
	30-Sep-2010	273,323,200	---	102
	27-Oct-2010	277,216,800	---	104
	26-Nov-2010	282,780,100	17,899	103
	31-Dec-2010	282,780,100	18,808	101
Total Gallons Pumped:				34,602,700
Total Hours of Operation:				6,821
Percent Run Time:				78%
Average Operational Pumping Rate (gpm):				91
Note: IW-6A was shut down in March to measure non-pumping water level and in April, August, and September for maintenance activities.				

**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-8	31-Dec-2009	1,807,804,000	44,254	442
	29-Jan-2010	1,826,049,000	44,947	434
	26-Feb-2010	1,843,629,000	45,619	444
	31-Mar-2010	1,863,913,000	46,398	435
	30-Apr-2010	1,882,849,000	47,120	432
	31-May-2010	1,900,360,000	47,790	433
	June-2010	---	---	---
	30-Jul-2010	1,939,035,000	49,278	433
	31-Aug-2010	1,959,059,000	50,050	432
	30-Sep-2010	1,977,623,000	---	428
	27-Oct-2010	1,992,499,000	---	427
	26-Nov-2010	2,009,309,000	51,994	436
	31-Dec-2010	3,813,450,000	52,829	434
Total Gallons Pumped (estimated):				219,823,636
Total Hours of Operation:				8,575
Percent Run Time:				98%
Average Operational Pumping Rate (gpm):				434
<p>Note: IW-8 operated nearly continuously throughout 2010 with brief shutdowns in March to measure non-pumping water level and in December for maintenance. Totalizer was replaced on December 6, 2010. Total gallons pumped in 2010 were estimated using flow totals recorded through November.</p>				
IW-9	31-Dec-2009	542,409,000	4,268	249
	29-Jan-2010	551,968,000	4,909	249
	26-Feb-2010	561,894,000	5,581	246
	31-Mar-2010	573,128,000	6,344	245
	30-Apr-2010	583,679,000	7,067	244
	31-May-2010	593,462,000	7,737	242
	June-2010	---	---	---
	30-Jul-2010	614,765,000	9,218	235
	31-Aug-2010	625,523,000	9,989	235
	30-Sep-2010	635,505,000	---	230
	27-Oct-2010	643,629,000	---	235
	26-Nov-2010	652,710,000	11,938	235
	31-Dec-2010	665,229,000	12,838	230
Total Gallons Pumped:				122,820,000
Total Hours of Operation:				8,570
Percent Run Time:				98%
Average Operational Pumping Rate (gpm):				240
<p>Note: IW-9 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.</p>				
IW-10	31-Dec-2009	948,597,000	47,019	351
	29-Jan-2010	963,224,000	47,713	349
	26-Feb-2010	977,330,000	48,384	350
	31-Mar-2010	993,035,000	49,132	348
	30-Apr-2010	1,008,215,000	49,854	353
	31-May-2010	1,022,330,000	50,524	348
	June-2010	---	---	---
	30-Jul-2010	1,053,631,000	51,325	352
	31-Aug-2010	1,069,845,000	51,325	342
	30-Sep-2010	1,084,623,000	---	340
	27-Oct-2010	1,096,723,000	---	345
	26-Nov-2010	1,110,154,000	---	345
	31-Dec-2010	1,128,941,000	478	343
Total Gallons Pumped:				180,344,000
Total Hours of Operation (estimated):				8,500
Percent Run Time (estimated):				98-100%
Average Operational Pumping Rate (gpm):				347
<p>Note: Hour meter failed in August and was replaced on December 9, 2010. No other shutdowns were noted in 2010, except to measure non-pumping water level in March. Total hours of operation and percent run time were estimated, assuming IW-10 was operational the entire year.</p>				

**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-11	31-Dec-2009	1,444,332,000	29,895	289
	29-Jan-2010	1,456,896,000	30,589	315
	26-Feb-2010	1,469,571,000	31,261	313
	31-Mar-2010	1,483,595,000	32,008	309
	30-Apr-2010	1,496,933,000	32,730	310
	31-May-2010	1,510,132,000	33,453	300
	June-2010	---	---	---
	30-Jul-2010	1,535,047,000	34,866	285
	31-Aug-2010	1,548,280,000	35,637	286
	30-Sep-2010	1,560,422,000	---	283
	27-Oct-2010	1,570,701,000	---	286
	26-Nov-2010	2,034,047,000	37,581	285
	31-Dec-2010	7,463,056	507	279
Total Gallons Pumped (estimated):				151,642,800
Total Hours of Operation (estimated):				8,193
Percent Run Time (estimated):				94%
Average Operational Pumping Rate (gpm):				295
<p>Note: IW-11 operated nearly continuously throughout 2010 with shutdowns in March to measure non-pumping water level and in December for maintenance. Hour meter was replaced on December 10, 2010. Total hours of operation and percent run time were estimated, assuming IW-11 was operational the entire year, except for the two shutdown periods. Totalizer failed in November. Total gallons pumped in 2010 was estimated using flow totals recorded through October.</p>				
IW-12	31-Dec-2009	271,914,310	40,460	159
	29-Jan-2010	278,463,310	41,155	154
	26-Feb-2010	284,695,330	41,825	156
	31-Mar-2010	291,964,430	42,605	155
	30-Apr-2010	298,690,810	43,328	154
	31-May-2010	305,375,100	44,050	153
	June-2010	---	---	---
	30-Jul-2010	318,435,240	45,470	153
	31-Aug-2010	325,474,450	46,242	150
	30-Sep-2010	331,342,230	---	149
	27-Oct-2010	337,307,240	---	149
	26-Nov-2010	342,913,180	48,180	148
	31-Dec-2010	350,958,950	49,095	147
Total Gallons Pumped:				79,044,640
Total Hours of Operation:				8,635
Percent Run Time:				99%
Average Operational Pumping Rate (gpm):				152
<p>Note: IW-12 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.</p>				
IW-13	31-Dec-2009	81,313,000	59,206	26
	29-Jan-2010	82,384,000	59,901	26
	26-Feb-2010	83,416,000	60,572	26
	31-Mar-2010	84,618,000	61,351	26
	30-Apr-2010	85,727,000	62,074	26
	31-May-2010	86,861,000	62,815	26
	June-2010	---	---	---
	30-Jul-2010	89,019,000	64,234	25
	31-Aug-2010	90,114,000	64,959	25
	30-Sep-2010	91,189,000	---	25
	27-Oct-2010	92,097,000	---	25
	26-Nov-2010	93,046,000	66,908	25
	31-Dec-2010	94,432,000	67,820	25
Total Gallons Pumped:				13,119,000
Total Hours of Operation:				8,614
Percent Run Time:				98%
Average Operational Pumping Rate (gpm):				26
<p>Note: IW-13 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.</p>				

**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-14	31-Dec-2009	60,549,000	73,934	79
	29-Jan-2010	63,784,000	74,629	77
	26-Feb-2010	66,883,000	75,301	77
	31-Mar-2010	68,352,000	75,621	0
	30-Apr-2010	70,080,000	76,006	4
	31-May-2010	73,337,000	76,746	73
	June-2010	---	---	---
	30-Jul-2010	79,539,000	78,159	73
	31-Aug-2010	82,836,000	78,932	70
	30-Sep-2010	85,806,000	---	68
	27-Oct-2010	88,229,000	---	67
	26-Nov-2010	90,727,000	80,872	66
	31-Dec-2010	94,233,000	81,783	63
Total Gallons Pumped:				33,684,000
Total Hours of Operation:				7,849
Percent Run Time:				90%
Average Operational Pumping Rate (gpm):				65
Note: IW-14 operated nearly continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level and for routine maintenance activities.				
IW-15	31-Dec-2009	96,857,600	40,237	49
	29-Jan-2010	98,906,100	40,932	49
	26-Feb-2010	100,887,900	41,604	50
	31-Mar-2010	103,187,600	42,383	49
	30-Apr-2010	105,330,800	43,106	49
	31-May-2010	107,507,600	43,846	49
	June-2010	---	---	---
	30-Jul-2010	111,622,500	45,266	48
	31-Aug-2010	113,839,800	46,038	48
	30-Sep-2010	---	---	47
	27-Oct-2010	117,285,600	---	47
	26-Nov-2010	119,064,600	47,887	48
	31-Dec-2010	121,640,600	48,788	47
Total Gallons Pumped:				24,783,000
Total Hours of Operation:				8,551
Percent Run Time:				98%
Average Operational Pumping Rate (gpm):				48
Note: IW-15 operated nearly continuously throughout 2010 with brief shutdowns in March to measure non-pumping water level and in October for maintenance activities.				
IW-16	31-Dec-2009	19,238,000	15,124	9
	29-Jan-2010	19,602,300	15,820	9
	26-Feb-2010	19,953,600	16,479	9
	31-Mar-2010	20,345,700	17,226	9
	30-Apr-2010	20,712,300	17,948	8
	31-May-2010	21,080,000	18,685	8
	June-2010	---	---	---
	30-Jul-2010	21,759,100	20,097	9
	31-Aug-2010	22,160,600	20,867	9
	30-Sep-2010	22,520,500	---	9
	27-Oct-2010	22,809,500	---	9
	26-Nov-2010	23,072,000	22,624	0
	31-Dec-2010	23,474,800	23,407	8
Total Gallons Pumped:				4,236,800
Total Hours of Operation:				8,283
Percent Run Time:				95%
Average Operational Pumping Rate (gpm):				8
Note: IW-16 operated nearly continuously throughout 2010 with brief shutdowns in March to measure non-pumping water level and in November for maintenance activities.				

**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-17	31-Dec-2009	16,569,200	71,882	5
	29-Jan-2010	16,715,700	72,432	0
	26-Feb-2010	16,876,500	73,037	4
	31-Mar-2010	17,066,800	73,784	4
	30-Apr-2010	17,243,100	74,506	4
	31-May-2010	234,263,500	75,144	4
	June-2010	---	---	---
	30-Jul-2010	234,568,200	76,556	3
	31-Aug-2010	234,720,800	77,326	3
	30-Sep-2010	234,851,800	---	3
	27-Oct-2010	234,953,900	---	3
	26-Nov-2010	235,053,200	79,267	3
	31-Dec-2010	235,180,600	80,147	2
Total Gallons Pumped:				1,591,000
Total Hours of Operation:				8,265
Percent Run Time:				94%
Average Operational Pumping Rate (gpm):				3
<p>Note: IW-17 operated nearly continuously throughout 2010 with brief shutdowns in March to measure non-pumping water level and in January and May for maintenance activities. Totalizer was adjusted or replaced in May 2010. Total gallons pumped was estimated using totalizer readings recorded during monitoring periods from January to April and from May to December.</p>				
IW-18	31-Dec-2009	17,079,700	23,969	7
	29-Jan-2010	17,374,100	24,665	7
	26-Feb-2010	17,652,300	25,332	7
	31-Mar-2010	17,955,400	26,079	7
	30-Apr-2010	18,214,000	26,643	7
	31-May-2010	18,500,500	26,643	6
	June-2010	---	---	---
	30-Jul-2010	19,003,300	26,653	6
	31-Aug-2010	19,205,600	26,653	6
	30-Sep-2010	19,465,900	---	6
	27-Oct-2010	19,677,200	---	6
	26-Nov-2010	19,890,100	26,746	6
	31-Dec-2010	20,180,500	26,822	5
Total Gallons Pumped:				3,100,800
Total Hours of Operation (estimated):				8,530
Percent Run Time (estimated):				98-100%
Average Operational Pumping Rate (gpm):				6
<p>Note: Hour meter failed in May. No shutdowns were noted in 2010, except to measure non-pumping water level in March. Total hours of operation and percent run time were estimated, assuming IW-18 was operational the entire year.</p>				
IW-19	31-Dec-2009	239,125,980	50,313	195
	29-Jan-2010	247,227,570	51,008	194
	26-Feb-2010	255,038,950	51,680	194
	31-Mar-2010	263,903,310	52,443	192
	30-Apr-2010	272,240,000	53,165	193
	31-May-2010	280,720,980	53,902	191
	June-2010	---	---	---
	30-Jul-2010	296,884,410	55,322	190
	31-Aug-2010	305,595,060	56,095	186
	30-Sep-2010	313,565,740	---	183
	27-Oct-2010	320,178,810	---	184
	26-Nov-2010	327,032,220	58,037	182
	31-Dec-2010	336,884,230	58,949	180
Total Gallons Pumped:				97,758,250
Total Hours of Operation:				8,636
Percent Run Time:				99%
Average Operational Pumping Rate (gpm):				189
<p>Note: IW-19 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.</p>				



**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-20	31-Dec-2009	144,448,700	23,619	34
	29-Jan-2010	145,889,300	25,303	36
	26-Feb-2010	147,258,600	25,975	34
	31-Mar-2010	148,822,700	26,721	38
	30-Apr-2010	150,431,100	27,444	36
	31-May-2010	151,990,600	28,185	32
	June-2010	---	---	---
	30-Jul-2010	154,731,000	29,605	30
	31-Aug-2010	156,167,200	30,377	33
	30-Sep-2010	157,566,400	---	32
	27-Oct-2010	158,680,700	---	32
	26-Nov-2010	159,870,600	32,309	29
	31-Dec-2010	161,493,600	33,221	30
Total Gallons Pumped:				17,044,900
Total Hours of Operation (estimated):				8,630
Percent Run Time (estimated):				98-100%
Average Operational Pumping Rate (gpm):				33
<p>Note: IW-20 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level. Hour meter indicates hours of operation exceeds hours in the year and may be faulty. Total hours of operation and percent run time were estimated, assuming IW-20 was operational the entire year.</p>				
IW-21	31-Dec-2009	230,456,100	89,722	176
	29-Jan-2010	237,776,930	90,418	174
	26-Feb-2010	244,776,450	91,089	175
	31-Mar-2010	252,884,730	91,887	172
	30-Apr-2010	260,288,000	92,590	171
	31-May-2010	267,111,980	93,257	171
	June-2010	---	---	---
	30-Jul-2010	282,061,130	94,741	166
	31-Aug-2010	289,615,710	95,513	161
	30-Sep-2010	296,360,920	---	154
	27-Oct-2010	301,888,930	---	157
	26-Nov-2010	307,749,080	97,447	155
	31-Dec-2010	316,116,050	98,359	153
Total Gallons Pumped:				85,659,950
Total Hours of Operation:				8,637
Percent Run Time:				99%
Average Operational Pumping Rate (gpm):				165
<p>Note: IW-21 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level.</p>				
IW-22	31-Dec-2009	943,563,000	9,240	366
	29-Jan-2010	958,861,000	9,934	366
	26-Feb-2010	973,618,000	10,606	362
	31-Mar-2010	990,629,000	11,385	360
	30-Apr-2010	1,006,216,000	12,108	345
	31-May-2010	1,022,054,000	12,849	353
	June-2010	---	---	---
	30-Jul-2010	1,052,034,000	13,575	355
	31-Aug-2010	1,068,482,000	13,672	352
	30-Sep-2010	1,083,733,000	---	352
	27-Oct-2010	1,096,468,000	---	354
	26-Nov-2010	1,109,818,000	15,615	356
	31-Dec-2010	1,129,123,000	16,523	358
Total Gallons Pumped:				185,560,000
Total Hours of Operation (estimated):				8,630
Percent Run Time (estimated):				98-100%
Average Operational Pumping Rate (gpm):				357
<p>Note: IW-22 operated continuously throughout 2010 with one brief shutdown in March to measure non-pumping water level. Hour meter indicates IW-22 was operational 83% of the year. Based on flow rates and totalizer readings, the hour meter may be faulty. Total hours of operation and percent run time were estimated, assuming IW-22 was operational the entire year.</p>				

**TABLE 1. SUMMARY OF 2010 INTERCEPTOR WELL PERFORMANCE
FREEPORT-MCMORAN SIERRITA, INC.**

Well Identifier	Monitoring Date	Totalizer Reading (gallons)	Hour Meter Reading (hours)	Pumping Rate (gallons per minute)
IW-23	31-Dec-2009	4,143,684,000	36,928	161
	29-Jan-2010	4,150,239,000	37,602	163
	26-Feb-2010	4,156,746,000	38,273	162
	31-Mar-2010	4,164,250,000	38,580	160
	30-Apr-2010	4,170,317,000	38,580	114
	31-May-2010	7,839,684,000	38,580	66
	June-2010	---	---	---
	30-Jul-2010	7,841,012,000	38,580	0
	31-Aug-2010	---	38,580	179
	30-Sep-2010	7,528,489,000	---	175
	27-Oct-2010	7,534,697,000	---	178
	26-Nov-2010	7,541,116,000	1,386	186
	31-Dec-2010	5,383,179,000	2,292	178
Total Gallons Pumped (estimated):				63,919,200
Total Hours of Operation (estimated):				6,900 - 7,800
Percent Run Time (estimated):				80-90%
Average Operational Pumping Rate (gpm):				157
<p>Note: IW-23 operated nearly continuously throughout 2010 with shutdowns in March to measure non-pumping water level and in July and December for maintenance. Totalizer failed in May and was replaced on December 9, 2010. Total gallons pumped in 2010 were estimated using flow totals recorded through May but are not considered accurate. Hour meter failed in April. Total hours of operation and percent run time were estimated based on weekly status reports.</p>				
IW-24	31-Dec-2009	167,109,000	17,478	92
	29-Jan-2010	170,114,000	18,033	93
	26-Feb-2010	173,810,000	18,683	97
	31-Mar-2010	178,109,000	19,401	104
	30-Apr-2010	182,077,000	20,041	106
	31-May-2010	186,370,000	20,713	109
	June-2010	---	---	---
	30-Jul-2010	194,852,000	22,162	93
	31-Aug-2010	198,395,000	22,847	0
	30-Sep-2010	201,682,000	---	93
	27-Oct-2010	204,782,000	---	0
	26-Nov-2010	208,368,000	24,664	95
	31-Dec-2010	213,291,000	25,547	90
Total Gallons Pumped:				46,182,000
Total Hours of Operation:				8,069
Percent Run Time:				92%
Average Operational Pumping Rate (gpm):				97
<p>Note: IW-24 operated nearly continuously throughout 2010 with brief shutdowns in March to measure non-pumping water level and in August and October for maintenance activities.</p>				
INTERCEPTOR WELLFIELD OPERATION SUMMARY (All Interceptor Wells Combined)				
Wellfield Average Operational Pumping Rate (gpm):				4,130
Total Acre-Feet Pumped:				6,338
Combined Wells Hours of Operation:				190,338
Aggregate Percent Run Time:				95%

