

**National Mapping Program
Technical Instructions**

Part 5 Public Land Survey System

**Standards for 1:24,000-Scale
Digital Line Graphs and
Quadrangle Maps**

**U.S. Department of the Interior
U.S. Geological Survey
National Mapping Division**

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System

CONTENTS

	Page
5. Public Land Survey System	
Land Grant	5-1
Point Monument	5-5
Principal Meridian	5-9
Public Land Survey System Area	5-13
Special Survey Area	5-25
Survey Corner	5-30
Survey Line	5-44
Appendix 5A: Origin of Survey	5A-1
Appendix 5B: Township and Range Designators	5B-1
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)	5C-1
Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)	5D-1
Appendix 5E: Ohio Surveys	5E-1

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System

LIST OF PAGES

A complete and current copy of Part 5 of Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps consists of the pages (and most recent creation or revision dates) listed below.

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
5-ii	04/96	5-41	04/96	5D-11	04/96
5-iii	04/96	5-42	04/96	5E-1	04/96
5-1	04/96	5-43	04/96	5E-2	04/96
5-2	04/96	5-44	04/96	5E-3	04/96
5-3	04/96	5-45	04/96		
5-4	04/96	5-46	04/96		
5-5	04/96	5-47	04/96		
5-6	04/96	5-48	04/96		
5-7	04/96	5-49	04/96		
5-8	04/96	5-50	04/96		
5-9	04/96	5-51	04/96		
5-10	04/96	5-52	04/96		
5-11	04/96	5-53	04/96		
5-12	04/96	5-54	04/96		
5-13	04/96	5A-1	04/96		
5-14	04/96	5A-2	04/96		
5-15	04/96	5A-3	04/96		
5-16	04/96	5B-1	04/96		
5-17	04/96	5B-2	04/96		
5-18	04/96	5B-3	04/96		
5-19	04/96	5B-4	04/96		
5-20	04/96	5C-1	04/96		
5-21	04/96	5C-2	04/96		
5-22	04/96	5C-3	04/96		
5-23	04/96	5C-4	04/96		
5-24	04/96	5C-5	04/96		
5-25	04/96	5C-6	04/96		
5-26	04/96	5C-7	04/96		
5-27	04/96	5C-8	04/96		
5-28	04/96	5C-9	04/96		
5-29	04/96	5C-10	04/96		
5-30	04/96	5C-11	04/96		
5-31	04/96	5D-1	04/96		
5-32	04/96	5D-2	04/96		
5-33	04/96	5D-3	04/96		
5-34	04/96	5D-4	04/96		
5-35	04/96	5D-5	04/96		
5-36	04/96	5D-6	04/96		
5-37	04/96	5D-7	04/96		
5-38	04/96	5D-8	04/96		
5-39	04/96	5D-9	04/96		
5-40	04/96	5D-10	04/96		

LAND GRANT - An area of land to which title was conferred by a predecessor government and confirmed by the U.S. Government after the territory in which it is situated was acquired by the United States.

ATTRIBUTE/ATTRIBUTE VALUE LIST

Land Grant Code	USGS/BLM codes for named land grants
(Alphanumeric)	Length Value: 5
Name	Proper name, specific term, or expression
(Alphanumeric)	Length Value: 99
Unspecified	The value is not known and is not required

DELINEATION

The limit of LAND GRANT is the extent of the private land holding as defined by the original title, approved BLM/GLO plats, or approved plats of dependent resurveys by private surveyors.

REPRESENTATION RULES

Feature Object Representation, Composition, and Relationship Table

RELATIONSHIPS	INSTANCES (CARDINALITY)	WITH OBJECT
---------------	----------------------------	-------------

Representation Conditions

KIND OF FEATURE OBJECT	AREA	SHORTEST	LONGEST
0-dimensional			
1-dimensional			
2-dimensional	> 0		

Special Conditions:

DATA EXTRACTION

Capture Conditions

Capture all.

Attribute Information

See Appendix 5C and/or Appendix 5D for a listing of codes and names for Land Grant.

Source Interpretation Guidelines

All

French arpent land grants in the area of the Louisiana Purchase are not captured as LAND GRANT.
See PUBLIC LAND SURVEY SYSTEM AREA.

If LAND GRANT has Township and Range lines through it or is subdivided by a private survey,
Then capture LAND GRANT and PUBLIC LAND SURVEY SYSTEM AREA.

Areas which do not have a code found in Appendix 5C and/or Appendix 5D, but which are symbolized
as LAND GRANT, should be collected as PUBLIC LAND SURVEY SYSTEM AREA, with First
Division Type = Tract.

