TABLES

Table 3-1. Locations Where Top of Competent Bedrock was Estimated

Well	GWIC Id	Northing NAD 83 FT	Easting NAD 83 FT	Approximate Ground Elevation NGVD 29 FT	Depth to Weathered Bedrock (ft bgs)	Depth to Competent Bedrock (ft bgs)	Approximate Weathered Bedrock Elevation NGVD29 FT	Approximate Competent Bedrock Elevation NGVD29 FT
10-01	255730	651113	1193399	5445	15	25	5430	5420
96-01D	158224	652597	1194812	5471		6		5465
96-01S	158225	652598	1194787	5470	0	12	5470	5458
96-02	158226	652801	1196117	5473	12	18	5461	5455
96-03	158231	652755	1197310	5467	7	25	5460	5442
AMW-15D	247717	651765	1190265	5448	20	32	5428	5416
AMW-17	163123	653518	1193628	5525	6.5	14	5519	5511
AMW-21R	247723	657918	1202272	5546	10	48	5536	5498
AMW-25	247725	652736	1198293	5481	40	90	5441	5391
BMW-01B	50423	651931	1191303	5429	36	39.5	5393	5390
BMW-02B	50426	651937	1191140	5421	14	28	5407	5393
BMW-02D	126049	651910	1191149	5421	23	80	5398	5341
BMW-03B	50428	651997	1190737	5417	14	21	5403	5396
BMW-04B	50431	652115	1190812	5417	10	22.5	5407	5395
BMW-05B	50433	651127	1191742	5434	8	32	5426	5402
BMW-06B	50434	652469	1190858	5424	19	59	5405	5365
BMW-07B	50436	651402	1194588	5445	27	70	5418	5375
BMW-13B	126149	651413	1192895	5427	19	28	5408	5399
BOWLER TOM	174040	651960	1193364	5450		29		5421
BPS07-18B	248569	652114	1190427	5424		20		5404
BSB-A01	247736	646621	1196422	5560		58		5502
GS-12	5007	651901	1194639	5441		29		5412
GS-13A	5004	651972	1195558	5438	23	29	5415	5409
GS-19C	126150	651700	1196303	5440	35	70	5405	5370
GS-19D	126151	651700	1196303	5440	35	70	5405	5370
GS-25D	126052	651669	1192721	5427	25	105	5402	5322
GS-29D	126152	651277	1196871	5443	25	80	5418	5363
GS-30D	150391	651789	1200338	5456		35		5421
GS-31D	150393	651286	1200406	5441		30		5411
GS-50	150414	653332	1203154	5476		268		5208
HAUMBERGER HANS	50443	651620	1189003	5455	3	32	5452	5423
M-1A-87		650975	1194090	5436	34	43	5402	5393
M-4A-87	155857	650670	1194100	5437	36	39	5401	5398
MC GREE MATT AND NOELLE	208054	644629	1195672	5605	1	54	5604	5551
MCGREE MIKE C/O A-1 AMBULANCE	198925	652382	1195643	5464	0	48	5464	5416
MOUNT MORIAH CEMETARY	184511	648718	1194485	5560		88		5472
NEW BUTTE BUTCHERING	50444	649757	1191854	5426	14	76	5412	5350
PW-03	150419	651388	1194003	5449		40		5409
TOWN PUMP #0900	156155	649463	1196598	5464	78	105	5386	5359
Well 17		649356	1193949	5462	13	17	5449	5445
WORLEY SHANE	214277	648019	1195130	5605	4	78	5601	5527
ZIMPEL ED	163583	645569	1192880	5560	24	76	5536	5484
ZIMPEL ED JR.	156163	645594	1192231	5605	7	65	5598	5540

The New Butte Butchering location is an approximation based on the description provided by Rick Larson (Butte Silver Bow Public Works Dept), who indicated that the location for the New Butte Butchering well recorded in the GWIC database is incorrect.