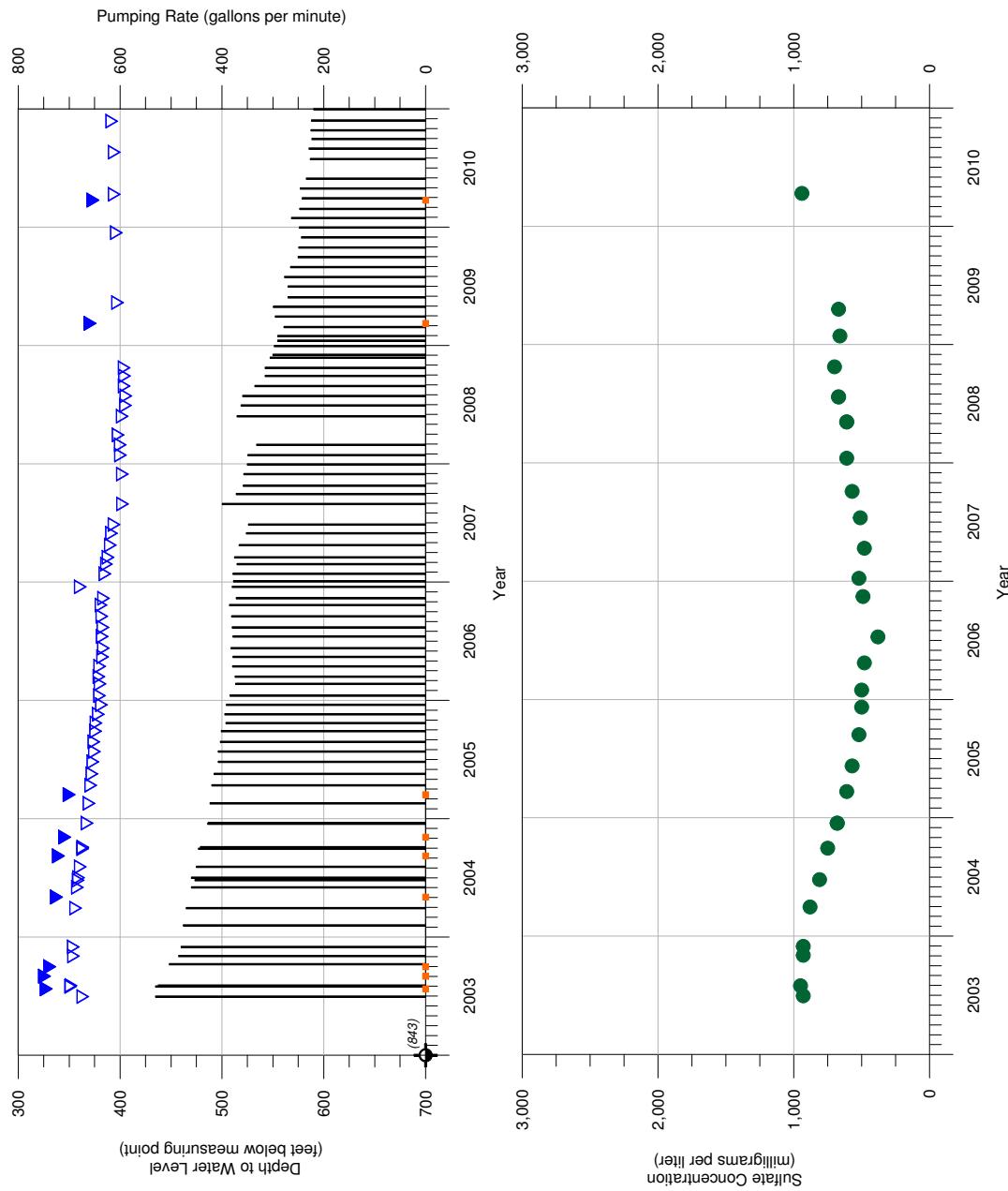
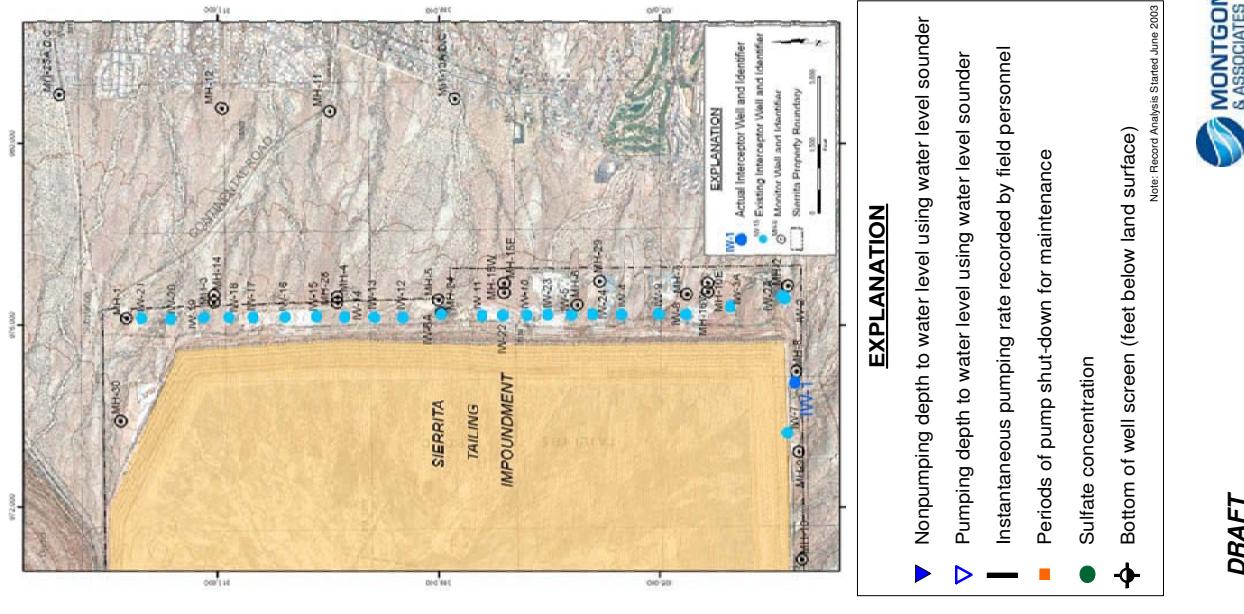
TABLE 2. SUMMARY OF 2010 INTERCEPTOR WELLFIELD PUMPING RATE DATA
FRREPORT-MCMORAN SIERRITA, INC.

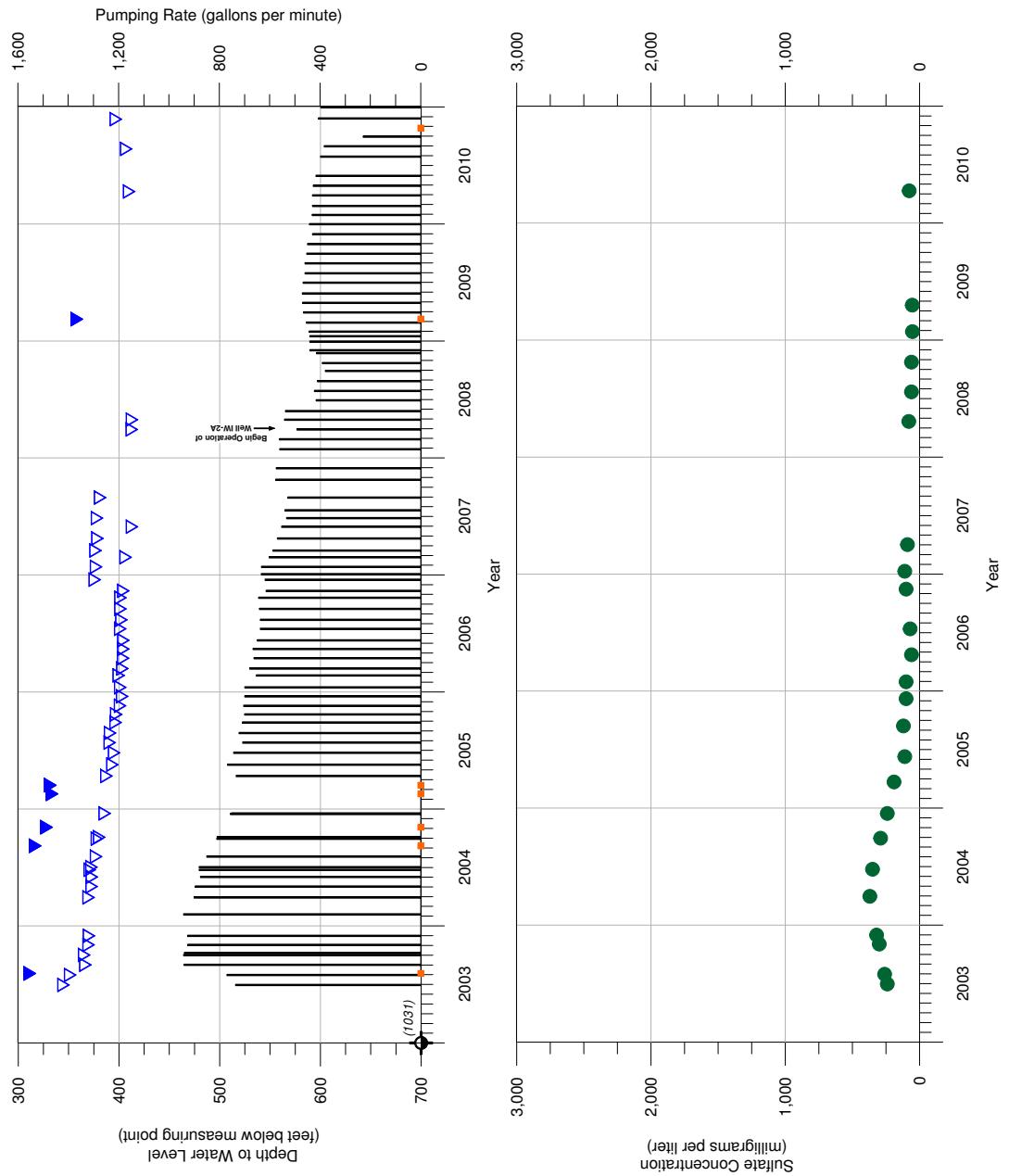
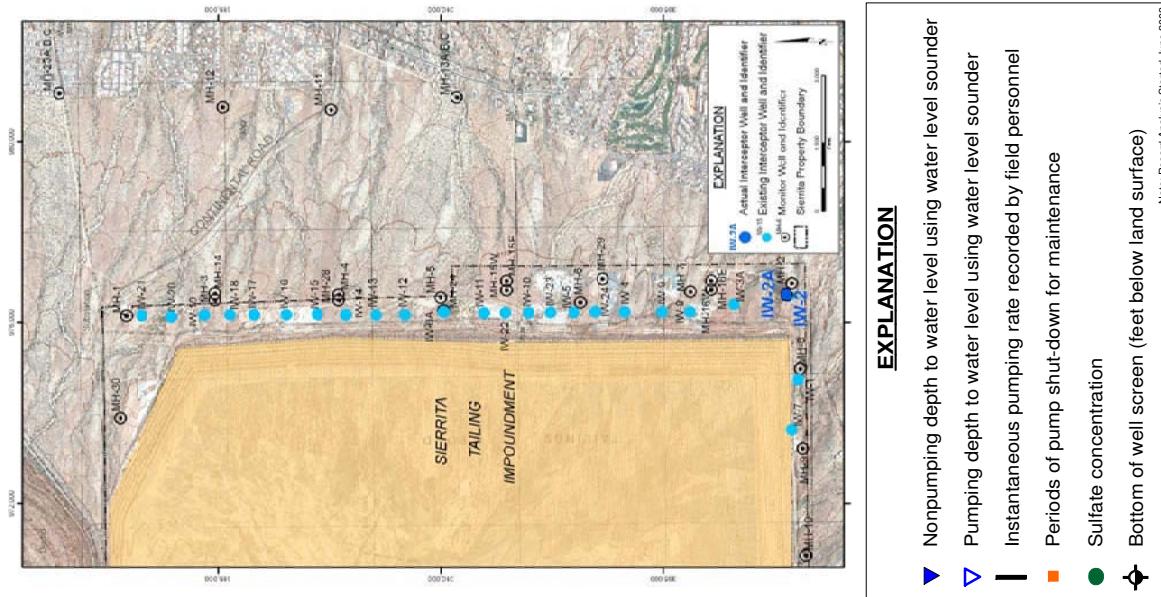
Monitoring Date	Pumping Rate (gallons per minute)																							
	IW-1	IW-2A	IW-3A	IW-4	IW-5	IW-6A	IW-7	IW-8	IW-9	IW-10	IW-11	IW-12	IW-13	IW-14	IW-15	IW-16	IW-17	IW-18	IW-19	IW-20	IW-21	IW-22	IW-23	IW-24
8-Jan-2010	245	436	643	92	95	---	93	442	249	354	294	158	26	78	49	9	4	7	194	34	175	367	161	88
29-Jan-2010	263	431	631	92	93	---	93	434	249	349	315	154	26	77	49	9	0	7	194	36	174	366	163	93
26-Feb-2010	247	430	628	86	90	---	92	444	246	350	313	156	26	77	50	9	4	7	194	34	175	362	162	97
31-Mar-2010	242	430	628	82	90	---	60	435	245	348	309	155	26	0	49	9	4	7	192	38	172	360	160	104
30-Apr-2010	246	427	615	77	89	---	0	432	244	353	310	154	26	4	49	8	4	7	193	36	171	345	114	106
31-May-2010	234	416	612	77	90	---	100	433	242	348	300	153	26	73	49	8	4	6	191	32	171	353	66	109
30-Jun-2010	226	398	599	76	89	---	62	433	235	352	285	153	25	73	48	9	3	6	190	30	166	355	0	93
31-Aug-2010	229	383	606	78	85	---	0	432	235	342	286	150	25	70	48	9	3	6	186	33	161	352	179	0
30-Sep-2010	223	229	600	70	80	---	102	728	230	340	283	149	25	68	47	9	3	6	183	32	154	352	175	93
29-Oct-2010	224	0	598	76	85	---	103	430	234	346	287	149	25	67	47	9	3	6	182	32	156	359	173	95
19-Nov-2010	223	0	600	72	0	---	103	437	233	342	283	140	26	65	48	9	3	6	183	32	155	359	172	92
26-Nov-2010	224	406	597	75	0	---	103	436	235	345	285	148	25	66	48	0	3	6	182	29	155	356	186	95
31-Dec-2010	220	397	588	80	0	103	101	434	230	343	279	147	25	63	47	8	2	5	180	30	153	358	178	90
Pumping Rate Delta Over 2010	-25	-39	-55	-12	---	---	8	-8	-19	-11	-15	-11	-1	-15	-2	-2	-14	-4	-22	-9	17	2		
Percent Change Over 2010	-10%	-9%	-13%	-9%	---	---	9%	-2%	-8%	-3%	-5%	-7%	-4%	-19%	-4%	-11%	-50%	-29%	-7%	-12%	-13%	-2%	-11%	2%



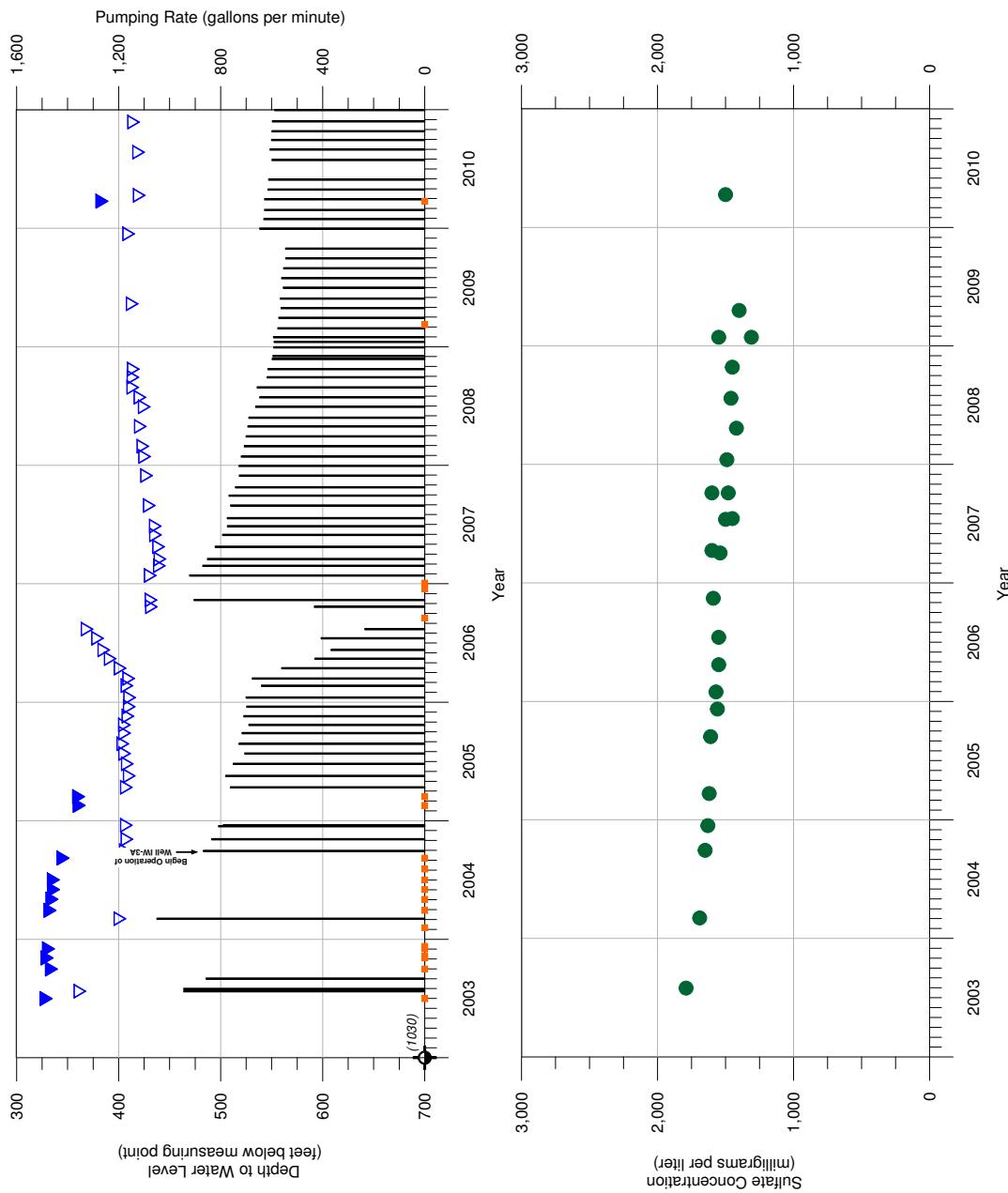
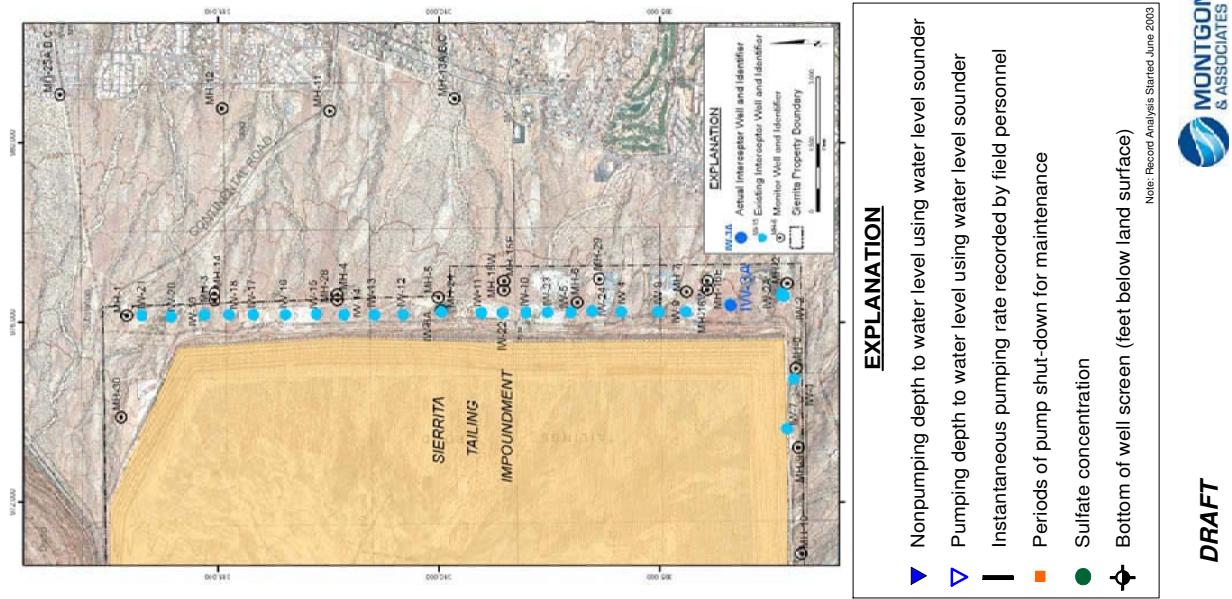
ATTACHMENT A

