Special Study 102
Plate 1
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Nitrate Concentration Map for the Principal Valley-Fill Aquifer, Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler

EXPLANATION

Well

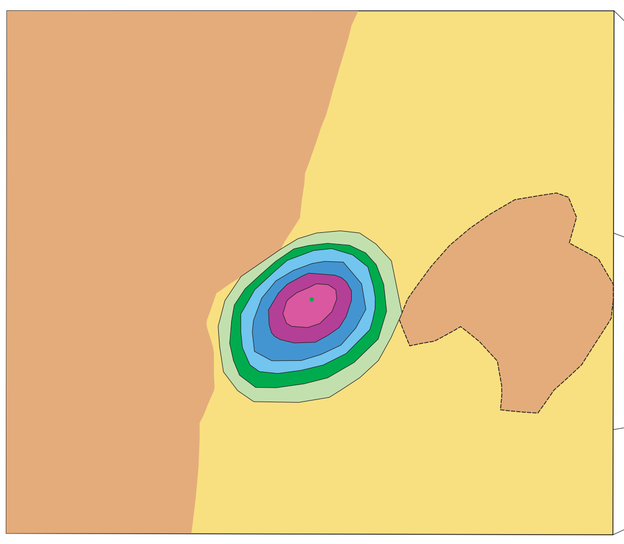
- Shallow well (less than 100 feet deep)
- Medium-depth well (100 to less than 200 feet deep)
- Deep well (200 feet deep and greater)
- Unknown depth

- Water courses
- Study-area boundary
- Valley-fill boundary
- Water bodies
- Bedrock, not analyzed

Nitrate Concentration

- 0-3.0 mg/L
- 3.01-10.0 mg/L
- 10.01-15.0 mg/L
- 15.01-20.0 mg/L
- 20.01-25.0 mg/L
- 25.01-30.0 mg/L
- 30.01 + mg/L

INSET MAP



1 : 7,000
1 0 1 2 Miles
1 0 1 2 Kilometers

111° 22'
111° 30' 00"
111° 45' 00"
39° 45' 00"
39° 30' 00"
39° 15' 00"

R. 4 E. | R. 5 E.
R. 3 E. | R. 4 E.
R. 2 E. | R. 3 E.
R. 1 E. | R. 2 E.

T. 12 S. / T. 13 S.
T. 13 S. / T. 14 S.
T. 14 S. / T. 15 S.
T. 15 S. / T. 16 S.
T. 16 S. / T. 17 S.
T. 17 S. / T. 18 S.
T. 18 S. / T. 19 S.
T. 19 S. / T. 20 S.

Fountain Green
Fairview
Moroni
Mount Pleasant
Wales
Chester
Spring City
Ephraim
Manti
Sterling
Mayfield

CEDAR HILLS
SAN PITCH MOUNTAINS
WASATCH PLATEAU

Wales Reservoir
Palisade Lake
Ninemile Reservoir
Gunnison Reservoir

South San Pitch River Canyon
Fairview Tunnel
Oak Creek
Cottonwood Creek
Birch Creek
Maple Canyon Creek
Silver Creek
Pleasant Creek
Twin Creek
Cedar Creek
Big Hollow Creek
Log Hollow Creek
Wales Canyon Creek
Canal Canyon Creek
Spring Tunnel
Ephraim Canyon Creek
Ephraim Tunnel
Manti Canyon Creek
Sixmile Creek
Twelvemile Creek
Pitch
San Pitch River
Willow Creek

N

UTAH

1 : 100,000
2 0 2 4 Miles
2 0 2 4 Kilometers

Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 2
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Potential Contaminant Source Map for the Principal Valley-Fill Aquifer, Sanpete Valley, Sanpete County, Utah

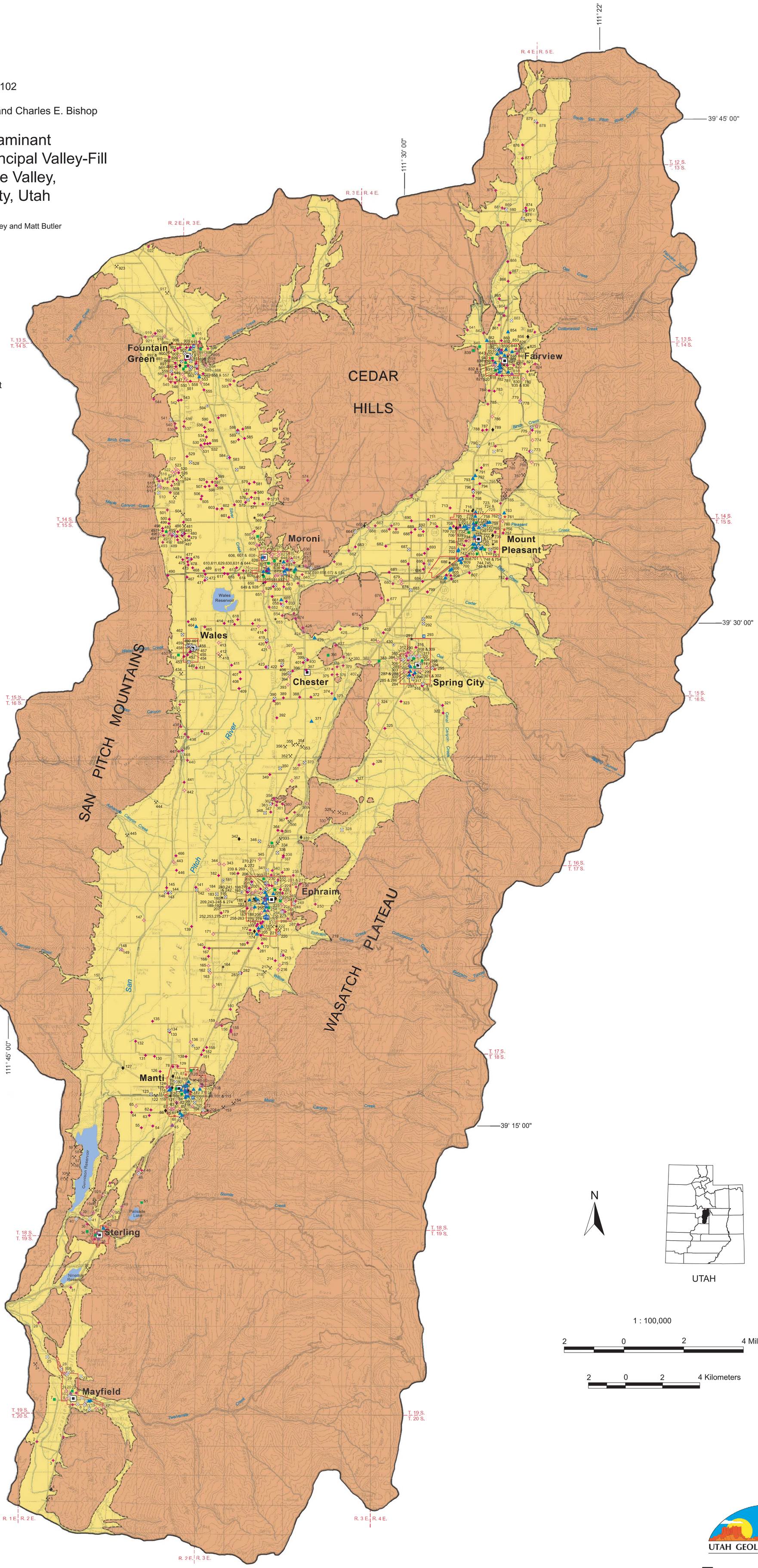
Digital compilation by Alison Corey and Matt Butler

EXPLANATION

Potential Contaminants*

- Business
- Concentration of animals and/or feed lot
- Former concentration of animals and/or feed lot
- Government
- Industry
- Junk yard/salvage
- Large lawn
- Medical
- Mining
- Service station
- Storage tank
- Waste disposal
- 431 See apendix A for description of numbered contaminant
- Town symbol
- Water courses
- Study-area boundary
- Valley-fill boundary
- Water bodies
- Municipal boundary
- Valley fill
- Bedrock

*Janae Wallace conducted a field inventory survey of the mapped potential contaminants during summer 1999.



Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 3A
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Compiled Geologic Map of Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler

EXPLANATION

Contact

Fault Contact

- Bar and ball on downthrown side
- Concealed (approximately located)
- Inferred

Units

Quaternary Deposits

- Qal — Alluvium
- Qcl — Colluvium
- Qf — Alluvial-fan deposits
- Qcf — Coalesced alluvial-fan deposits
- Qvf — Valley-fill deposits
- Qsw — Slope-wash deposits
- Qtu — Tufa deposits
- Qe — Earthflow deposits
- Ql(Tg) — Landslide block of Green River Formation
- Ql — Landslide deposits
- Qrs — Rockslide deposits
- Qof — Older alluvial-fan deposits
- Qmw — Mass-wasting deposits
- Qt — Glacial till
- Qao — Older alluvium

Quaternary-Tertiary Deposits

- QTcf — Coalesced alluvial-fan deposits
- QTpm — Pediment mantle

Tertiary Detachment Blocks

- T(Tch) — Displaced Block of the Oligocene Crazy Hollow Formation
- T(Tg) — Displaced Block of the Eocene Green River Formation

Tertiary Sedimentary Rocks

- Tch — Crazy Hollow Formation
- Tg — Green River Formation
- Tc — Colton Formation
- Tf — Flagstaff Limestone

Tertiary Extrusive Igneous Rocks

- Tm — Moroni Formation

Tertiary and Mesozoic Sedimentary Rocks

- TKn — North Horn Formation

Mesozoic Sedimentary Rocks
Cretaceous

- Kpr — Price River Formation
- Kc — Castlegate Sandstone
- Ki — Indianola Group
- Kbh — Black Hawk Formation

Cretaceous and Jurassic

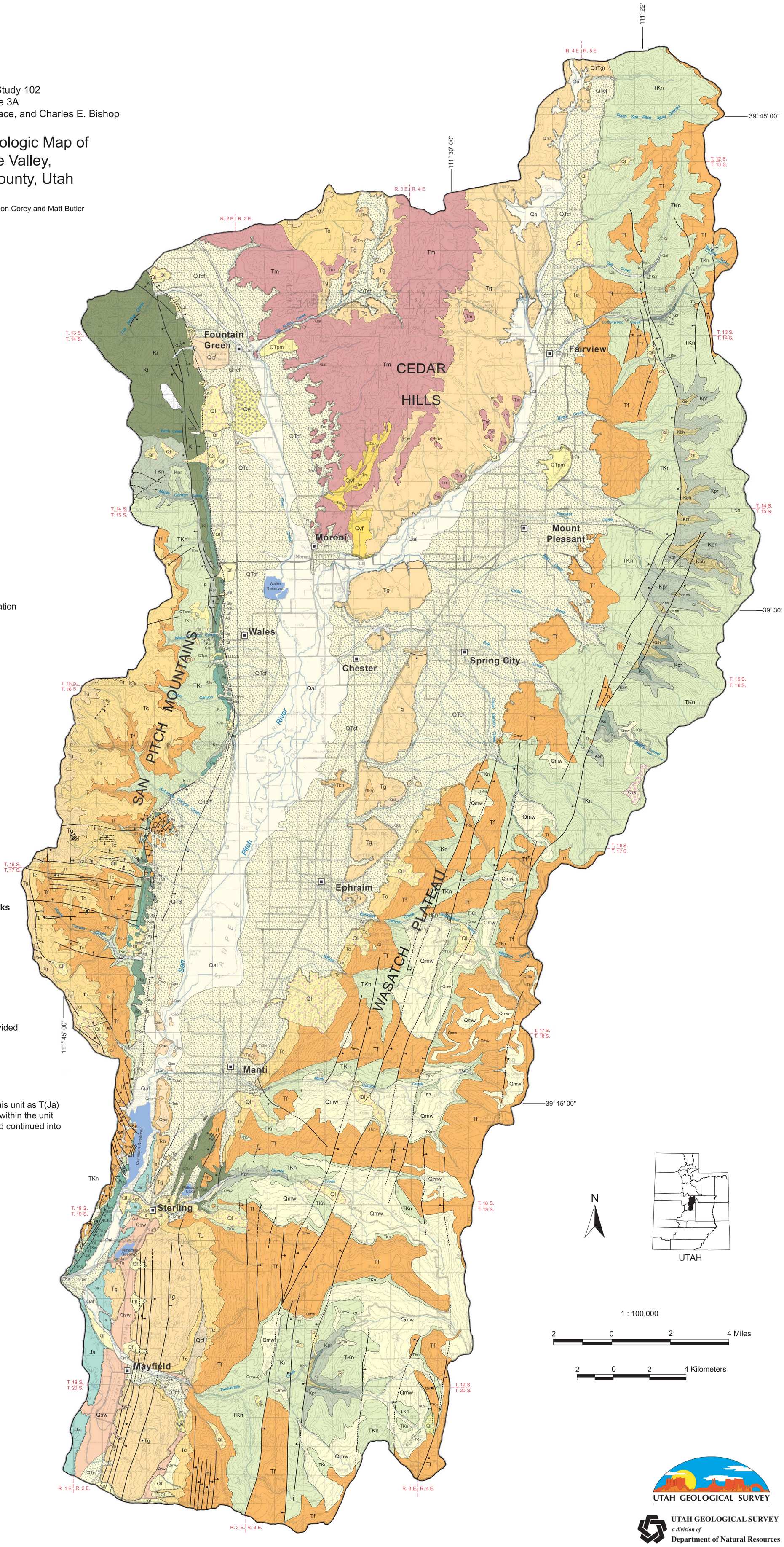
- KJu — Cretaceous and Jurassic strata, undivided

Jurassic

- Jtg — Twist Gulch Formation
- Ja — Arapien Shale*

*Witkind and Weiss (1987) mapped this unit as T(Ja) based on their interpretation that salt within the unit has been moving since deposition and continued into the Tertiary

Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter countour interval



UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 3B
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Description of Geologic Map Units
Sanpete Valley, Sanpete County, Utah

Qal — Alluvium (Holocene) - *Dark-brown to gray, thin- to thick-bedded, locally massive, cross-bedded unconsolidated sediments. Consists of clay, silt, sand, and gravel of fluvial orgin. Deposits form narrow to broad, even surfaces of low relief. Thickness varies; generally less than 50 feet (15 m) thick.*

Qcl — Colluvium (Holocene) - *Brown to dark-brown, heterogeneous, unsorted mixture of fragments that locally mantles lower valley walls and accumulates at the base of some steep cliffs. Unconsolidated to semi-consolidated. Thickness varies, and is up to 50 feet (15 m).*

Qf — Alluvial-fan deposits (Holocene) - *Light-brown to brown, locally gray, unconsolidated to semi-consolidated, moderately well-sorted silt, sand, and gravel at stream-canyon mouths. Deposits commonly lobate. Thickness uncertain, probably as much as 50 feet (15 m) locally.*

Qcf — Coalesced alluvial-fan deposits (Holocene) - *Brown to dark-brown or gray, thin- to thick-bedded, commonly cross-bedded, unconsolidated to semi-consolidated sediments of fluvial origin. Consists of silt, sand, granules, pebbles, cobbles, and sparse boulders. Formed as a result of the overlapping and interfingering of adjacent alluvial fans; forms broad, low, sloping aprons at the feet of adjacent highlands. Thickness uncertain.*

Qvf — Valley-fill deposits (Holocene) - *Light-brown to brown, unconsolidated, interbedded clay, silt, sand, and gravel. Lithologies reflect rocks exposed on adjacent hills. Thickness ranges from 0 to as much as 25 feet (0-8 m) near basin center.*

Qsw — Slope-wash deposits (Holocene) - *Light- to dark-gray, unconsolidated to weakly cemented, thin- to thick-bedded, faintly cross-bedded detritus of fluvial origin. Consists of clay, silt, sand, and some gravel. Forms broad, gently sloping sheets. Thickness up to 25 feet (8 m).*

Qtu — Tufa deposits (Quaternary) - *Light-gray to light-tan, low, rounded mounds of calcium carbonate. Consists of thin, soft, cellular, porous layers. Deposit encircles spring that formed along a major high-angle normal fault that extends along the east from of the San Pitch Mountains.*

Qe — Earthflow deposits (Quaternary) - *Brown to dark-brown, unconsolidated to semi-consolidated sand and gravel in an unsorted matrix of clay and silt. Consists of masses of debris that flowed downslope to form elongate, hummocky, lobate landforms. Thickness varied widely; probably as much as 150 feet (45 m) thick locally.*

Ql(Tg) — Landslide blocks of Green River Formation (Quaternary) - *Coherent blocks and detritus of the Green River Formation (Tg) that have slid into their present position along a westward-sloping glide plane.*

Ql — Landslide deposits (Quaternary) - *Brown to dark-brown and gray, heterogeneous mixture of rocks and sediments. Forms irregular to lobate masses of bedrock that have slid downslope to form chaotic, hummocky accumulations of rubble. Some deposits form concentric ridges. Thickness varies widely; may be as much as 150 feet (45 m) thick locally.*

Qrs — Rockslide deposits (Quaternary) - *Light-gray to brown unconsolidated and unsorted accumulation of angular boulders on steep slopes. Hummocky, locally lobate. Ranges in thickness from about 10 feet to as much as 150 feet (3-45 m) thick locally.*

Qof — Older alluvial-fan deposits (Quaternary) - *Gray to dark-gray, thin- to thick-bedded, prominently cross-bedded, unconsolidated sediment of fluvial orgin. Consists of silt, sand, and gravel, with minor lenses of cross-bedded sand. As much as 200 feet (60 m) thick.*

Qmw — Mass-wasting deposits (Quaternary) - *Brown to dark-brown, heterogeneous masses of mixed country rock that moved downslope. Thickness varies and probably does not exceed 200 feet (60 m).*

Qt — Glacial till (Pleistocene) - *Brown to dark-brown masses of unsorted, unconsolidated to semiconsolidated morainal rubble, from clay to boulder size. Minor exposures in the Sanpete Valley area, limited to the southeastern part of the map.*

Qao — Older alluvium (Quaternary) - *Much like alluvium (Qal) in color, bedding, and composition. Forms small discrete masses of fluvial origin above adjacent valley floors. Thickness ranges from about 10 to 200 feet (3-60 m).*

QUATERNARY AND TERTIARY DEPOSITS

QTcf — Coalesced alluvial-fan deposits (Holocene to Pliocene?) - *Brown to dark-brown or gray, unconsolidated to semi-consolidated, thin- to thick-bedded, commonly cross-bedded sediments of fluvial origin. Deposits consist of silt, sand, and gravel. Formed by the overlapping and interfingering of adjacent alluvial fans; forms broad, low sloping apron at foot of adjacent highlands. Thickness uncertain; possibly as much as 100 feet (30 m) thick locally.*