Graphic

French arpent land grants have been shown in the past with the land grant symbol but are considered as
sections and are captured as PUBLIC LAND SURVEY SYSTEM AREA.

Revision - General

Revision - Standard

Revision - Limited

Do not revise. Retain existing features.

DATA EXTRACTION OR PRODUCT GENERATION at 1:24,000 scale

Inclusion Conditions

All required

Generalization

PRODUCT GENERATION at 1:24,000 scale

Symbolization

NAM

Symbol#: LAND_GRANT_A001
 Dimension: 2

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric)	N/A	Name: Color: Black Style: SL CAPS Size: 6-16 Spacing: 0-26

NAM

Grant

Symbol#: LAND_GRANT_A101
 Dimension: 2

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Unspecified	N/A	Label and Name: Color: Black Style: SL CAPS Size: 6-16 Spacing: 0-26

Conflict Detection and Resolution

Conflict detection and resolution rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

If the entire quadrangle is within one grant,
Then resymbolize Name using A101.

Names and Labels

Selection and placement rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Selection

TBD

Placement

TBD

EXAMPLES

Dulzura, CA (32116-F7) (Proper treatment of LAND GRANT mixed with a private rectangular survey)
Bertrandville, LA (Numbered LAND GRANTS)

POINT MONUMENT - A structure that marks the location of a point determined by surveying.

ATTRIBUTE/ATTRIBUTE VALUE LIST

N/A

DELINEATION

The limit of POINT MONUMENT is the extent of the marker.

REPRESENTATION RULES

Feature Object Representation, Composition, and Relationship Table

RELATIONSHIPS	INSTANCES (CARDINALITY)	WITH OBJECT
---------------	----------------------------	-------------

Representation Conditions

KIND OF FEATURE OBJECT	AREA	SHORTEST	LONGEST
0-dimensional		> 0	
1-dimensional			
2-dimensional			

Special Conditions:

DATA EXTRACTION

Capture Conditions

If POINT MONUMENT marks SURVEY CORNER and the monument is one of the following:

- pits and mounds with buried durable material such as charcoal, glass, etc.,
- a scribed wooden stake or post,
- a scribed set stone or mark on stone,
- an iron post with a GLO or BLM inscribed cap,
- a marked tablet set in a concrete post or rock,
- a corner location referenced by a bearing tree,
- a scribed section corner tree,

Or

If POINT MONUMENT marks BOUNDARY POINT,
 Then capture.

Attribute Information

N/A

Source Interpretation Guidelines

All

POINT MONUMENT always exists with at least one other feature that is captured at the same location. For example, if POINT MONUMENT exists at a location along a boundary, then POINT MONUMENT is captured to describe the actual structure, and BOUNDARY POINT is captured to describe the purpose of the marker. POINT MONUMENT may coexist with BOUNDARY POINT (Boundaries Theme) or SURVEY CORNER (PLSS Theme).

If POINT MONUMENT and BOUNDARY POINT are captured,
Then collect in the theme Boundaries.

If POINT MONUMENT and SURVEY CORNER are captured,
Then collect in the theme Public Land Survey System.

A fence corner, rock cairn, iron pipe, unmarked wooden stake or post, unmarked stone, or other indicated corners are not captured as POINT MONUMENT. See SURVEY CORNER (PLSS theme).

The material used to mark the monument determines whether POINT MONUMENT is captured. However, this information is not collected.

Graphic

PLSS survey corners shown as indicated corners (lineweight 0.005") are not collected.

PLSS survey corners shown as true or found corners (lineweight 0.01") are collected as POINT MONUMENT and SURVEY CORNER (PLSS theme).

Revision - General

Revision - Standard

Revision - Limited

Revise only in areas where new surveys have been performed where there have previously been no surveys, and the information is available from the Bureau of Land Management's Geographic Coordinate Data Base (GCDB). Retain existing features.

DATA EXTRACTION OR PRODUCT GENERATION at 1:24,000 scale

Inclusion Conditions

All required

Generalization

PRODUCT GENERATION at 1:24,000 scale

Symbolization

Symbol#: POINT_MONUMENT_P001
Dimension: 0

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
N/A	N/A	N/A	N/A

Conflict Detection and Resolution

Conflict detection and resolution rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Names and Labels

Selection and placement rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Selection

N/A

Placement

N/A

EXAMPLES

PRINCIPAL MERIDIAN - The line extending north and south, intended to follow along a true meridian, from the initial point of a Rectangular Survey. Ranges are referenced east or west of the principal meridian.