Table 8-1. Stress Period Setup, Pumping Rates, and Surface Water Elevations for Model Calibration

Stress Period	Begin Date/Time	End Date/Time	Minutes at This Rate	Days at This Rate	Begin (Model Days)	End (Model Days)	Description
1	8/13/09 0:00	8/13/09 0:01	1	0.001	0.000	0.001	Steady state (prior to phase 1 dewatering, # days has no meaning)
2	8/13/09 0:01	9/17/09 0:00	50399	35	0.001	35.000	WWTP dewatering (pump 1 only)
3	9/17/09 0:00	9/23/09 0:00	8640	6	35.000	41.000	WWTP dewatering (pumps 1 and 2 operating)
4	9/23/09 0:00	11/4/09 0:00	60480	42	41.000	83.000	WWTP dewatering; BRW-01W dewatering
5	11/4/09 0:00	12/23/09 0:00	70560	49	83.000	132.000	WWTP dewatering; BRW-01W dewatering at lower elevation
6	12/23/09 0:00	1/1/10 0:00	12960	9	132.000	141.000	WWTP dewatering; BRW dewatering over
7	1/1/10 0:00	1/14/10 0:00	18720	13	141.000	154.000	WWTP dewatering (diff't rates)
8	1/14/10 0:00	1/20/10 0:00	8640	6	154.000	160.000	WWTP dewatering (diff't rates)
9	1/20/10 0:00	1/29/10 0:00	12960	9	160.000	169.000	WWTP dewatering (diff't rates)
10	1/29/10 0:00	2/1/10 0:00	4320	3	169.000	172.000	WWTP dewatering (diff't rates)
11	2/1/10 0:00	2/3/10 0:00	2880	2	172.000	174.000	WWTP dewatering (diff't rates)
12	2/3/10 0:00	2/14/10 0:00	15840	11	174.000	185.000	WWTP dewatering stopped
13	2/14/10 0:00	2/24/10 0:00	14400	10	185.000	195.000	WWTP dewatering stopped; BRW-01W dewatering
14	2/24/10 0:00	3/12/10 0:00	23040	16	195.000	211.000	WWTP dewatering stopped; no BRW dewatering
15	3/12/10 0:00	3/29/10 0:00	24480	17	211.000	228.000	Trench flooding begins; no dewatering
16	3/29/10 0:00	3/31/10 0:00	2880	2	228.000	230.000	WWTP dewatering and trench flooding
17	3/31/10 0:00	4/2/10 0:00	2880	2	230.000	232.000	WWTP dewatering (diff't rates) and trench flooding
18	4/2/10 0:00	4/12/10 0:00	14400	10	232.000	242.000	WWTP dewatering (diff't rates) and trench flooding
19	4/12/10 0:00	4/21/10 0:00	12960	9	242.000	251.000	WWTP dewatering (diff't rates) and trench flooding
20	4/21/10 0:00	4/25/10 0:00	5760	4	251.000	255.000	No WWTP dewatering, still trench flooding

Stress Period	Begin Date/Time	End Date/Time	Assigned BRW-01W Elevation (ft MSL)	Assigned BRW-01E Elevation (ft MSL)	Assigned BRW-00 elevation (ft MSL)	Assigned Flooded Trench Elevation (ft MSL)	Simulated Rate at Pump-1 (gpm)	Simulated Rate at Pump-2 (gpm)	Simulated Rate at Pump-1 (ft3/d)	Simulated Rate at Pump-2 (ft3/d)
1	8/13/09 0:00	8/13/09 0:01	5430.0	5432.0	5434.5	N/A	0	0	0	0
2	8/13/09 0:01	9/17/09 0:00	5430.0	5432.0	5434.5	N/A	175	0	33690	0
3	9/17/09 0:00	9/23/09 0:00	5430.0	5432.0	5434.5	N/A	120	160	23102	30802
4	9/23/09 0:00	11/4/09 0:00	5428.0	5432.0	5434.5	N/A	85	180	16364	34652
5	11/4/09 0:00	12/23/09 0:00	5424.0	5432.0	5434.5	N/A	65	185	12513	35615
6	12/23/09 0:00	1/1/10 0:00	5427.0	5427.0	5434.5	N/A	70	175	13476	33690
7	1/1/10 0:00	1/14/10 0:00	5427.0	5427.0	5434.5	N/A	80	185	15401	35615
8	1/14/10 0:00	1/20/10 0:00	5427.0	5427.0	5434.5	N/A	65	170	12513	32727
9	1/20/10 0:00	1/29/10 0:00	5427.0	5427.0	5434.5	N/A	65	140	12513	26952
10	1/29/10 0:00	2/1/10 0:00	5427.0	5427.0	5434.5	N/A	65	180	12513	34652
11	2/1/10 0:00	2/3/10 0:00	5427.0	5427.0	5434.5	N/A	30	140	5775	26952
12	2/3/10 0:00	2/14/10 0:00	5427.0	5427.0	5434.5	N/A	0	0	0	0
13	2/14/10 0:00	2/24/10 0:00	5425.3	5425.3	5434.5	N/A	0	0	0	0
14	2/24/10 0:00	3/12/10 0:00	5427.0	5427.0	5434.5	N/A	0	0	0	0
15	3/12/10 0:00	3/29/10 0:00	5427.0	5427.0	5434.0	5428.6	0	0	0	0
16	3/29/10 0:00	3/31/10 0:00	5427.0	5427.0	5434.0	5429.0	400	150	77005	28877
17	3/31/10 0:00	4/2/10 0:00	5427.0	5427.0	5434.0	5429.0	250	130	48128	25027
18	4/2/10 0:00	4/12/10 0:00	5427.0	5427.0	5433.75	5429.2	190	90	36578	17326
19	4/12/10 0:00	4/21/10 0:00	5427.0	5427.0	5433.75	5429.5	170	90	32727	17326
20	4/21/10 0:00	4/25/10 0:00	5427.0	5427.0	5433.75	5429.7	0	0	0	0