QTpm — Pediment mantle (Holocene to Pliocene) - *Light-brown to brown, gray, or locally reddish-brown, unconsolidated to well-cemented, massive to crudely bedded sediments. Consists of a poorly bedded mixture of silt, sand, and gravel derived from adjacent uplands. Surfaces are even and slope gently away from the uplands. Ranges in thickness from about 10 feet to more than 150 feet (3-45 m).*

TERTIARY DETACHMENT BLOCKS

T(Tch) — Displaced block of the Oligocene(?) Crazy Hollow Formation (Tertiary) - *Unbroken block of the Crazy Hollow Formation (Tch) carried "piggyback" to its present position, during either Oligocene(?) or Miocene time, on a block of the Green River Formation that slid valleyward.*

T(Tg) — Displaced block of the Eocene Green River Formation (Tertiary) - *Unbroken block of the Green River Formation (Tg) that slid into its present position, during either Oligocene(?) or Miocene time, along a westward-sloping glide plane.*

TERTIARY SEDIMENTARY ROCKS

Tch — Crazy Hollow Formation [of Spieker, 1949] (Oligocene?) - *Red to reddish-brown, light yellow-brown lenses, and locally white sandstone; shaly siltstone, and some conglomerate; locally gray, pink, and dark-gray to black, thin, dense limestone beds. Ranges in thickness from 0 to 160 feet (0-50 m).*

Green River Formation (Eocene)

Tg — Western part of the Wasatch Plateau and areas to the west - *Consists of limestone underlain by shale. Thickness of formation ranges widely, from about 500 to 1,200 feet (150-365 m).*

Limestone unit - *White to yellowish-gray to yellowish-brown to light-brown, thin- to thick-bedded, even-bedded limestone and minor thin beds of sandstone and tuff. Limestone beds are dense, thinly laminated, and commonly oolitic; some thin limestone beds are stromatolitic and contain ostracods.*

Shale unit - *Light-green to grayish-green, thin-bedded, fissile, somewhat calcareous shale and sparse interbedded micritic limestone, siltstone, and sandstone.*

Modified from Witkind and others (1987) and Witkind and Weiss (1991)

TERTIARY SEDIMENTARY ROCKS (continued)

Tc — Colton Formation (Eocene) - *Mostly claystone and mudstone variegated in shades of reddish brown, light greenish gray. Locally includes beds of yellowish-gray to yellowish-brown siltstone and channel-fill sandstone and reddish-brown conglomerate, as well as sparse, interlayered, thin beds of platy, light-gray, dense, finely crystalline limestone. Of fluviatile and lacustrine origin. Ranges in thickness from 325 to 850 feet (100-260 m).*

Tf — Flagstaff Limestone (Eocene and Paleocene) - *Light-gray to yellowish-gray to light-brown, thin- to thick-bedded, locally massive, fine-grained, dense limestone and minor dolomite containing some algal nodules. Red to pink near subjacent red units of Jurassic age. Contains subordinate interbedded dark-gray, gray and greenish-gray calcareous shale. Oncolite-rich limestone beds locally abundant. Forms resistant ledges and prominent hogbacks. Ranges in thickness from 0 in the central part of the San Pitch Mountains to about 1,000 feet (305 m) on the Wasatch Plateau.*

TERTIARY EXTRUSIVE IGNEOUS ROCK

Tm — Moroni Formation (lower Oligocene to upper Eocene) - *Volcaniclastic and pyroclastic rocks, including ash-flow tuff, welded tuff, and fluvial conglomerate and sandstone. Tuff commonly is porous and friable, but locally includes light-gray, gray, brown, light-red, and greenish-gray rhyolitic welded tuff containing rounded andesite clasts. Conglomerate beds are crudely bedded and commonly poorly sorted and contain quartzite and limestone clasts. Thickness varies; maximim thickness is about 2,000 feet (610 m) (Cooper,1956, p. 21).*

TERTIARY AND MESOZOIC SEDIMENTARY ROCKS

TKn — North Horn Formation (Paleocene and Upper Cretaceous) - *Red to reddish-brown mudstone, claystone, sandstone, conglomeratic sandstone, conglomerate, and minor limestone. Mudstone is thick bedded to massive; sandstone varies from thin to thick bedded, commonly cross-bedded, and is fine to medium grained. Limestone beds are thin and dense. Minor coal beds and carbonaceous seams are present along east flank of the San Pitch Mountains near Wales. Formation is unstable and is marked by many slumps, landslides, and earthflows. Ranges in thickness from about 500 to 3,000 feet (150-915 m).*

MESOZOIC SEDIMENTARY ROCKS

CRETACEOUS

Kpr — Price River Formation (Upper Cretaceous) - *Gray to light-gray, thin- to thick-bedded, locally massive, commonly well-cemented conglomerate, conglomeratic sandstone, and sandstone with minor shale. Sandstone is fine to coarse grained. Ranges in thickness from 0 to about 1,200 feet (0-365 m).*

Kc — Castlegate Sandstone (Upper Cretaceous) - *Brownish-gray, locally conglomeratic, irregularly bedded, massive, fine- to coarse-grained sandstone. Locally includes some thin, dark-gray, shaly siltstone and carbonaceous shale. Ranges in thickness from about 50 to 500 feet (15-150 m).*

Ki — Indianola Group, undivided (Upper Cretaceous to Lower Cretaceous)

San Pitch Mountains - *Reddish-brown and gray, thick-bedded to massive, well-cemented conglomerate. Consists of sand, granules, pebbles, and well-rounded cobbles of white, purple, green, grayish-green, and light-brown quartzite, light-brown to light-gray chert, white quartz, and some gray to dark-blue limestone. Ranges in thickness from 100 to 15,000 feet (30-4,570 m).*

Stratigraphic units near Birch Creek southwest of Fountain Green and mapped as part of the Indianola Group on the Nephi quandrangle, have been previously mapped as the South Flat Formation (Hunt, 1950, 1954). These beds are light-brown, brown, and grayish-brown, medium-grained, quartzose sandstone with intercalated conglomerate. Sandstone beds are even bedded and vary from thin to thick bedded, with locally discontinuous coal seams and carbonaceous material; limonite stained. These beds may be correlative with the Blackhawk Formation. As much as 2,850 feet (870 m) thick (Hunt, 1950, p. 60).

Cedar Hill - *Divisible into four interbedded marine and nonmarine units correlative with the following formations as exposed in Sixmile Canyon (near Sterling), along the west flank of the Wasatch Plateau (in descending order): Sixmile Canyon formation (conglomerate, conglomeratic sandstone, and sandstone), Funk Valley Formation (conglomeratic sandstone and sandstone), Allen Valley Shale, and Sanpete Formation (conglomeratic sandstone and sandstone).*

Kbh — Blackhawk Formation (Upper Cretaceous) - *Sandstone, shaly siltstone, shale, carbonaceous shale, and coal. Sandstone beds are light gray, light brown, brownish gray, thin to medium bedded, cross-bedded, and fine to medium grained. Many thin to thick coal zones are in the lower part. Ranges in thickness from about 700 to 1,000 feet (200-305 m).*

CRETACEOUS AND JURASSIC

KJu — Cretaceous and Jurassic strata, undivided - *Includes units assigned as Morrison(?) Formation (Speiker, 1946) and Cedar Mountain Formation. Includes conglomerate, sandstone, mudstone, and limestone. Reddish-brown, medium-bedded to massive, and cross-bedded conglomerate. Reddish-brown to very light-gray, thin- to medium-bedded, cross-bedded, fine- to coarse-grained sandstone. Cedar Mountain Formation is massive to thick-bedded mudstone, variegated purple, red, gray and green. Contains sparse, interleaved, discontinuous, thin beds of conglomerate, sandstone, and freshwater limestone.*

JURASSIC

Jtg — Twist Gulch Formation (Middle Jurassic) - *Reddish-brown, thin- to medium-bedded, fine-grained sandstone, shaly siltstone, and shale. Thickness estimated at about 3,000 feet (915 m) (Hardy, 1952, p. 23).*

Ja* — *Arapien Shale (Middle Jurassic) - Calcareous mudstone, thin to medium bedded; even bedded, locally amorphous; generally light gray marked by pale-red blotches, but, in places, wholly drab gray or wholly reddish brown. Includes intercalated, thin, lenticular beds and seams of yellowish-gray to light-brown siltstone and sandstone and sparse limestone beds. Contains thick beds of halite, gypsum, and other evaporites. Formation is complexly deformed. Thickness uncertain; estimates range from about 4,000 feet (1,220m) to as much as 13,000 feet (3,960 m).*

**Witkind and Weiss (1987) map this unit as T(Ja) based on their interpretation that salt within the unit has been moving since deposition and continued into the Tertiary.*

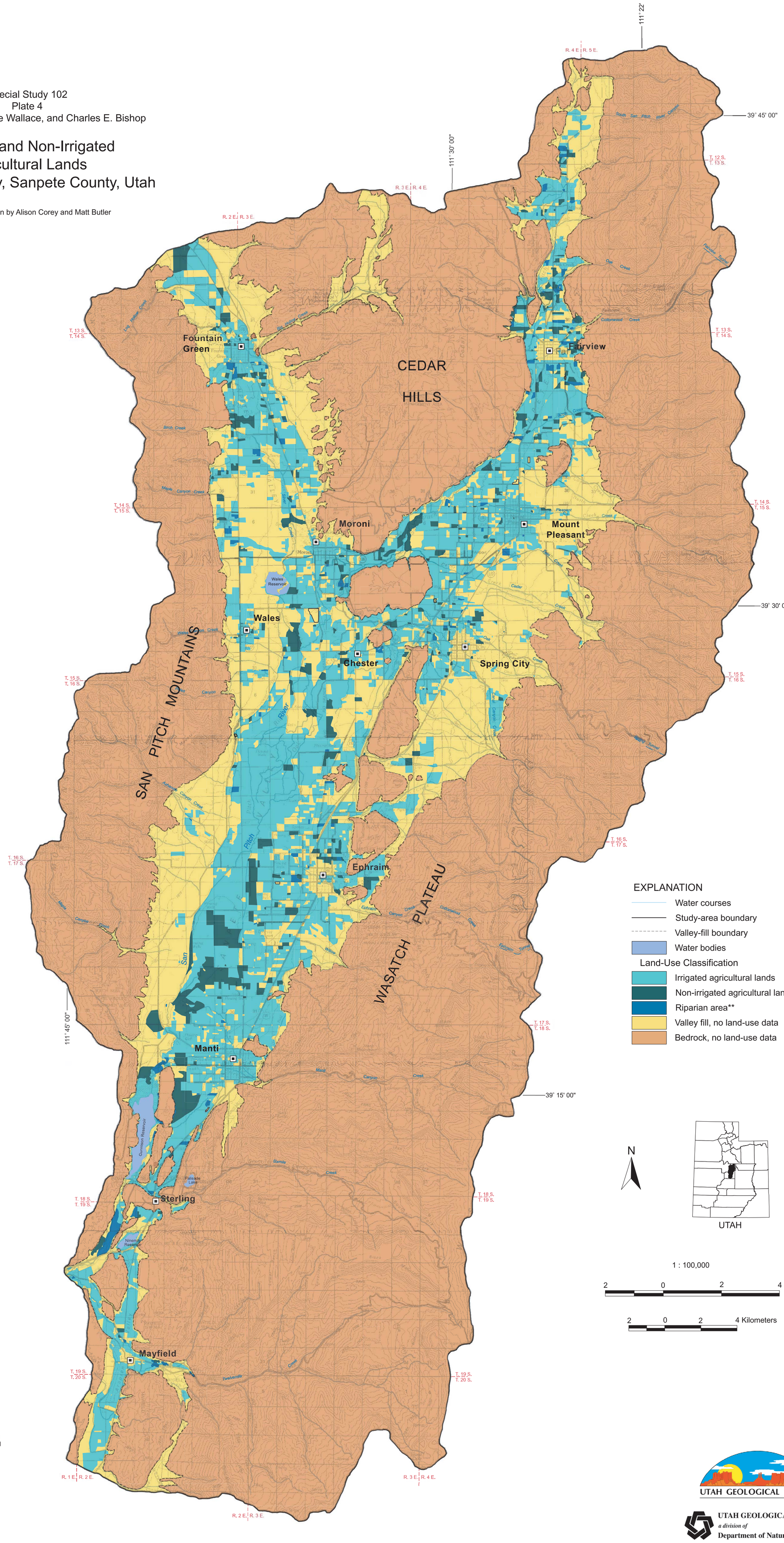
UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 4
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Irrigated and Non-Irrigated Agricultural Lands Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



Data modified* from Department of Natural Resources, Division of Water Resources (1995)
Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

* The original data were recorded on aerial photos, then transferred onto quadsheets and digitized. The results were compared to our physical windshield potential contaminant survey, and modified accordingly to the most current land use observed.

**Riparian areas on Plates 4 & 5 do not coincide exactly. The data are from the Utah Division of Water Resources, and these areas cannot be digitally modified to reproduce exact areal coverages.

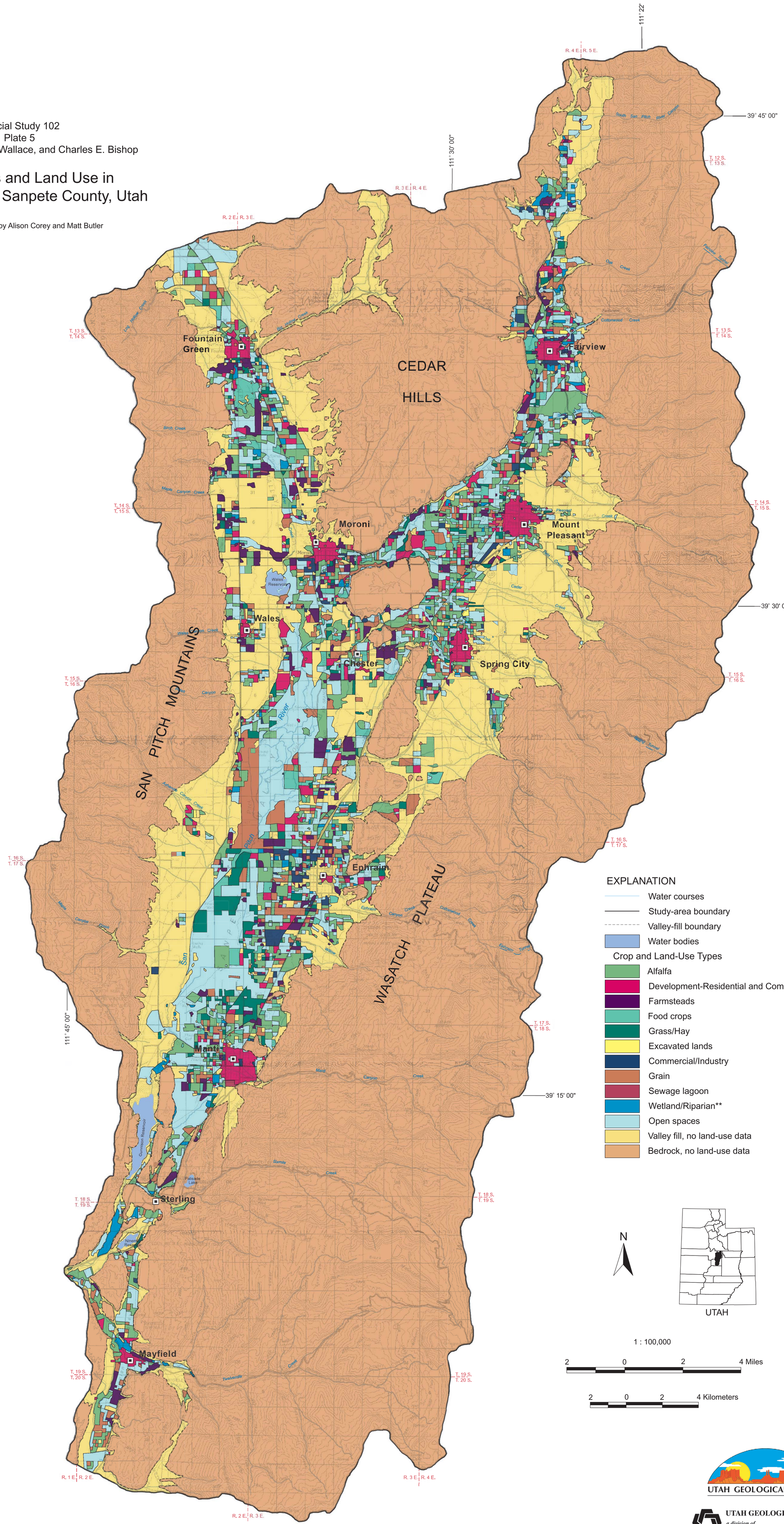
UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 5
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Crop Types and Land Use in Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



Data modified* from Department of Natural Resources, Division of Water Resources (1995)
Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

* The original data were recorded on aerial photos, then transferred onto quadsheets and digitized. The results were compared to our physical windshield potential contaminant survey, and modified accordingly to the most current land use observed.

**Riparian areas on Plates 4 & 5 do not coincide exactly. The data are from the Utah Division of Water Resources, and these areas cannot be digitally modified to reproduce exact areal coverages.

UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

By Mike Lowe, Janae Wallace, and Charles E. Bishop

CHEMICAL QUALITY OF WATER FROM SELECTED WELLS IN THE PRINCIPAL VALLEY-FILL AQUIFER SANPETE VALLEY, SANPETE COUNTY, UTAH

PENETRATING SHALLOW (<100 FEET DEEP), MEDIUM (100-200 FEET DEEP), AND DEEP (>200 FEET DEEP) DEPOSITS

Unit abbreviations: µmhos/cm, micromohs per centimeter; ºC, degrees Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter.
Laboratory: Utah Department of Health Laboratory

Well ID #	Location	Depth of well (feet)	Sampling Date	Nitrogen NO_2+NO_3 dissolved (mg/L as N)	Phosphorus, total (mg/L as P)	Solids, sum of constituents, dissolved (mg/L)	Field temperature (°C)	Specific Conductance (µmhos/cm)	TDS Converted (mg/L)	pH (standard units)
11	(D-13-4) 1aaa-1	105	07/16/96	0.04	-	-	14.6	495	287	8.2
13	(D-13-4) 1dbb-1	90	07/16/96	0.2	0.01	384	11.9	781	-	7.3
20	(D-13-4) 11adc-1	147	07/16/96	1.81	-	-	9.5	753	437	7.5
21	(D-13-4) 11dcb-1	105	07/17/96	1.55	-	-	10.6	740	426	7.5
25	(D-13-4) 12bdd-1	165	07/16/96	0.59	-	-	11.3	656	381	7.6
26	(D-13-4) 12cbb-1	100	07/16/96	1.95	-	-	9.8	758	440	7.4
27	(D-13-4) 12cbb-2	100	07/16/96	2.02	-	-	11.1	790	458	7.4
28	(D-13-4) 12ccc-1	74	07/16/96	5.55	-	-	10.8	761	441	7.4
32	(D-13-4) 12dbb-1	148	07/16/96	0.55	-	-	13.4	641	372	7.7
33	(D-13-4) 13cbd-1	82	09/17/96	0.77	0.04	306	9.4	533	-	7.6
36	(D-13-4) 23daa-1	85	09/17/96	2.32	<0.01	326	12.7	575	-	7.4
37	(D-13-4) 24cba-1	101	09/17/96	0.28	-	-	17.7	547	317	7.8
39	(D-13-4) 24cbb-1	103	09/17/96	2.6	-	-	11.6	510	296	7.5
40	(D-13-4) 24cbc-1	130	09/17/96	1.4	-	-	8.9	528	306	7.5
38	(D-13-4) 24dba-1	100	07/30/96	0.29	0.01	324	11.2	644	-	7.5
43	(D-13-4) 24dba-2	100	07/30/96	0.43	-	-	11.5	623	361	7.5
49	(D-13-4) 26aaa-1	75	07/16/96	2.23	-	-	11.5	586	340	7.5
55	(D-13-4) 35add-1	140	09/17/96	2.5	<0.01	368	14	603	-	7.3
59	(D-13-4) 36cbc-1	135	07/16/96	2.26	-	-	14.4	682	396	7.5
65	(D-14-2) 13cad-1	80	08/07/96	6.97	-	-	15.9	1017	590	7.2
66	(D-14-2) 13daa-1	95	10/18/96	3.39	<0.01	522	-	-	-	-
68	(D-14-2) 24dac-1	130	08/12/96	0.02	0.01	888	13.2	1868	-	9.3
76	(D-14-3) 7bdd-1	82	08/06/96	3.79	-	-	14.3	662	384	7.4
78	(D-14-3) 7ddb-1	92	07/24/96	4.13	0.01	386	11.1	740	-	7.6
80	(D-14-3) 17cbc-1	80	07/31/96	4.03	-	-	11.3	791	459	7.5
81	D-14-3 17cbc-2	133	07/31/96	3.9	-	-	10.9	782	454	7.5
82	(D-14-3) 17cca-1	100	05/13/97	0.43	-	-	12.7	444	258	7.9
83	(D-14-3) 17ccb-1	100	09/18/96	2.46	0.01	400	11.3	662	-	7.4
84	(D-14-3) 17dcd-1	140	08/06/96	20.71	0.03	572	11.7	886	-	7.2
"	" "	"	09/14/99	19	-	-	-	-	-	-
92	(D-14-3) 20aba-1	105	11/06/96	18.34	0.015	552	10.8	962	-	7.6
"	" "	105	08/28/97	18.76	-	508	13.7	852	-	7.4
"	" "	105	09/14/99	18.2	-	-	-	-	-	-
92b	(D-14-3) 20bbb pond	-	08/28/97	3.22	-	420	11.8	716	-	7.2
93	(D-14-3) 20ada-1	125	09/18/96	16.95	-		15.4	667	-	7.5
"	" "	"	11/06/96	15.16	-	438	10.3	774	-	7.6
"	" "	"	09/14/99	5.99	-	-	-	-	-	-
95	(D-14-3) 20bba-1	151	08/06/96	3.07	0.046	400	10	719	-	7.3
103	(D-14-3) 28cbc-1	160	05/13/97	4.65	-	-	11.7	895	519	7
104	(D-14-3) 28cbc-2	62	07/23/96	4.46	-	-	13.5	924	354	7.5
105	(D-14-3) 28cbc-3	90	11/06/96	4.49	-	512	11.3	891	-	7.4
"	" "	"	09/14/99	2.04	-	-	-	-	-	-
"	" "	"	08/28/97	21.1	-	1232	15	1678	-	7
106	(D-14-3) 29cbb-1	82	09/18/96	0.25	0.03	350	11.54	558	-	7.6
112	(D-14-3) 30dbc-1	90	08/13/96	4.92	-	-	16.7	879	510	7.5
115	(D-14-3) 31acb-1	147	08/06/96	0.08	0.013	274	18.3	514	-	8
116	(D-14-3) 32aab-1	89	07/24/96	7.74	-	-	16.5	1036	601	7.4
122	(D-14-3) 32bac-1	65	07/24/96	1.32	-	-	13.6	524	304	7.8
119	(D-14-3) 32cca-1	170	07/24/96	1.64	-	-	19.8	521	302	7.9
120	(D-14-3) 32ccb-1	45	07/24/96	7.28	-	-	17.4	1885	1093	8.8
121	(D-14-3) 32cdb-1	158	07/24/96	0.05	-	-	14.8	2249	1304	7.6
123	(D-14-3) 33aac-1	147	07/31/96	2.13	-	-	16.6	815	473	7.7
126	(D-14-3) 33bdc-1	164	07/30/96	5.6	0.04	586	14.9	989	-	7.3
141	(D-14-4) 11aad-1	70	07/17/96	3.91	<0.01	362	10.3	724	-	7.4
146	(D-14-4) 12bab-1	148	07/23/96	1.7	0.02	310	10.52	637	-	7.7
148	(D-14-4) 13dac-1	495	07/17/96	0.52	<0.01	298	12.5	570	-	7.5
149	(D-14-4) 13ddb-1	225	07/17/96	0.49	-	-	12.2	586	340	7.7
150	(D-14-4) 13ddc-1	260	07/18/96	1.41	<0.01	330	16.4	610	-	7.7
156	(D-14-4) 22ddd-1	27	09/18/96	2.61	-	-	12.6	929	539	7.4
157	(D-14-4) 23abb-1	100	07/30/96	1.44	0.01	306	12.4	614	-	7.5
159	(D-14-4) 23ddd-1	45	07/17/96	2.96	-	-	12.8	651	378	7.4
161	(D-14-4) 24aba-1	230	07/17/96	<.02	-	-	27.4	404	234	7.8
162	(D-14-4) 24bab-1	140	07/17/96	3.45	-	-	13.1	649	376	7.5
163	(D-14-4) 24bac-1	105	09/26/96	1.53	-	-	-	-	-	-
164	(D-14-4) 24bad-1	182	07/17/96	1.79	-	-	12.4	587	341	7.4
165	(D-14-4) 24bdb-1	175	09/17/96	4.33	-	-	17.3	746	433	7.3
166	(D-14-4) 24cdb-1	90	08/13/96	4.91	-	-	18.2	508	295	7.7
167	(D-14-4) 24dac-1	85	07/17/96	1.15	<0.01	338	18	640	-	7.6
168	(D-14-4) 25abd-1	105	07/18/96	4.11	-	-	11.4	614	356	7.5
169	(D-14-4) 25cdc-1	100	09/18/96	4.44	-	-	17.5	453	263	7.8
170	(D-14-4) 25dcc-1	145	07/18/96	21.58	-	-	12.5	934	-	7.2
"	" "	"	11/04/96	14.58	-	466	8.9	914	-	7.2
"	" "	"	09/14/99	12.2	-	-	-	-	-	-
172	(D-14-4) 26bda-1	93	09/18/96	6.61	-	-	15	786	456	7.5
173	(D-14-4) 26cac-1	83	10/22/96	2.77	-	-	10.6	525	304	7.8
176	(D-14-4) 27cdd-1	79	07/22/96	2.71	-	-	12.8	631	366	7.5
179	(D-14-4) 27dad-1	103	07/18/96	4.36	<0.01	336	13.1	644	-	7.6
181	(D-14-4) 27dda-1	80	07/18/96	4.09	-	-	13.3	615	357	7.6
184	(D-14-4) 33cbb-1	45	07/18/96	1.22	-	-	12.2	602	349	7.5
185	(D-14-4) 33cdc-1	50	07/22/96	1.36	-	-	12.1	740	429	7.4
186	(D-14-4) 33dad-1	55	07/22/96	2.85	-	-	12.3	683	396	7.4
183	(D-14-4) 33dcd-1	60	07/22/96	1.35	-	-	10.1	617	358	7.5
187	(D-14-4) 34aaa-1	83	09/17/96	1.96	-	-	11.5	537	312	7.3
188	(D-14-4) 34aab-1	78	07/22/96	2.78	-	-	14.6	634	368	7.5
193	(D-14-4) 34bca-1	50	07/18/96	1.44	-	-	15.1	646	375	7.7
189	(D-14-4) 34bda-1	49	07/22/96	1.03	-	-	66.2	692	401	7.5
191	(D-14-4) 34cbb-1	63	07/23/96	3.06	-	-	14.3	678	393	7.6
192	(D-14-4) 34cca-1	65	07/22/96	3.06	-	-	10.8	738	428	7.5
195	(D-14-4) 35dba-1	384	07/17/96	1.2	-	-	13.5	586	340	8.1
200	(D-14-5) 19cdc-1	325	09/18/96	2.11	0.01	392	13.1	639	-	7.4
205	(D-15-2) 24dbb-1	160	08/08/96	1.21	-	-	10.5	886	514	7.4
207	(D-15-2) 24dbc-1	225	08/08/96	0.09	0.011	520	15.3	860	-	7.5
209	(D-15-2) 24dda-1	120	08/08/96	0.22	-	-	14.8	731	424	7.6
215	(D-15-3) 4bbd-1	180	07/24/96	5.72	-	-	14.5	943	547	7.5
217	(D-15-3) 4bda-1	318	07/31/96	3.36	-	-	13.6	852	494	7.6
218	(D-15-3) 4bdb-1	111	07/31/96	6.98	-	-	13.4	912	529	7.5
220	(D-15-3) 5bbc-1	151	07/25/96	3.17	-	-	18.6	731	424	7.7
221	(D-15-3) 5bdd-1	146	07/31/96	0.2	-	-	12.4	538	312	7.9
222	(D-15-3) 6add-1	56	07/30/96	0.77	-	-	15.8	557	323	8
223	(D-15-3) 6cab-1	38	08/07/96	17.78	-	-	18.7	1011	-	7.3
"	" "	"	08/27/97	0.32	-	266	19.6	511	-	7.7
"	" "	"	09/14/99	0.4	-	-	-	-	-	-
224	(D-15-3) 6cad-1	45	05/21/97	8.09	-	-	13.4	714	429	7.3
"	(D-15-3) 6cad-1	45	08/28/97	-	-	420	21.4	740	-	7.7
225	(D-15-3) 6ccd-1	66	05/21/97	0.36	-	-	20.1	625	-	7.6
"	" "	"	08/28/97	-	-	430	21.6	734	-	7.8
226	(D-15-3) 6dbd-1	71	05/21/97	21.65	-	-	10.9	1137	-	6.6
"	" "	"	08/28/97	0.53	-	630	15.9	1113	-	7.2
226b	(D-15-3) 6dbd pond	"	08/28/97	0.53	-	-	-	-	-	-
227	(D-15-3) 6dcd-1	86	07/25/96	0.12	-	-	16.3	608	353	7.7
228	(D-15-3) 7aad-1	51	05/13/97	0.81	-	-	11.5	510	296	7.3
229	(D-15-3) 7aca-1	60	05/21/97	0.04	-	-	13.6	994	577	7
230	(D-15-3) 7bbc-1	105	08/07/96	5.24	-	-	16.6	770	447	7
231	(D-15-3) 7bbc-2	100	08/07/96	1.89	-	-	13.9	572	332	7.4
232	(D-15-3) 7bcc-1	475	08/07/96	0.03	0.016	298	12.4	543	-	7.4
236	(D-15-3) 7dbc-1	63	08/07/96	1.14	-	-	17.3	520	302	7.7
237	(D-15-3) 7dbc-2	110	08/07/96	0.47	-	-	21.6	639	371	7.6
238	(D-15-3) 7dcb-1	222	08/07/96	0.1	-	-	21.1	643	373	7.6
239	(D-15-3) 8acc-1	65	07/31/96	0.25	-	-	17.7	683	396	7.7
241	(D-15-3) 8cdd-1	63	08/06/96	0.3	0.02	314	12.5	534	-	7.5
242	(D-15-3) 8dbc-1	76	07/31/96	0.22	-	-	10.4	731	424	7.7
248	(D-15-3) 10ccb-1	30	08/06/96	27	-	-	12.9	1594	-	7.3
"	" "	"	11/06/96	29.28	0.15	1076	12.3	1763	-	7.6
"	" "	"	09/14/99	0.13	-	-	-	-	-	-
249	(D-15-3) 10dba-1	185	05/13/97	0.63	-	-	15.3	2906	1686	8.3
250	(D-15-3) 10dad-1	66	08/06/96	10.65	-	-	11.1	2195	-	7.2
"	" "	"	11/06/96	9.1	-	1508	14.2	2142	-	7.3
"	" "	"	09/14/99	17.5	-	-	-	-	-	-
251	(D-15-3) 11bdb-1	92	08/28/97	0.76	-	-	14.5	1116	647	7.3
253	(D-15-3) 11cba-1	65	08/28/97	2.68	-	1436	14.2	1943	-	7
254	(D-15-3) 11cbd-1	60	05/13/97	5.59	-	-	12.4	1727	1002	6.8
255	(D-15-3) 3dcd-1	240	08/28/97	1.16	-	-	19	700	406	8.2
256	(D-15-3) 12bcc-1	100	09/18/96	0.02	-	-	15.4	548	318	8.7
257	(D-15-3) 12bcb-1	100	09/18/96	2.39	-	-	11.6	1289	748	7.3
258	(D-15-3) 12bcb-2	104	07/31/96	0.47	0.01	832	12.3	1455	-	7.4
259	(D-15-3) 13daa-1	101	08/15/96	3.05	-	-	13.9	654	379	7.4
260	(D-15-3) 15ada-1	80	05/13/97	2.2	-	-	13.3	1332	773	6.9
261	(D-15-3) 15bbc-1	215	07/31/96	0.62	0.01	-	18.3	1373	796	7.4
263	(D-15-3) 15bca-1	185	08/08/96	0.18	0.018	540	14.8	886	-	7.5
264	(D-15-3) 15bcd-1	40	07/31/96	4.66	-	-	11.5	1223	709	7.4
265	(D-15-3) 15cca-1	151	08/28/97	1.1	-	578	12.8	960	-	7.2
266	(D-15-3) 15cdc-1	108	07/31/96	1.4	-	-	13.4	1030	597	7.6
268	(D-15-3) 9 dcd-1	340	05/13/97	6.43	-	-	10.9	1236	717	7
269	(D-15-3) 16abc-1	245	08/07/96	2.96	-	-	16.7	671	389	7.5
271	(D-15-3) 16bdb-1	425	08/07/96	1.03	0.065	332	15.6	501	-	7.7
272	(D-15-3) 17ddd-1	40	07/31/96	1.24	-	-	13.5	1274	739	7.2
273	(D-15-3) 19bcb-1	264	08/12/96	0.17	-	-	12.9	682	396	7.6
274	(D-15-3) 19cad-1	165	08/08/96	<.02	-	-	12.6	580	336	7.7
275	(D-15-3) 19cbc-1	103	08/08/96	0.33	-	-	16.7	632	367	7.6
276	(D-15-3) 19cca-1	92	08/12/96	<.02	-	-	12.2	616	357	7.8
279	(D-15-3) 19dcb-1	173	08/12/96	0.03	-	-	13.2	606	352	7.6
281	(D-15-3) 21ada-1	258	08/28/97	1.15	-	-	19.5	876	508	7.9
285	(D-15-3) 21bbb-1	82	07/31/96	1.21	-	-	19.5	1247	723	7.4
282	(D-15-3) 21bcd-1	78	08/19/96	1.39	-	-	19.4	1185	687	7
283	(D-15-3) 21bdd-1	139	08/19/96	1.49	-	-	19.7	1212	703	7
290	(D-15-3) 22dad-1	99	08/20/96	1.19	-	-	20.3	3860	2239	7.3
293	(D-15-3) 25bbd-1	97	08/20/96	0.47	<0.01	550	11.7	1068	-	7.4
294	(D-15-3) 25bca-1	160	08/20/96	5.93	-	-	12.1	1296	752	7.4
295	(D-15-3) 25cad-1	100	08/20/96	0.3	-	-	14.4	982	570	7.5
296	(D-15-3) 25dad-1	118	08/20/96	0.95	-	-	16.5	1209	701	7.9
298	(D-15-3) 26bcb-1	85	08/15/96	1.71	-	-	15.4	1342	778	7.1
299	(D-15-3) 26cac-1	171	08/20/96	0.47	-	-	15.9	1102	639	7.6
300	(D-15-3) 26ccd-1	115	08/21/96	<.02	-	-	18.9	1529	887	7.1
301	(D-15-3) 26dca-1	85	08/14/96	1.93	-	-	15.5	2002	1161	7.4
302	(D-15-3) 26ddd-1	76	08/20/96	0.25	-	-	17.8	739	429	8
303	(D-15-3) 27acb-1	120	08/15/96	0.25	-	-	13.4	1207	700	7
305	(D-15-3) 27caa-1	100	08/15/96	1.86	-	-	12	1300	754	7.1
306	(D-15-3) 27cca-1	178	08/15/96	0.31	-	-	13.5	1119	649	7.1
307	(D-15-3) 27dcb-1	85	08/20/96	2.58	-	-	12.3	1151	668	7.2
308	(D-15-3) 28acc-1	85	08/15/96	1.2	<0.01	636	15.2	1130	-	7.3
309	(D-15-3) 28daa-1	151	08/19/96	2.26	-	-	13.8	1125	653	7.4
310	(D-15-3) 28dbc-1	82	08/19/96	2.56	-	-	16.1	1128	654	7.2
311	(D-15-3) 28dcd-1	133	08/19/96	1.94	-	-	12.3	1298	753	7
314	(D-15-3) 29ccc-1	92	08/21/96	0.02	0.68	436	10.7	930	-	7.6
315	(D-15-3) 30aaa-1	47	08/19/96	9.68	-	-	15.8	1181	-	7.3
"	" "	"	11/06/96	7.78	0.016	606	8.3	1098	-	7.6
316	(D-15-3) 30cba-1	120	08/12/96	5.09	-	-	11.5	1195	693	7.1
319	(D-15-3) 30cdb-1	120	10/22/96	3.18	<0.01	600	10.3	1090	-	7.5
325	(D-15-3) 32aac-1	107	08/14/96	0.41	0.02	400	12	714	-	7.5
326	(D-15-3) 32cca-1	40	08/21/96	1.9	-	-	10.5	2537	1472	7.5
327	(D-15-3) 32cda-1	72	08/21/96	1.97	-	-	11.9	2175	1262	7.4
331	(D-15-3) 34aaa-1	110	08/14/96	<.02	-	-	19.2	873	506	7.6
332	(D-15-3) 34aab-1	105	08/14/96	0.19	-	-	12.1	939	545	7.2
334	(D-15-3) 34aba-2	100	08/14/96	0.71	-	-	11.1	1230	713	7.1
337	(D-15-3) 34bab-1	105	08/14/96	1.01	0.01	712	13.5	1235	-	7.2
339	(D-15-3) 34bda-1	81	08/14/96	0.21	-	-	12.4	1170	679	7.1
341	(D-15-3) 34ccd-1	95	08/14/96	2.26	-	-	12	1265	734	7.2
342	(D-15-3) 34dad-1	98	08/20/96	0.71	0.01	1436	14.1	2322	-	7.2
343	(D-15-3) 35aaa-1	65	08/20/96	0.44	-	-	21	813	472	7.9
345	(D-15-3) 35bba-1	100	08/20/96	<0.2	-	-	14.8	1574	913	7.4
346	(D-15-3) 35ada-1	200	08/20/96	0.05	-	-	19	915	531	7.6
347	(D-15-3) 35dad-1	-	05/20/97	5.66	-	-	12.7	1952	-	7
"	" "	-	09/14/99	35.4	-	-	-	-	-	-
"	" "	-	08/27/97	-	-	1364	15.9	2227	-	7.3
348	(D-15-3) 35dda-1	68	08/14/96	20.03	0.03	2490	11.6	3790	-	7.2
"	" "	"	09/14/99	5.94	-	-	-	-	-	-
351	(D-15-3) 36bad-1	66	08/20/96	6.21	-	-	12.3	1520	882	7.5
352	(D-15-3) 36cbb-1	409	05/20/97	7.22	-	-	10.8	1830	-	7.1
"	" "	"	08/28/97	-	-	560	13.3	1003	-	7.4
353	(D-15-4) 1bba-1	280	09/18/96	0.56	-	-	11.5	482	280	7.5
354	(D-15-4) 1bcb-1	230	07/30/96	0.37	0.01	296	10.3	622	-	7.5
356	(D-15-4) 2aad-1	180	07/18/96	0.41	-	-	12.6	579	336	7.6
360	(D-15-4) 3bbd-1	41	09/17/96	3.04	0.01	380	14.3	631	-	7.4
363	(D-15-4) 4bad-1	90	05/13/97	0.29	-	-	9.7	500	290	7.6
364	(D-15-4) 4cba-1	180	05/13/97	0.1	-	-	10.7	380	220	8.2
365	(D-15-4) 4bcb-1	62	07/23/96	9.21	-	-	11.5	916	531	7.5
"	" "	"	09/14/00	0.08	-	-	-	-	-	-
367	(D-15-4) 5aca-1	46	07/23/96	8.94	-	-	17.2	877	509	7.5
"	" "	"	09/14/99	0.14	-	-	-	-	-	-
368	(D-15-4) 5bca-1	110	07/23/96	0.12	0.04	246	13.6	550	-	7.7
369	(D-15-4) 5bdc-1	102	07/23/96	3.01	-	-	11.9	711	412	7.5
370	(D-15-4) 5dca-1	72	09/17/96	5.55	<0.01	374	14.5	614	-	7.4
376	(D-15-4) 6ddb-1	98	07/30/96	<.02	0.01	482	11.7	8.53	-	8.1
377	(D-15-4) 9aad-1	80	09/17/96	1.66	-	-	12.7	583	338	7.5
378	(D-15-4) 9add-1	102	09/17/96	0.35	0.16	276	20	451	-	8
379	(D-15-4) 9bab-1	85	07/23/96	2.17	-	-	14.2	628	364	7.5
381	(D-15-4) 9bca-1	60	05/13/97	3.41	-	-	13	634	368	7.3
385	(D-15-4) 10dca-1	73	07/18/96	1.98	-	-	12.3	643	373	7.6
387	(D-15-4) 11ddd-1	94	09/17/96	<.02	-	-	11.7	572	332	7.4
392	(D-15-4) 16aca-1	100	07/23/96	1.67	-	-	10.3	589	342	7.6
393	(D-15-4) 16acb-1	205	07/23/96	0.37	-	-	12.7	536	311	7.8
395	(D-15-4) 16bcd-1	91	07/30/96	3.47	0.01	320	14	648	-	7.6
396	(D-15-4) 16ccb-1	99	09/17/96	3.4	-	-	11.8	523	303	7.6
399	(D-15-4) 17bad-1	55	09/18/96	3.53	-	-	11.4	655	380	7.4
402	(D-15-4) 18dbd-1	76	08/15/96	3.5	-	-	11.3	720	418	7.4
398	(D-15-4) 20add-1	120	10/21/96	1.69	0.057	350	11.8	633	-	7.6
403	(D-15-4) 20bca-1	80	07/31/96	6.59	-	-	13.6	763	443	7.6
404	(D-15-4) 20bdc-1	100	07/31/96	5.71	-	-	11.4	760	441	7.5
405	(D-15-4) 20daa-1	122	10/21/96	1.4	-	-	12.3	622	361	7.7
406	(D-15-4) 20dab-1	100	10/21/96	1.04	-	-	11.8	609	353	7.7
408	(D-15-4) 20dbd-1	80	10/21/96	1.39	-	-	10.6	648	376	7.7
409	(D-15-4) 21cab-1	125	10/21/96	1.25	-	-	11.6	618	358	7.7
410	(D-15-4) 21cba-1	100	10/21/96	2.11	-	-	12.3	628	364	7.7
411	(D-15-4) 21cbb-1	60	10/21/96	1.03	-	-	11.8	636	369	7.6
412	(D-15-4) 21ccc-1	100	10/21/96	1.65	<0.01	344	11.7	613	-	7.7
425	(D-15-4) 31ddc-1	112	09/24/96	1.47	-	-	-	-	-	-
428	(D-15-4) 32daa-1	86	10/21/96	2.05	0.013	342	12.2	618	-	7.5