ATTRIBUTE/ATTRIBUTE VALUE LIST

Name	Proper name, specific term, or expression
(Alphanumeric)	Length Value: 99

DELINEATION

The limit of **PRINCIPAL MERIDIAN** is the extent of the component **SURVEY LINES**. All **PRINCIPAL MERIDIANS** have been defined by the Bureau of Land Management (BLM) as depicted on the map entitled *Principal Meridians and Base Lines Governing the United States Public Land Surveys*, BLM, 1988.

REPRESENTATION RULES

Feature Object Representation, Composition, and Relationship Table

RELATIONSHIPS	INSTANCES (CARDINALITY)	WITH OBJECT
Is Composed Of		SURVEY LINE

Representation Conditions

KIND OF FEATURE OBJECT	AREA	SHORTEST	LONGEST
0-dimensional			
1-dimensional			
2-dimensional			

Special Conditions:

PRINCIPAL MERIDIAN is represented as a compound feature object.

DATA EXTRACTION

Capture Conditions

Capture all.

Attribute Information

See Appendix 5A for PRINCIPAL MERIDIAN Names. Valid Principal Meridian Names are the Origins of Survey shown in Appendix 5A that are of the type "PM". Origins of Survey that are listed as "OH" are not PRINCIPAL MERIDIAN Names.

Source Interpretation Guidelines

All

Graphic

Revision - General

Revision - Standard

Revision - Limited

Revise only in areas where new surveys have been performed where there have previously been no surveys, and the information is available from the Bureau of Land Management's Geographic Coordinate Data Base (GCDB). Retain existing features.

DATA EXTRACTION OR PRODUCT GENERATION at 1:24,000 scale

Inclusion Conditions

All required

Generalization

PRODUCT GENERATION at 1:24,000 scale

Symbolization

Symbol#: PRINCIPAL_MERIDIAN_C001
Dimension: N/A

NAM

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric)	N/A	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0

Conflict Detection and Resolution

Conflict detection and resolution rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Names and Labels

Selection and placement rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Selection

TBD

Placement

TBD

EXAMPLES

Clayton, CA (37121-H8) (Mount Diablo Meridian, name shown)

PUBLIC LAND SURVEY SYSTEM AREA - An area of land which is subdivided by the Public Land Survey System (PLSS), and was originally created on public domain lands, and the rules for its use were defined by the authority of the U.S. Government. The PLSS has since been extended, following similar rules, into non-public domain areas.

ATTRIBUTE/ATTRIBUTE VALUE LIST

Duplication Status	Whether an area is part of a pair of townships with identical Origins of Survey and Township and Range designations
First Duplicate	Area is part of the duplicate township which is closest to the base line or other reference line (such as a river base). If the duplicate townships are equidistant from the base line, then the area is part of the duplicate township closest to the meridian
Not Applicable	The attribute does not apply and therefore cannot be valued
Second Duplicate	Area is part of the duplicate township which is farthest from the base line or other reference line (such as a river base). If the duplicate townships are equidistant from the base line, then the area is part of the duplicate township farthest from the meridian
First Division Designator	The number, letter, or number and letter combination that identifies the First Division of the PLSS township
(Alphanumeric)	Length Value: 99
Not Applicable	The attribute does not apply and therefore cannot be valued
First Division Type	Indicates how the township is divided
Donation Land Claim	Area of 320 or 640 acres that was allocated to a settler under the Donation Act of September 27, 1850 to preserve the rights of pre-statehood settlers claimed prior to the regular division of townships and ranges
Lot	An area designated on BLM plats as a lot
Section	First subdivision of a (PLSS) Township. Sections are nominally one mile by one mile in size, containing approximately 640 acres
Tract	A metes and bounds survey of an area at large within a

	township. In modern public land surveys the term is used specifically to mean a parcel of land that lies in more than one section or that cannot be identified completely as a part of a particular section.
Undivided Area	An area that was never surveyed or where subdivisions are not collected
Existing Condition	The condition that exists to prevent subdivision collection.
Insufficient Survey Data	Subdivisions are omitted due to insufficient data.
Unsurveyed	Area has not been subdivided.
Name	Proper name, specific term, or expression
(Alphanumeric)	Length Value: 99
Secondary Survey Name	Named survey in Ohio that is within a larger named public land survey, as defined by BLM
(Alphanumeric)	Length Value: 99
Not Applicable	The attribute does not apply and therefore cannot be valued
Not Applicable	The attribute does not apply and therefore cannot be valued
Origin of Survey	The reference for a set of townships. A township is the largest division in the Rectangular System of Surveys, and is generally subdivided into 36 sections
(Alphanumeric)	Length Value: 99
Not Applicable	The attribute does not apply and therefore cannot be valued
Unspecified	The value is not known and is not required
Range Direction	The specific designation for the direction of a column of townships from a Principal Meridian or River Base
E	East
Not Applicable	The attribute does not apply and therefore cannot be valued

