Table 4.1 Water Well Inventory

Well Name	Use	Construction	Lift Method	Depth Feet From Surface	Water Level Feet BLG*	Aquifer
J. Jacob 1 (1)	D	PVC	S	80	53.87***	Goliad
J. Jacob 2 (2)	A	PVC	S	----	-----	Goliad
M. Rutherford 1(3)	D	PVC	S	100	----	Goliad
M. Rutherford 2 (4)	D	PVC	S	120	----	Goliad
J. Bluntzer 1(5)	D	PVC	S	----	----	Goliad
M. Wesselman 1(6)	D	PVC	S	----	----	Goliad
M. Walker 1 (8)	D	-----	S	----	----	Goliad
C. Duderstaedt 1 (9)	D	PVC	S	----	49.93***	Goliad
C. Duderstaedt 2 (10)	A	----	S	----	----	Goliad
E. Hausman 1 (11)	D	PVC	S	225	----	Goliad
E. Hausman 2 (12)	D	----	S	----	----	Goliad
D. Cheek 1 (13)	D/A	----	S	----	----	Goliad
D. Cheek 2 ((14)	D/A	----	S	----	----	Goliad
O. Bluntzer 1 (15)	D	----	S	128	80***	Goliad
G. Halepeska 1 (18)	D/A	----	S	----	----	Goliad
G. Halepeska 2 (19)	A	PVC	S	----	----	Goliad
T. Anklam 1 (20)	D/A	----	S	300	86.6**	Goliad
T. Long 1 (21)	D	----	S	80	----	Goliad
A. Bade 1 (22)	D	Steel	S	86	31**	Goliad
A. Bade 2 (23)	D	----	S	----	49.05	Goliad
M. Braquet 1 (24)	D	PVC	S	----	67.74**	Goliad
M. Braquet 2 (25)	D	PVC	S	----	----	Goliad
Church 1 (26)	D	PVC	S	----	----	Goliad
Church 2 (27)	D	PVC	S	----	----	Goliad
C. Tolbert 1 (28)	D	PVC	S	----	58.31**	Goliad
R.Tolbert 2 (29)	D	Steel	S	----	----	Goliad
H. Martin (30)	A	PVC	S	----	----	Goliad
O. Bluntzer 2 (16)	A	----	S	----	----	Goliad
R. Stanford 1 (31)	D	----	S	----	----	Goliad
A. Jolly1 (32)	D	----	--	160	----	Goliad
C. Edwards 1 (33)	D	PVC	S	----	----	Goliad
S. Schrade 1 (35)	A	Steel	----	----	----	Goliad
P. Breeden 1 (36)	D	PVC	S	----	----	Goliad
P. Breeden 2 (37)	A	Steel	S	----	----	Goliad
P. Breeden 3 (38)	A	PVC	S	460	43.32**	Goliad
B. Schley 1 (39)	D	----	S	----	----	Goliad
L. Schrade 1 (40)	D/A?	----	S	----	68.57**	Goliad

Revised: 1-21-08

Table 4.1 Water Well Inventory (Continued)

Well Name	Use	Construction	Lift Method	Depth Feet From Surface	Water Level Feet BGL*	Aquifer
R. Tolbert 3 (34)	A	PVC	S	----	----	Goliad
E. Abrameit 1 (43)	A	PVC	S	----	----	Goliad
Abrameit Windmill (44)		PV C	T	342	----	Goliad
K. Liesman 1 (45)	A	----	S	----	----	Goliad
R. Brown 1 (46)	D	PVC	S	----	----	Goliad
H. Becker 1 (47)	D/A	PVC	S	----	21.18**	Goliad
W. Wimberly 1 (48)	D/A	----	S	----	----	Goliad
L. Bitterly 1 (41)	D/A	----	----	----	----	Goliad
D. Wacker 1 (42)	D/A	----	----	----	----	Goliad
Dornberg 1(49)	D	----	S	----	----	Goliad
K. Gray 1 (17)	----	----	No Pump	----	36.04**	Goliad
J. Jacob(7) Old Rig Well	A/I	PVC	S	----	220	Goliad
J. Jacob(****) (New Rig Well)	I	PVC	S	440	-----	Goliad

Notes: *BGL = Below ground level.
**Water level measured from below the top of casing (BTOC).
***Water level estimated by owner.
**** See label on map.
A = Agricultural use. D = Domestic use. I = Industrial Use. S = Submersible Pump.
T= Turbine.
See Figure 4.1 for well locations. The second number following each name gives the location of the well on Figure 4.1, except for the J. Jacob New Rig Well. It is labeled on the map.