431	(D-15-4) 33ccb-1	55	10/21/96	1.5	<0.01	360	11.9	683	-	7.8
436	(D-15-5) 30bba-1	500	10/22/96	0.11	-	-	12.3	471	273	7.9
443	(D-16-2) 13aaa-1	263	08/13/96	<.02	-	-	12.6	707	410	8.2
444	(D-16-2) 13dda-1	324	08/13/96	<.02	-	-	14.7	1170	679	7.8
445	(D-16-2) 13ddb-1	221	08/13/96	<.02	-	-	16.5	1012	587	7.6
446	(D-16-2) 24aac-1	216	08/13/96	2.68	-	-	13	1001	581	7.6
442	(D-16-2) 24add-1	196	08/13/96	2.25	0.05	550	21.8	934	-	7.5
455	(D-16-2) 36dab-1	238	08/13/96	<.02	-	-	26.4	816	473	7.8
459	(D-16-3) 1bbb-1	107	08/20/96	4.53	-	-	12.2	2568	1489	7.2
441	(D-16-3) 2cbc-1	120	08/20/96	1.69	-	-	13.8	3864	2241	7.58
460	(D-16-3) 3aaa-1	100	08/14/96	0.02	-	-	13.9	696	404	8.6
463	(D-16-3) 4aaa-1	175	08/20/96	0.04	-	-	10.7	943	547	7.6
464	(D-16-3) 4aac-1	126	08/14/96	<.02	-	-	17.9	744	432	7.7
466	(D-16-3) 4dac-1	128	08/20/96	<.02	-	-	11.7	914	530	7.4
467	(D-16-3) 4dbc-1	122	08/20/96	<.02	-	-	11.5	635	368	7.6
468	(D-16-3) 4dbd-1	142	08/20/96	<.02	-	-	10.8	637	369	7.6
476	(D-16-3) 7aad-1	164	08/21/96	2.46	-	-	12.7	962	558	7.7
477	(D-16-3) 7abc-1	85	09/19/96	0.72	<0.01	480	11.3	793	-	7.5
478	(D-16-3) 7aca-1	105	08/28/97	5.12	-	-	17.2	1559	904	7.4
481	(D-16-3) 7ccd-1	121	09/19/96	1.09	-	-	8.6	854	495	7.8
483	(D-16-3) 9abd-1	144	08/14/96	2	0.02	646	11.5	1097	-	7.2
488	(D-16-3) 9cdd-1	132	09/25/96	1.49	-	-	-	-	-	-
489	(D-16-3) 9daa-1	132	08/14/96	0.73	-	-	15.2	1060	615	7.6
490	(D-16-3) 11aca-1	400	08/28/97	<0.02	-	-	18.2	1394	809	9.3
494	(D-16-3) 15 ada-1	130	05/15/97	9.32	-	-	20.2	1661	-	7.5
"	" "	"	09/14/99	9.69	-	-	-	-	-	-
"	" "	"	08/28/97	-	-	1068	14.9	1728	-	7.4
495	(D-16-3) 15dbb-1	162	08/21/96	6.46	-	-	23.8	1340	-	7.4
"	" "	"	05/15/97	0.07	-	-	24.2	393	-	8.3
"	" "	"	08/28/97	-	-	834	15	1346	-	7.5
496	(D-16-3) 15add-1	100	09/24/96	15.15	0.024	1042	11.9	1578	-	7.5
"	" "	"	05/15/97	10.93	-	-	26.1	1642	-	7.5
"	" "	"	09/14/99	9.14	-	-	-	-	-	-
497	(D-16-3) 16aac-1	153	09/25/96	<.02	-	-	-	-	-	-
498	(D-16-3) 16caa-1	131	08/21/96	<.02	-	-	12.2	596	346	7.8
499	(D-16-3) 16ccd-1	125	08/21/96	<.02	-	-	12.1	752	436	7.7
500	(D-16-3) 15ccb-1	140	08/28/97	6.45	-	-	13.4	1441	836	7.5
502	(D-16-3) 17dcc-1	142	08/21/96	<.02	-	-	10.6	1054	611	7.7
507	(D-16-3) 19aba-1	136	09/24/96	<.02	0.046	404	15.4	605	-	7.8
508	(D-16-3) 19aca-1	168	09/24/96	4.49	-	-	-	-	-	-
509	(D-16-3) 20acc-1	137	08/21/96	<.02	-	-	14.8	591	343	7.8
510	(D-16-3) 21adc-1	147	08/21/96	7.1	-	-	12.8	1240	719	7.5
511	(D-16-3) 21bbc-1	152	08/21/96	0.03	-	-	13	663	385	7.7
512	(D-16-3) 21cda-1	98	08/21/96	4.24	-	-	11.7	1260	731	7.2
514	(D-16-3) 22cdd-1	255	05/15/97	7.83	-	-	19	1513	878	7.2
515	(D-16-3) 23bcb-1	270	05/15/97	0.13	-	-	11.4	397	230	8.1
516	(D-16-3) 24aba-1	170	08/28/97	<0.02	-	-	13.8	1057	613	9.4
520	(D-16-3) 27bad-1	103	08/22/96	9.5	-	-	17.8	1519	881	7.3
521	(D-16-3) 27bdc-1	121	09/24/96	5.45	-	-	-	-	-	-
522	(D-16-3) 27cba-1	300	08/22/96	3.87	-	-	11.9	1086	630	7.3
525	(D-16-3) 27dac-2	85	09/25/96	3.13	-	-	-	-	-	-
526	(D-16-3) 27cbc-1	267	08/28/97	3.8	-	-	11.7	1095	635	7.6
527	(D-16-3) 28bcc-1	142	09/24/96	12.75	-	-	10.9	1133	657	7.8
"	" "	"	08/27/97	12.16	-	-	13.6	1270	-	7.5
531	(D-16-3) 28cba-1	158	09/24/96	<.02	-	-	-	-	-	-
528	(D-16-3) 28ccb-1	110	09/24/96	8.67	0.023	454	12.5	751	-	7.8
529	(D-16-3) 28daa-1	178	08/28/97	0.87	-	-	11.5	1071	621	7.3
530	(D-16-3) 28dac-1	33	08/22/96	4.85	-	-	10.6	1083	628	7.6
533	(D-16-3) 29add-1	172	09/24/96	<.02	-	-	-	-	-	-
534	(D-16-3) 29add-2	157	09/24/96	0.16	-	-	-	-	-	-
535	(D-16-3) 29dbd-1	198	05/15/97	<0.02	-	-	13.1	1323	767	7.5
536	(D-16-3) 30cdc-1	186	08/13/96	0.33	-	-	28	820	476	7
537	(D-16-3) 30dad-1	146	09/24/96	4.73	-	-	-	-	-	-
539	(D-16-3) 31dda-1	140	09/19/96	1.41	0.02	268	10.7	468	-	7.8
541	(D-16-3) 32bbd-1	158	08/28/97	<0.02	-	-	11.9	1078	625	7.6
542	(D-16-3) 32aad-1	140	05/15/97	11.44	-	-	10.6	817	474	7.6
543	(D-16-3) 32adb-1	128	09/23/96	9.28	-	-	-	-	-	-
544	(D-16-3) 32bbb-1	198	09/19/96	3.47	-	-	14.1	861	499	7.5
546	(D-16-3) 32bda-1	256	09/19/96	4.78	-	-	12.4	950	551	7.4
548	(D-16-3) 32cab-1	312	09/23/96	2.01	-	-	-	-	-	-
549	(D-16-3) 32ccc-3	173	05/14/97	<0.02	-	-	10	1200	696	7.1
545	(D-16-3) 32cad-1	68	09/23/96	1.89	-	-	-	-	-	-
551	(D-16-3) 32ccc-2	168	05/14/97	0.44	-	-	16	449	260	7.8
552	(D-16-3) 32ccd-1	222	10/01/96	<.02	-	-	13.6	527	306	8.2
553	(D-16-3) 32cda-1	231	09/23/96	0.32	-	-	-	-	-	-
554	(D-16-3) 32dca-1	154	09/23/96	3.03	-	-	-	-	-	-
556	(D-16-3) 32dcd-1	174	10/01/96	0.31	-	-	16.7	415	241	8.1
557	(D-16-3) 32dda-1	162	09/23/96	2.67	-	-	-	-	-	-
558	(D-16-3) 33aca-1	201	09/24/96	3.22	0.025	464	16.4	673	-	7.8
560	(D-16-3) 33bca-1	118	08/22/96	7.83	-	-	11.4	1039	603	7.4
561	(D-16-3) 33cad-1	147	09/24/96	0.07	-	-	-	-	-	-
562	(D-16-3) 33ccb-1	105	09/23/96	0.07	-	-	-	-	-	-
566	(D-16-3) 34cbd-1	64	08/22/96	9.71	-	-	18.4	1465	-	7.3
"	" "	"	11/06/96	8.7	0.014	940	8.2	1505	-	7.5
"	" "	"	09/14/99	10.4	-	-	-	-	-	-
568	(D-16-3) 34bca-1	82	05/15/97	2.79	-	-	10.7	1335	774	6.9
570	(D-16-4) 4bab-1	125	10/21/96	1.46	-	-	11.1	641	372	7.8
571	(D-16-4) 5abc-1	121	10/22/96	3.24	0.025	304	11.6	606	-	7.7
574	(D-16-4) 6dba-1	82	08/20/96	2.78	-	-	15	625	363	7.8
575	(D-16-4) 6dca-1	100	09/24/96	4.3	0.019	344	14.4	636	-	7.8
579	(D-16-4) 7ccd-1	150	09/24/96	5.46	-	-	-	-	-	-
582	(D-16-4) 16adc-1	172	10/21/96	0.28	-	-	15.1	547	317	7.9
583	(D-16-4) 16adc-2	118	10/21/96	1.71	-	-	12.1	586	340	7.9
589	(D-17-2) 1aba-1	158	09/25/96	2.44	-	-	-	-	-	-
591	(D-17-2) 1bab-1	162	10/08/96	2.48	-	-	11.4	945	548	7.7
594	(D-17-2) 1cba-3	168	10/08/96	1.13	0.011	468	10.9	806	-	7.7
595	(D-17-2) 1cbb-1	161	10/08/96	1	-	-	11.7	677	393	7.8
596	(D-17-2) 1cbb-2	182	10/08/96	<.02	-	-	11.8	535	310	7.9
597	(D-17-2) 1dac-1	173	10/09/96	2.52	-	-	10.3	709	411	7.5
599	(D-17-2) 11ddb-1	257	10/08/96	<.02	-	-	11.7	489	284	8.1
600	(D-17-2) 12add-1	246	10/07/96	3.94	-	-	15.2	782	454	7.6
601	(D-17-2) 12bac-1	253	10/07/96	3.46	<0.01	458	10.8	773	-	7.5
603	(D-17-2) 12dab-1	230	10/07/96	3.48	-	-	15.8	774	449	7.5
604	(D-17-2) 12dba-1	222	10/07/96	3.72	-	-	16.9	746	433	7.4
605	(D-17-2) 12dbd-1	195	09/25/96	3.6	-	-	-	-	-	-
606	(D-17-2) 12ddc-1	202	10/07/96	3.44	-	-	17.8	733	425	7.5
607	(D-17-2) 13aba-1	200	10/07/96	2.48	-	-	17.5	748	434	7.6
608	(D-17-2) 13bba-1	179	10/08/96	<.02	-	-	12	521	302	8
609	(D-17-2) 13bdb-1	201	10/07/96	2.37	-	-	16.7	747	433	7.6
610	(D-17-2) 13bdd-1	205	10/08/96	<.02	-	-	11.1	615	357	7.8
611	(D-17-2) 13cbb-1	237	10/08/96	<.02	-	-	11.7	555	322	8
612	(D-17-2) 14abb-1	230	09/25/96	<.02	-	-	-	-	-	-
613	(D-17-2) 14baa-1	337	09/25/96	<.02	-	-	-	-	-	-
616	(D-17-2) 14cbc-1	185	10/08/96	1.97	0.022	428	13.6	744	-	7.8
617	(D-17-2) 14ddd-1	179	10/08/96	0.12	-	-	13	586	340	7.9
619	(D-17-2) 15acc-1	166	09/25/96	<.02	0.026	350	16	554	-	8.1
622	(D-17-2) 22dbd-1	345	09/25/96	1.13	-	-	-	-	-	-
623	(D-17-2) 23acc-1	246	10/09/96	<.02	-	-	12.6	509	295	7.8
625	(D-17-2) 23caa-1	234	10/09/96	<.02	-	-	13.2	521	302	7.8
624	(D-17-2) 23daa-1	217	10/09/96	0.04	-	-	14.6	513	298	7.8
626	(D-17-2) 24aad-1	183	10/16/96	3.09	-	-	11.4	657	381	7.6
627	(D-17-2) 24aad-2	80	10/16/96	3.46	-	-	10	691	401	7.7
628	(D-17-2) 24adc-1	205	09/25/96	2.04	0.017	462	10.2	753	-	7.3
629	(D-17-2) 24bab-1	197	09/25/96	2.82	-	-	-	-	-	-
630	(D-17-2) 25aad-1	203	10/16/96	0.04	-	-	12.7	579	336	7.9
631	(D-17-2) 25cbd-1	109	10/08/96	1.7	-	-	10.9	753	437	7.6
633	(D-17-2) 25dcd-1	120	10/08/96	0.89	-	-	18.1	693	402	7.8
635	(D-17-2) 25ddc-2	127	10/08/96	1	-	-	12.7	825	479	7.8
637	(D-17-2) 26abc-1	183	05/14/97	<0.02	-	-	15.4	509	295	7.5
638	(D-17-2) 26dbd-1	243	10/16/96	2.28	0.014	466	10	823	-	7.5
641	(D-17-2) 35cac-1	145	10/08/96	1.74	-	-	12.2	594	345	7.6
642	(D-17-2) 35cba-1	180	10/08/96	<.02	-	-	12.9	483	280	8
640	(D-17-2) 35cbb-1	147	10/08/96	1.38	-	-	13	599	347	7.8
643	(D-17-2) 35cca-1	182	10/08/96	1.43	-	-	16.6	681	395	7.7
644	(D-17-2) 35cdc-1	46	10/08/96	2.05	0.018	352	11.1	636	-	7.6
645	(D-17-2) 35daa-1	105	10/08/96	3.08	<0.01	478	11	832	-	7.3
646	(D-17-2) 35dbb-1	220	10/16/96	<.02	0.023	430	9.6	753	-	7.9
647	(D-17-2) 35dbc-1	147	10/08/96	2.29	-	-	16.6	790	458	7.5
648	(D-17-2) 36ada-1	87	10/08/96	2.15	-	-	17.2	726	421	7.6
649	(D-17-2) 36bbd-1	96	10/08/96	1.9	<0.01	418	13.7	709	-	7.6
651	(D-17-2) 36bda-1	104	09/25/96	3.73	0.017	496	11.9	689	-	7.7
654	(D-17-2) 36dbb-1	124	10/16/96	2.54	-	-	10.3	882	512	7.5
659	(D-17-3) 3acc-1	97	10/03/96	0.32	0.024	236	14.6	400	-	8.2
661	(D-17-3) 4bbb-1	92	10/01/96	0.18	-	-	10.8	444	258	8
664	(D-17-3) 5aac-1	198	10/01/96	1.09	-	-	14.3	430	249	8.1
665	(D-17-3) 5acc-1	171	05/14/97	2.25	-	-	17.6	447	259	7.8
666	(D-17-3) 5ada-1	182	10/09/96	2.65	-	-	9.9	730	423	7.5
667	(D-17-3) 5bad-1	204	10/01/96	0.38	0.033	260	14.8	409	-	8.1
668	(D-17-3) 5cad-1	136	10/02/96	3.02	-	-	13	715	415	7.5
669	(D-17-3) 5cad-2	265	10/01/96	2.48	0.025	286	10.7	492	-	7.8
671	(D-17-3) 5cac-1	-	10/09/96	2.32	-	-	10.6	596	-	7.7
672	(D-17-3) 5cda-1	151	10/01/96	3.27	-	-	16.8	510	296	7.7
674	(D-17-3) 5cdd-2	149	10/01/96	6.89	0.025	366	12.3	604	-	7.6
675	(D-17-3) 5dba-1	229	10/01/96	6.32	0.05	400	11.4	670	-	7.5
676	(D-17-3) 5dbb-1	98	10/09/96	1.98	-	-	10.6	633	367	7.6
677	(D-17-3) 6acd-1	100	10/02/96	2.72	-	-	10.3	713	414	7.6
678	(D-17-3) 6bca-1	249	09/25/96	3.92	-	-	-	-	-	-
679	(D-17-3) 6cdd-1	171	09/25/96	5.17	-	-	-	-	-	-
681	(D-17-3) 6cdd-2	193	10/07/96	0.55	-	-	12.6	791	459	7.8
682	(D-17-3) 6daa-1	131	10/01/96	1.45	-	-	15.2	546	317	8
684	(D-17-3) 7bbd-1	199	10/07/96	2.7	0.016	384	12.1	706	-	7.6
686	(D-17-3) 7dcd-1	186	10/01/96	3.1	0.066	466	10.1	782	-	7.5
688	(D-17-3) 8baa-1	235	10/01/96	3.19	-	-	10.4	618	358	7.5
690	(D-17-3) 8cac-1	209	10/02/96	3.07	-	-	10.4	714	414	7.5
694	(D-17-3) 8ddd-2	83	10/01/96	1.97	-	-	12.2	586	340	7.6
695	(D-17-3) 9baa-1	90	10/01/96	3.2	0.024	422	11.1	724	-	7.8
706	(D-17-3) 15cbb-1	205	10/01/96	1.06	-	420	-	-	-	-
712	(D-17-3) 16bdd-1	145	10/02/96	2.27	-	-	12.2	668	387	7.7
713	(D-17-3) 16ddd-3	210	05/14/97	-	-	-	12.8	698	415	7.3
"	" "	"	10/02/96	0.52	-	-	14.2	716	-	7.7
714	(D-17-3) 16cda-1	160	10/02/96	1.54	-	-	14	717	416	7.8
717	(D-17-3) 16ddd-1	160	10/03/96	0.29	0.021	446	12.5	670	-	7.6
720	(D-17-3) 17bad-2	78	10/01/96	3.32	-	-	13.4	710	411	7.7
722	(D-17-3) 17dba-1	140	10/02/96	2.03	-	-	13.4	882	512	7.5
726	(D-17-3) 18adc-1	178	10/02/96	4.96	-	-	12.1	658	382	7.6
724	(D-17-3) 18dbb-2	158	10/16/96	5.07	-	-	11.1	696	404	7.6
725	(D-17-3) 18dbd-1	136	10/02/96	2.4	0.022	380	12.7	607	-	7.7
727	(D-17-3) 19bca-1	131	10/16/96	4.01	0.023	430	9.6	753	-	7.6
730	(D-17-3) 20bdc-1	70	10/02/96	3.34	-	-	14.6	625	363	7.8
732	(D-17-3) 20dba-1	157	10/02/96	1.31	-	-	12.4	617	358	7.8
734	(D-17-3) 21bbc-1	135	10/02/96	1.01	-	-	14.6	591	343	7.9
742	(D-17-3) 30bac-1	165	10/16/96	0.65	-	-	13.8	615	357	8
743	(D-17-3) 30ccc-1	160	10/09/96	<.02	-	-	13.4	512	297	8.1
747	(D-17-3) 31ada-1	77	10/09/96	8.57	-	-	14	990	574	7.4
748	(D-17-3) 31bad-1	126	10/09/96	<.02	-	-	12.7	558	324	8
"	" "	"	09/14/99	3.45	-	-	-	-	-	-
749	(D-17-3) 31bba-1	186	10/09/96	3.19	0.018	526	12.1	891	-	7.4
750	(D-17-3) 31caa-1	100	10/09/96	0.09	-	-	13.7	550	319	7.8
752	(D-17-3) 31dba-1	74	10/02/96	3.19	-	-	15.9	885	513	7.6
754	(D-17-3) 32cab-1	152	10/09/96	3.46	-	-	16.4	820	476	7.6
756	(D-18-2) 1aad-1	73	10/09/96	0.29	-	-	14.8	485	281	7.9
757	(D-18-2) 1aad-2	60	10/09/96	0.85	-	-	14.5	536	311	7.8
758	(D-18-2) 1aca-1	64	10/09/96	3.38	<0.01	508	12.6	842	-	7.3
759	(D-18-2) 1bba-1	76	10/16/96	0.95	-	-	11.4	784	455	7.8
760	(D-18-2) 1bbd-1	60	09/25/96	0.15	-	-	-	-	-	-
770	(D-18-2) 2aac-1	71	10/16/96	2.22	-	-	11.2	816	473	7.5
764	(D-18-2) 2abd-1	152	10/17/96	0.91	-	-	-	-	-	-
768	(D-18-2) 2bac-1	121	10/08/96	1.65	-	-	11	609	353	7.7
769	(D-18-2) 2bba-1	108	09/25/96	1.35	-	-	-	-	-	-
771	(D-18-2) 2bda-1	147	10/08/96	1.12	-	-	14	567	329	7.8
772	(D-18-2) 2dca-1	46	10/16/96	0.28	-	-	13.6	493	286	7.9
773	(D-18-2) 2dcd-1	41	10/16/96	0.65	0.02	302	14.4	500	-	7.9
775	(D-18-2) 3abb-1	65	05/14/97	<0.02	-	-	14.9	493	286	8.2
776	(D-18-2) 10abb-1	60	10/16/96	2.21	0.016	442	13.8	735	-	7.6
777	(D-18-2) 10adc-1	42	05/14/97	<0.02	-	-	10.7	1092	633	6.8
780	(D-18-2) 11add-1	-	10/17/96	2.12	-	-	11.4	733	-	7.7
781	(D-18-2) 11bac-1	145	10/16/96	<.02	-	-	15.3	578	335	8.2
782	(D-18-2) 11bcc-1	39	10/16/96	2.22	-	-	13.2	730	423	7.5
784	(D-18-2) 11cca-1	118	10/16/96	1.86	-	-	9.8	798	463	7.6
785	(D-18-2) 11daa-1	85	10/09/96	1.05	<0.01	384	14.9	669	-	7.5
786	(D-18-2) 11dad-1	135	10/09/96	<.02	0.011	434	15.1	782	-	7.9
787	(D-18-2) 11dcd-1	80	10/16/96	1.68	-	-	10.3	759	440	7.6
791	(D-18-2) 14bbb-1	123	10/16/96	0.84	0.013	370	10.8	673	-	8
792	(D-18-2) 15aab-1	107	10/16/96	0.83	-	-	11.9	731	424	7.9
796	(D-18-2) 27bdc-1	75	11/05/96	40.16	0.83	1322	9.6	2147	-	7.2
"	" "	"	08/27/97	45.3	-	-	21.1	2217	-	7.2
"	" "	"	09/14/99	33.4	-	-	-	-	-	-
797	(D-18-2) 27ccd-1	60	11/05/96	1.16	-	-	11.3	605	351	7.9
798	(D-18-2) 34abd-1	60	11/05/96	22.42	-	-	12.7	2423	1405	7.6
"	" "	"	09/14/99	0.09	-	-	-	-	-	-
799	(D-18-2) 33aac-1	100	11/05/96	2.72	0.027	542	10.6	966	-	7.6
800	(D-18-2) 28ddd-1	50	11/05/96	4.45	-	-	12.1	804	466	7.8
802	(D-18-2) 32ada-1	43	11/05/96	0.74	-	-	8.6	581	337	7.9
803	(D-18-2) 33abd-1	80	11/05/96	7.25	-	-	-	-	-	-
"	" "	"	09/14/99	4.72	-	-	-	-	-	-
805	(D-18-2) 33acb-1	63	11/05/96	2.26	-	-	10.1	1061	615	7.6
808	(D-18-2) 33cab-1	260	11/05/96	4.41	<0.01	728	10.6	1243	-	7.2
810	(D-18-2) 34bcb-1	60	05/14/97	0.05	-	-	11.8	476	276	8.2
811	(D-18-2) 34cda-1	137	11/05/96	0.83	0.013	286	11	555	-	7.8
815	(D-18-2) 35cad-1	63	10/23/96	0.33	<0.01	576	14.9	928	-	8
816	(D-18-2) 35dcc-1	85	10/23/96	0.53	-	516	-	-	-	-
"	" "	"	10/23/96	0.53	<0.01	516	13.6	865	-	8.1
818	(D-18-3) 6bac-1	66	10/09/96	0.86	-	-	13.3	597	346	7.7
819	(D-18-3) 6bcc-1	85	10/08/96	1.97	-	-	13.1	700	406	7.6
824	(D-18-3) 7dcd-1	90	10/10/96	6.2	<0.01	506	11.1	846	-	7.4
825	(D-18-3) 18baa-1	80	10/10/96	5.02	<0.01	506	12.2	831	-	7.6
826	(D-19-2) 3bbd-1	265	11/05/96	<.02	0.016	476	10.2	865	-	8
828	(D-19-2) 4baa-1	99	11/05/96	3.76	-	-	10.6	1033	599	7.2
835	(D-19-2) 20dcb-1	60	11/05/96	0.63	0.023	234	11.9	477	-	8.2
836	(D-19-2) 29bdc-1	200	11/05/96	11.86	0.016	732	14.4	1233	-	7.6
"	" "	"	09/14/99	0.36	-	-	-	-	-	-
837	(D-19-2) 32aac-1	166	10/23/96	0.62	<0.01	320	15.5	621	-	7.7
842	(D-20-2) 6dcd-1	60	10/23/96	0.04	<0.01	2752	12.1	3005	-	7.8
845	(D-20-2) 18aaa-1	140	10/23/96	0.36	0.012	244	11.8	441	-	8.4
997	(D-16-3) 32 cbb-1	200	09/24/96	0.04	-	-	-	-	-	-
998	(D-15-3) 35bbb-1	no log	08/21/96	0.18	-	-	18.9	1041	-	7.3
999	(D-15-3) 9cad-1	300	05/13/97	0.97	-	-	17.4	483	-	7.5
1001	(D-19-2) 29bdc-1	-	05/14/97	0.4	-	-	8.2	-	216	8.2
1002	(D-19-2) 29bab-1	-	05/14/97	0.33	-	-	12.3	452	262	7.6
1006	(D-15-3) 35bbb-1	-	05/13/97	3.69	-	-	13.1	660	383	7.2