Table 8-2. Table of Parameter Zone Values in Calibrated Model

Parameter	Value	Location	Model Layer	Figure	Comments
K_h K_z	125 ft/day 1.25 ft/day	near MPTP site	layer 1	8-5	The calibrated base values for horizontal hydraulic conductivity of 125 ft/day in layer 1 and 120 ft/day in layer 3 are consistent with the representative value of 100 ft/day from previous aquifer tests.
K_h K_z	1 ft/day 0.01 ft/day	near MPTP site	layer 2	8-5	The calibration efforts determined that the simulation of drawdown (and steady-state water levels) is sensitive to the K_z of the aquitard. Increasing the value causes too little drawdown in layer 3.
K_h K_z	120 ft/day 1.20 ft/day	near MPTP site	layer 3	8-5	See layer 1 comments above.
K_h K_z	12 ft/day 12 ft/day	north and south of the MPTP site	layers 1, 2, & 3	8-5	Refer to section 8.3 of text.
K_h K_z	4.5 ft/day 4.5 ft/day	northernmost and southernmost areas of model	layers 1, 2, & 3	8-5	Refer to section 8.3 of text.
K_h K_z	150 ft/day 1.5 ft/day	area with WWTP structures	layers 1 & 3	8-6 and 8-8	
K_h K_z	10 ft/day 1 ft/day	area with WWTP structures	layer 2	8-7	Less resistance to vertical flow than provided by aquitard in adjacent areas (consistent with disturbances due to construction of these features).
K_h K_z	10 ft/day 0.1 ft/day	low K zone near remnant portion of Old Silver Bow Creek	layer 1	8-6	Added to improve the match of the aquifer response to the flooding of remnant portion of Old Silver Bow Creek.
K_h K_z	800 ft/day 8 ft/day	high K zone surrounding NCRT	layer 1	8-6	Without these zones of higher hydraulic conductivity, the model would simulate too steep of a hydraulic gradient towards the trench.
K_h K_z	500 ft/day 5 ft/day	high K zone surrounding NCRT	layer 3	8-8	
K_h K_z	200 ft/day 200 ft/day	NCRT & NHRT cells	layers 1, 2, & 3	8-6, 8-7, and 8-8	No vertical anisotropy so trenches impact both layer 3 and layer 1.
specific yield (S_y)	0.05	model extent	layer 1		Only applies if aquifer not fully saturated, which only occurs in layer 1.
specific storage (S_s)	0.0015	model extent	layers 2 & 3		The storage coefficients assigned provide a reasonable "curvature" match to the vast majority of observations.
net recharge	0	model extent	layer 1		Accounted for in the flow that enters the model domain from upgradient boundaries.