W	West
Range Fraction	The fractional designation for a column of townships
1/2	
1/4	
3/4	
Not Applicable	The attribute does not apply and therefore cannot be valued
Range Number	The whole number designation for a column of townships
(Integer Value)	Minimum Value: 1 Maximum Value: 999 Precision: 0 Length: 3 Increment: 1 Units:
Not Applicable	The attribute does not apply and therefore cannot be valued
Survey Status	Whether the area has an approved BLM/GLO plat or not.
Approved by BLM	The area has an approved BLM/GLO plat certified by the Surveyor General or delegate.
Not Approved by BLM	The area was privately surveyed and/or does not have an approved BLM/GLO plat, but is accepted by land owners and courts.
Township Direction	The specific designation for the direction of a row of townships from a base line
N	North
Not Applicable	The attribute does not apply and therefore cannot be valued
S	South

Township Fraction	The fractional designation for a row of townships
1/2	
1/4	
3/4	
Not Applicable	The attribute does not apply and therefore cannot be valued
Township Number	The whole number designation for a row of townships
(Integer Value)	Minimum Value: 1 Maximum Value: 999 Precision: 0 Length: 3 Increment: 1 Units:
Not Applicable	The attribute does not apply and therefore cannot be valued

DELINEATION

The limit of PUBLIC LAND SURVEY SYSTEM AREA is the extent of the first division type as defined by approved BLM/GLO plats, or BLM approved plats of dependent resurveys by private surveyors, or other accepted survey plats.

REPRESENTATION RULES

Feature Object Representation, Composition, and Relationship Table

RELATIONSHIPS	INSTANCES (CARDINALITY)	WITH OBJECT
---------------	----------------------------	-------------

Representation Conditions

KIND OF FEATURE OBJECT	AREA	SHORTEST	LONGEST
0-dimensional			
1-dimensional			
2-dimensional	> 0		

Special Conditions:

DATA EXTRACTION

Capture Conditions

If PUBLIC LAND SURVEY SYSTEM AREA has an approved BLM/GLO plat, and is no smaller than the first level subdivision of a Township,

Or

If PUBLIC LAND SURVEY SYSTEM AREA does not have an approved BLM/GLO plat, but is accepted by land owners and courts, and has a Township and Range system similar to the Rectangular System of Surveys, and is no smaller than the first level subdivision of a Township, and is outside of the present public lands but is within a Public Land state,

Or

If PUBLIC LAND SURVEY SYSTEM AREA is a Tract or Donation Land Claim, and has an approved BLM/GLO plat,

Or

If PUBLIC LAND SURVEY SYSTEM AREA is designated as a Lot on the BLM plat, but is not wholly contained within a section, and the survey area is not penetrated by rectangular survey lines, and the extent of the survey defines the limiting lines of a rectangular survey or is contiguous with a survey that defines the limiting lines of a rectangular survey,

Then capture.

Attribute Information

See Appendix 5A for Origin of Survey.

See Appendix 5B for Township and Range information.

Sections are usually numbered from 1 to 36, but can be numbered higher, and in some States may include alphabetic characters.

Arpent sections in Louisiana and French arpent land grants, which are similar in shape to arpent sections, are captured as PUBLIC LAND SURVEY SYSTEM AREA, with First Division Type = Section.

If area is not part of a duplicate township,
Then Duplication Status = Not Applicable.

Name = (Alphanumeric),
Only if within STATE with Name = Ohio.

Origin of Survey = Not Applicable,
Only if within STATE with Name = Ohio.

Origin of Survey = Unspecified,
Only if within STATE with Name = Ohio.

For Ohio only:

See Appendix 5E for Ohio Surveys.

If Name = Between the Miamis, North of Symmes Purchase,
Then Township Number applies to columns of townships and Range Number applies to rows of townships,
and Township Direction and Range Direction = Not Applicable, and Township Fraction and Range
Fraction = Not Applicable.

If Township or Range direction is not indicated on the BLM plats,
Then Township and Range Direction = Not Applicable,
Else Township Direction = N or S and Range Direction = E or W.