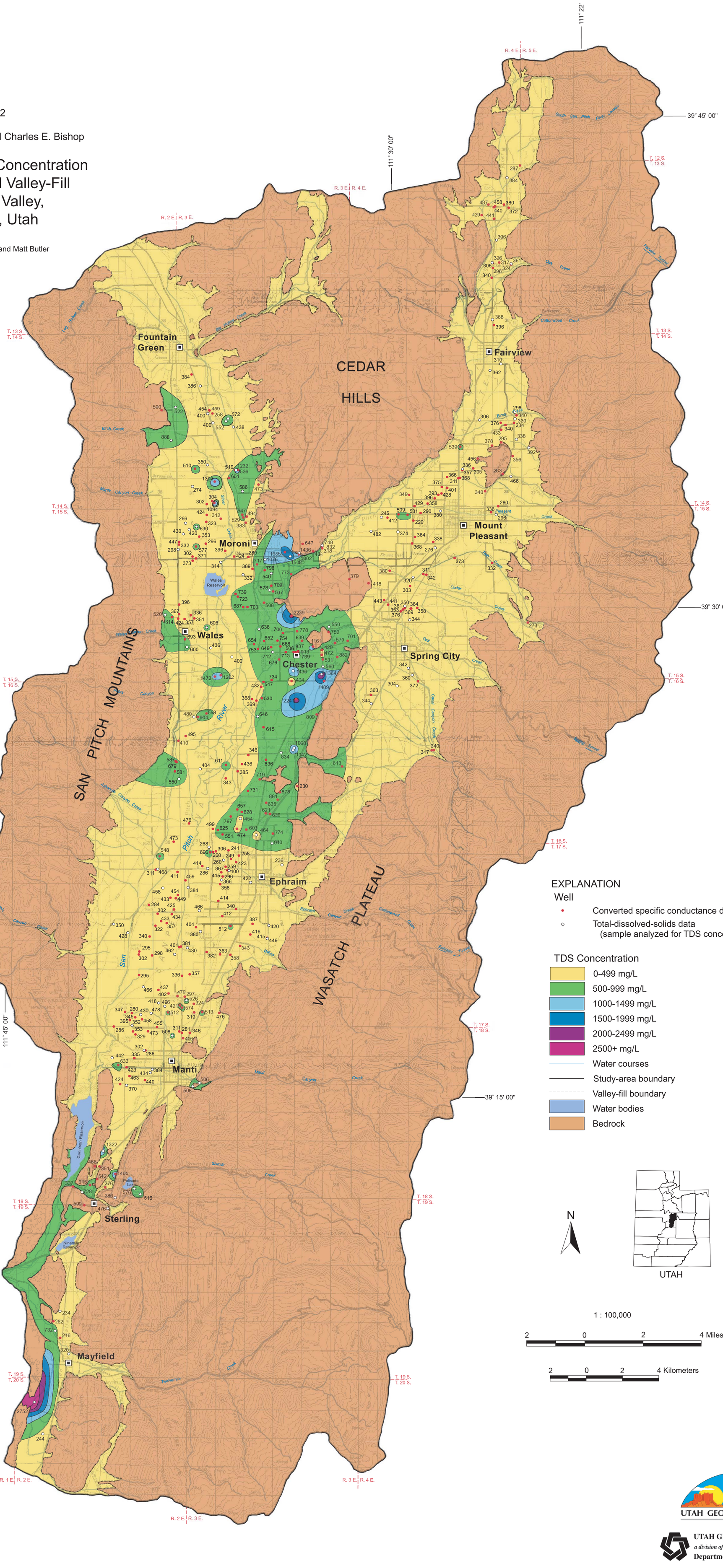
Well ID #	Sampling Date	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)	Bicarbonate (mg/L as HCO_3)	Carbonate (mg/L as CO_3)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Hydroxide (mg/L)	Carbon Dioxide (mg/L)	Ammonia (as N) (mg/L)	Aluminum, dissolved (µg/L)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Iron, dissolved (µg/L as Fe)	Lead, dissolved (µg/L as Pb)	Manganese, dissolved (µg/L as Mn)	Mercury, dissolved (µg/L as Hg)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Zinc, dissolved (µg/L as Zn)	Total Alk/ $CaCO_3$ (mg/L)	Total Hdn/ $CaCO_3$ (mg/L)	Total Phosphate, dissolved (mg/L)	CO_3 Solids	Tritium (TU)	Specific Conductance (lab) (µS/cm)
13	07/16/96	67.4	51.6	12.2	<1	426	0	24.1	35.0	0	27	<0.05	<30.0	<5.0	260	<1.0	<5.0	<12.0	32.3	<3.0	55.0	<0.2	1.8	<2.0	630	349	380.5	<0.01	210	-	745
33	09/17/96	61.3	26.6	12.1	1.1	336	0	25.0	8.0	0	2	<0.05	<30.0	<5.0	190	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	110	276	303.5	0.03	165	-	583
36	09/17/96	73.4	30.0	11.7	<1	338	0	18.9	11.0	0	4	<0.05	<30.0	<5.0	190	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	270	277	306.6	<0.01	166	-	617
38	07/30/96	56.4	-	15.5	<1	334	0	30.4	11.0	0	9	<0.05	<30.0	<5.0	99	<1.0	<5.0	<12.0	54.8	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	274	258.4	<0.01	164	-	568
55	09/17/96	79	-	20.4	<1	380	0	20.8	14.5	0	6	<0.05	<30.0	<5.0	240	<1.0	5.3	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	420	312	333.7	<0.01	187	-	688
66	10/18/96	42.9	-	33.8	1.1	564	0	39.3	29.0	0	6	<0.05	31.0	<5.0	67	<1.0	<5.0	<12.0	<20.0	<3.0	6.0	<0.2	3.7	<2.0	<30.0	462	459.6	0.032	277	-	986
68	08/12/96	2.6	24.5	323.0	1.8	179	0	<10.0	460.0	0	0	0.49	<30.0	<5.0	49	<1.0	<5.0	<12.0	20.4	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	147	107.4	0.01	88	-	1740
78	07/24/96	70.5	26.9	12.8	2.0	350	0	22.1	22.5	0	8	<0.05	84.0	<5.0	110	<1.0	<5.0	1750.0	281.0	170.0	63.0	<0.2	1.5	<2.0	2880	287	286.6	0.05	172	-	658
83	09/18/96	85.7	34.9	19.3	2.2	380	0	18.1	30.5	0	3	<0.05	<30.0	<5.0	108	<1.0	5.2	<12.0	<20.0	<3.0	8.3	<0.2	1.3	<2.0	335	312	357.4	<0.01	187	-	737
84	08/06/96	108	33.0	21.2	4.4	328	0	30.1	50.0	0	9	<0.05	<30.0	<5.0	260	<1.0	5.5	<12.0	<20.0	<3.0	<5.0	<0.2	3.2	<2.0	380	269	405.2	0.01	161	-	854
92	11/06/96	116	35.9	27.5	3.6	400	0	37.9	44.0	0	5	<0.05	<30.0	<5.0	160	<1.0	5.1	<12.0	21.5	<3.0	5.6	<0.2	2.8	<2.0	600	328	437.1	0.016	197	194	943
"	08/28/97	100	30.4	33.8	4.9	284	0	<10.0	55.5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	233	374.6	-	140	-	814
92b	08/28/97	43.8	33.2	20.8	2.7	380	0	<10.0	24.0	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	312	245.9	-	187	-	683
93	11/06/96	87.3	27.5	23.1	4.2	282	0	25.7	50.0	0	4	<0.05	<30.0	<5.0	140	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	2.2	<2.0	950	231	331.0	0.015	139	-	758
95	08/06/96	85.6	31.3	16.4	2.6	366	0	24.0	23.0	0	8	<0.05	<30.0	<5.0	130	<1.0	<5.0	<12.0	23.3	<3.0	<5.0	<0.2	1.4	<2.0	<30.0	300	342.4	0.01	180	-	678
105	11/06/96	104	36.5	17.1	4.2	322	0	43.4	85.0	0	6	<0.05	<30.0	<5.0	240	<1.0	5.1	<12.0	<20.0	<3.0	<5.0	<0.2	2.7	<2.0	92	264	409.7	0.024	158	-	875
"	08/28/97	172	68.1	40.9	5.4	14	0	75.2	230.0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	709.3	-	7	-	1560
106	09/18/96	67	29.8	25.1	2.6	306	0	48.0	18.5	0	3	<0.05	<30.0	<5.0	92	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	251	289.8	0.03	151	-	625
115	08/06/96	54.8	29.8	6.0	2.2	278	0	16.5	9.5	0	3	<0.05	<30.0	<5.0	41	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	228	259.3	0.01	137	-	484
126	07/30/96	90.1	30.5	33.9	6.5	360	0	71.3	66.0	0	14	<0.05	<30.0	<5.0	110	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	2.7	<2.0	<30.0	295	350.3	0.025	177	-	900
141	07/17/96	85.6	27.2	13.7	1.1	346	0	28.5	8.5	0	21	<0.02	<30.0	<5.0	120	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	42	284	325.5	<0.01	170	-	680
146	07/23/96	59.2	28.3	22.5	<1	318	0	20.7	13.0	0	8	0.10	<30.0	<5.0	130	<1.0	<5.0	<12.0	1230.0	<3.0	210.0	<0.2	<1.0	<2.0	270	261	264.1	0.04	156	-	563
148	07/17/96	55.3	21.3	17.6	1.1	328	0	23.7	<0.5	0	11	<0.05	<30.0	<5.0	98	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	269	225.6	<0.01	161	-	551
150	07/18/96	<1	<1	141.0	<1	332	0	24.7	7.0	0	14	<0.05	<30.0	<5.0	<5.0	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	272	6.6	<0.01	163	-	587
157	07/30/96	68.9	25.5	10.8	<1	328	0	18.5	8.5	0	10	<0.05	<30.0	<5.0	160	<1.0	<5.0	<12.0	22.9	<3.0	<5.0	<0.2	<1.0	<2.0	100	269	276.8	<0.01	161	-	544
167	07/17/96	63.5	31.9	23.3	<1	360	0	28.0	11.0	0	17	<0.05	<30.0	<5.0	160	<1.0	<5.0	12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	150	295	289.7	0.01	177	-	627
170	07/18/96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	914
"	11/04/96	100	39.6	15.6	1.6	414	0	18.3	24.5	0	5	<0.05	<30.0	<5.0	260	<1.0	8.4	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	100	339	412.4	0.013	204	-	
179	07/18/96	64.3	28.7	16.5	2.3	326	0	22.6	12.0	0	0	<0.05	<30.0	<5.0	31.0.0	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	99	267	278.5	0.02	160	-	593
200	09/18/96	78.9	38.0	18.6	1.6	364	0	13.1	40.5	0	7	<0.05	<30.0	<5.0	210	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.6	<2.0	38	298	353.2	0.03	179	-	720
207	08/08/96	71.6	42.7	42.8	1.7	296	0	172.7	22.0	0	6	<0.05	<30.0	<5.0	22	<1.0	<5.0	<12.0	95.1	<3.0	20.0	<0.2	1.9	<2.0	65	243	354.3	<0.01	146	-	799
223	08/27/97	30.7	25.8	6.8	1.3	284	0	<10	7.5	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	233	182.8	-	140	-	465
224	08/28/97	43.7	36.7	27.1	1.8	356	0	0.0	25.0	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	292	260.0	-	175	-	712
225	08/28/97	42.3	46.8	14.1	2.0	460	0	<10	11.7	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	377	298.1	-	226	-	702
226	08/28/97	55.6	52.3	45.5	2.1	428	0	32.1	67.0	0	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	351	353.9	-	211	-	1020
232	08/07/96	47.6	34.6	11.3	1.3	294	0	16.5	14.0	0	5	<0.05	<30.0	<5.0	170	<1.0	<5.0	<12.0	501.0	<3.0	92.0	<0.2	<1.0	<2.0	130	241	261.1	0.02	145	-	512
241	08/06/96	46.6	31.9	14.6	1.7	290	0	21.5	8.5	0	5	<0.05	<30.0	<5.0	110	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	32	238	247.5	0.01	143	-	495
248	11/06/96	112	109.0	81.1	24.2	606	0	178.0	105.0	0	6	<0.05	<30.0	22.0	160	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	5.9	<2.0	<30.0	497	727.9	0.17	298	-	1668
250	11/06/96	155	116.0	159.0	3.2	506	0	582.0	112.5	0	8	<0.05	<30.0	<5.0	20	<1.0	6.5	<12.0	22.6	<3.0	220.0	<0.2	6.7	<2.0	<30.0	415	864.0	<0.01	249	152	2045
253	08/28/97	180	84.7	104.0	4.0	448	0	492.6	107.5	0	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	367	797.6	-	220	-	1820
258	07/31/96	88.8	75.8	76.0	1.5	496	0	220.6	90.0	0	23	<0.05	<30.0	<5.0	30	<1.0	<5.0	<12.0	4330.0	<3.0	50.0	<0.2	2.6	<2.0	31	407	533.4	<0.01	244	-	1265
261	07/31/96	69.2	90.5	64.9	2.1	350	0	191.0	60.0	0	10	<0.05	<30.0	<5.0	92	<1.0	<5.0	<12.0	39.7	<3.0	46.1	<0.2	1.6	<2.0	33	287	545.0	<0.01	172	-	1248
263	08/08/96	47.8	33.8	101.0	9.3	382	0	95.9	47.0	0	6	<0.05	<30.0	<5.0	90	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.1	<2.0	190	313	258.3	<0.01	188	-	890
265	08/28/97	59	49.9	36.7	5.9	412	0	76.8	48.5	0	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	352.5	-	203	-	920
271	08/07/96	29.3	19.6	42.8	7.2	195	0	12.2	52.0	0	2	<0.05	<30.0	8.3	190	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	160	153.7	<0.01	96	-	498
293	08/20/96	48.3	101.0	34.4	<1	624	0	34.8	38.0	0	13	<0.05	<30.0	<5.0	130	<1.0	<5.0	<12.0	47.6	<3.0	11.0	<0.2	<1.0	<2.0	<30.0	512	536.1	<0.01	307	-	1007
308	08/15/96	53.7	48.0	94.8	7.4	450	0	86.6	86.0	0	17	0.28	<30.0	<5.0	30	<1.0	<5.0	<12.0	1680.0	<3.0	39.0	<0.2	1.4	<2.0	160	369	331.5	0.01	221	-	1040
314	08/21/96	51.4	56.8	33.8	1.6	476	0	<10.0	45.5	0	15	-	<30.0	<5.0	51	<1.0	<5.0	<12.0	3350.0	<3.0	77.0	<0.2	<1.0	<2.0	<30.0	390	361.9	0.45	234	-	839
315	11/06/96	77.5	76.0	43.8	1.8	522	0	69.0	54.0	0	7	<0.05	<30.0	<5.0	51	<1.0	9.7	<12.0	<20.0	<3.0	<5.0	<0.2	2.3	<2.0	<30.0	428	506.0	0.015	257	-	1080
319	10/22/96	65.6	57.0	40.3	1.9	484	0	99.9	56.0	0	18	<0.05	<30.0	<5.0	86	<1.0	<5.0	12.0	<20.0	<3.0	<5.0	<0.2	5.6	<2.0	39	397	398.2	0.047	238	-	1029
325	08/14/96	53.3	38.7	30.6	5.2	304	0	44.9	44.5	0	6	<0.05	<30.0	6.0	78	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	3.2	<2.0	<30.0	249	292.2	0.02	150	-	670
337	08/14/96	76.3	61.8	93.2	3.6	434	0	169.0	78.0	0	18	<0.05	<30.0	<5.0	52	<1.0	<5.0	<12.0	63.5	<3.0	23.0	<0.2	1.7	<2.0	420	356	444.6	0.01	214	-	1125
342	08/20/96	154	156.0	108.0	3.4	472	0	458.1	295.0	0	19	<0.05	<30.0	<5.0	31	<1.0	<5.0	<12.0	70.2	<3.0	170.0	<0.2	4.1	<2.0	<30.0	387	1026.1	0.01	232	-	2234
347	08/27/97	69.6	168.0	170.0	3.8	674	0	57.1	250.0	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	553	864.9	-	332	-	2070
348	08/14/96	85.3	298.0	317.0	4.9	560	0	485.3	612.5	0	21	<0.05	<30.0	20.0	74	<1.0	<5.0	<12.0	25.8	<3.0	<5.0	<0.2	25.0	<2.0	<30.0	459	1438.9	0.02	276	164	3700
352	08/28/97	35.4	70.7	59.6	3.5	458	0	26.0	60.0	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	376	379.2	-	225	-	963
354	07/30/96	67.5	27.9	4.8	<1	360	0	13.9	3.0	0	11	<0.05	<30.0	<5.0	300	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	53	295	283.2	<0.01	177	-	542
360	09/17/96	84.6	38.1	11.6	6.1	402	0	19.8	13.0	0	5	<0.05	<30.0	<5.0	320	<1.0	5.3	<12.0	61.7	<3.0	61.0	<0.2	<1.0	<2.0	210	330	367.8	<0.01	198	-	725
368	07/23/96	56.6	25.1	8.5	1.7	282	0	20.9	6.0	0	6	<0.05	44.0	<5.0	94	<1.0	<5.0	720.0	1530.0	150.0	31.0	<0.2	<1.0	<2.0	1200	231	244.5	0.11	139	-	473
370	09/17/96	73.5	42.5	11.8	1.8	386	0	16.5	13.5	0	5	<0.05	<30.0	<5.0	290	<1.0	5.4	<12.0	<20.0	<3.0	13.0	<0.2	<1.0	<2.0	380	317	358.2	<0.01	190	-	714
376	07/30/96	45.1	15.7	93.9	2.3	226	0	178.6	25.5	0	4	<0.05	<30.0	<5.0	55	<1.0	<5.0	<12.0	2400.0	<3.0	21.0	<0.2	<1.0	<2.0	<30.0	185	177.1	<0.01	111	-	764
378	09/17/96	70.5	27.5	4.4	1.3	324	0	11.2	4.0	0	3	<0.05	<30.0	<5.0	167	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	266	289.0	0.15	159	-	521
395	07/30/96	53.5	32.9	17.8	<1	330	0	17.1	16.5	0	10	<0.05	<30.0	<5.0	230	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	400	271	268.8	<0.01	162	-	579
398	10/21/96	34.2	36.6	30.1	1.3	342	0	22.6	31.0	0	7	<0.05	<30.0	<5.0	170	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.4	<2.0	35	280	235.0	0.14	168	-	659
412	10/21/96	48.5	36.6	30.4	1.4	346	0	20.9	30.0	0	3	<0.05	<30.0	<5.0	200	<1.0	95.0	<12.0	<20.0	<3.0	130.0	<0.2	1.2	<2.0	150	284	271.6	0.034	170	-	659
428	10/21/96	37.3	36.2	18.4	<1	384	0	15.3	11.7	0	10	<0.05	<30.0	<5.0	300	<1.0	5.2	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	315	241.0	0.053	189	-	634
431	10/21/96	43.4	46.6	21.9	1.2	398	0	20.0	19.0	0	4	<0.05	35.0	<5.0	220	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	120	326	300.0	0.039	196	-	687
442	08/13/96	51.2	55.5	67.8	1.6	372	0	100.7	66.0	0	6	<0.05	<30.0	<5.0	55	<1.0	<5.0	<12.0	<20.0	<3.0	68.0	<0.2	2.5	<2.0	<30.0	305	356.1	0.01	183	-	929
477	09/19/96	55.9	61.4	40.2	1.9	370	0	96.0	38.0	0	5	<0.05	<30.0	<5.0	40	<1.0	<5.0	<12.0	<20.0	<3.0	24.0	<0.2	1.5	<2.0	<30.0	303	392.1	0.09	182	-	861
483	08/14/96	86	48.9	59.6	7.7	342	0	137.8	84.5	0	15	<0.05	<30.0	6.6	70	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	2.3	<2.0	<30.0	280	415.8	0.03	168	-	1004
494	08/28/97	70.7	114.0	120.0	2.5	430	0	89.7	195.0	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	353	645.4	-	212	-	1620
495	08/28/97	62.2	92.6	79.0	2.4	416	0	100.2	102.0	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	341	536.2	-	205	-	1250
496	09/24/96	93.8	112.0	107.0	2.3	434	0	220.6	205.0	0	5	<0.05	<30.0	9.1	56	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	9.4	<2.0	140	356	694.9	<0.01	214	-	1683
507	09/24/96	40.1	34.8	39.5	2.7	258	0	18.0	66.0	0	3	0.30	<30.0	<5.0	493	<1.0	<5.0	<12.0	453.0	<3.0	24.3	<0.2	<1.0	<2.0	<30.0	212	243.2	0.43	127	-	640
528	09/24/96	46.2	56.7	39.6	2.2	310	0	47.0	64.5	0	3	0.06	<30.0	7.1	80	<1.0	5.3	<12.0	<20.0	<3.0	<5.0	<0.2	4.9	<2.0	<30.0	254	348.6	<0.01	153	-	832
539	09/19/96	38.6	37.2	15.5	1.5	260	0	30.4	12.0	0	2	<0.05	<30.0	<5.0	140	<1.0	<5.0	<12.0	<20.0	<3.0	29.0	<0.2	1.1	<2.0	<30.0	213	249.4	0.01	128	-	519
558	09/24/96	49	46.2	57.6	2.8	374	0	60.3	39.7	0	4	0.19	<30.0	<5.0	87	<1.0	5.2	<12.0	328.0	<3.0	21.1	<0.2	2.0	<2.0	69	307	312.3	<0.01	184	-	**673**
566	11/06/96	100	95.4	84.8	2.6	464	0	257.0	115.0	0	5	<0.05	<30.0	5.8	41	<1.0	6.2	<12.0	41.4	<3.0	<5.0	<0.2	6.4	<2.0	77	380	642.0	0.015	228	-	1466
571	10/22/96	33.1	37.7	13.9	1.2	336	0	10.4	20.5	0	6	<0.05	<30.0	<5.0	320	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.3	<2.0	46	276	237.0	-	165	-	602
575	09/24/96	48.5	41.0	29.2	1.3	326	0	21.6	30.5	0	4	0.06	<30.0	<5.0	120	<1.0	5.7	<12.0	<20.0	<3.0	<5.0	<0.2	1.7	<2.0	40	267	289.7	<0.01	160	-	648
594	10/08/96	49.9	48.9	66.4	1.7	318	0	74.7	59.0	0	5	<0.05	<30.0	<5.0	59	<1.0	<5.0	<12.0	<20.0	<3.0	48.0	<0.2	<1.0	<2.0	<30.0	261	325.7	<0.01	156	-	857
601	10/07/96	53.7	50.4	32.7	1.9	400	0	45.8	14.0	0	8	0.05	<30.0	<5.0	76	<1.0	5.1	<12.0	<20.0	<3.0	<5.0	<0.2	2.4	<2.0	<30.0	328	341.4	<0.01	197	-	767
616	10/08/96	53.6	50.7	48.3	1.9	348	0	66.4	35.0	0	5	<0.05	<30.0	<5.0	65	<1.0	5.0	<12.0	<20.0	<3.0	29.0	<0.2	1.6	<2.0	49	285	342.3	<0.01	171	-	791
619	09/25/96	28.9	30.8	52.0	2.2	242	0	49.2	18.5	0	3	0.05	<30.0	<5.0	42	<1.0	<5.0	<12.0	132.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	198	198.8	<0.01	119	-	599
628	09/25/96	66.2	59.8	26.8	1.4	434	0	67.6	10.3	0	7	<0.05	<30.0	<5.0	52	<1.0	7.9	<12.0	<20.0	<3.0	<5.0	<0.2	2.4	<2.0	<30.0	356	411.2	0.03	214	-	829
638	10/16/96	74.6	55.1	21.1	<1	422	0	77.2	10.0	0	11	<0.05	<30.0	<5.0	45	<1.0	11.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.3	<2.0	<30.0	346	412.8	<0.01	208	-	814
644	10/08/96	43.2	44.3	23.3	1.7	300	0	65.7	17.0	0	4	0.07	<30.0	<5.0	87	<1.0	<5.0	<12.0	<20.0	<3.0	71.0	<0.2	13.0	<2.0	<30.0	246	290.1	0.02	148	-	664
645	10/08/96	78.4	55.9	16.8	1.5	454	0	71.8	8.5	0	6	<0.05	<30.0	<5.0	45	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.1	<2.0	87	372	425.6	<0.01	223	-	857
649	10/08/96	53.6	57.9	28.2	1.5	330	0	83.5	22.5	0	6	<0.05	<30.0	<5.0	47	<1.0	<5.0	<12.0	20.0	<3.0	44.0	<0.2	6.3	<2.0	<30.0	271	372.0	<0.01	162	-	752
651	09/25/96	68.5	62.0	28.0	1.4	422	0	91.5	14.5	0	8	0.06	<30.0	<5.0	47	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	3.2	<2.0	<30.0	346	426.0	<0.01	208	-	850
659	10/03/96	38.8	28.1	7.6	<1	270	0	15.4	<0.5	0	2	0.05	<30.0	<5.0	140	<1.0	<5.0	<12.0	<20.0	3.3	<5.0	<0.2	1.0	<2.0	410	221	212.4	<0.01	133	-	449
667	10/01/96	27.8	31.9	18.8	1.3	222	0	41.5	7.5	0	2	0.07	<30.0	<5.0	59	<1.0	<5.0	<12.0	<20.0	<3.0	27.0	<0.2	<1.0	<2.0	<30.0	182	200.6	0.027	109	-	467
669	10/01/96	38.2	35.2	12.9	1.2	280	0	27.6	8.5	0	4	0.06	<30.0	<5.0	71	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	230	240.1	0.011	138	-	527
674	10/01/96	54.6	46.3	14.2	1.5	344	0	30.3	16.0	0	4	0.06	<30.0	<5.0	94	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	282	326.7	0.016	169	-	684
675	10/01/96	39.4	47.0	14.2	1.3	386	0	33.0	14.5	0	7	<0.05	<30.0	<5.0	100	<1.0	<5.0	<12.0	20.4	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	317	291.7	0.016	190	-	754
684	10/07/96	58.5	50.8	27.5	2.8	380	0	36.7	14.7	0	6	<0.05	<30.0	<5.0	82	<1.0	14.1	<12.0	<20.0	<3.0	<5.0	<0.2	1.9	<2.0	<30.0	312	355.0	0.016	187	-	718
686	10/01/96	70	55.3	29.8	2.0	444	0	60.0	16.0	0	8	0.05	<30.0	<5.0	61	<1.0	<5.0	<12.0	53.3	<3.0	9.8	<0.2	2.2	<2.0	62	364	402.2	<0.01	218	-	864
695	10/01/96	66.7	51.9	15.4	1.5	442	0	33.5	15.0	0	9	0.08	<30.0	<5.0	110	<1.0	5.0	<12.0	<20.0	<3.0	82.0	<0.2	<1.0	<2.0	590	362	380.0	<0.01	217	-	789
713	05/14/97	-	-	-	-	-	-	-	-	-	-	-	-	<5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
717	10/03/96	52.3	45.7	28.0	1.2	352	0	84.0	15.0	0	5	<0.05	<30.0	180.0	37	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.9	<2.0	<30.0	289	318.5	0.01	173	-	750
725	10/02/96	53.4	44.2	19.5	1.5	384	0	35.6	9.5	0	7	0.06	<30.0	<5.0	75	<1.0	-	<12.0	<20.0	<3.0	11.0	<0.2	1.2	<2.0	250	315	315.1	<0.01	189	-	692
727	10/16/96	67.5	52.9	15.2	1.0	368	0	70.6	18.5	0	7	<0.05	<30.0	<5.0	49	<1.0	9.5	<12.0	<20.0	<3.0	<5.0	<0.2	2.4	<2.0	<30.0	302	386.1	0.012	181	-	763
749	10/09/96	64.9	62.5	44.9	2.1	440	0	106.1	19.0	0	6	<0.05	<30.0	5.5	35	<1.0	<5.0	<12.0	28.1	<3.0	<5.0	<0.2	4.7	<2.0	<30.0	361	419.1	0.014	216	-	922
758	10/09/96	95.4	59.1	20.1	1.3	464	0	77.2	9.0	0	8	<0.05	<30.0	<5.0	53	<1.0	6.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.1	<2.0	120	380	481.2	<0.01	228	-	883
773	10/16/96	53.8	30.9	8.9	<1	224	0	84.1	<0.5	0	3	<0.05	<30.0	<5.0	48	<1.0	5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	82	184	261.4	<0.01	110	-	526
776	10/16/96	67.2	49.4	26.6	1.2	388	0	78.5	9.0	0	7	<0.05	<30.0	<5.0	45	<1.0	15.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.1	<2.0	240	318	370.9	<0.01	191	-	774
785	10/09/96	57.6	42.8	19.2	1.9	368	0	65.0	<0.5	0	5	<0.05	<30.0	<5.0	48	<1.0	5.4	41.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	900	302	319.8	<0.01	181	-	698
786	10/09/96	25	42.0	101.0	2.8	440	0	34.7	17.5	0	5	0.25	<30.0	<5.0	900	<1.0	5.2	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	60	361	235.2	0.016	216	-	793
791	10/16/96	42.2	42.5	35.0	2.8	282	0	13.0	26.5	0	5	<0.05	<30.0	<5.0	34	<1.0	7.6	<12.0	<20.0	<3.0	13.0	<0.2	<1.0	<2.0	<30.0	231	280.2	<0.01	139	-	663
796	11/05/96	70.2	136.0	172.0	48.7	832	0	156.7	137.5	0	13	0.43	<30.0	98.0	10	<1.0	<5.0	14.0	<20.0	<3.0	43.0	<0.2	3.1	<2.0	42	682	734.7	0.65	409	-	2089
799	11/05/96	54.8	50.7	76.1	2.5	430	0	90.2	38.0	0	4	<0.05	<30.0	<5.0	42	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	2.1	<2.0	110	353	345.3	<0.01	212	-	931
808	11/05/96	95.4	78.7	58.9	1.4	580	0	140.2	49.0	0	9	<0.05	<30.0	<5.0	100	<1.0	9.2	<12.0	27.5	<3.0	7.7	<0.2	<1.0	<2.0	<30.0	476	561.8	<0.01	285	-	1177
811	11/05/96	47.5	34.3	13.0	1.3	270	0	34.5	18.7	0	2	<0.05	<30.0	<5.0	150	<1.0	<5.0	23.0	<20.0	<3.0	<5.0	<0.2	4.6	<2.0	62	221	259.6	<0.01	133	-	533
815	10/23/96	63.7	68.4	49.1	2.9	390	0	163.0	33.0	0	5	<0.05	<30.0	<5.0	38	<1.0	24.0	<12.0	22.3	<3.0	<5.0	<0.2	3.9	<2.0	78	320	440.4	0.026	192	-	970
816	10/23/96	20.5	18.3	137.0	3.2	338	0	130.9	45.5	0	2	0.33	<30.0	<5.0	33	<1.0	<5.0	<12.0	903.0	<3.0	43.0	<0.2	<1.0	<2.0	<30.0	277	126.0	0.0499	166	-	899
824	10/10/96	83.9	62.8	22.5	2.0	408	0	103.1	18.0	0	7	<0.05	<30.0	<5.0	47	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	335	467.7	<0.01	201	-	886
825	10/10/96	67.9	58.7	47.0	2.1	396	0	116.9	16.5	0	6	<0.05	<30.0	<5.0	34	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	2.0	<2.0	<30.0	325	410.9	<0.01	195	-	897
826	11/05/96	38.7	35.6	94.8	3.2	374	0	69.8	49.7	0	3	0.09	<30.0	<5.0	55	<1.0	<5.0	<12.0	28.8	<3.0	17.0	<0.2	<1.0	<2.0	150	307	243.0	<0.01	184	-	848
835	11/05/96	34.2	26.4	16.0	<1	254	0	14.9	5.5	0	1	<0.05	<30.0	<5.0	130	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	<1.0	<2.0	<30.0	208	194.0	<0.01	125	-	418
836	11/05/96	54.1	70.5	98.4	3.0	348	0	155.0	111.0	0	5	<0.05	<30.0	<5.0	30	<1.0	<5.0	13.0	27.2	<3.0	<5.0	<0.2	4.1	<2.0	<30.0	285	425.1	0.014	171	-	1186
837	10/23/96	59.5	42.6	10.5	1.0	370	0	17.9	15.5	0	4	<0.05	<30.0	<5.0	120	<1.0	<5.0	<12.0	<20.0	<3.0	<5.0	<0.2	1.0	<2.0	86	303	323.0	0.045	182	-	625
842	10/23/96	294	238	100	7.8	47.0	0	1662.7	133	0	7.0	1.4	<30.0	<5.0	13.00	<1.0	<5.0	<12.0	6270.0	<3.0	790.0	<0.2	1.6	<2.0	<30.0	38.0	1710.0	0	23	-	3021
845	10/23/96	37.4	27.3	18.9	<1	268	0	19	6.7	0	1	<0.05	<30.0	<5.0	140	<1.0	<5.0	<12.0	220.0	<3.0	<5.0	<0.2	<1.0	<2.0	78	220.0	205.6	0	132	-	453