Table 8-3. Simulated Versus Observed Values and Calibration Statistics for Steady-State Calibration

Name	X	Y	Layer	Observed	Computed	Residual
AMC-23	1198901	651533	1	5438.94	5440.97	-2.03
AMC-24	1198982	650908	1	5440.64	5440.55	0.09
AMC-24B	1198990	650909	1	5440.70	5440.57	0.13
AMW-01	1201807	653284	1	5454.27	5452.79	1.48
AMW-01B	1201822	653300	1	5454.64	5452.87	1.77
AMW-01C	1201814	653292	1	5455.00	5452.82	2.18
AMW-02	1196998	651598	1	5438.35	5438.99	-0.64
AMW-11	1197600	650816	1	5439.14	5438.87	0.27
AMW-12	1200739	651119	1	5447.38	5445.68	1.70
AMW-13	1198110	650633	1	5440.38	5439.71	0.67
AMW-13B	1198100	650646	1	5439.74	5439.67	0.07
AW-02	1194057	650377	1	5430.70	5430.25	0.45
BMW-05A	1191758	651117	1	5427.47	5423.11	4.36
BMW-08A	1194702	652059	1	5434.66	5434.58	0.08
BMW-09A	1193535	651144	1	5427.37	5427.56	-0.19
BPS07-03A	1198229	651151	1	5437.14	5438.29	-1.15
BPS07-05A	1201801	649883	1	5449.93	5447.08	2.85
BPS07-05B	1201790	649884	1	5449.40	5447.07	2.33
BPS07-07	1197527	651173	1	5438.38	5437.97	0.41
BPS07-08A	1196284	651927	1	5436.66	5438.52	-1.86
BPS07-09A	1195666	651947	1	5435.72	5436.71	-0.99
BPS07-11A	1202376	652881	1	5455.98	5451.86	4.12
BPS07-11B	1202365	652882	1	5455.74	5451.86	3.88
BPS07-13A	1196255	651642	1	5436.32	5437.02	-0.70
BPS07-14A	1195643	651799	1	5437.98	5436.08	1.90
BPS07-15A	1195951	651689	1	5436.23	5436.86	-0.63
BPS07-16A	1200086	650001	1	5444.74	5444.36	0.38
BPS07-16B	1200086	650016	1	5444.85	5444.35	0.50
BPS07-17A	1190547	652093	1	5415.07	5414.27	0.80
BPS07-18A	1190443	652111	1	5414.14	5413.91	0.23
BPS07-21	1197902	651089	1	5438.48	5438.42	0.06
BPS07-22	1197908	651262	1	5437.13	5438.25	-1.12
BPS07-23	1197538	651324	1	5438.08	5438.15	-0.07
BT-98-02	1200255	650476	1	5445.26	5444.52	0.74
BT-98-02B	1200136	650481	1	5445.13	5444.23	0.90
FP98-1	1195210	651472	1	5433.31	5434.35	-1.04
FP98-2	1195030	651574	1	5433.83	5433.62	0.21
FP98-3	1195161	651121	1	5434.67	5434.52	0.15
FP98-4	1194512	651063	1	5431.86	5431.04	0.82
FP98-5	1194489	651312	1	5431.38	5431.06	0.32
FP98-6	1191607	651619	1	5421.09	5421.05	0.04
FP98-7	1191590	651417	1	5422.89	5421.61	1.28
FP98-9	1191122	651846	1	5417.66	5418.40	-0.74
GS-11	1200373	651610	1	5445.93	5444.78	1.15
GS-13A	1195558	651972	1	5435.43	5436.44	-1.01
GS-16	1194070	651697	1	5432.15	5431.05	1.10

Table 8-3. Simulated Versus Observed Values and Calibration Statistics for Steady-State Calibration