Source Interpretation Guidelines

All

French arpent land grants within the area of the Louisiana Purchase have been captured and shown as Land Grants in the past. However, these areas are treated like sections in the Rectangular System of Surveys and should be captured as PUBLIC LAND SURVEY SYSTEM AREA only.

The following are not Public Land states: Connecticut, Delaware, Georgia, Hawaii, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Vermont, West Virginia.

Values for Township and Range attributes = Not Applicable when survey lines between townships are not collected.

Land lines are captured as originally surveyed, even if the shoreline of a meandered water body has changed. Therefore, do not extend SURVEY LINES to the shoreline, or pull them back from the

shoreline, where discrepancies exist.

If land lines are broken at a tract boundary and the tract is not captured, capture a straight chain between points where the land lines terminate.

Dependant resurveys (see section 6-4 of the Manual of Surveying Instructions) of the PLSS by private surveyors or by government agencies may be the best available evidence for PLSS portrayal, and will therefore be captured as PUBLIC LAND SURVEY SYSTEM AREA with Survey Status = Approved by BLM.

If PUBLIC LAND SURVEY SYSTEM AREA with Survey Status = Not Approved by BLM lies within LAND GRANT,
Then capture PUBLIC LAND SURVEY SYSTEM AREA , with Survey Status = Not Approved by BLM, and LAND GRANT.

Townships which are split in two by another feature (i.e. a water body or land grant) are not considered to be duplicates.

If PUBLIC LAND SURVEY SYSTEM AREA is a donation land claim, lot, or tract that lies in more than one township, and the complete area is shown on BLM plats as being part of each township by having a different identifier in each township,
Then collect Township and Range designators for the township that contains corner #1 (generally the southeast corner).

Areas which do not have a code found in Appendix 5C and/or Appendix 5D, but which are symbolized as a land grant, should be collected as PUBLIC LAND SURVEY SYSTEM AREA, with First Division Type = Tract.

Graphic

If PUBLIC LAND SURVEY SYSTEM AREA is a donation land claim, lot, or tract that lies in more than one township, and corner #1 cannot be identified,
Then collect Township and Range designators for the township that contains the largest portion of the area.

Areas that are labeled with Township and Range numbers but that are not subdivided are still considered part of the Rectangular System of Surveys, and are captured as PUBLIC LAND SURVEY SYSTEM AREA. This includes areas that cover more than one township.

Areas of private surveys, or other surveys not approved by BLM, are collected with Survey Status = Not Approved by BLM.

Most Public Land Survey System information is collected from graphics, so the following information appears in this section.

Why do unclosed areas appear on the map?

Areas are unclosed if not all the defining survey lines appear on the map. Survey lines may be missing because there was insufficient evidence on the ground to complete the grid, because the survey lines were interrupted by a waterbody that was segregated from the public domain, or because the area was not surveyed. Survey lines may also be dropped from the graphic because they are coincident with other features, however, these lines are captured differently from lines that are missing for the reasons listed above; see SURVEY LINE.

How should unclosed areas be closed?

In closing off surveyed areas, assume a regular grid and use a chain or series of chains to approximate that regular grid. It is not necessary to complete the entire grid; only those areas that must be assigned different attribute values need be closed off from one another. It is also not necessary to be exact when digitizing chains to approximate the grid. On USGS maps and in USGS data, the PLSS is shown as a reference grid, not to show ownership or parcel boundaries. All areas that need to be assigned different attribute values, that are not completely enclosed by survey lines, need to be closed off. Assume the section or parcel numbers are placed as close to the center of the area as possible and give an approximation of the extent. Lines that are dropped due to coincidence with another linear feature are captured as SURVEY LINE rather than just as a chain. See the feature SURVEY LINE.

How should the regular grid be approximated?

The rectangular system called for sections to be one mile by one mile. Depending on the skill of the surveyor, the terrain, and other conditions, this may or may not have been achieved. However, by looking at the completed sections, the position of section numbers, isolated pieces of survey lines, and survey corners if present, the general grid can usually be determined. Complete an apparent section (one where the section number can be determined but some of the surrounding survey lines are missing) by using the available information to create a square that is approximately one mile by one mile.

Range lines are sometimes offset when they cross township lines, which may create the impression that the regular grid cannot be approximated. However, often the regular grid can be assumed if this offset is taken into consideration.