Goliad: Although the depth of many of the wells listed could not be verified by the owner or through TDWR well records, the wells are assumed to be completed in the Goliad Aquifer.

Revised: 1-21-08

Table 5.1 Water Quality in Area Wells

	Jacob 1	Jacob 2	J. Bluntzer 1	Rutherford 1	Rutherford 2	Wesselman 1	Cheek 1	Cheek 2
Ca	145	125	80	123	103	100	108	108
Mg	16.0	13.0	17.0	13.0	15.0	9.3	18.0	18.0
Na	195	183	79	83	69	38	96	95
K	3.2	2.7	3.1	1.8	2.2	2.2	3.1	3.0
CO3	0	0	0	0	0	0	0	0
HCO3	411	447	334	458	388	331	305	306
SO4	118	78	21	26	8	18	41	43
Cl	258	193	99	101	106	59	183	179
NO3-N	7.40	11.00	0.54	0.39	0.06	0.70	1.70	1.60
F	0.62	0.97	0.62	0.43	0.42	0.23	0.65	0.65
SIO2	58	72	28	58	45	39	42	41
TDS	1020	910	485	620	538	397	648	653
EC µmhos	1680	1420	855	1020	910	711	1130	1120
ALK	337	366	274	375	318	271	250	251
pH	7.19	7.52	7.35	7.03	7.23	7.20	7.15	7.18
As	0.016	0.016	0.001	0.005	0.003	0.001	0.002	0.003
Cd	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	0.0001
Fe	0.01	0.02	<0.01	0.01	<0.01	0.02	<0.01	<0.01
Pb	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mn	<0.01	0.01	<0.01	<0.01	0.24	0.01	<0.01	<0.01
Hg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mo	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Se	0.004	0.003	0.001	<0.001	<0.002	<0.001	0.002	0.002
U	0.002	0.002	0.009	<0.001	<0.001	<0.001	0.001	0.001
Ammonia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ra-226 pCi/l	0.6+/-0.1	0.2+/-0.1	0.6+/-0.1	0.2+/-0.1	0.3+/-0.1	0.3+/-0.1	0.4+/-0.1	2.0+/-0.1
Alpha pCi/l	15.0+/-6.0	27.0+/-7.0	15.0+/-4.0	11.0+/-4.0	11.0+/-4.0	6.8+/-2.7	14.0+/-5.0	8.8+/-4.1
Beta pCi/l	15.0+/-3.0	8.7+/-2.7	12.0+/-2.0	9.0+/-2.2	9.4+/-2.2	7.1+/-1.6	12.0+/-3.0	7.3+/-2.7

Note: Units are in mg/l unless otherwise noted.

Table 5.1 Water Quality in Area Wells (Continued)

	9 Duderstaedt 1	10 Duderstaedt 2	11 Hausman 1	12 Hausman 2	8 Walker 1	20 Anklam 1	15 O.Bluntzer 1	18 Halepeska 1
Ca	195	135	100	125	250	88	103	125
Mg	12.0	8.3	15.0	5.9	35.0	16.0	11.0	14.0
Na	104	68	95	21	130	99	48	219
K	3.9	2.1	3.9	1.9	35.0	3.5	2.1	2.5
CO3	0	0	0	0	0	0	0	0
HCO3	433	429	316	340	271	328	389	432
SO4	72	27	35	14	535	38	19	99
Cl	206	95	146	44	226	131	40	254
NO3-N	21.00	11.00	2.10	5.40	<0.01	2.00	2.70	10.00
F	0.27	0.26	0.47	0.18	0.49	0.51	0.38	0.60
SIO2	37	37	36	31	40	31	64	57
TDS	857	630	600	440	1420	600	455	1030
EC µmhos	1560	1040	1030	647	1980	995	647	1680
ALK	355	352	259	279	222	269	319	354
pH	6.99	7.02	7.27	7.18	7.13	7.23	7.29	7.14
As	0.002	0.003	<0.001	0.003	0.001	0.001	0.007	0.035
Cd	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fe	<0.01	<0.01	<0.01	0.01	0.02	<0.01	0.01	<0.01
Pb	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mn	<0.01	<0.01	<0.01	<0.01	0.10	<0.01	<0.01	<0.01
Hg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mo	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Se	0.004	0.002	0.002	0.002	<0.001	0.002	0.001	<0.001
U	0.002	0.005	0.002	0.001	0.003	0.003	0.002	0.004
Ammonia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ra-226 pCi/l	0.3+/-0.1	0.3+/-0.1	0.3+/-0.1	1.1+/-0.1	1.1+/-0.1	0.7+/-0.1	0.3+/-0.1	0.3+/-0.1
Alpha pCi/l	3.3+/-4.1	6.3+/-3.3	5.4+/-3.3	2.1+/-2.1	10.0+/-6	13.0+/-4.0	4.9+/-2.4	11.0+/-6
Beta pCi/l	6.7+/-2.4	7.3+/-1.8	7.5+/-1.9	5.2+/-1.4	21.0+/-5.0	9.6+/-2.0	4.6+/-1.3	6.1+/-3.4