Well ID #	Sampling Date	Carbofuran (µg/L)	Carbaryl (µg/L)	Aldicarb (µg/L)	3-Hydroxycarbofuran	Aldicarb sulfoxide (µg/L)	Baygon (µg/L)	Oxamyl (µg/L)	Methomyl (µg/L)	2,4,5-T (µg/L)	2,4,5-TP, total (µg/L)	2,4-D, total (µg/L)	Dalapon (µg/L)	Dichlorprop (µg/L)	Dinoseb (µg/L)	Pentachlorophenol (µg/L)	Picloram (µg/L)	Dicamba (µg/L)	Atrazine (µg/L)	Methoxychlor (µg/L)	Methiocarb(µg/L)
33	09/17/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
38	07/30/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
84	08/06/96	<0.07	<0.2	<0.1	<0.5	<0.04	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
106	09/18/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
115	08/06/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
126	07/30/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
157	07/30/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
200	09/18/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
232	08/07/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
241	08/06/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
271	08/07/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
325	08/14/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
337	08/14/96	<0.7	<0.2	<0.4	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.55	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
348	08/14/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
354	07/30/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
376	07/30/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
378	09/17/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
395	07/30/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
398	10/21/96	-	-	-	-	-	-	-	-	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
428	10/21/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
442	08/13/96	<0.2	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
477	09/19/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
483	08/14/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	5.4
496	09/24/96	<0.07	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
507	09/24/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
539	09/19/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
571	10/22/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
575	09/24/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	0.16	<0.3
601	10/07/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
619	09/25/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
638	10/16/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
644	10/08/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
645	10/08/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
651	09/25/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
659	10/03/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	0.7B	<0.3
669	10/01/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	0.7B	<0.3
695	10/01/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	0.7B	<0.3
717	10/03/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
725	10/02/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
727	10/16/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
785	10/09/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
791	10/16/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
796	11/05/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	1.1	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	0.2	<1.76	<0.3
799	11/05/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
816	10/23/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
824	10/10/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
825	10/10/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
826	11/05/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
836	11/05/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
837	10/23/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3
842	10/23/96	<0.7	<0.2	<0.1	<0.5	<0.4	<0.3	<0.4	<0.3	<0.5	<0.44	<0.22	<2.2	<0.5	<0.44	<0.08	<0.22	<0.4	<0.26	<1.76	<0.3