SUMMARY GRAPHS

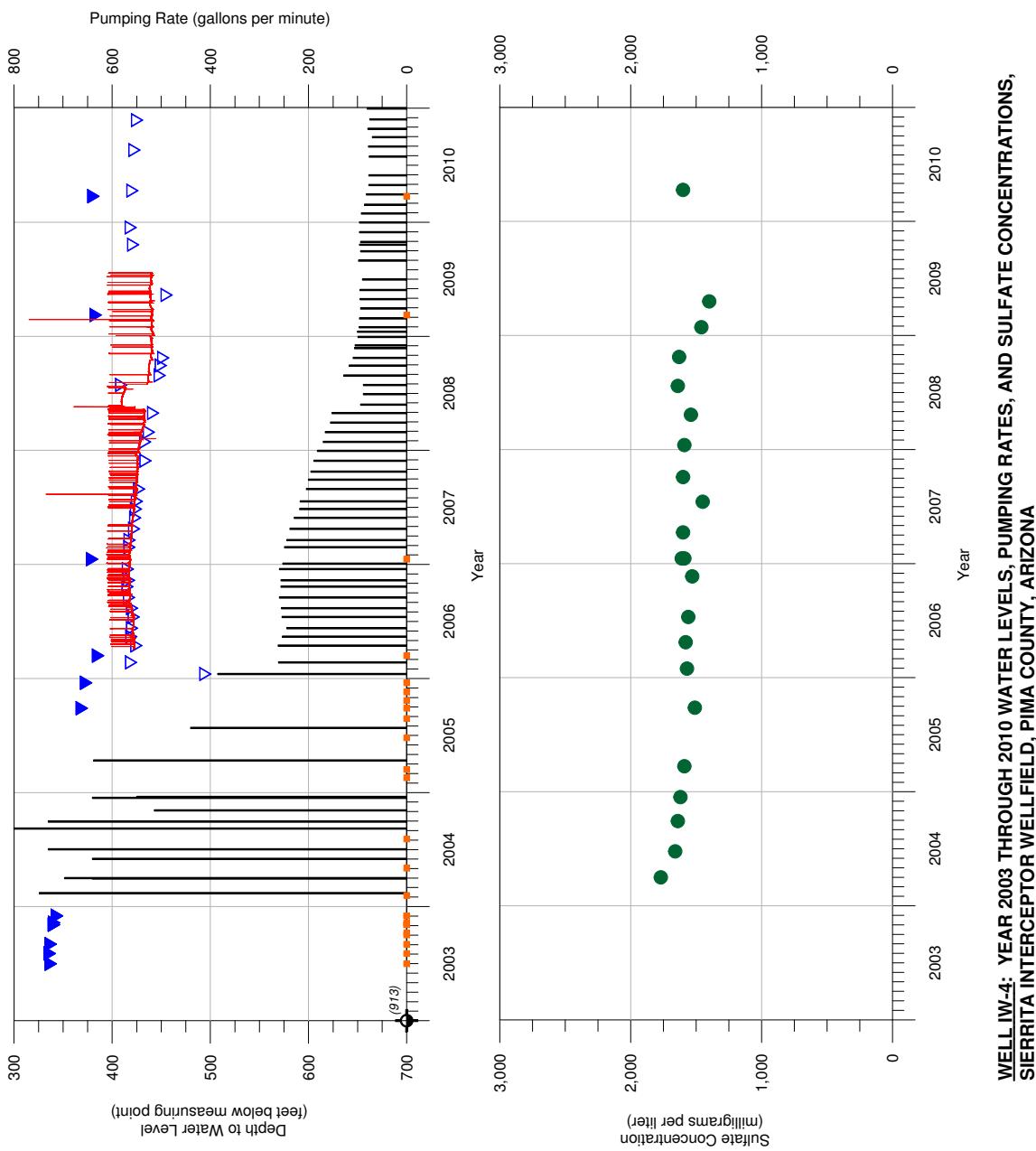
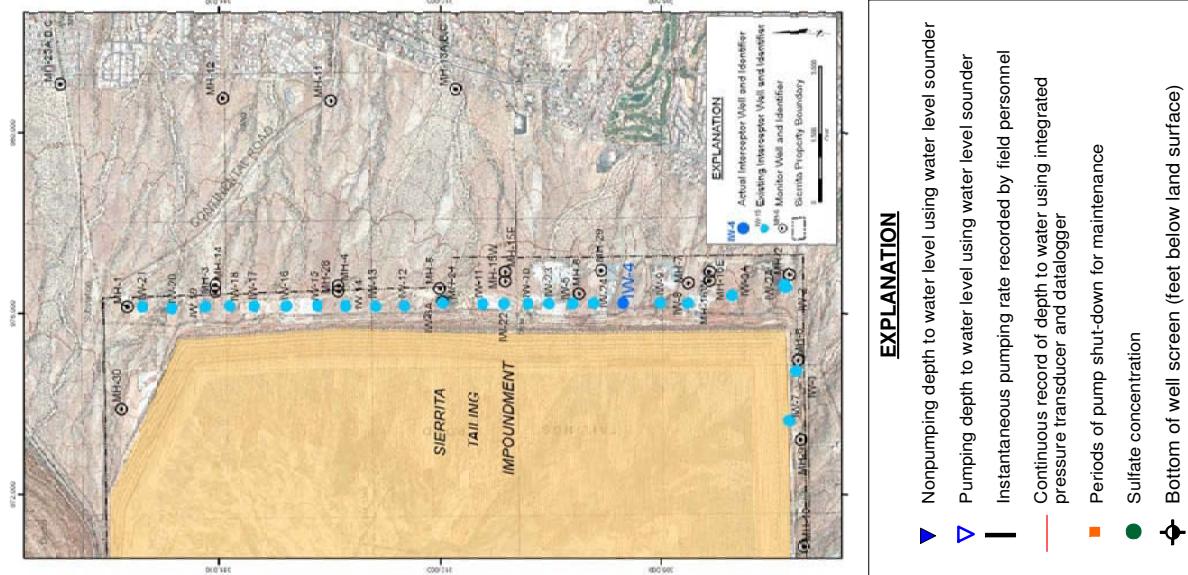




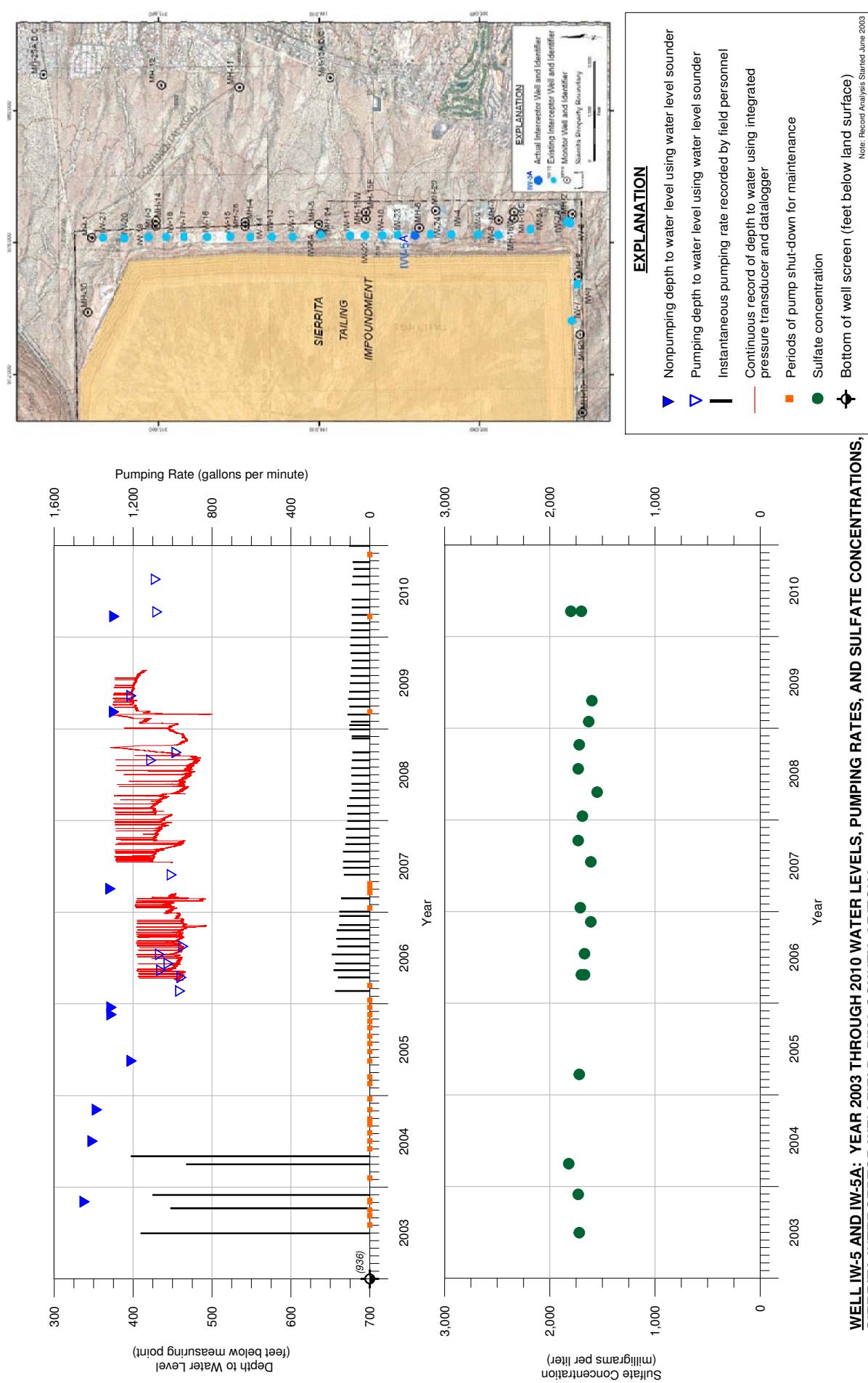
WELL IV-2 AND WELL IW-2A: YEAR 2003 THROUGH 2010 WATER LEVELS, PUMPING RATES, AND SULFATE CONCENTRATIONS, SIERRITA INTERCEPTOR WELLFIELD, PIMA COUNTY, ARIZONA

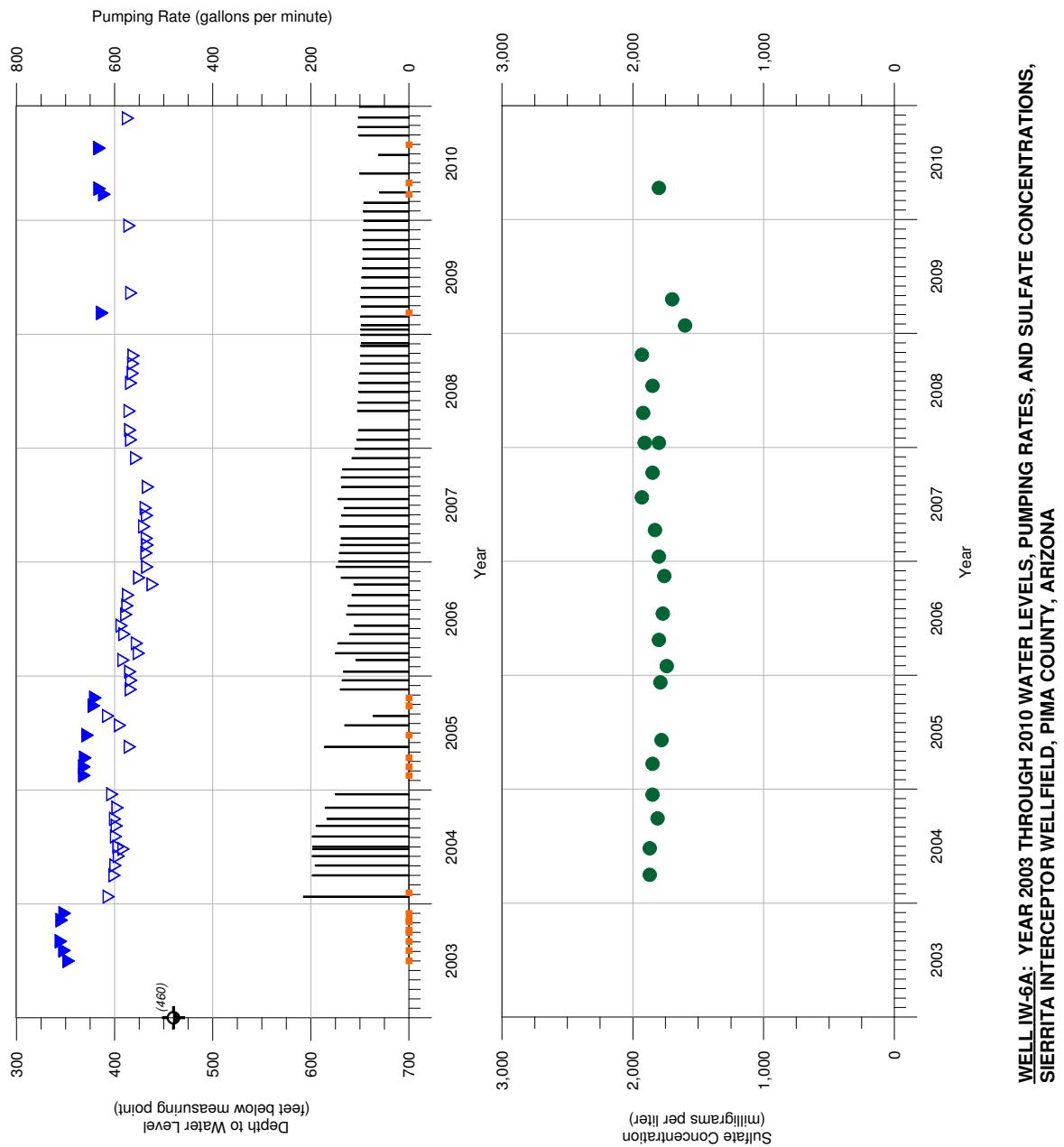
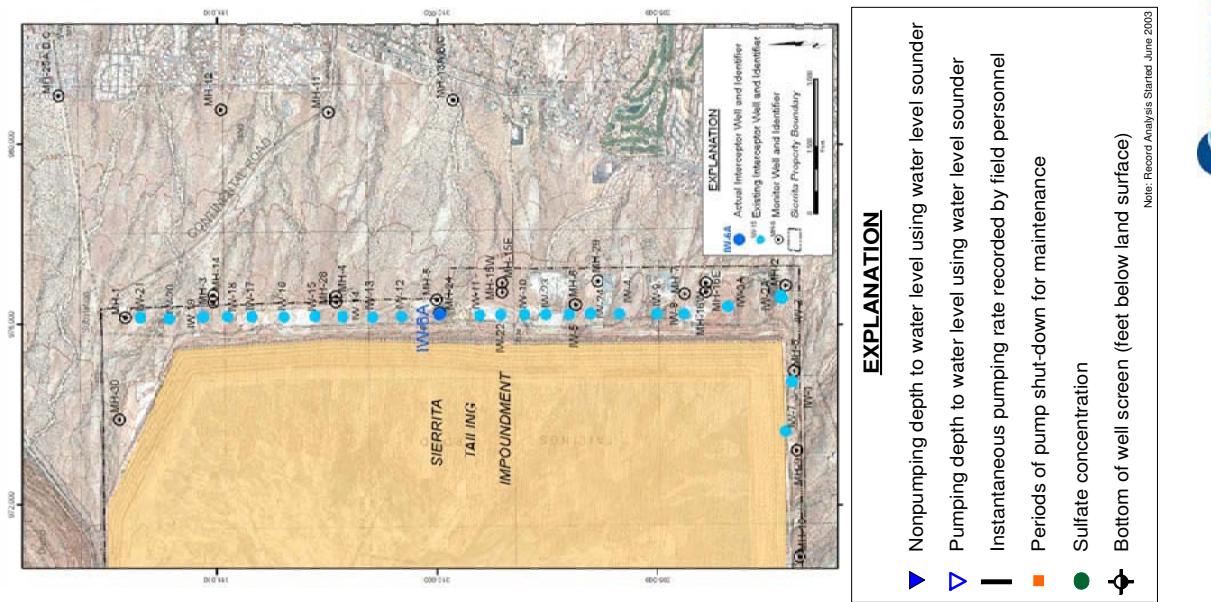