Name	X	Y	Layer	Observed	Computed	Residual
GS-19	1194387	651481	1	5431.91	5431.28	0.63
GS-20	1194568	652209	1	5440.19	5435.12	5.07
GS-22	1192840	650753	1	5427.28	5426.69	0.59
GS-25	1192704	651656	1	5422.67	5423.32	-0.65
GS-28	1198608	650317	1	5440.73	5440.89	-0.16
GS-29SR	1196900	651277	1	5438.03	5437.59	0.44
GS-30S	1200333	651778	1	5445.73	5444.78	0.95
GS-31S	1200397	651287	1	5445.81	5444.71	1.10
GS-32D	1200209	651937	1	5445.47	5445.05	0.42
GS-32S	1200205	651939	1	5444.68	5445.06	-0.38
GS-42D	1202217	653584	1	5456.34	5454.24	2.10
GS-42S	1202213	653593	1	5456.49	5454.27	2.22
GW-05	1193969	649752	1	5432.52	5433.86	-1.34
GW-08	1194261	649384	1	5434.64	5436.60	-1.96
GW-09	1193340	650271	1	5429.80	5429.24	0.56
GW-13	1194373	650811	3	5430.86	5429.95	0.91
GW-17	1194544	651006	1	5431.50	5431.29	0.21
GW-21	1194432	649818	1	5433.93	5435.20	-1.27
GW-22R-98	1194428	649359	1	5435.15	5437.23	-2.08
HCA-21	1193394	650971	1	5426.67	5426.73	-0.06
HCA-MG1	1194628	652215	1	5438.41	5435.52	2.89
INF-01	1194073	650682	1	5428.59	5428.36	0.23
INF-02	1194067	650683	1	5428.53	5428.30	0.23
INF-04	1193852	650774	1	5427.34	5426.91	0.43
INF-05	1193847	650774	1	5427.35	5426.89	0.46
INF-08	1193643	650828	1	5426.63	5426.37	0.26
INF-10	1194044	650233	1	5431.37	5431.33	0.04
INF-11	1194047	650236	1	5431.38	5431.32	0.06
INF-13	1194182	650035	1	5432.73	5433.16	-0.43
INF-14	1194185	650036	1	5432.72	5433.17	-0.45
INF-16	1194281	649842	1	5433.35	5434.53	-1.18
INF-17	1194284	649837	1	5433.40	5434.57	-1.17
M-01	1192744	651946	1	5423.45	5426.51	-3.06
MF-01	1196922	651209	1	5438.10	5437.72	0.38
MF-03	1198487	651631	1	5438.93	5441.37	-2.44
MF-05	1200866	653019	1	5452.69	5451.01	1.68
MF-07	1200840	652461	1	5449.31	5448.15	1.16
MF-08	1199559	651492	1	5441.70	5441.01	0.69
MF-09	1200555	651542	1	5446.40	5445.38	1.02
MF-10	1199602	651174	1	5442.64	5441.52	1.12
MF-11	1201144	651754	1	5450.57	5447.34	3.23
MP-04(MF-14)	1193447	650785	1	5426.71	5426.49	0.22
MSD-01A	1201704	652751	1	5453.12	5450.92	2.20
MSD-01B	1201714	652771	1	5453.47	5450.99	2.48
MSD-01C	1201712	652766	1	5453.02	5450.97	2.05
MSD-02A	1201168	652538	1	5449.58	5449.52	0.06

Table 8-3. Simulated Versus Observed Values and Calibration Statistics for Steady-State Calibration