Special Study 102
Plate 7
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Total-Dissolved-Solids-Concentration Map for the Principal Valley-Fill Aquifer, Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



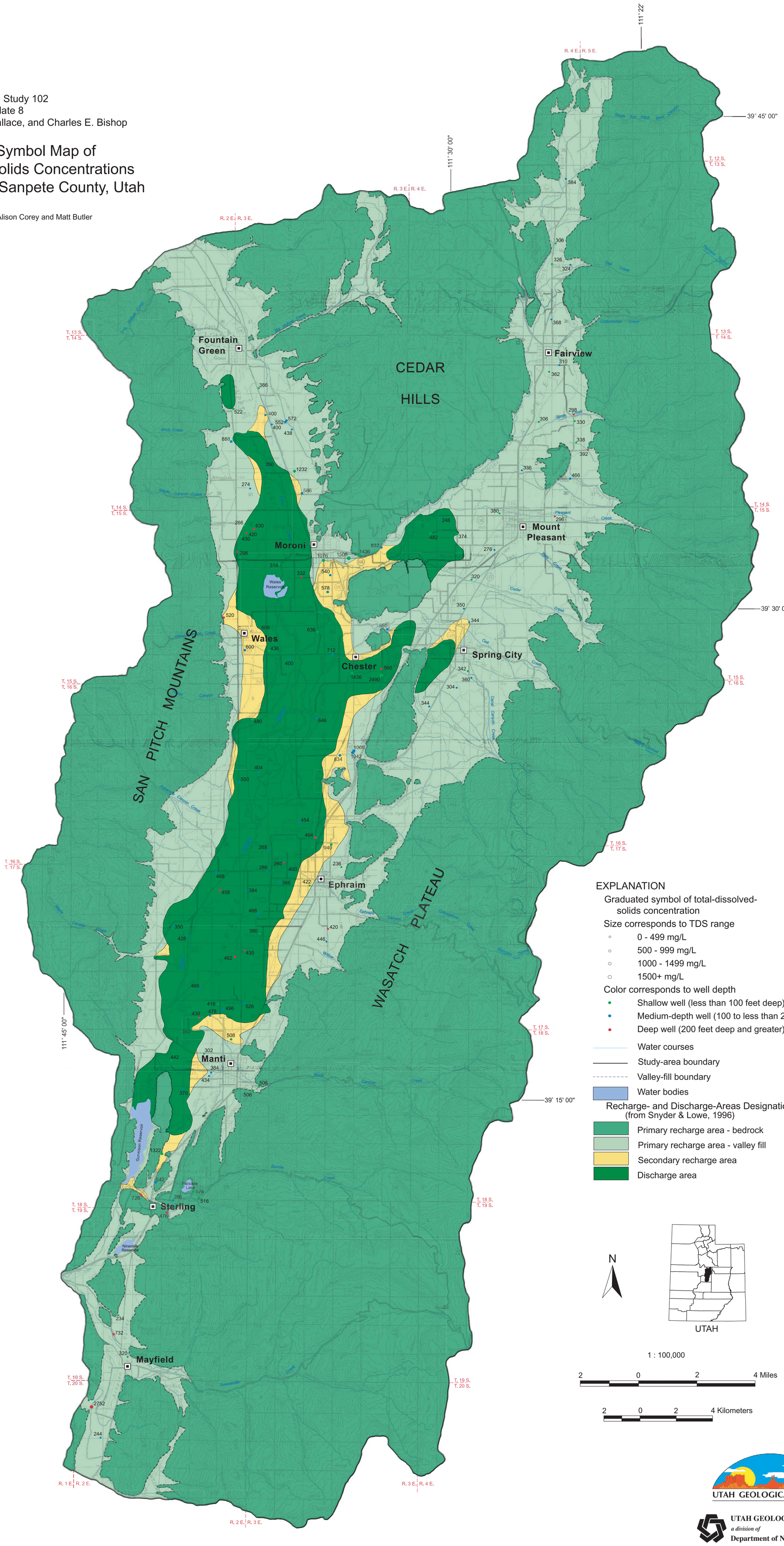
Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

UTAH GEOLOGICAL SURVEY
UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 8
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Graduated Symbol Map of Total-Dissolved-Solids Concentrations in Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



EXPLANATION

Graduated symbol of total-dissolved-solids concentration

Size corresponds to TDS range

- 0 - 499 mg/L
- 500 - 999 mg/L
- 1000 - 1499 mg/L
- 1500+ mg/L

Color corresponds to well depth

- Shallow well (less than 100 feet deep)
- Medium-depth well (100 to less than 200 feet deep)
- Deep well (200 feet deep and greater)

Water courses

Study-area boundary

Valley-fill boundary

Water bodies

Recharge- and Discharge-Areas Designation (from Snyder & Lowe, 1996)

- Primary recharge area - bedrock
- Primary recharge area - valley fill
- Secondary recharge area
- Discharge area

N

1 : 100,000

2 0 2 4 Miles

2 0 2 4 Kilometers

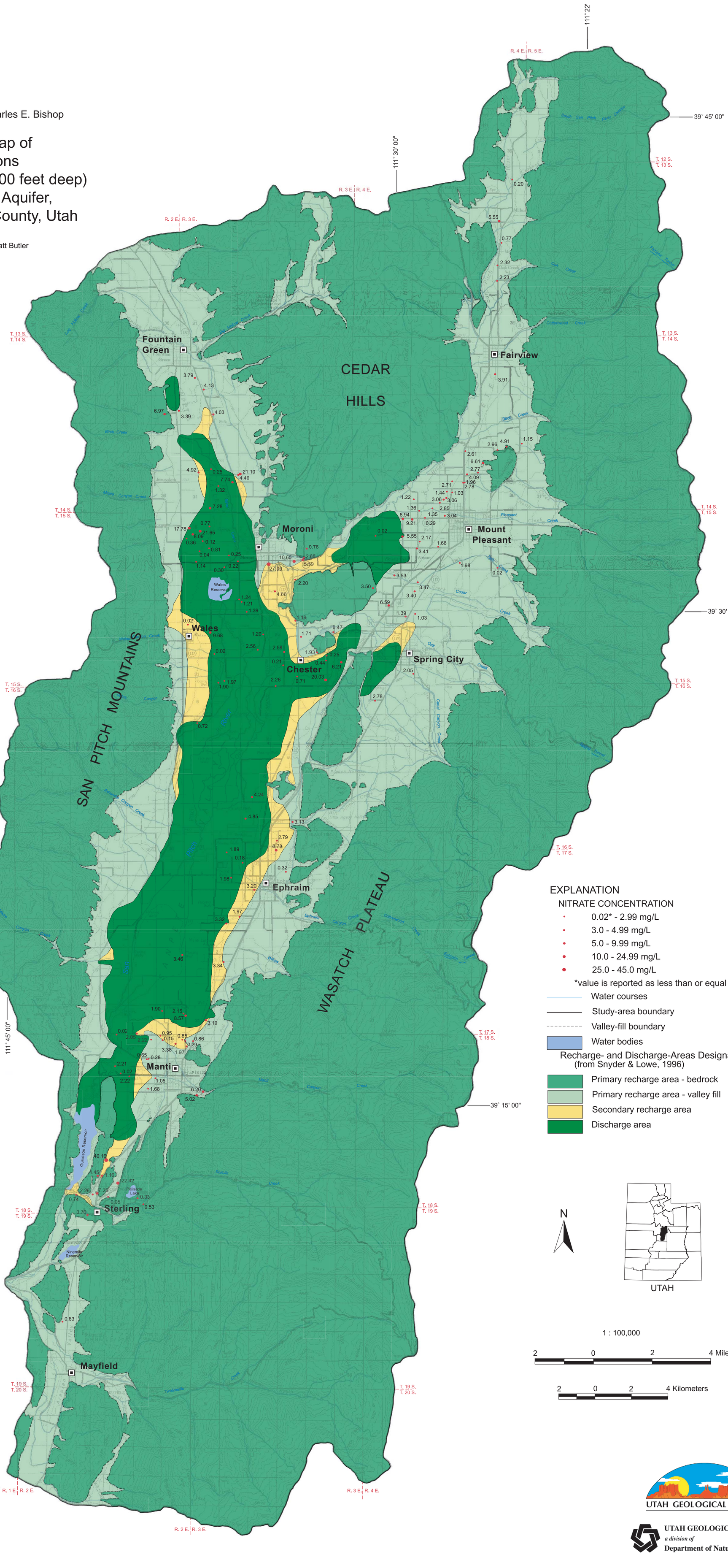
Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 9
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Graduated Symbol Map of Nitrate Concentrations for Shallow Wells (less than 100 feet deep) in the Principal Valley-fill Aquifer, Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