DRAFT



DRAFT



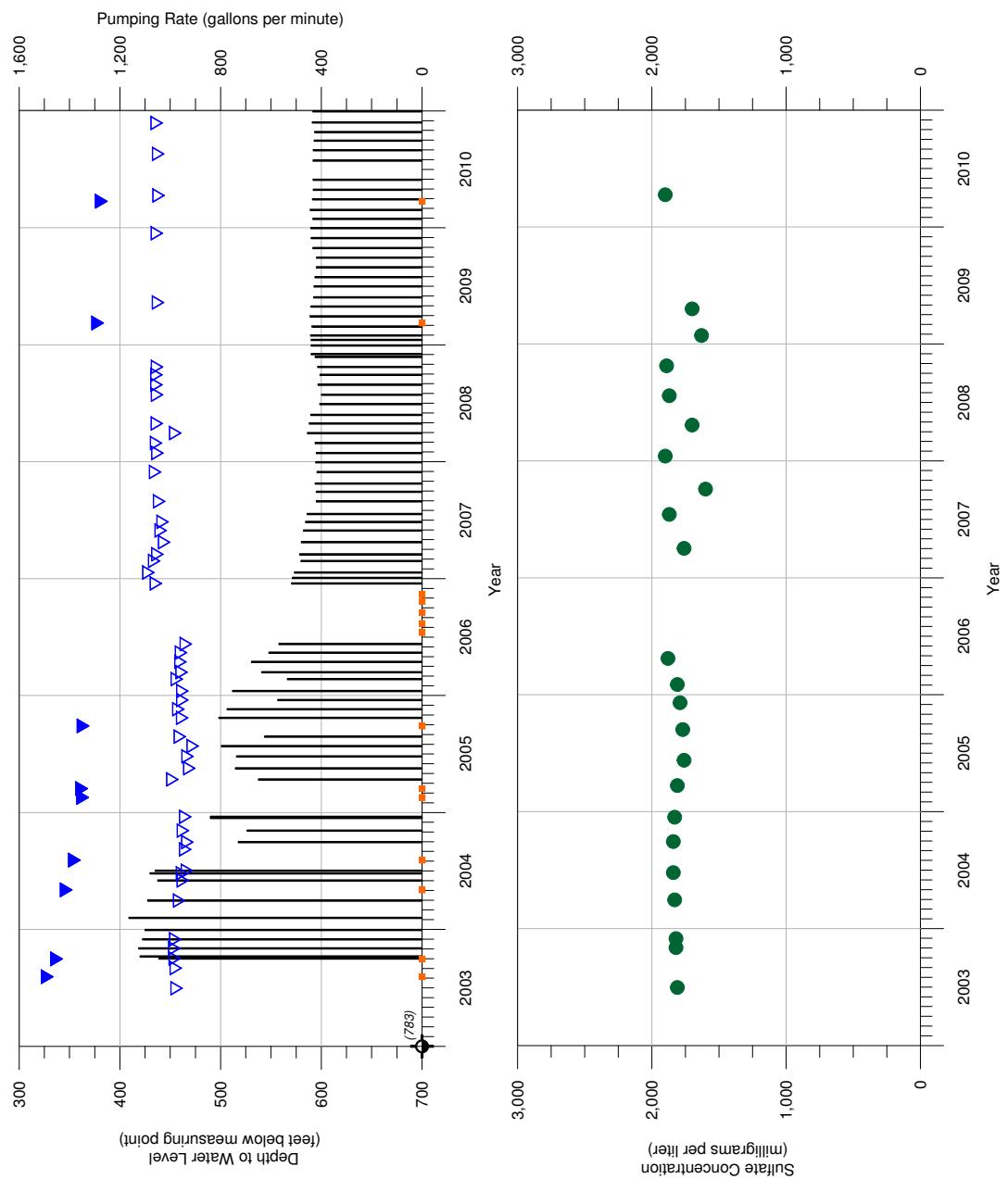
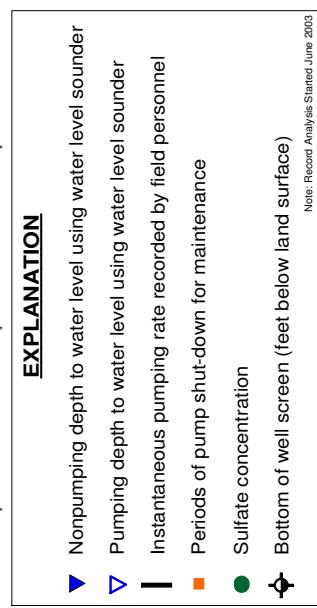


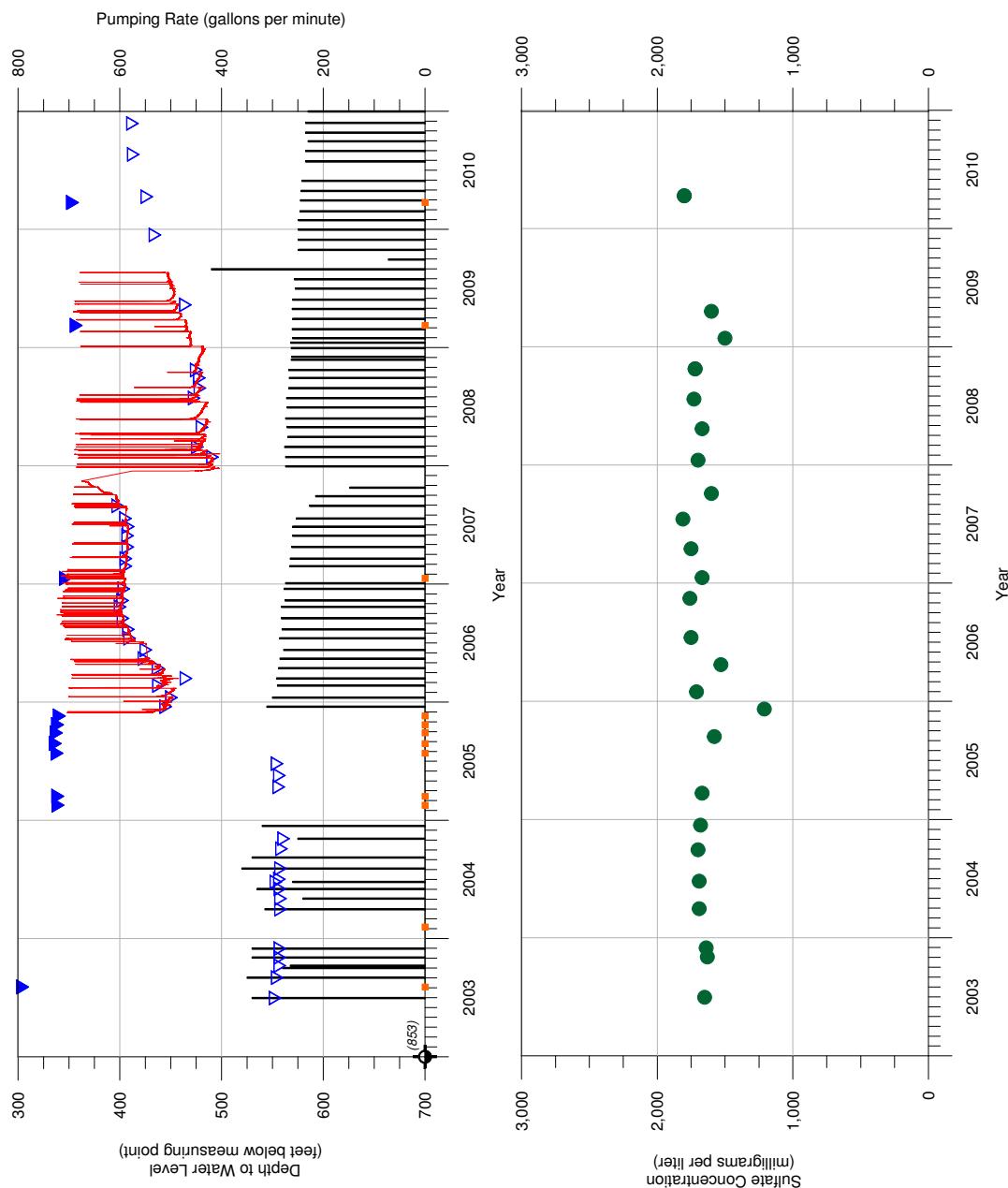
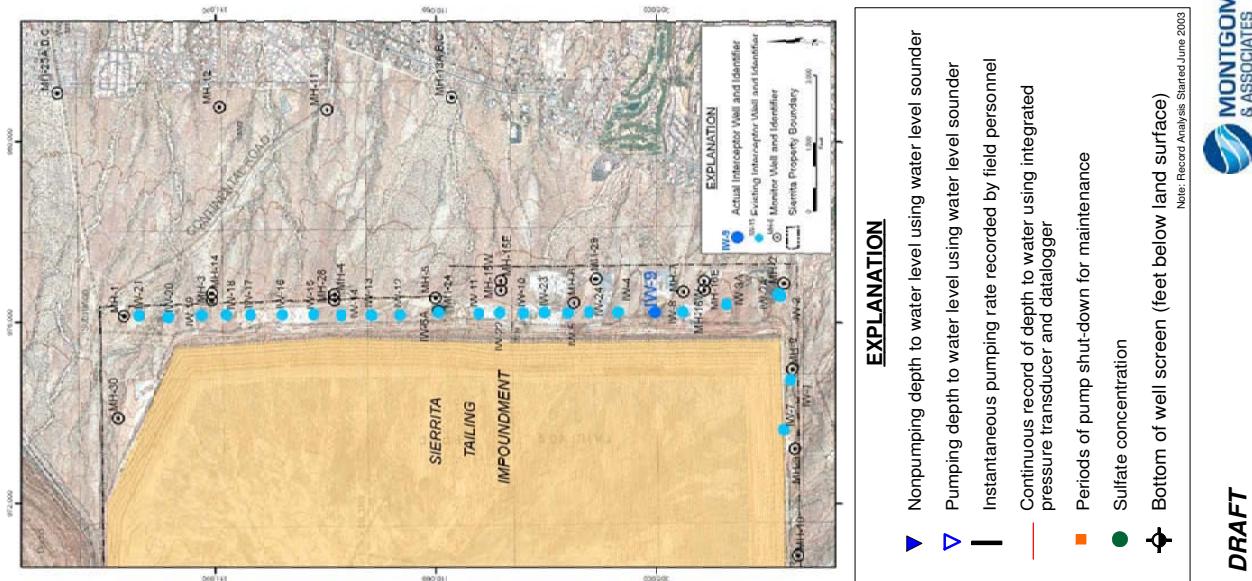
DRAFT

Note: Record Analysis Started June 2003

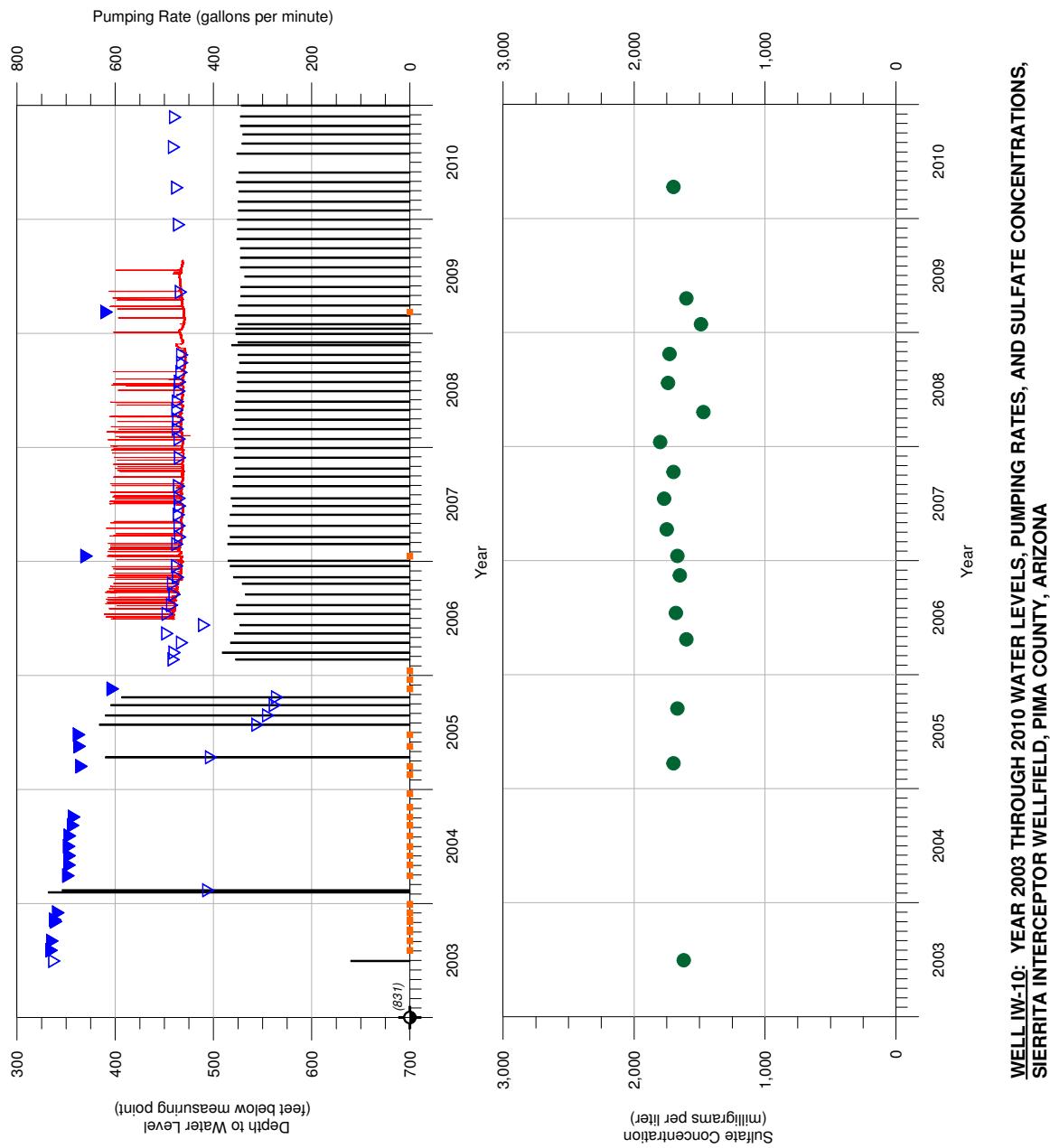
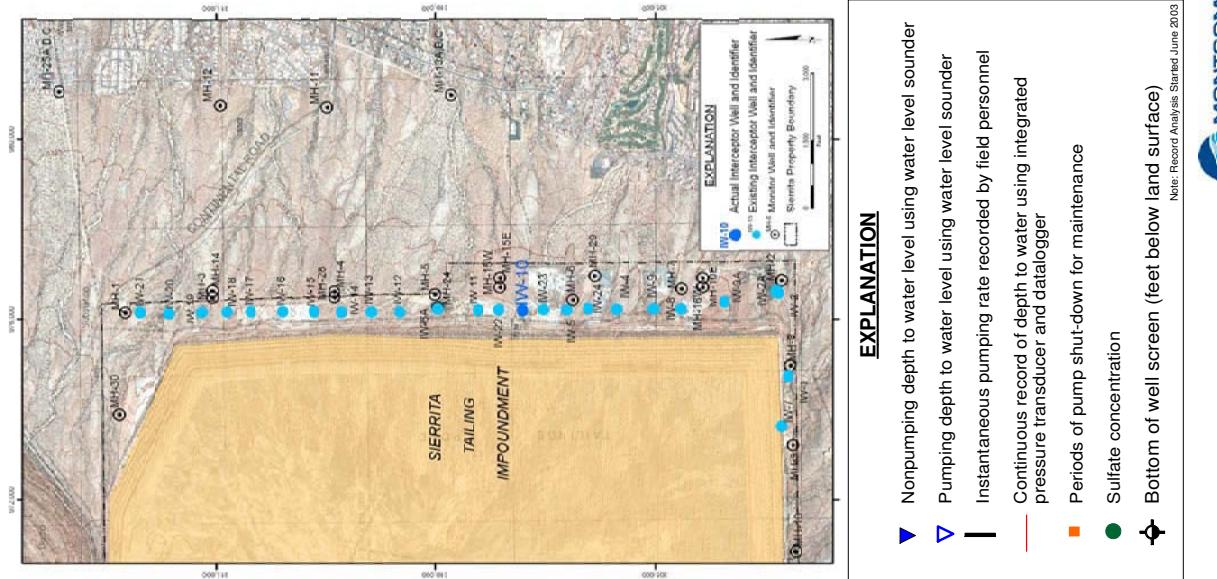
WELL IW-8: YEAR 2003 THROUGH 2010 WATER LEVELS, PUMPING RATES, AND SULFATE CONCENTRATIONS, SIERRITA INTERCEPTOR WELLFIELD, PIMA COUNTY, ARIZONA

5461546.2-1 - Interceptor Wellfield Optimization 2113, Wellfield Eval13_Wells_IWDataXLS_Summary_p081IW8_Hydrograph.grf