Note: Units are in mg/l unless otherwise noted.

Table 5.1 Water Quality in Area Wells (Continued)

	43 Abrameit 1	41 Bitterly 1	45 Liesman 1	35 Shrade 1	42 Wacker 1	31 Stanford 1	21 Long 1	33 Edwards 1
Ca	113	127	140	78	115	100	105	100
Mg	20.0	20.0	11.0	17.0	21.0	18.0	19.0	20.0
Na	95	87	72	135	86	87	96	92
K	3.7	2.4	2.3	3.7	4.2	3.0	3.0	3.6
CO3	0	0	0	0	0	0	0	0
HCO3	314	326	443	333	320	309	318	322
SO4	45	42	38	40	37	43	55	43
Cl	178	182	84	162	175	162	173	166
NO3-N	1.40	2.10	5.40	1.40	3.10	2.70	0.60	1.50
F	0.65	0.62	0.30	0.65	0.70	0.60	0.62	0.65
SIO2	33	29	36	31	31	37	42	35
TDS	668	665	621	618	645	670	646	675
EC µmhos	1120	1150	1020	1100	1100	1020	1140	1050
ALK	257	267	363	273	262	253	261	264
pH	7.37	7.26	7.18	7.53	7.38	7.64	7.28	7.48
As	0.005	0.002	0.004	<0.001	0.001	0.003	0.002	0.003
Cd	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fe	0.01	0.02	0.01	0.02	0.01	0.02	<0.01	0.01
Pb	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mn	0.03	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Hg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mo	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Se	0.003	0.006	0.003	0.002	0.004	0.002	0.001	0.002
U	0.003	0.002	0.004	0.004	0.002	0.002	0.003	0.003
Ammonia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ra-226 pCi/l	1.0+/-0.1	0.5 +/-0.1	0.6 +/- 0.1	0.4 +/- 0.1	0.4 +/- 0.1	0.2+/-0.1	1.1+/-0.1	0.3+/-0.1
Alpha pCi/l	8.7+/-3.6	9.7+/-3.7	4.9+/-3.2	5.5+/-3.5	6.4+/-3.4	8.1+/-3.6	8.5+/-3.7	6.7+/-3.5
Beta pCi/l	5.8+/-2.5	4.8+/-2.1	5.2+/-2.1	6.6+/-1.9	6.6+/-1.9	7.4+/-2.0	29.0+/-3	5.4+/-2.1

Note: Units are in mg/l unless otherwise noted.