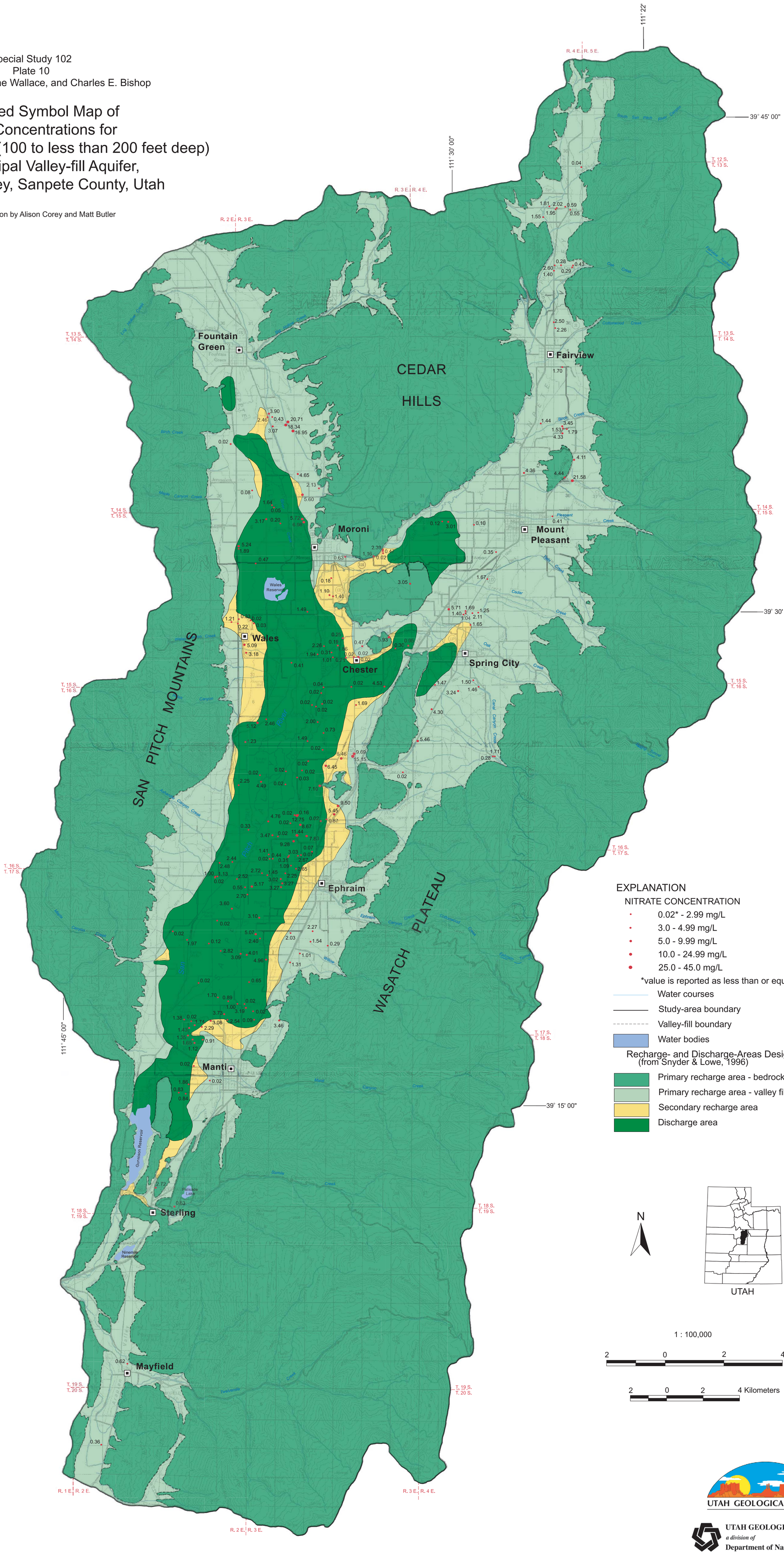
UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 10
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Graduated Symbol Map of Nitrate Concentrations for Medium-Depth Wells (100 to less than 200 feet deep) in the Principal Valley-fill Aquifer, Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



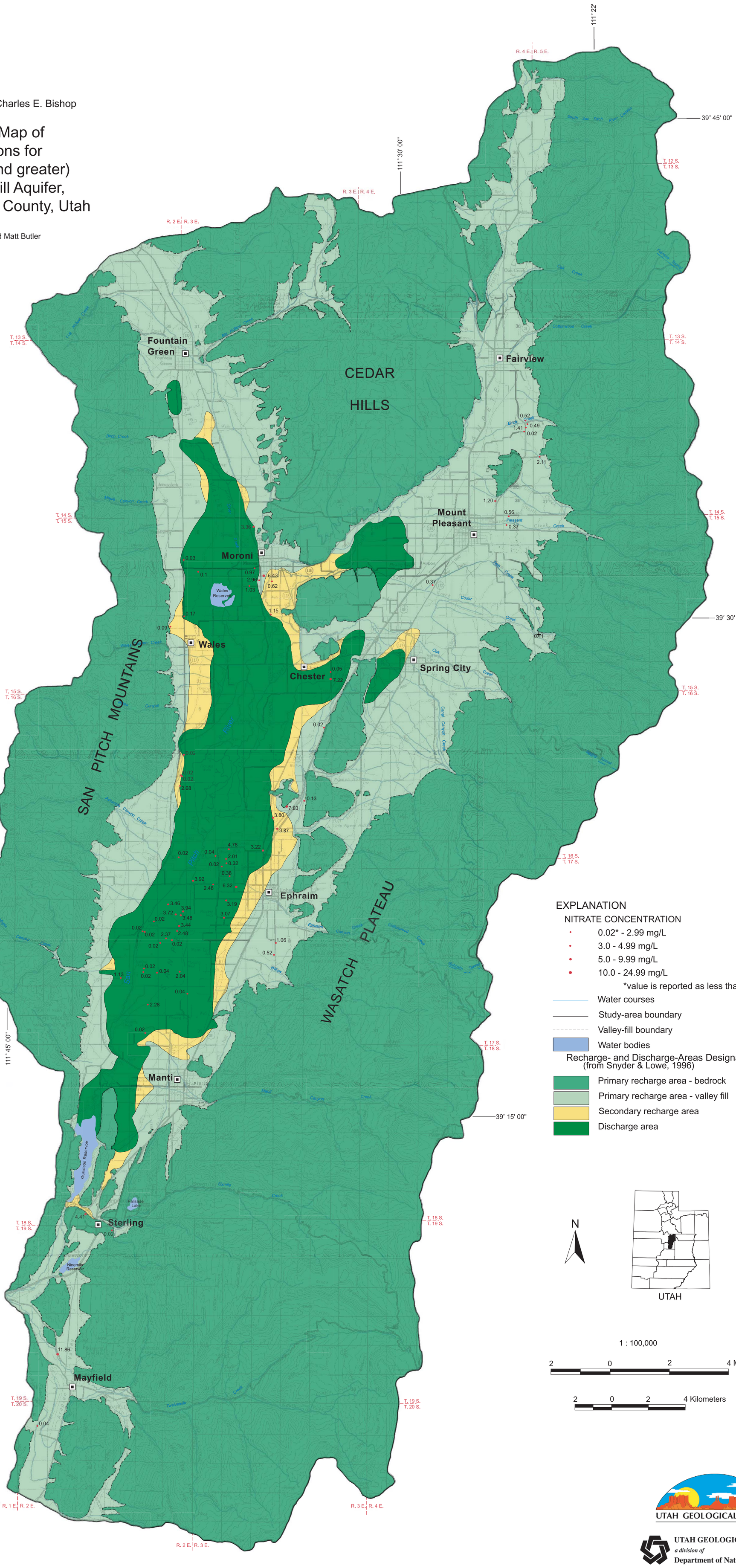
Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

UTAH GEOLOGICAL SURVEY
UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 11
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Graduated Symbol Map of Nitrate Concentrations for Deep Wells (200 feet and greater) in the Principal Valley-fill Aquifer, Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



EXPLANATION

NITRATE CONCENTRATION

- 0.02* - 2.99 mg/L
- 3.0 - 4.99 mg/L
- 5.0 - 9.99 mg/L
- 10.0 - 24.99 mg/L

*value is reported as less than or equal to 0.02

- Water courses
- Study-area boundary
- Valley-fill boundary
- Water bodies

Recharge- and Discharge-Areas Designation (from Snyder & Lowe, 1996)

- Primary recharge area - bedrock
- Primary recharge area - valley fill
- Secondary recharge area
- Discharge area

1 : 100,000

2 0 2 4 Miles

2 0 2 4 Kilometers

Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

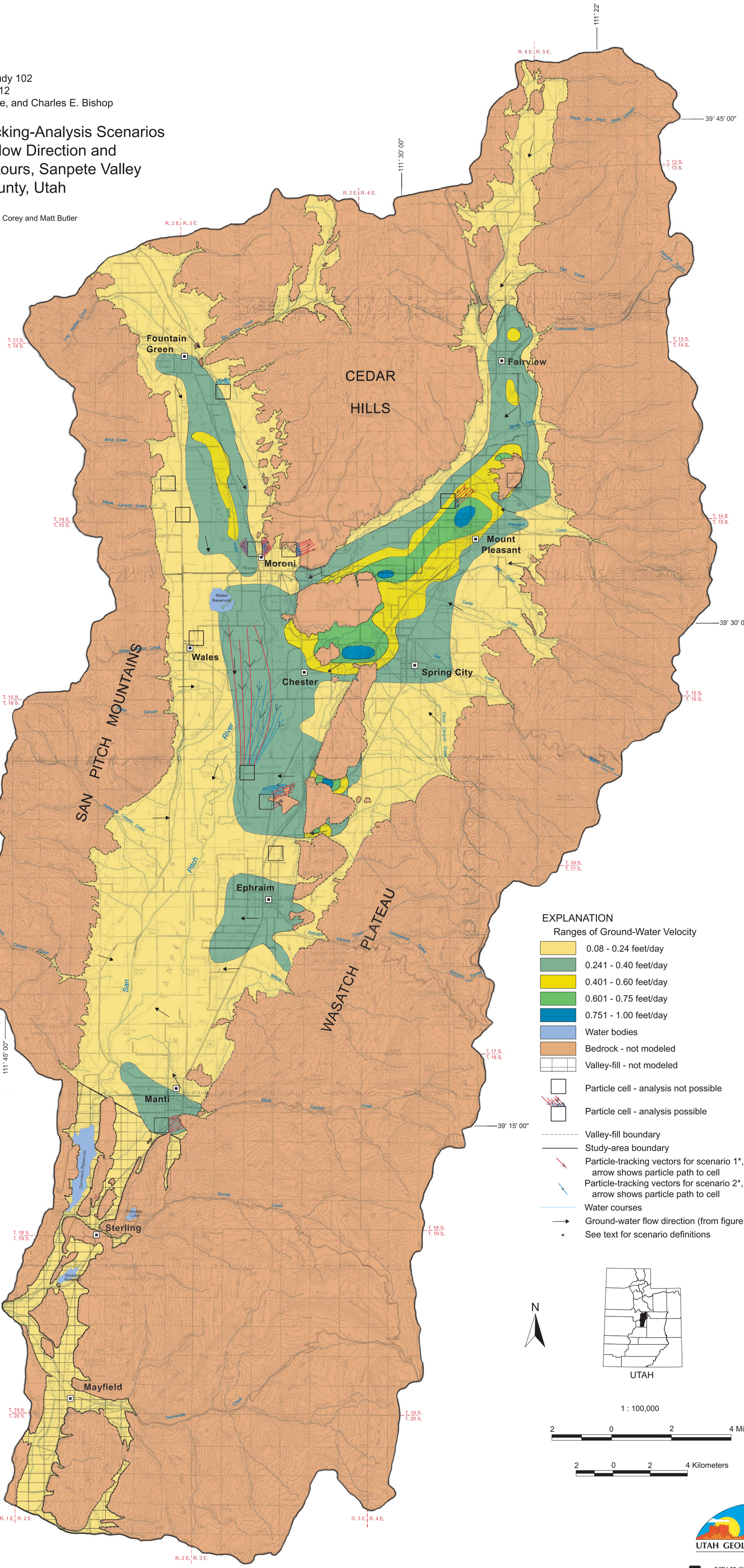
UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 12
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Map Showing Particle-Tracking-Analysis Scenarios for Ground-Water Flow Direction and Averaged Velocity Contours, Sanpete Valley Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



EXPLANATION

Ranges of Ground-Water Velocity

- 0.08 - 0.24 feet/day
- 0.241 - 0.40 feet/day
- 0.401 - 0.60 feet/day
- 0.601 - 0.75 feet/day
- 0.751 - 1.00 feet/day
- Water bodies
- Bedrock - not modeled
- Valley-fill - not modeled
- Particle cell - analysis not possible
- Particle cell - analysis possible
- Valley-fill boundary
- Study-area boundary
- Particle-tracking vectors for scenario 1*, arrow shows particle path to cell
- Particle-tracking vectors for scenario 2*, arrow shows particle path to cell
- Water courses
- Ground-water flow direction (from figure 28)
- * See text for scenario definitions

N

UTAH

1 : 100,000

2 0 2 4 Miles

2 0 2 4 Kilometers

Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

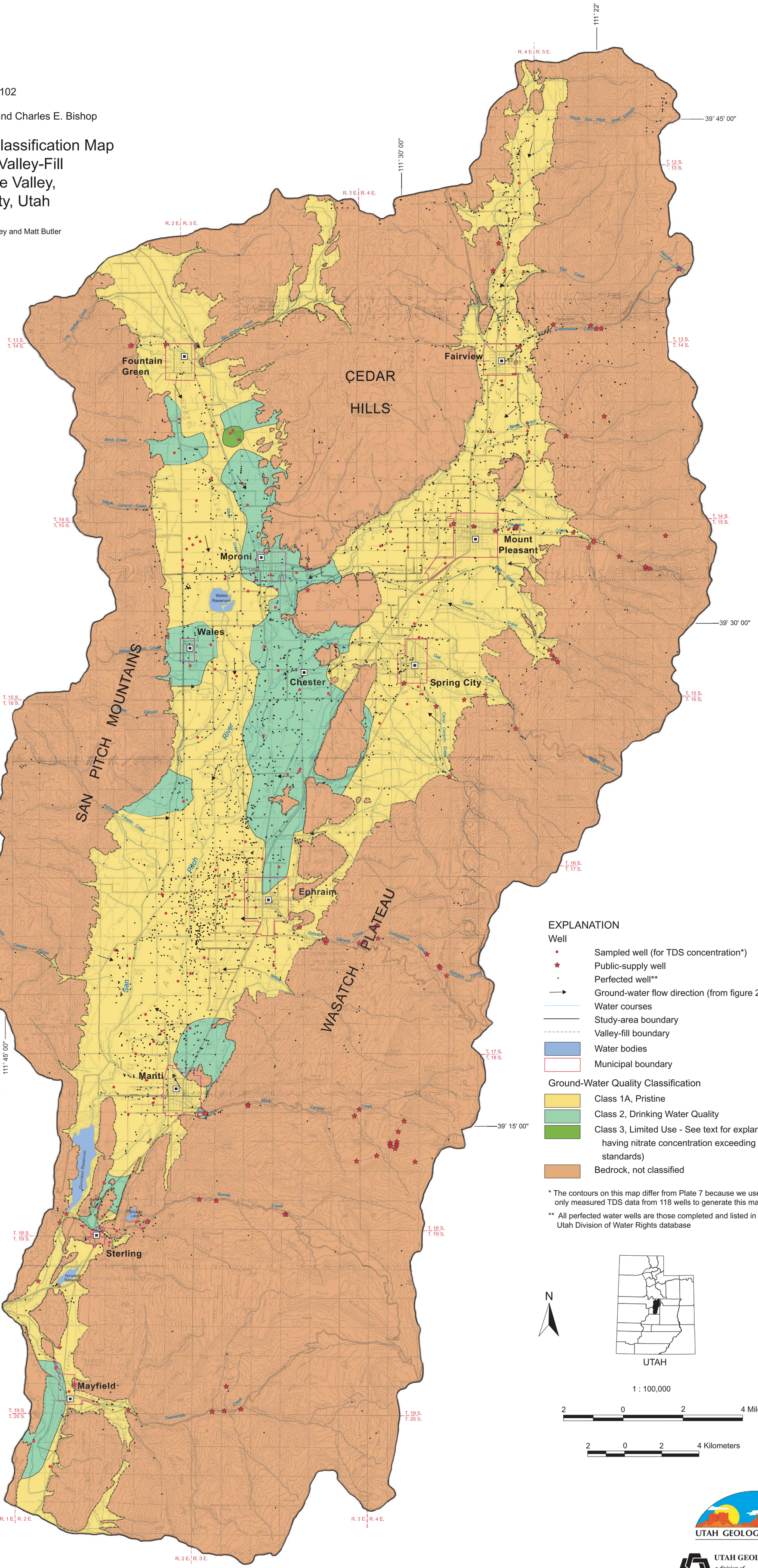
UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources

Special Study 102
Plate 13
By Mike Lowe, Janae Wallace, and Charles E. Bishop

Ground-Water Quality Classification Map for the Principal Valley-Fill Aquifer, Sanpete Valley, Sanpete County, Utah

Digital compilation by Alison Corey and Matt Butler



* The contours on this map differ from Plate 7 because we used only measured TDS data from 118 wells to generate this map

** All perfected water wells are those completed and listed in the Utah Division of Water Rights database

Projection: UTM Zone 12
Units: Meters
Datum: 1927 North American
Spheroid: Clarke 1866
Base maps from U.S. Geological Survey
Manti 30 x 60 minute quadrangle, 50-meter contour interval
Nephi 30 x 30 minute quadrangle, 50-meter contour interval

UTAH GEOLOGICAL SURVEY

UTAH GEOLOGICAL SURVEY
a division of
Department of Natural Resources