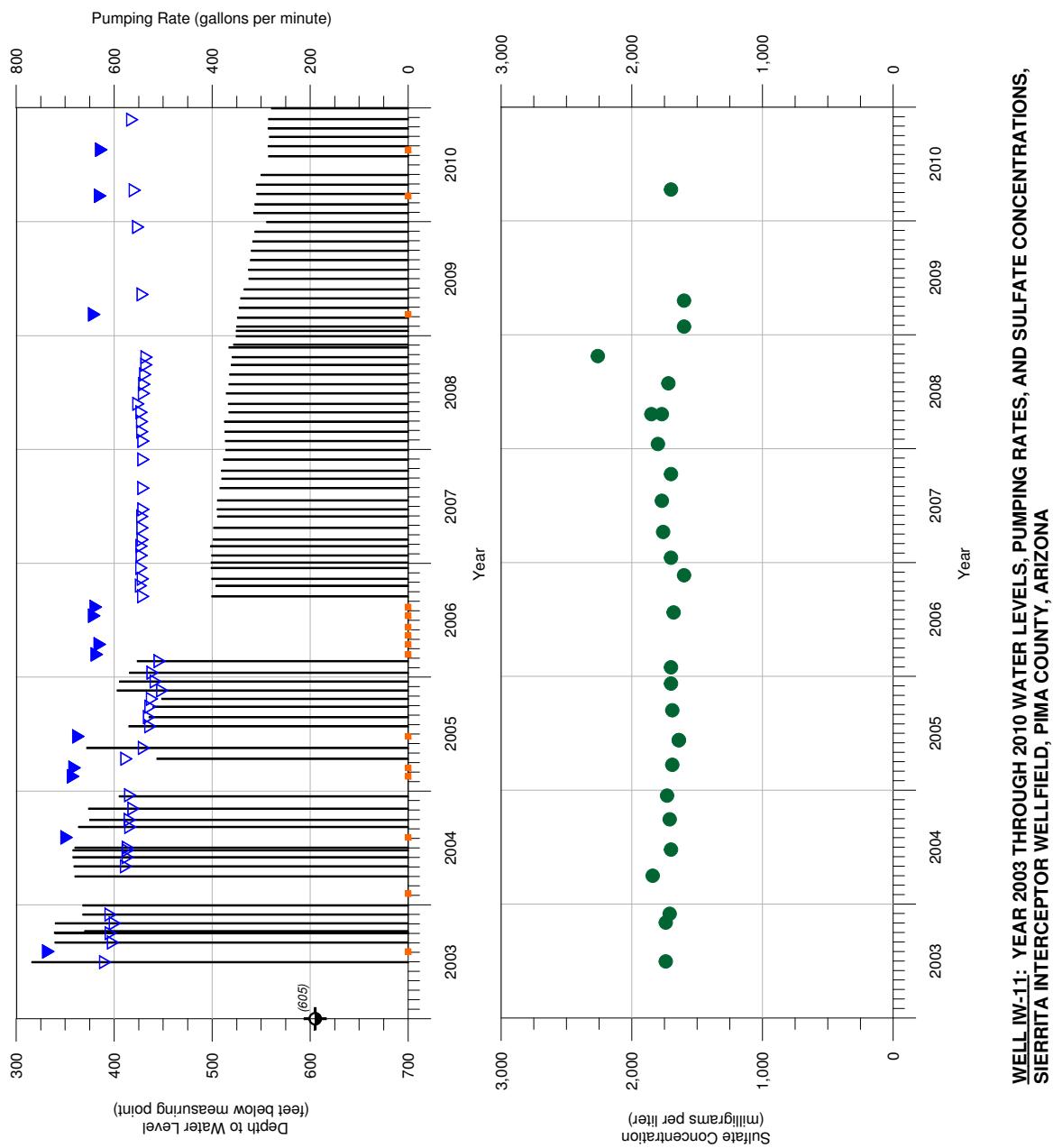
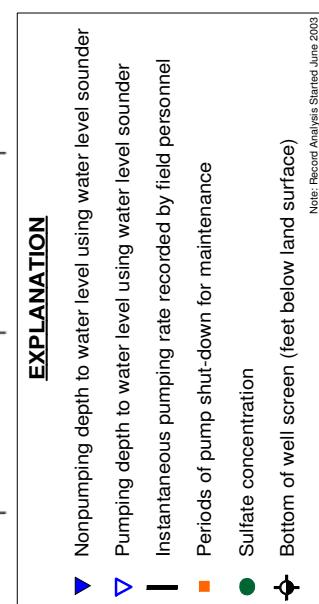
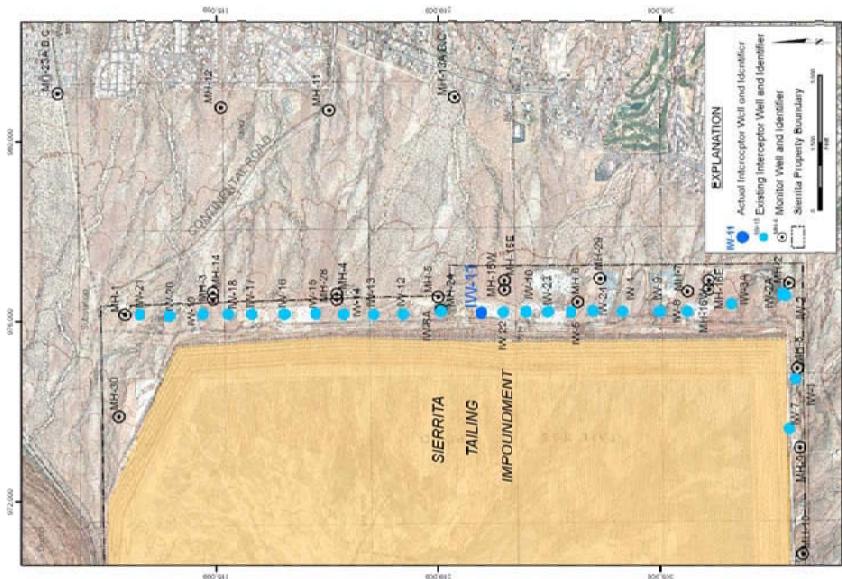


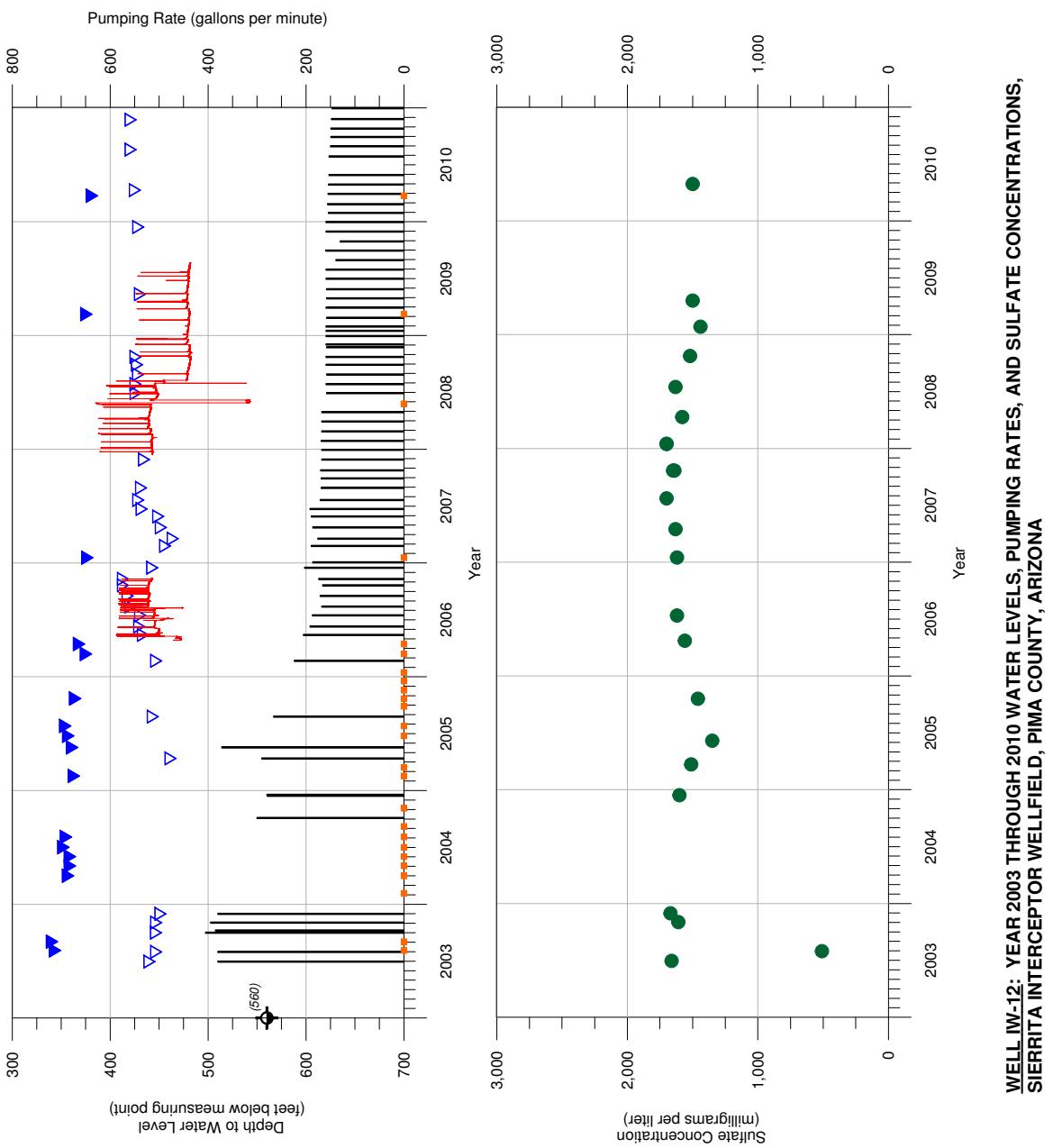
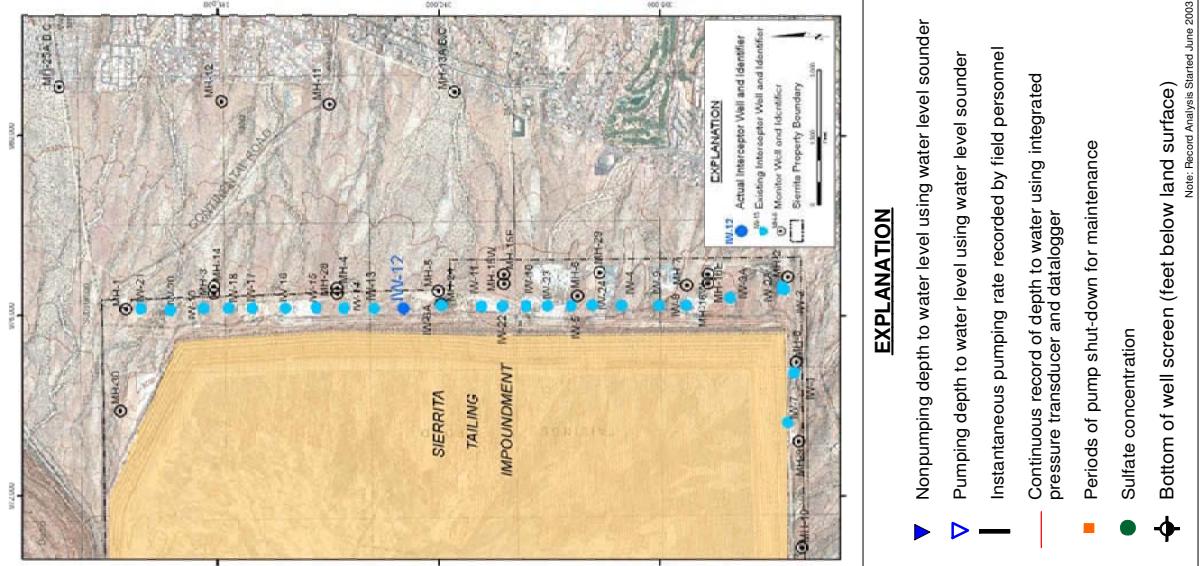
DRAFT



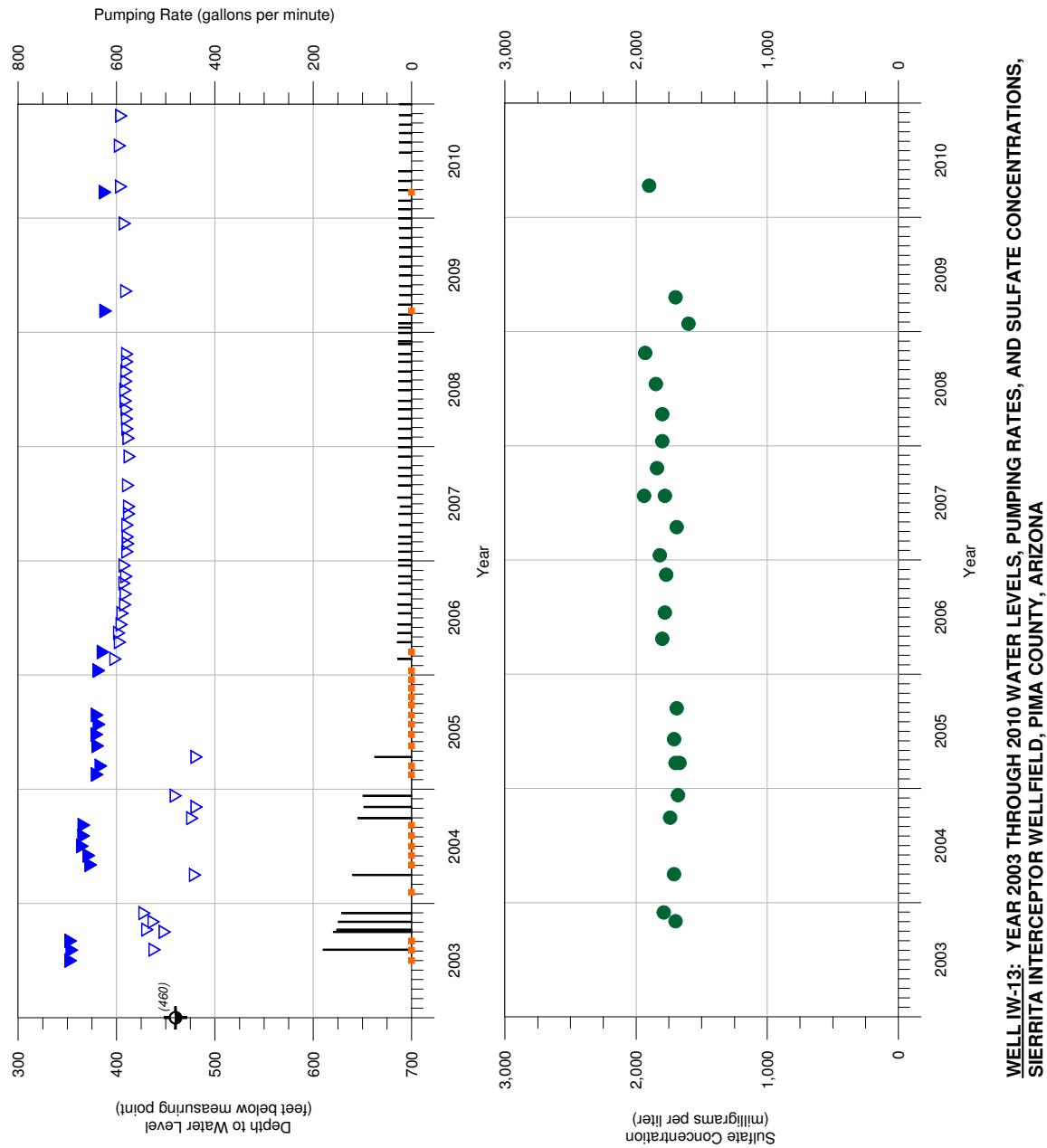
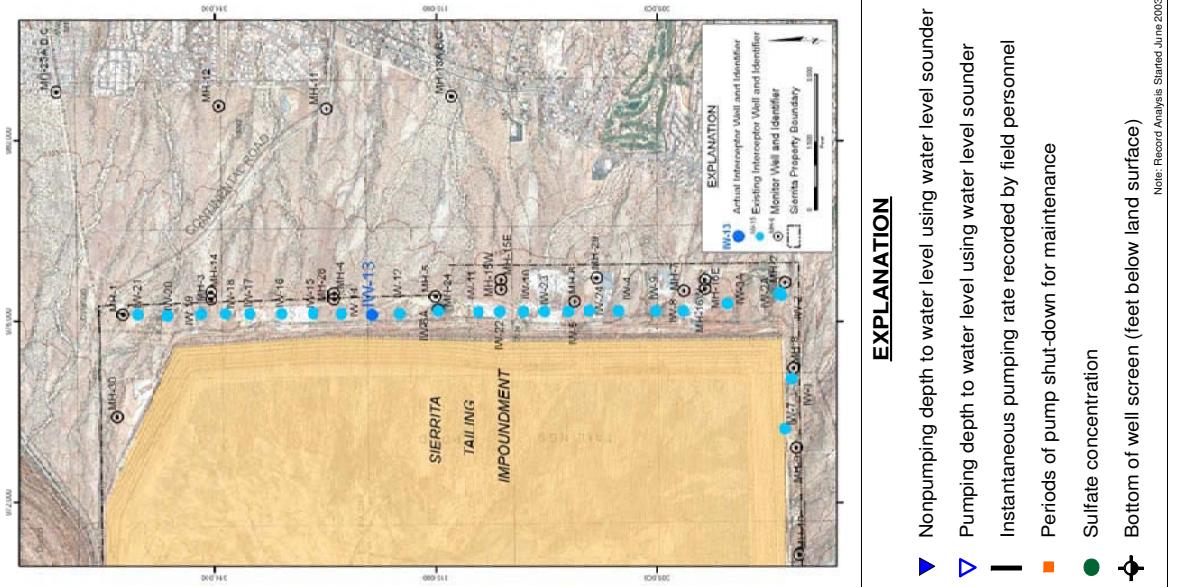
Note: Record Analysis Started June 2003