If it is not possible to assume a regular grid, either because there are areas with different surveys that do not line up, or because there are not enough corners or portions of section lines to determine if the grid is regular, the areas must still be closed off. Generally, a straight chain is collected connecting the end points of the depicted survey lines. In some cases, it may be desirable to add a few points to roughly approximate the extent of an area, as indicated by the position of a section number, a shoreline, or both.

How should the area attributes be valued?

Collect areas for which section numbers can be determined, but which are not completely surrounded by SURVEY LINES, as PUBLIC LAND SURVEY SYSTEM AREA, with First Division Type = Section. An area that has not been surveyed or that has not been subdivided is collected as a single PUBLIC LAND SURVEY SYSTEM AREA, with First Division Designator = Not Applicable. This includes a single township that has Township and Range designators but that is not subdivided, as well as areas that cover more than one township. A large water body or portion of a water body with no section lines or section numbers is collected as the appropriate hydrographic feature and not as PUBLIC LAND SURVEY SYSTEM AREA.

The extent of old reservations, such as Indian, military, and lighthouse, shown on maps with the land grant or section line symbol and labeled , are collected as section lines where they form the limit of subdivisions of the rectangular system of surveys. Where these lines do not form the limit of a subdivision of a rectangular survey, they are not collected in any theme.

Revision - General

Revision - Standard

Revision - Limited

Revise only in areas where new surveys have been performed where there have previously been no surveys, and the information is available from the Bureau of Land Management's Geographic Coordinate Data Base (GCDB). Retain existing features.

DATA EXTRACTION OR PRODUCT GENERATION at 1:24,000 scale

Inclusion Conditions

All required

Generalization

PRODUCT GENERATION at 1:24,000 scale

Symbolization

Symbol#: PUBLIC_LAND_SURVEY_SYSTEM_AREA_A001
 Dimension: 2

FDD

T

TON

TOF

TOD

R

RAN

RAF

RAD

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Range Direction	E, Not Applicable, or W	N/A	First Division Designator: Color: Red Style: UL CAPS Size: 10 Spacing: 0
Range Fraction	1/2, 1/4, 3/4, or Not Applicable		Label: Color: Red Style: UL CAPS Size: 7 Spacing: 0
Range Number	(Integer) or Not Applicable		Range Information: Color: Red Style: UL CAPS Size: 7 Spacing: 0
First Division Designator	(Alphanumeric) or Unspecified		Township Information: Color: Red Style: UL CAPS Size: 7 Spacing: 0
Township Direction	N, Not Applicable, or S		
Township Fraction	1/2, 1/4, 3/4, or Not Applicable		
Township Number	(Integer) or Not Applicable		

Conflict Detection and Resolution

Conflict detection and resolution rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Names and Labels

Selection and placement rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Selection

Rules have been developed to identify Ohio Public Land Surveys. They are documented in the USGS Miscellaneous Instruction 'Technical Criteria for Digital Revision and Product Generation'.

Placement

The following rules are an attempt to define how we select and position Township and Range labels. The rules are not yet complete.

If SURVEY LINES that are associated with PUBLIC LAND SURVEY SYSTEM AREA intersect the neatline,
Then place Township and Range designators 0.04" outside the neatline and parallel to the North or South neatline, and 0.085" on either side of the intersecting SURVEY LINE.

If a congestion of marginal notes prevents the placement of Township and Range designators in the margin,
Then place Township/Range designators parallel to and 0.02" on either side of the SURVEY LINE, and 0.02" from the end of the SURVEY LINE.

If SURVEY LINES that are associated with PUBLIC LAND SURVEY SYSTEM AREA do not intersect the neatline,
Then place Township/Range designators parallel to and 0.02" on either side of the SURVEY LINE, and 0.02" from the end of the SURVEY LINE.

If SURVEY LINE associated with PUBLIC LAND SURVEY SYSTEM AREA is offset for a distance of > 0.5 mi,
Then place Township/Range designators parallel to and 0.02" from SURVEY LINE on each part of offset.

If the shortest axis of PUBLIC LAND SURVEY SYSTEM AREA is greater than the length of the First Division Designator + 0.04",
Then place First Division Designator parallel to south neatline and in the center of PUBLIC LAND SURVEY SYSTEM AREA,
Else suppress First Division Designator label. Note: additional rules will be needed for areas of conflict.

In small areas, type size may be reduced to a minimum of size 5. If type size 5 is too large, then the area is not labeled.