Name	X	Y	Layer	Observed	Computed	Residual
MSD-02B	1201168	652542	1	5450.77	5449.54	1.23
MSD-03	1200703	651963	1	5448.50	5446.25	2.25
MSD-04	1201144	651764	1	5449.80	5447.35	2.45
MSD-05	1200321	651778	1	5446.41	5444.74	1.67
MSDCL-02A	1201551	652973	1	5448.37	5451.43	-3.06
MSDCL-03A	1201294	652756	1	5447.49	5450.44	-2.95
MSDCL-04A	1200955	652455	1	5445.80	5448.65	-2.85
MSDCL-05A	1200542	652095	1	5443.70	5445.95	-2.25
MSDCL-06A	1200170	651768	1	5441.34	5444.29	-2.95
MSDCL-07A	1199818	651490	1	5439.61	5440.02	-0.41
MSDCL-09A	1199234	651359	1	5437.29	5439.85	-2.56
MSDCL-10A	1198299	651192	1	5434.50	5438.30	-3.80
MSDSG-02	1198679	650307	1	5441.47	5441.04	0.43
MSDSG-03	1199309	649943	1	5441.01	5442.59	-1.58
MSDSG-04	1198374	649220	1	5442.67	5444.13	-1.46
MSDSG-05	1199016	650054	1	5439.93	5441.89	-1.96
MW-03	1194185	650886	1	5427.75	5428.40	-0.65
MW-09	1193617	650167	1	5430.72	5430.36	0.36
MW-14	1193917	649904	1	5432.47	5432.87	-0.40
MW2-CGSB3	1197966	652300	1	5441.43	5444.48	-3.05
MW-87-03	1193442	650908	1	5426.40	5426.46	-0.06
MW-A-01	1193403	650587	1	5428.51	5427.57	0.94
MW-A-04	1193658	650393	1	5429.56	5428.76	0.80
MW-A-95	1193767	650225	1	5430.67	5430.34	0.33
MW-A-96	1196200	649249	1	5441.24	5441.67	-0.43
MW-A-98	1193163	650810	1	5426.83	5426.88	-0.05
MW-A-99	1193505	650582	1	5428.34	5427.48	0.86
MW-B-01	1193500	650635	1	5427.87	5427.20	0.67
MW-B-04	1193850	650492	1	5428.89	5427.92	0.97
MW-B-95	1194063	650295	1	5431.14	5430.97	0.17
MW-B-96	1195272	649293	1	5438.04	5439.73	-1.69
MW-B-98	1194306	650867	1	5429.94	5429.21	0.73
MW-B-99	1193387	650678	1	5427.74	5427.12	0.62
MW-C-01	1193413	650713	1	5427.42	5426.92	0.50
MW-C-04	1193986	650273	1	5430.99	5430.76	0.23
MW-C-96	1195450	649579	1	5438.03	5439.19	-1.16
MW-D-01	1193380	650742	1	5427.25	5426.82	0.43
MW-D-95	1193769	650394	1	5429.69	5428.89	0.80
MW-D-96	1194517	649326	1	5435.47	5437.64	-2.17
MW-E-01	1193286	650819	1	5426.85	5426.68	0.17
MW-E-96	1194633	649843	1	5434.59	5435.83	-1.24
MW-F-01	1193399	650826	1	5426.50	5426.52	-0.02
MW-F-95	1194021	650444	1	5429.26	5429.30	-0.04
MW-G-01	1193540	650808	1	5426.47	5426.36	0.11
MW-H-01	1193376	650891	1	5426.50	5426.55	-0.05
MW-H-95	1193665	650571	1	5427.93	5426.77	1.16

Table 8-3. Simulated Versus Observed Values and Calibration Statistics for Steady-State Calibration