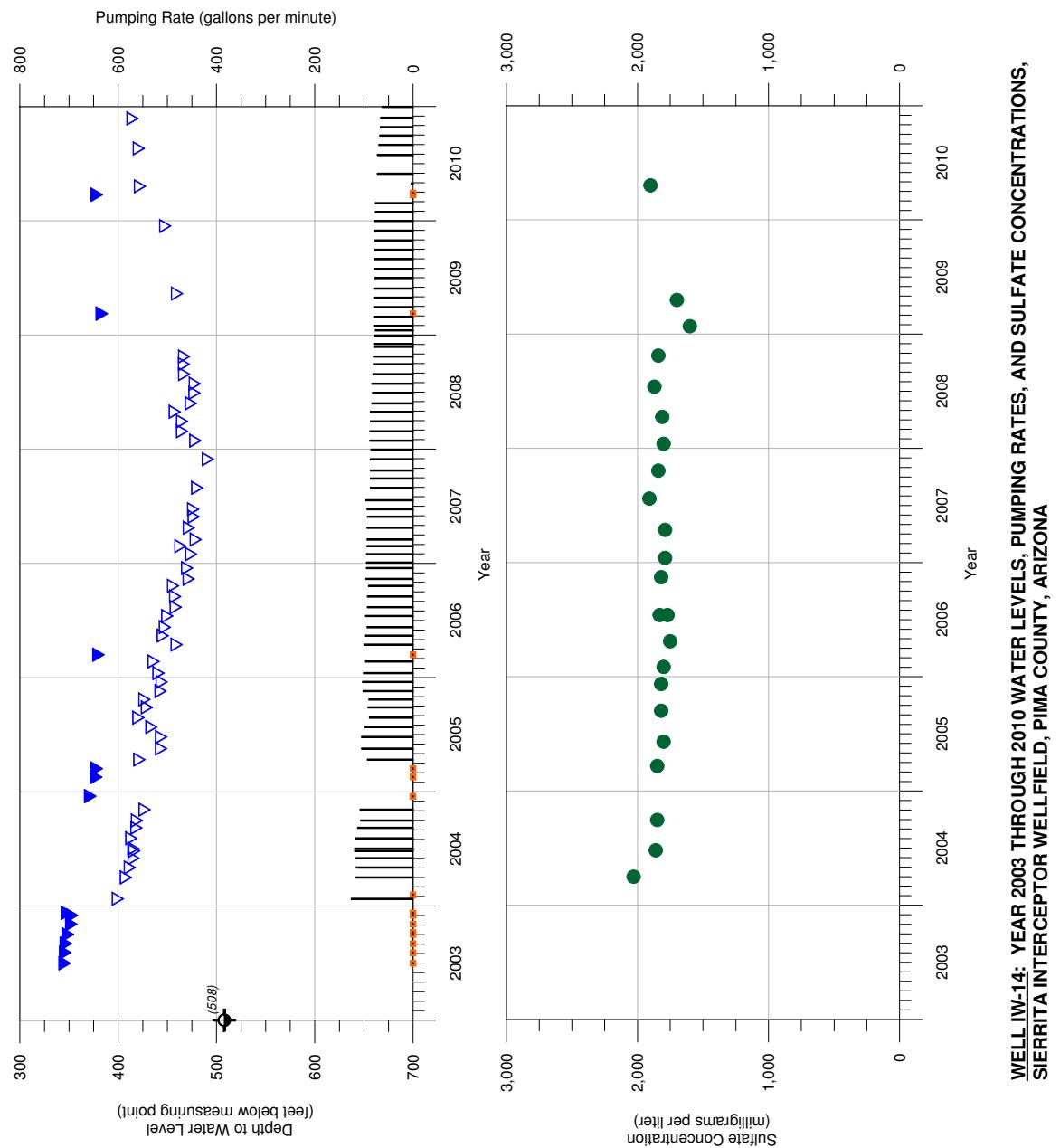
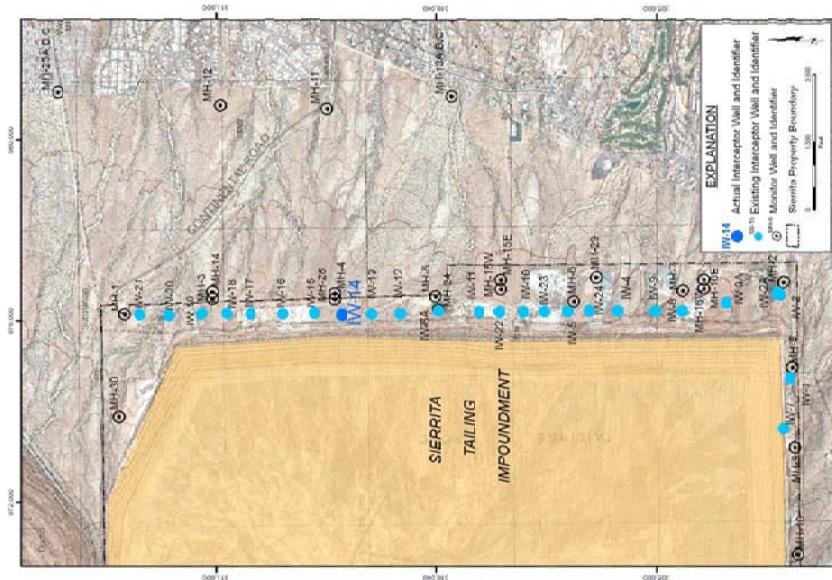
DRAFT

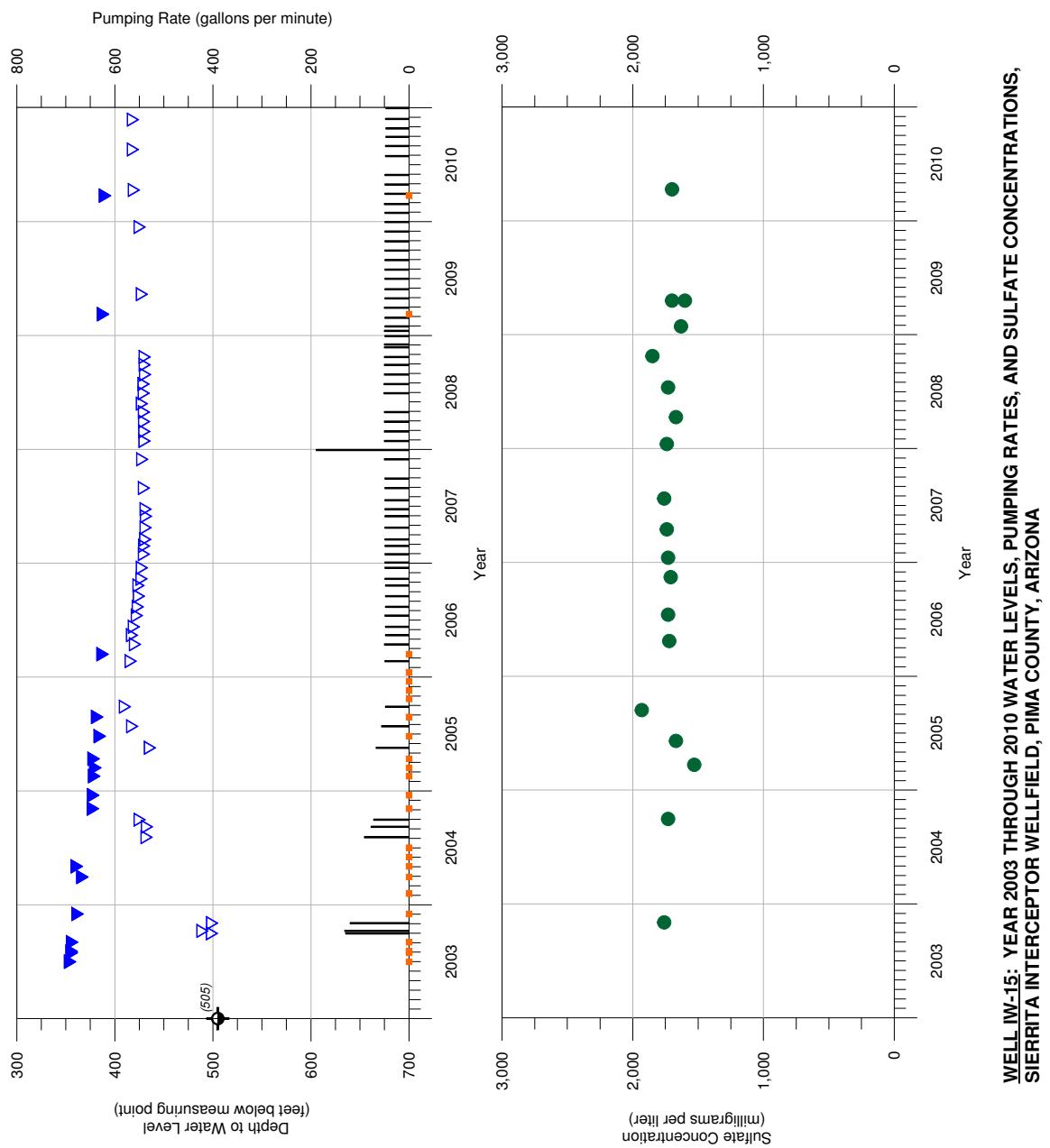
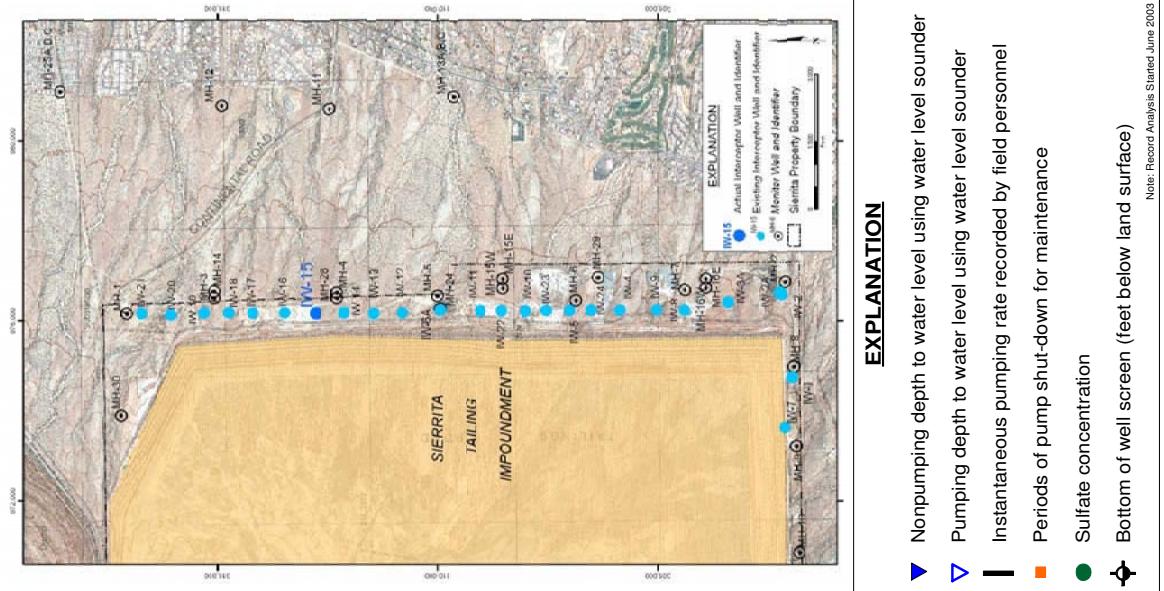




DRAFT



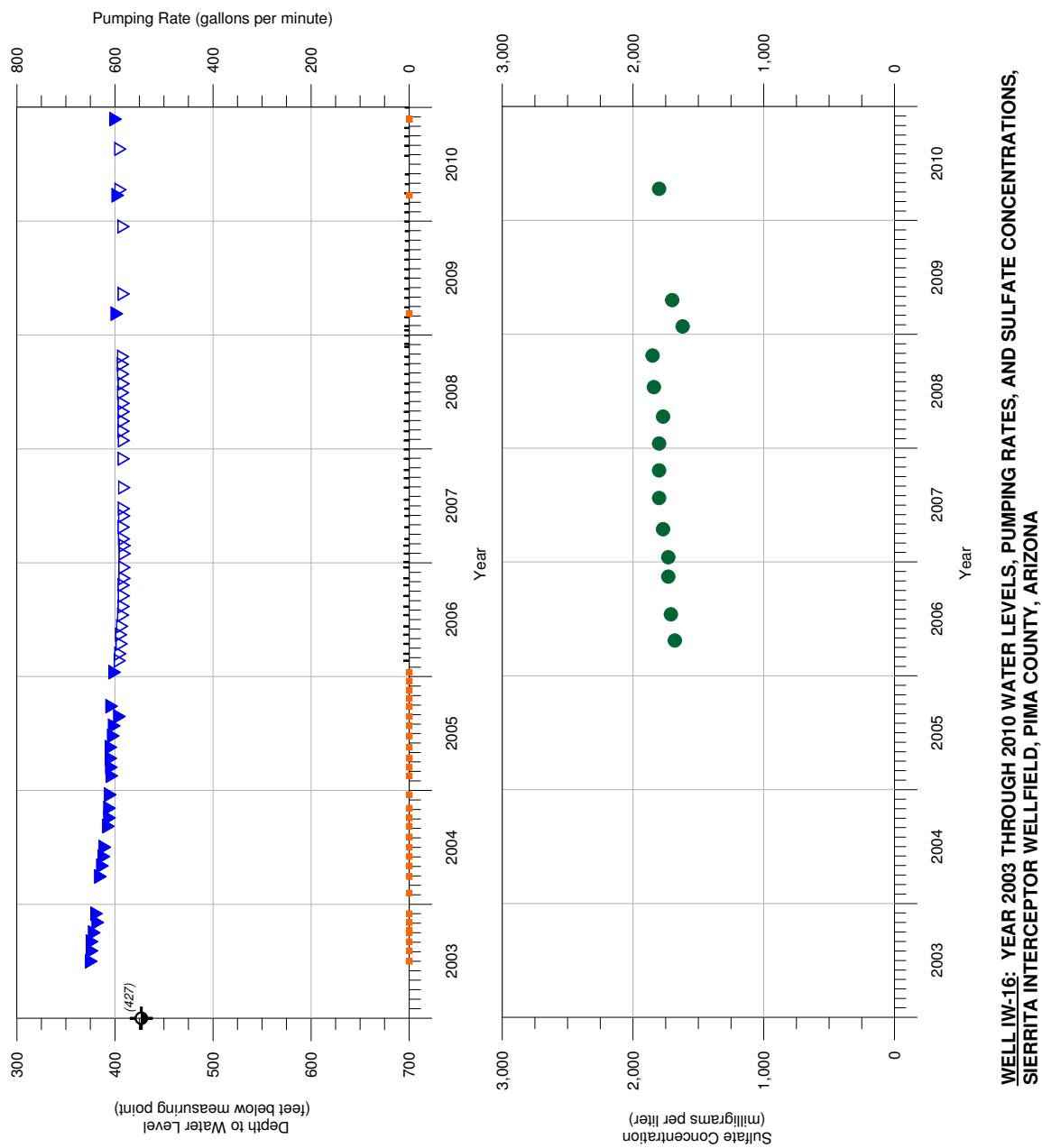
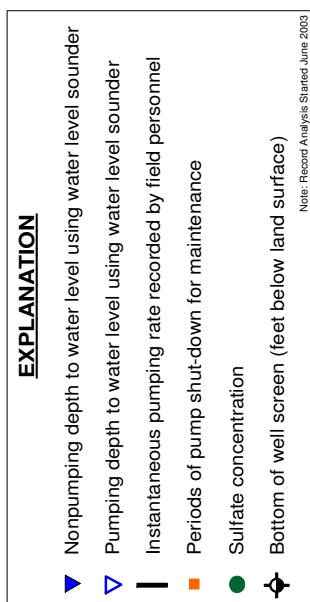
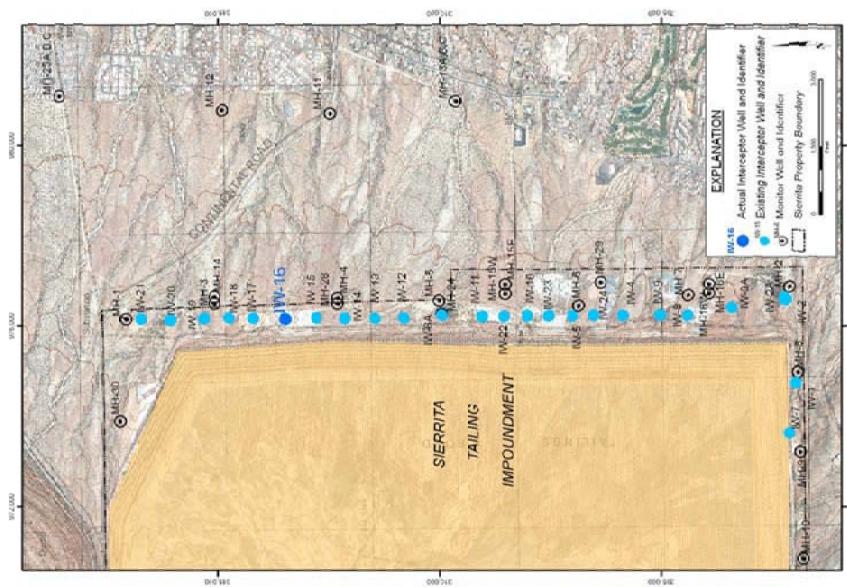