EXAMPLES

Dulzere, CA (32116-F7) (Rectangular surveys around private surveys within a LAND GRANT)
Rose Peak, AZ (33109-D3) (Need for Section Number = Not Applicable)
Carbon Springs, NM (34107-C2) (Section 35/T2N/R4W unlabeled portion of section)
Russells Point, OH (40083-D8) (Congress Lands - named area)
Millersport, OH (39082-H5) (Refugee Lands - named area)

SPECIAL SURVEY AREA - An area of land within the original holdings secured by the Federal Government (within Public Land states), subdivided by surveys that involve unusual applications of, or departures from, the rectangular system. The subdivided surveys often carry out the provisions of a special legislative act.

ATTRIBUTE/ATTRIBUTE VALUE LIST

Parcel Identifier	The specific designation for a subdivision of a special survey area
(Alphanumeric)	Length Value: 99
Unspecified	The value is not known and is not required
Special Survey Area Type	
Homestead Entry Survey	An entry under the U.S. land laws for the purpose of acquiring title to a portion of the public domain under the Homestead Laws. A Homestead Entry Survey is a metes and bounds survey entered under the Act of June 11, 1906 as amended
Indian Allotment	An allocation of a parcel of public lands or Indian Reservation lands to a Native American for his or her individual use
US Survey	A metes and bounds survey executed to comply with one of various regulations for entry of public lands in Alaska

DELINEATION

The limit of **SPECIAL SURVEY AREA** is the extent of the area as defined by approved BLM/GLO plats, or BLM approved plats of dependant resurveys by private surveyors.

REPRESENTATION RULES

Feature Object Representation, Composition, and Relationship Table

RELATIONSHIPS	INSTANCES (CARDINALITY)	WITH OBJECT
---------------	----------------------------	-------------

Representation Conditions

KIND OF FEATURE OBJECT	AREA	SHORTEST	LONGEST
0-dimensional			
1-dimensional			
2-dimensional	> 0		

Special Conditions:

DATA EXTRACTION

Capture Conditions

If SPECIAL SURVEY AREA is a Homestead Entry Survey, US Survey, or Indian Allotment,
 Then capture.

Attribute Information

Values for Special Survey Area Type are as indicated on BLM/GLO plats.

Source Interpretation Guidelines

All

Do not capture Hawaiian Homesteads as SPECIAL SURVEY AREA. See RESERVATION (Boundaries theme).

A Forest Entry Survey is collected as a Homestead Entry Survey.

If only some of the land lines defining an area exist, then close off the polygon with a straight chain or set of chains to approximate the extent of the area.

Land lines are captured as originally surveyed, even if the shoreline of a meandered water body has changed. Therefore, do not extend SURVEY LINES to the shoreline, or pull them back from the shoreline, where discrepancies exist.

Areas which do not have a code found in Appendix 5C and/or Appendix 5D, but which are symbolized

as LAND GRANT, should be collected as PUBLIC LAND SURVEY SYSTEM AREA, with First Division Type = Tract.

Graphic

Parcel identifiers may not appear on the graphic as there is not always room to label the parcels on the graphic. In these cases, Parcel Identifier = Unspecified.

Collect as parcels those areas that are numbered, even if not completely surrounded by survey lines. Close off the parcel with a chain or set of chains.

Revision - General

Revision - Standard

Revision - Limited

Revise only in areas where new surveys have been performed where there have previously been no surveys, and the information is available from the Bureau of Land Management's Geographic Coordinate Data Base (GCDB). Retain existing features.

DATA EXTRACTION OR PRODUCT GENERATION at 1:24,000 scale

Inclusion Conditions

All required

Generalization

PRODUCT GENERATION at 1:24,000 scale

Symbolization

Symbol#: SPECIAL_SURVEY_AREA_A001
 Dimension: 2

SAT

PID

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Parcel Identifier	(Alphanumeric) or Unspecified	N/A	Parcel Identifier and Special Survey Area Type: Color: Red Style: UL CAPS Size: 10 Spacing: 0
Special Survey Area Type	Homestead Entry Survey, Indian Allotment, or US Survey		

Conflict Detection and Resolution

Conflict detection and resolution rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Names and Labels

Selection and placement rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Selection

TBD

Placement

If the shortest axis of SPECIAL SURVEY AREA is greater in length than the Parcel Id label + 0.04",
Then place Parcel Id label parallel to south neatline and in the center of the SPECIAL SURVEY
AREA,
Else suppress Parcel Id label. Note: additional rules will be needed for areas of conflict.

In small areas, type size may be reduced to a minimum of size 5. If type size 5 is too large, then the
area is not labeled.