Table 5.1 Water Quality in Area Wells (Continued)

	24 Braquet 1	25 Braquet 2	32 Jolly 1	30 Martin 1	16 Bluntzer 2	26 Church 1	27 Church 2	47 Becker 1
Ca	290	102	105	95	113	125	340	81
Mg	36.0	21.0	20.0	7.6	12.0	16	27	19
Na	133	115	96	20	44	124	120	120
K	2.4	3.1	4.3	1.6	2.6	1.6	3.6	2.5
CO3	0	0	0	0	0	0	0	0
HCO3	336	337	328	344	375	504	359	362
SO4	21	58	43	8	15	27	184	46
Cl	583	164	160	19	56	124	474	126
NO3-N	14.0	<0.01	1.80	2.90	4.90	3.00	10.00	0.13
F	0.34	0.60	0.62	0.40	0.65	0.55	0.21	0.79
SIO2	54	40	35	36	59	63	37	39
TDS	1370	685	663	390	520	751	1510	638
EC µmhos	2460	1140	1090	532	778	1170	2360	1020
ALK	275	276	269	282	307	413	294	297
pH	7.27	7.38	7.42	7.44	7.37	7.27	7.12	7.43
As	0.007	<0.001	0.004	0.005	0.008	0.008	0.002	<0.001
Cd	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fe	0.01	0.04	0.03	0.01	0.06	0.03	<0.01	0.03
Pb	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mn	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mo	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Se	0.003	<0.001	0.001	0.001	0.002	0.004	0.005	0.001
U	0.003	0.002	0.003	0.003	0.001	0.003	0.003	0.004
Ammonia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ra-226 pCi/l	0.6+/-0.1	29.0+/-1.0	0.8+/-0.1	0.8+/-0.1	0.7+/-0.1	0.2+/-0.1	0.2+/-0.1	0.2+/-0.1
Alpha pCi/l	4.9+/-6.3	35.0+/-7	4.4+/-2.8	3.5+/-2.0	2.5+/-2.2	7.3+/-4.0	8.9+/-6.7	7.5+/-3.6
Beta pCi/l	7.9+/-3.7	9.3+/-2.5	8.4+/-2.4	5.7+/-1.3	5.8+/-1.6	4.5+/-2.4	6.7+/-3.5	5.6+/-1.8

Note: Units are in mg/l unless otherwise noted.

Table 5.1 Water Quality in Area Wells (Continued)

	48 Wimberly 1	22 Bade 1	23 Bade 2	34 Breeden 1	37 Breeden 2	38 Breeden 3	39 Schley 1	40 Tolbert 3
Ca	83	110	110	123	195	33	115	215
Mg	16	19	18	12	31	14	20	37
Na	113	105	110	49	198	185	101	210
K	3.7	3.6	3.6	2.0	4.4	4.2	3.9	4.9
CO3	0	0	0	0	0	0	0	0
HCO3	325	312	310	293	320	361	310	317
SO4	2	60	60	35	84	26	82	119
Cl	165	178	178	124	468	176	166	533
NO3-N	<0.01	1.30	1.50	1.20	<0.01	<0.01	1.40	<0.01
F	0.43	0.51	0.57	0.43	0.47	0.60	0.62	0.45
SIO2	32	40	42	42	38	26	41	37
TDS	600	685	665	543	1280	643	693	1440
EC µmhos	1010	1160	1150	892	2100	1140	1140	2310
ALK	266	256	254	240	262	296	254	260
pH	7.50	7.39	7.33	7.38	7.26	7.57	7.42	7.22
As	0.001	0.002	0.003	0.009	<0.001	<0.001	0.002	<0.001
Cd	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fe	0.05	<0.01	<0.01	0.02	1.1	0.08	0.04	0.06
Pb	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mn	0.03	<0.01	<0.01	0.01	0.03	<0.01	<0.01	0.03
Hg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mo	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Se	<0.001	0.001	0.002	0.012	<0.001	<0.001	0.002	<0.001
U	<0.001	0.002	0.002	0.004	<0.001	<0.001	0.003	<0.001
Ammonia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ra-226 pCi/l	0.5+/-0.1	0.6+/-0.1	1.0+/-0.1	12.0+/-1.0	15.0+/-1.0	1.1+/-0.1	1.1+/-0.1	16.0+/-1.0
Alpha pCi/l	1.7+/-2.3	6.6+/-3.7	11.0+/-4.0	15.0+/-4.0	18.0+/-7.0	2.8+/-3.2	4.4+/-3.6	30+/-9
Beta pCi/l	5.2+/-2.2	6.3+/-2.0	7.2+/-2.0	6.6+/-1.6	6.7+/-2.1	6.7+/-2.1	5.3+/-2.3	8.8+/-4.6

29 Tolbert 2 No sample

Note: Units are in mg/l unless otherwise noted.

35 Dedwat windmill

17 Gray No pump