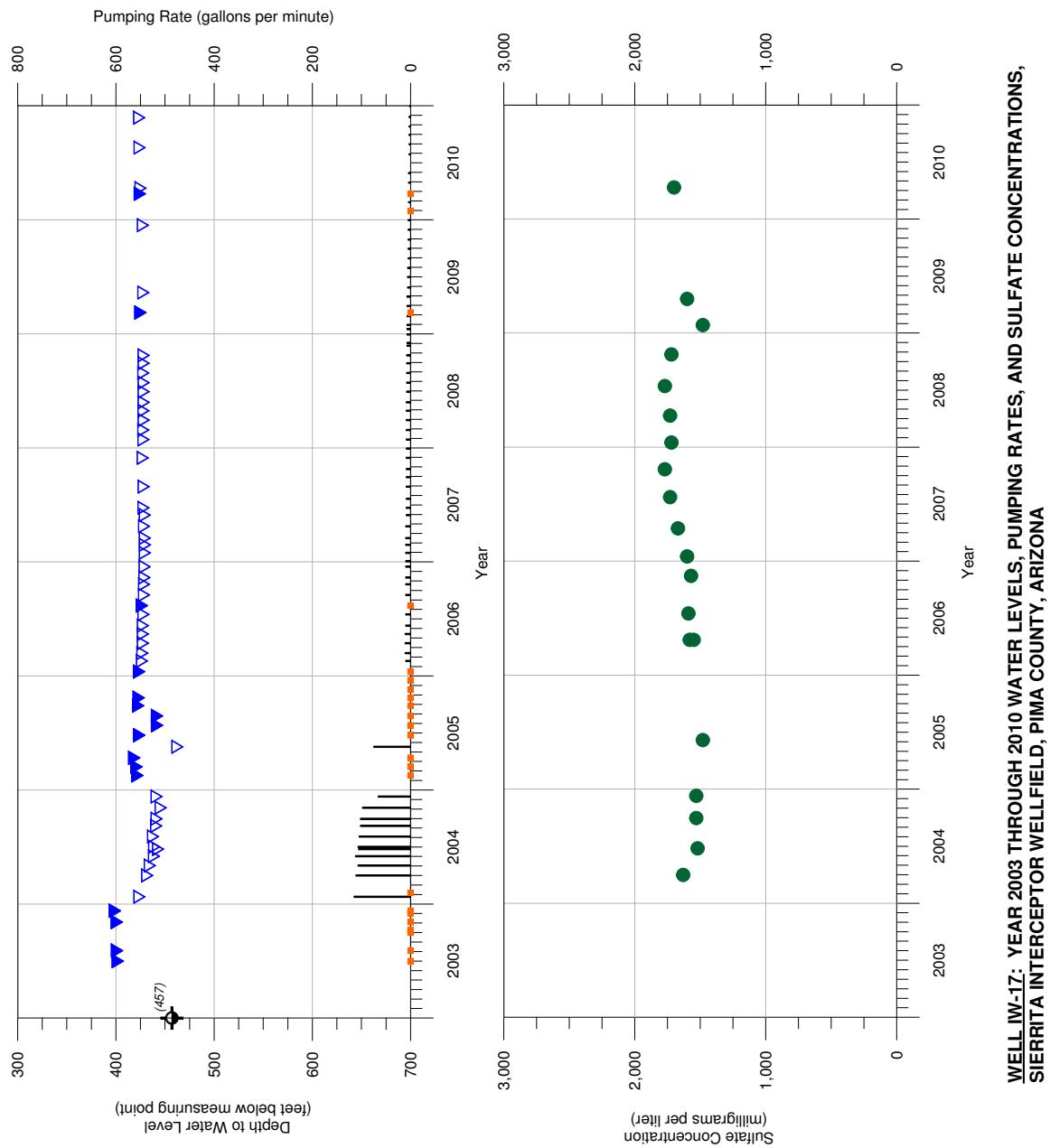
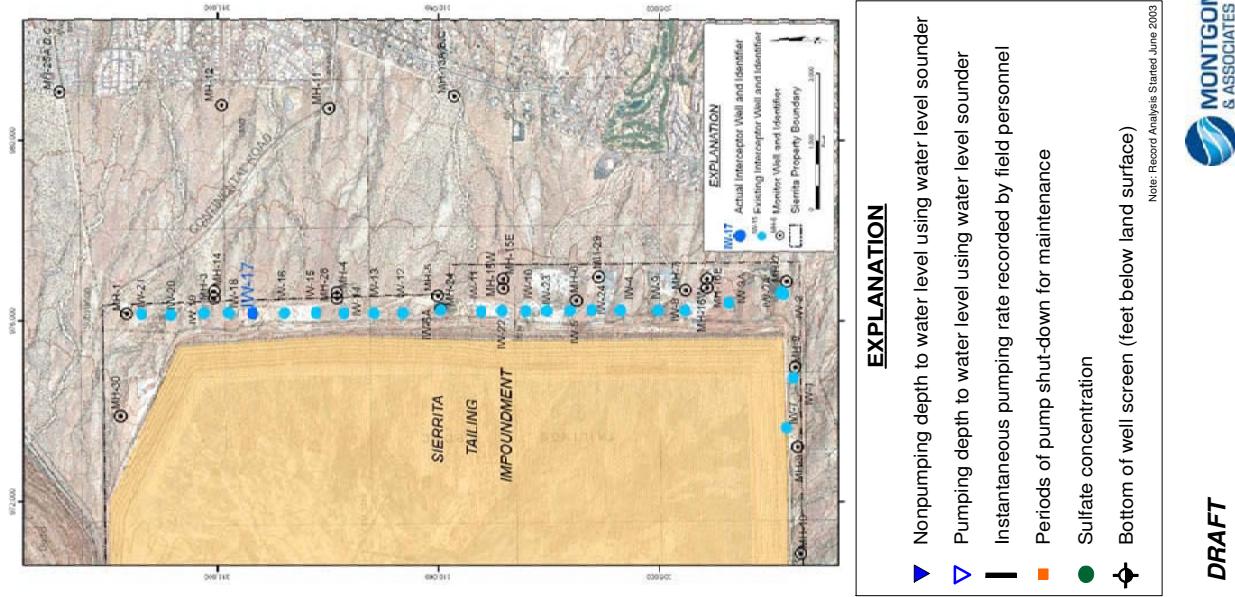


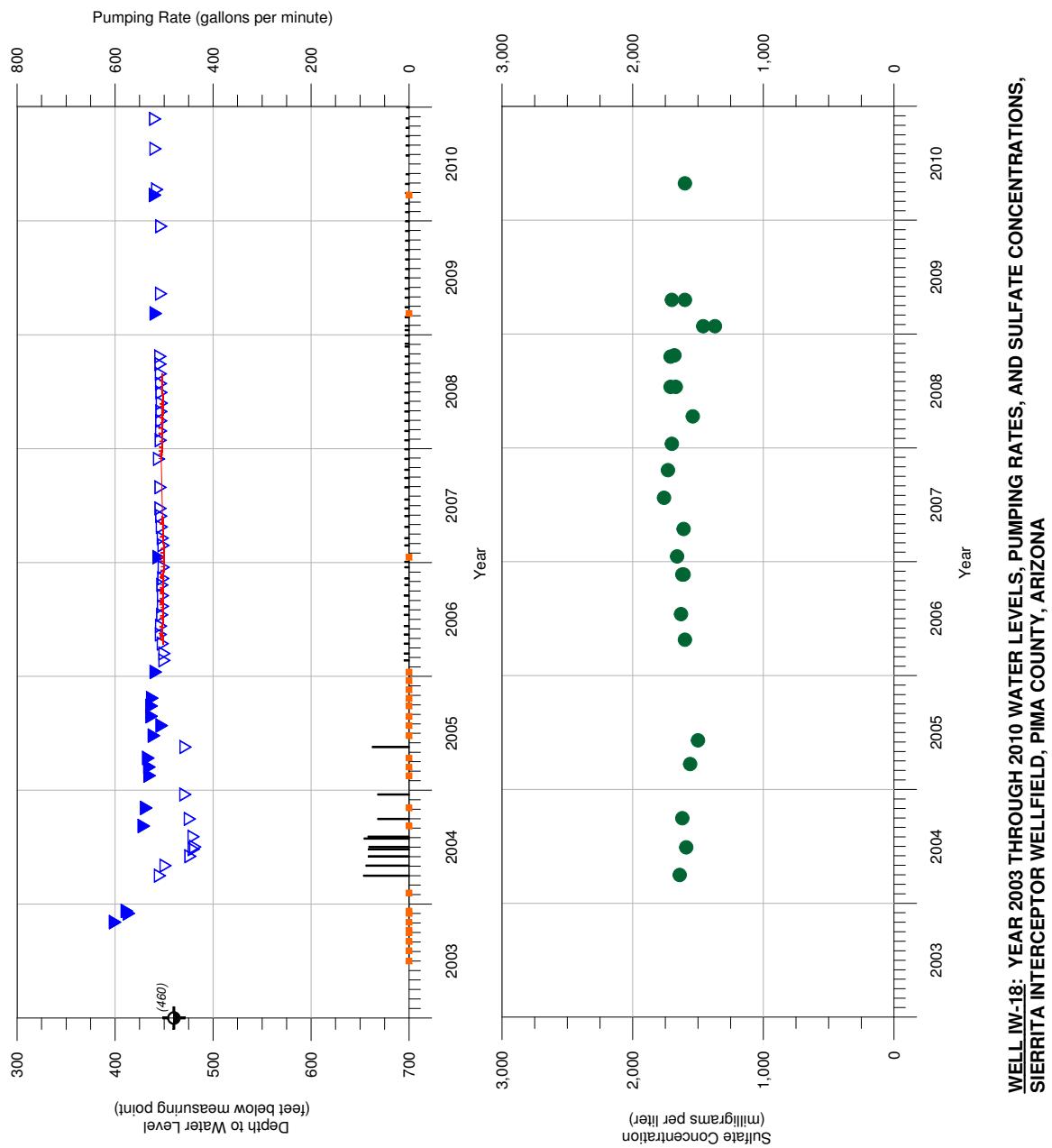
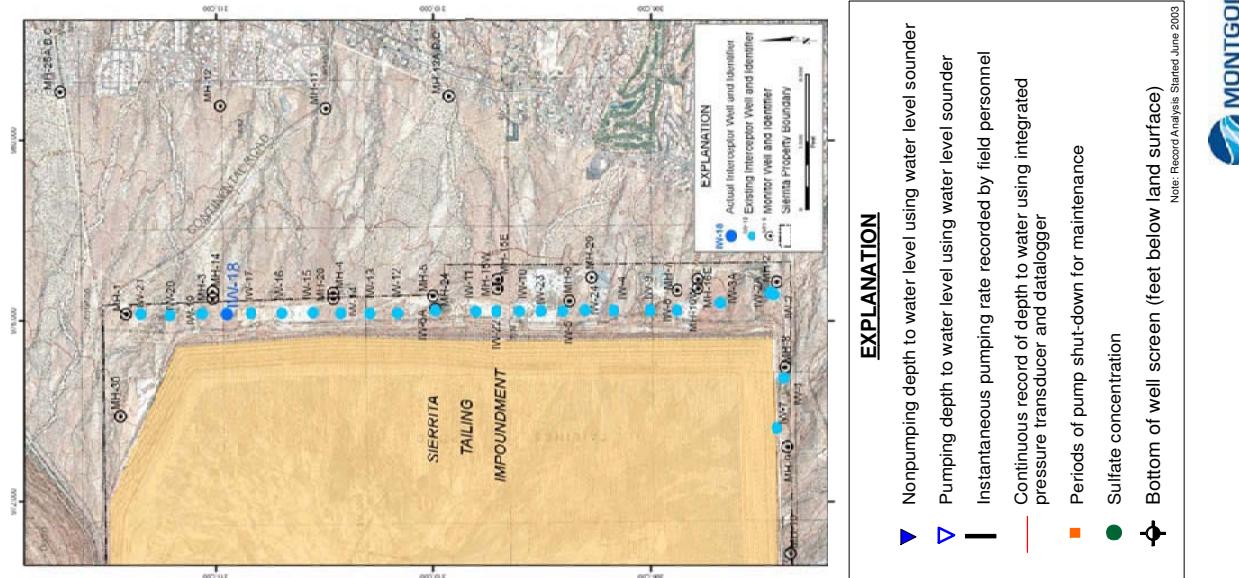
**WELL IW-15: YEAR 2003 THROUGH 2010 WATER LEVELS, PUMPING RATES, AND SULFATE CONCENTRATIONS,
SIERRITA INTERCEPTOR WELLFIELD, PIMA COUNTY, ARIZONA**

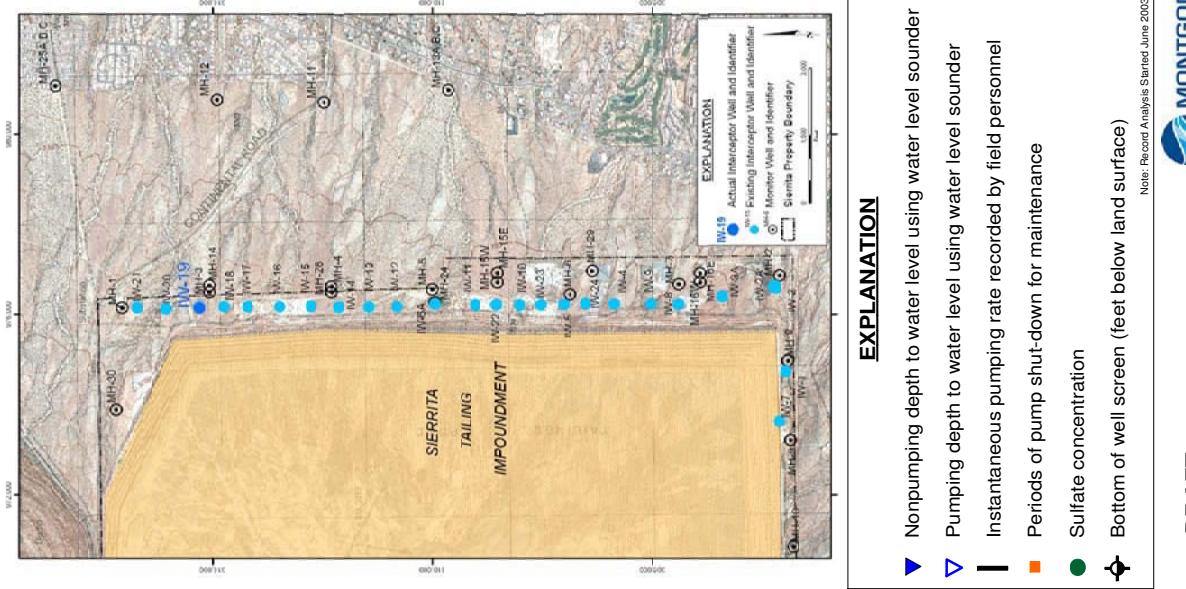
546546.21 - Interceptor Wellfield Optimization2113_Wellfield_Eval13_Wells_IWData.xls, Summary_poisIW15_Hydrograph.grf

DRAFT





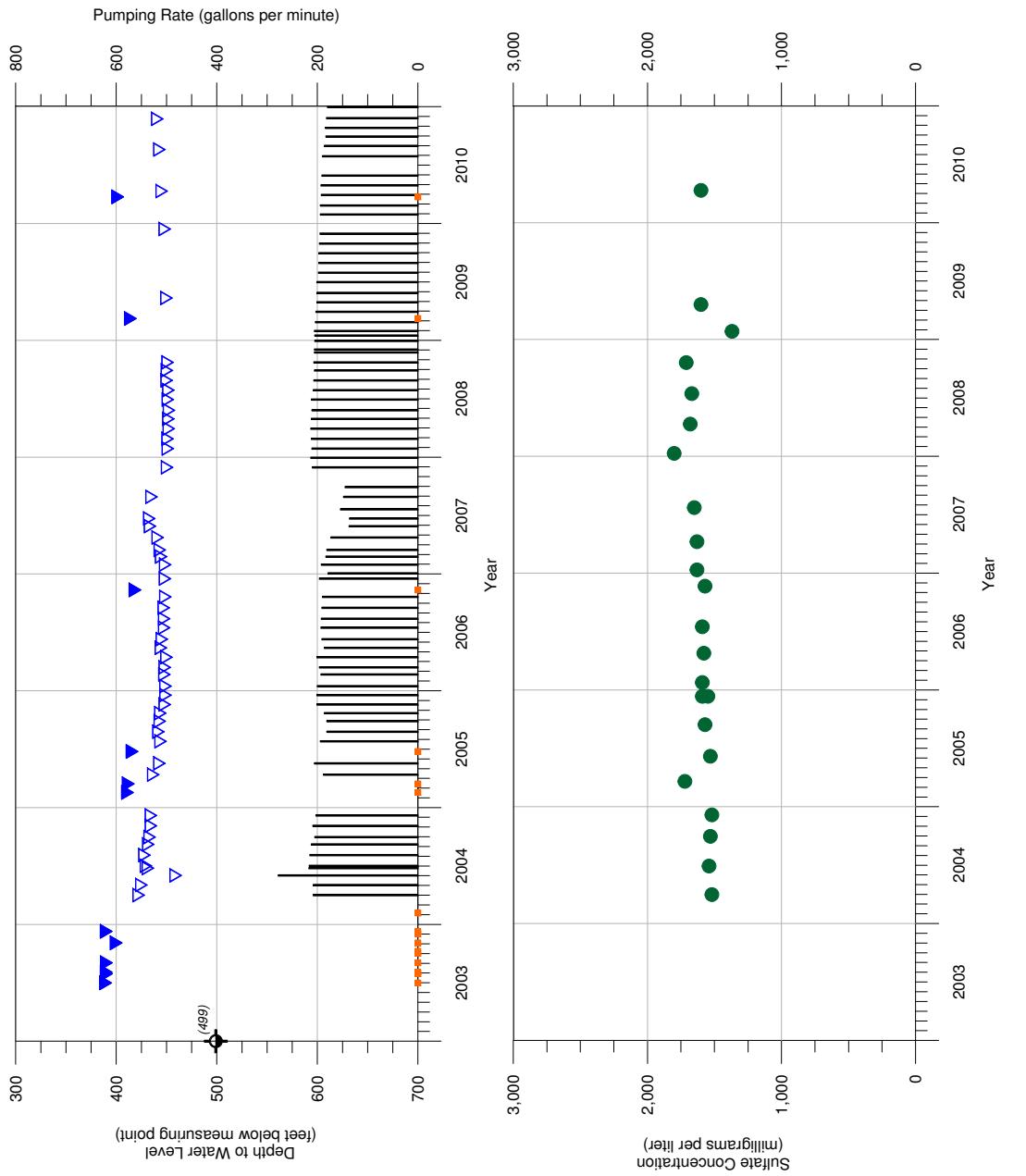




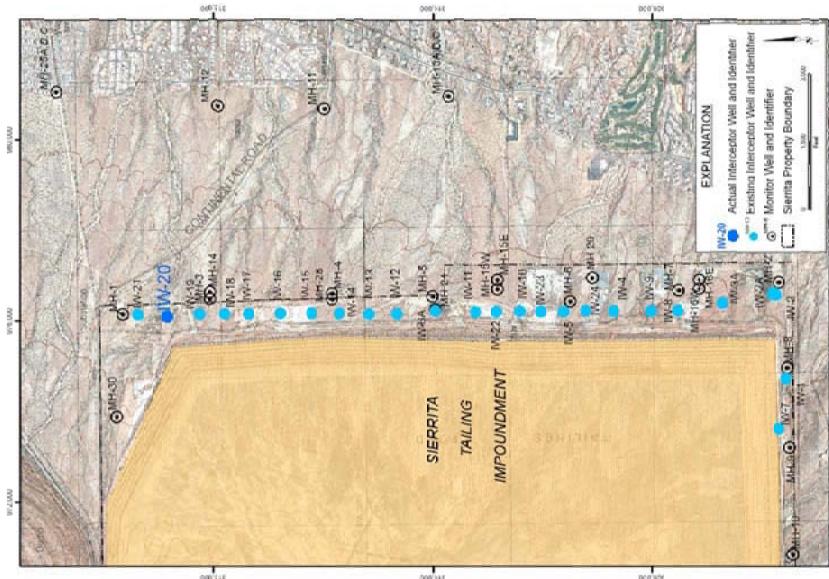
EXPLANATION

- ▼ Nonpumping depth to water level using water level sounder
 - ▽ Pumping depth to water level using water level sounder
 - ─ Instantaneous pumping rate recorded by field personnel
 - Periods of pump shut-down for maintenance
 - Sulfate concentration
 - ◆ Bottom of well screen (feet below land surface)
- Note: Record Analysis Started June 2003