Name	X	Y	Layer	Observed	Computed	Residual
MW-I-01	1193598	650925	1	5426.59	5426.37	0.22
MW-I-96	1194211	650914	1	5428.10	5428.56	-0.46
MW-J-01	1193866	650946	1	5427.24	5426.97	0.27
MW-J-96	1193490	650710	1	5427.30	5426.84	0.46
MW-K-01	1194059	650956	1	5427.73	5427.93	-0.20
MW-L-01	1194181	650800	1	5428.81	5428.45	0.36
MW-M-01	1194261	650796	1	5429.84	5428.84	1.00
MW-N-01	1194173	650676	1	5429.66	5429.17	0.49
MW-O-01	1194174	650620	1	5429.84	5429.48	0.36
MW-P-01	1194254	650660	1	5430.31	5429.91	0.40
MW-Q-01	1194196	650467	1	5429.79	5430.58	-0.79
MW-R-01	1194247	650379	1	5431.47	5431.50	-0.03
MW-S-01	1194314	650243	1	5432.38	5432.65	-0.27
MW-T-01	1194369	650138	1	5432.79	5433.46	-0.67
MW-U-01	1194420	649627	1	5434.44	5436.01	-1.57
MW-V-01	1194123	649621	1	5433.67	5435.04	-1.37
MW-W-01	1193741	650004	1	5431.69	5431.71	-0.02
MW-X-01	1193977	650210	1	5431.25	5431.20	0.05
MW-Y-01	1193968	650205	1	5431.25	5431.20	0.05
N-A-06-1S	1193411	650817	1	5426.37	5426.49	-0.12
N-B-06-1S	1193405	650830	1	5426.37	5426.50	-0.13
N-C-06-1S	1193321	650883	1	5426.63	5426.63	0.00
NCTR-1-1S	1193533	650843	1	5426.26	5426.31	-0.05
NCTR-1-2S	1193533	650830	1	5426.29	5426.32	-0.03
NCTR-2-1S	1193614	650856	1	5426.29	5426.33	-0.04
NCTR-2-2S	1193615	650840	1	5426.35	5426.33	0.02
NCTR-3-1S	1193827	650877	1	5426.83	5426.74	0.09
NCTR-3-2S	1193827	650858	1	5426.91	5426.74	0.17
N-D-06-1S	1193520	650903	1	5426.32	5426.35	-0.03
N-E-06-1S	1193604	650909	1	5426.43	5426.35	0.08
N-F-06-1S	1193818	650930	1	5426.98	5426.75	0.23
NW-3	1190869	652413	1	5416.76	5417.49	-0.73
NW-4	1190918	652296	1	5416.34	5416.88	-0.54
PZ-N5-03	1193958	650589	1	5427.81	5427.42	0.39
PZ-N9-03	1194027	650522	1	5427.99	5428.17	-0.18
PZ-S1-01	1193796	650168	1	5431.49	5430.84	0.65
PZ-S1-02	1193916	650142	1	5431.50	5431.43	0.07
PZ-S1-03	1193926	649988	1	5431.51	5432.43	-0.92
PZ-S1-04	1193781	650107	1	5431.37	5431.20	0.17
PZ-S2-01	1194088	650232	1	5431.94	5431.55	0.39
PZ-S2-02	1193968	650133	1	5431.95	5431.69	0.26
PZ-S2-03	1194125	650071	1	5431.95	5432.72	-0.77
PZ-S3-01	1194171	650265	1	5432.29	5431.77	0.52
PZ-S3-02	1194166	650136	1	5432.35	5432.53	-0.18
PZ-S3-04	1194219	650248	1	5431.91	5432.13	-0.22
PZ-S3-05	1194166	650267	1	5431.64	5431.73	-0.09

Table 8-3. Simulated Versus Observed Values and Calibration Statistics for Steady-State Calibration

Name	X	Y	Layer	Observed	Computed	Residual
PZ-S4-01	1193998	650014	1	5432.99	5432.54	0.45
PZ-S4-02	1194148	649964	1	5432.93	5433.41	-0.48
PZ-S5-01	1194238	650024	1	5433.03	5433.46	-0.43
PZ-S5-02	1194194	649928	1	5432.90	5433.77	-0.87
PZ-S6-01	1194284	650028	1	5433.45	5433.64	-0.19
PZ-S6-02	1194279	649940	1	5431.34	5434.05	-2.71
PZ-S6-03	1194394	649860	1	5433.39	5434.87	-1.48
PZ-S7-01	1194070	649827	1	5433.51	5433.83	-0.32
PZ-S8-01	1194393	649819	1	5433.83	5435.06	-1.23
GS-18	1193551	651008	2	5426.60	5426.79	-0.19
GW-14R-98	1193182	651011	2	5426.34	5426.80	-0.46
MW-S1	1193309	650645	2	5427.88	5427.29	0.59
N-A-06-1I	1193409	650817	2	5426.33	5426.47	-0.14
N-B-06-1I	1193403	650830	2	5426.42	5426.48	-0.06
N-C-06-1I	1193319	650882	2	5426.63	5426.63	0.00
NCTR-1-1I	1193531	650843	2	5426.57	5426.29	0.28
NCTR-1-2I	1193532	650830	2	5426.30	5426.29	0.01
NCTR-2-1I	1193612	650856	2	5426.24	5426.30	-0.06
NCTR-2-2I	1193613	650840	2	5426.35	5426.30	0.05
NCTR-3-1I	1193825	650877	2	5426.89	5426.70	0.19
NCTR-3-2I	1193823	650858	2	5426.92	5426.69	0.23
N-D-06-1I	1193517	650903	2	5426.38	5426.38	0.00
N-E-06-1I	1193602	650909	2	5426.34	5426.39	-0.05
N-F-06-1I	1193816	650930	2	5426.99	5426.78	0.21
BMW-01A	1192703	650960	3	5426.82	5426.51	0.31
BMW-03A	1190741	651982	3	5414.96	5417.73	-2.77
BMW-09B	1193537	651137	3	5426.76	5427.29	-0.53
GS-08	1200372	651619	3	5446.17	5445.86	0.31
GS-09	1200379	651614	3	5446.49	5445.87	0.62
GS-12	1194639	651901	3	5433.28	5433.98	-0.70
GS-13B	1195540	651976	3	5435.36	5437.19	-1.83
GS-17DR	1194113	651315	3	5429.71	5429.75	-0.04
GS-23	1191651	651199	3	5423.82	5422.84	0.98
GS-25C	1192721	651648	3	5423.78	5426.48	-2.70
GS-26	1190765	652248	3	5415.80	5417.98	-2.18
GS-30D	1200332	651783	3	5445.45	5446.13	-0.68
GS-31D	1200401	651284	3	5445.77	5445.44	0.33
GS-34S	1193373	651340	3	5426.45	5427.71	-1.26
GW-06R	1192710	651248	3	5424.64	5426.26	-1.62
GW-10	1194360	650241	3	5432.44	5432.37	0.07
GW-12	1193254	650726	3	5427.07	5427.00	0.07
INF-03	1194062	650683	3	5428.50	5428.05	0.45
INF-06	1193842	650774	3	5427.31	5426.79	0.52
INF-07	1193650	650829	3	5426.36	5426.30	0.06
INF-12	1194050	650239	3	5431.34	5430.73	0.61
INF-15	1194189	650036	3	5432.77	5432.58	0.19