DRAFT



**WELL IW-19: YEAR 2003 THROUGH 2010 WATER LEVELS, PUMPING RATES, AND SULFATE CONCENTRATIONS,
SIERRITA INTERCEPTOR WELLFIELD, PIMA COUNTY, ARIZONA**



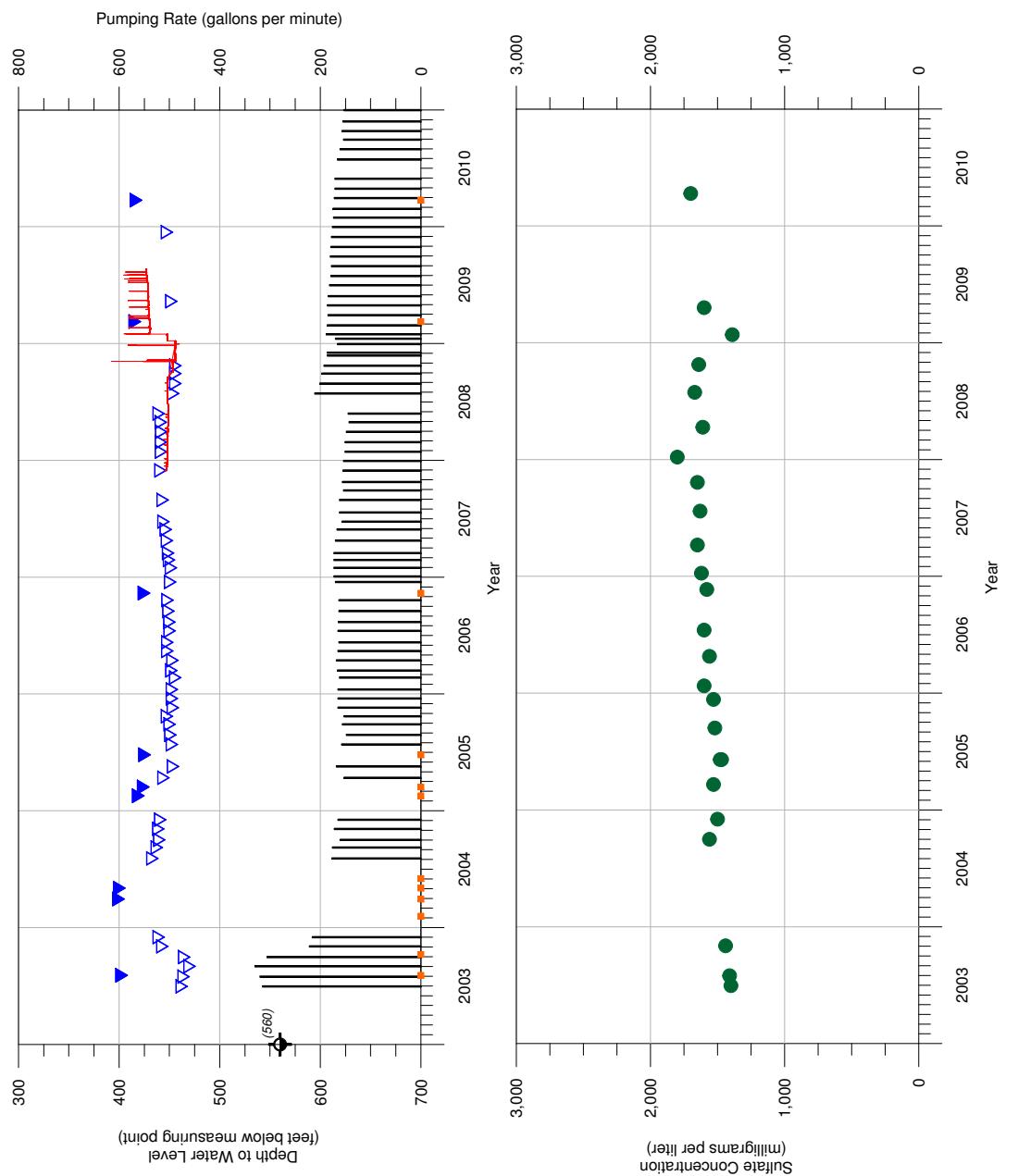
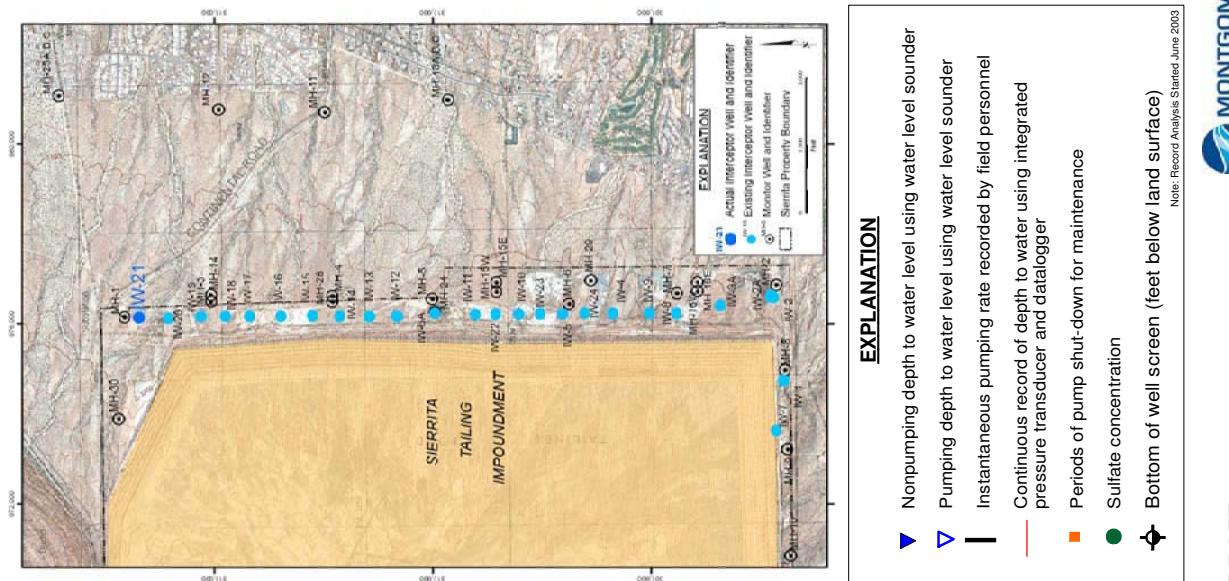
EXPLANATION

- The graph displays four data series over time:

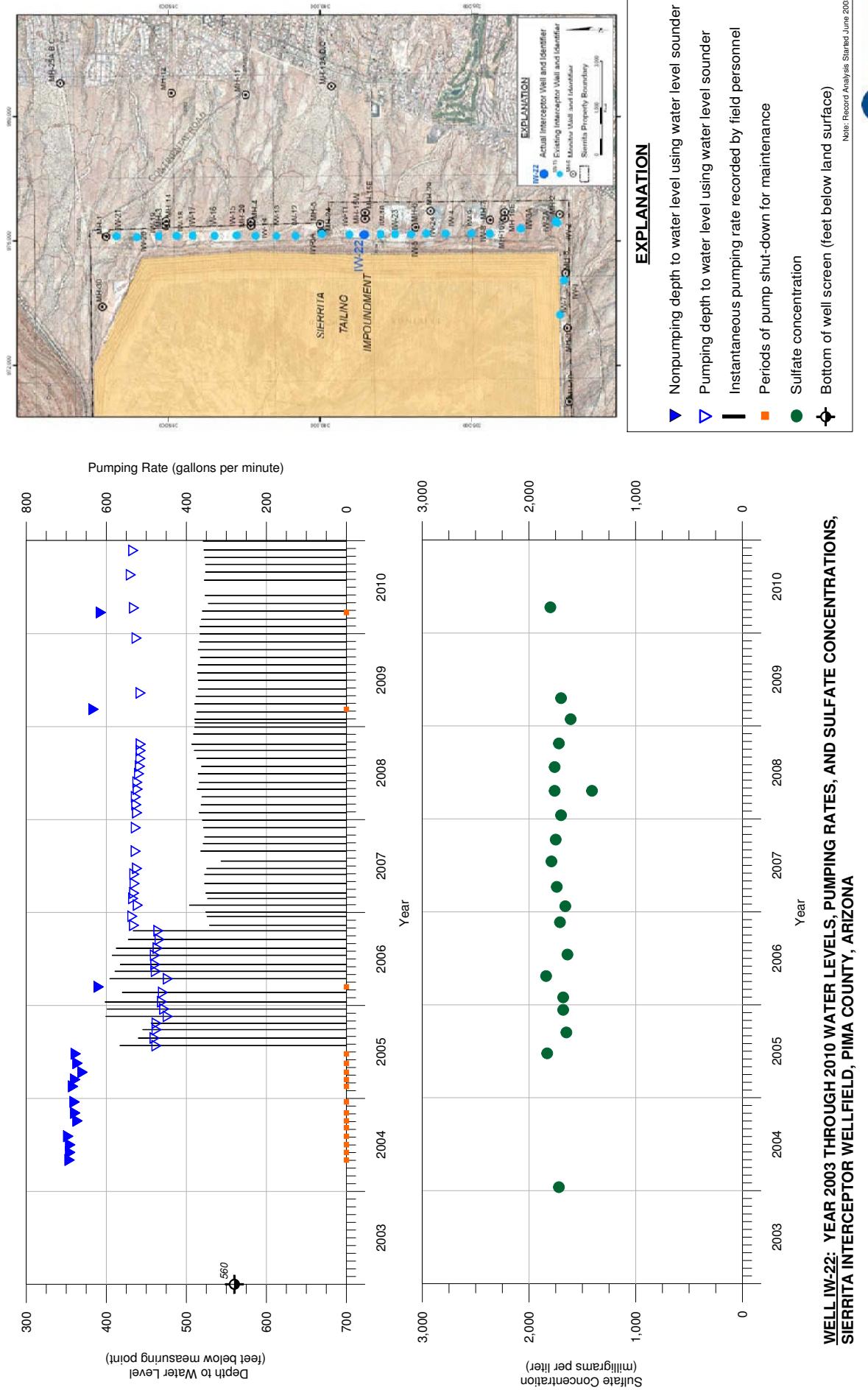
 - Water Level:** Shown as a black line with vertical error bars. The y-axis ranges from 0 to 10 feet below land surface. The water level fluctuates between approximately 2 and 6 feet.
 - Pumping Rates:** Shown as blue triangles pointing up (non-pumping) and blue diamonds pointing down (pumping). The x-axis shows years from 2003 to 2010. Pumping events occur in 2003, 2004, 2005, 2006, 2007, and 2008.
 - Instantaneous Pumping Rate:** Shown as a black line with vertical error bars. It generally follows the pumping rate events but remains near zero during non-pumping periods.
 - Periods of Pump Shut-Down for Maintenance:** Shown as orange squares. Maintenance periods occurred in 2004, 2005, 2006, 2007, and 2008.
 - Sulfate Concentration:** Shown as green circles. Concentration values are plotted at various points along the x-axis, with a notable peak around 2006.
 - Bottom of Well Screen:** Shown as a black diamond. This value is constant at 0 feet throughout the entire period.

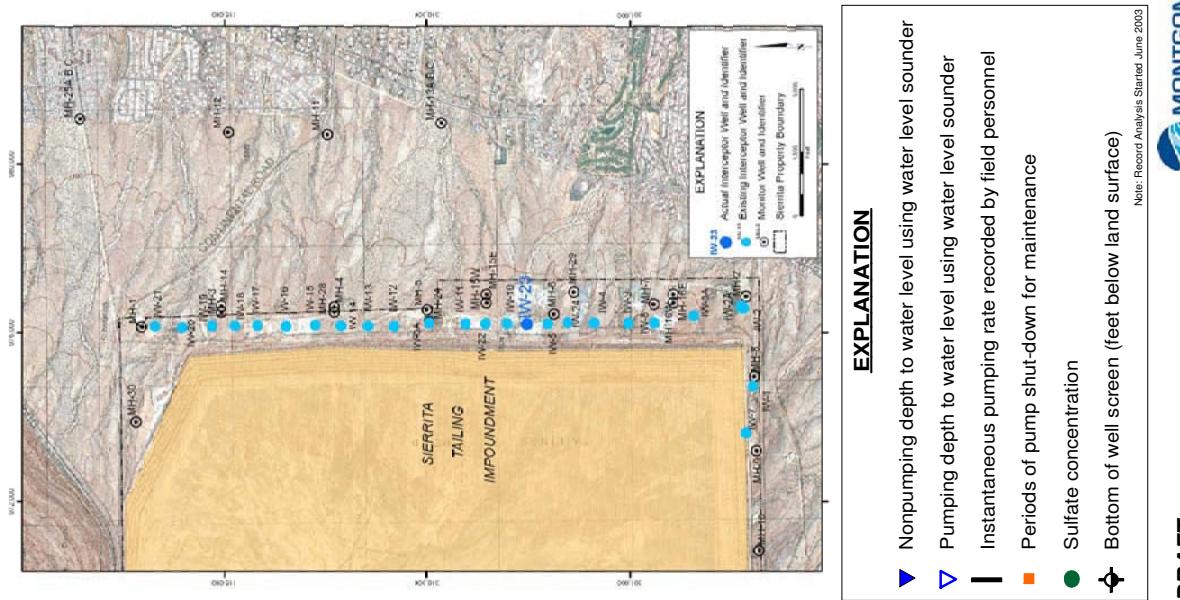
SIERRITA INTERCEPTOR WELLFIELD, PIMA COUNTY, ARIZONA

MONTGOMERY & ASSOCIATES



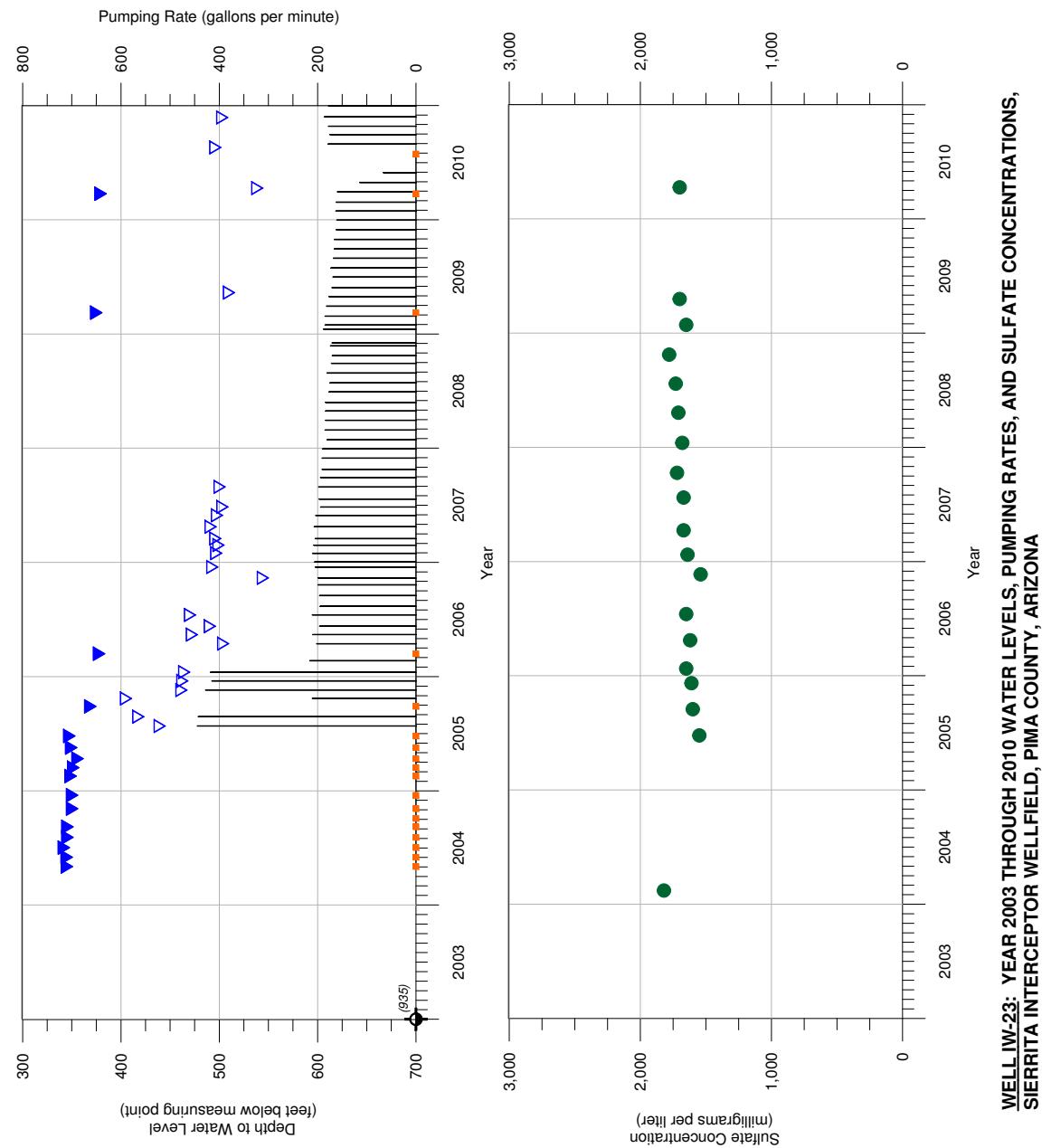
**WELL IW-21: YEAR 2003 THROUGH 2010 WATER LEVELS, PUMPING RATES, AND SULFATE CONCENTRATIONS,
SIERRITA INTERCEPTOR WELLFIELD, PIMA COUNTY, ARIZONA**





**MONTGOME
RY & ASSOCIATES**

DRAFT



DRAFT

WELL IW-24: YEAR 2003 THROUGH 2010 WATER LEVELS, PUMPING RATES, AND SULFATE CONCENTRATIONS, SIERRITA INTERCEPTOR WELLFIELD, PIMA COUNTY, ARIZONA

Note: Record analysis started June 2003