Table 8-3. Simulated Versus Observed Values and Calibration Statistics for Steady-State Calibration

Name	X	Y	Layer	Observed	Computed	Residual
INF-18	1194287	649833	3	5433.51	5433.99	-0.48
MW-01	1193383	650806	3	5426.69	5426.54	0.15
MW-CT-01	1193295	650620	3	5428.01	5427.34	0.67
MW-CT-02	1193291	650616	3	5428.03	5427.35	0.68
MW-K-96	1193258	650890	3	5426.72	5426.70	0.02
MW-L-96	1193750	650930	3	5425.88	5426.65	-0.77
MW-M-96	1193980	650949	3	5427.59	5427.43	0.16
N-A-06-1D	1193407	650817	3	5426.47	5426.46	0.01
N-B-06-1D	1193401	650830	3	5426.51	5426.48	0.03
N-C-06-1D	1193316	650882	3	5426.68	5426.64	0.04
NCRT-1-1D	1193529	650843	3	5426.29	5426.27	0.02
NCRT-PZ-01	1194188	650900	3	5427.41	5428.26	-0.85
NCRT-PZ-02	1193923	650876	3	5427.31	5426.99	0.32
NCRT-PZ-03	1193724	650856	3	5426.55	5426.39	0.16
NCRT-PZ-04	1193434	650828	3	5426.28	5426.36	-0.08
NCTR-1-2D	1193529	650830	3	5426.26	5426.25	0.01
NCTR-2-1D	1193610	650856	3	5426.31	5426.29	0.02
NCTR-2-2D	1193611	650839	3	5426.29	5426.26	0.03
NCTR-3-1D	1193823	650876	3	5426.89	5426.68	0.21
NCTR-3-2D	1193821	650858	3	5426.83	5426.64	0.19
N-D-06-1D	1193514	650903	3	5426.40	5426.40	0.00
N-E-06-1D	1193600	650908	3	5426.43	5426.41	0.02
NE-2	1192166	652290	3	5421.37	5425.25	-3.88
N-F-06-1D	1193814	650931	3	5426.99	5426.80	0.19
NHRT-PZ-04	1193528	650582	3	5427.86	5427.22	0.64
S-2	1192058	651028	3	5425.29	5424.51	0.78
S-5	1191248	651409	3	5424.12	5420.90	3.22

Residual Mean	0.03
Abs. Res. Mean	0.84
Min. Residual	-3.88
Max. Residual	5.07
Number of Targets	257.00
Range in Target Values	42.35
Abs. Res. Mean / Range	1.99%
Sum of Squares	414
Root Mean Square (RMS)	1.27
RMS / Range	3.00%