EXAMPLES

Skagway (A-2), AK 1:63360 (Homestead Entry Survey)
Kenai (B-4) NE, AK (60151-D2) (US Survey)
Kenai (B-4), AK 1:63360 (US Survey)

SURVEY CORNER - A survey location that was originally established for the purpose of referencing and/or defining the limits of a survey.

ATTRIBUTE/ATTRIBUTE VALUE LIST

Controlling Line Orientation	The angular measurement, calculated from true north (0 degrees), clockwise to the surveyed or theoretical section lines radiating out from a SURVEY CORNER. One to four values are allowed.
(Integer Value)	Minimum Value: 0 Maximum Value: 359 Precision: 0 Length: 3 Increment: 1 Units: degrees
Not Applicable	The attribute does not apply and therefore cannot be valued
Survey Corner Type	Describes the class of monumentation at a survey location for a rectangular survey
Amended Monument	A corner whose position no longer marks the true position for the corner, but which is connected by course and distance to the new corner.
Angle Point	A point of survey where the alignment or boundary deflects from a straight line. Any break in bearing on a survey can be considered an angle point.
Location Monument	A point established by a mineral survey in a district having no corners of the public survey. It is used as reference for one or more mineral surveys or for an isolated special survey. Includes U.S. Mineral Monuments and U.S. Location Monuments
Monument Number	The specific BLM designator for a survey point.
(Alphanumeric)	Length Value: 99
Meander Corner	A corner established where a Township line, section line, or other survey intersects the bank of a navigable stream or other meanderable body of water.
Quarter-Section Corner	A corner at an extremity of a quarter-section boundary, not

	including the section corner.
Section Corner	A corner at the extremity of a PLSS section boundary
Special Survey Corner	An established location along the survey line of a Land Grant, Tract, or other Special Survey area
Monument Number (Alphanumeric)	The specific BLM designator for a survey point. Length Value: 99
Unspecified	The value is not known and is not required
Witness Corner	A monumented point usually on a line of survey and within 10 chains of a corner, established only in situations where it is impracticable to occupy the site of a corner.
Witness Point	A monumented station on a line of the survey that is used to perpetuate an important location more or less remote from and without special relation to any regular corner.

DELINEATION

SURVEY CORNER is the location as marked by POINT MONUMENT or is the theoretical position of an established survey location, based on the best available evidence. This evidence may include plat data, field notes, photoimages, original map positions, and secondary information from other agencies. Physical evidence of the original monuments (the existence of POINT MONUMENT) must stand as the true SURVEY CORNER it was intended to represent and must be given controlling preference over recorded directions and lengths of lines.

REPRESENTATION RULES

Feature Object Representation, Composition, and Relationship Table

RELATIONSHIPS	INSTANCES (CARDINALITY)	WITH OBJECT
---------------	----------------------------	-------------

Representation Conditions

KIND OF FEATURE OBJECT	AREA	SHORTEST	LONGEST
0-dimensional		> 0	
1-dimensional			
2-dimensional			

Special Conditions:

DATA EXTRACTION

Capture Conditions

If SURVEY CORNER is coincident with POINT MONUMENT,
 Then capture.

Attribute Information

If SURVEY CORNER has Survey Corner Type = Amended Monument or Witness Corner,
 Then Survey Corner Type also = Section Corner, Quarter-Section Corner, or Meander Corner.

Controlling Line Orientation is required in order to symbolize portions of SURVEY CORNER that cannot be symbolized from SURVEY LINE. Uncaptured survey lines are evidenced by their existence on BLM plats and by Section Corner symbols on a published map that have more legs than radiating section lines.

If SURVEY CORNER coincides POINT MONUMENT and survey lines exist which are not captured as SURVEY LINE,
 Then Controlling Line Orientation = (1-4 Integer Values),
 Else Controlling Line Orientation = Not Applicable.

If SURVEY CORNER, has Survey Corner Type = Special Survey Corner or Location Monument,
 Then Controlling Line Orientation = Not Applicable.

If SURVEY CORNER has Survey Corner Type = Location Monument,
 Then Monument Number = (Alphanumeric) and "USLM" or "USMM" is a part of the Alphanumeric value.

If SURVEY CORNER, with Survey Corner Type = Special Survey Corner, is a mile post that has an integer value,
 Then Monument Number = (Alphanumeric) and alpha characters shown on the BLM plats as part of the

point designator are part of the Alphanumeric value.

Source Interpretation Guidelines

All

If a survey location defines the limits of more than one survey type (PLSS-related survey versus an administrative boundary),
Then capture one feature, either SURVEY CORNER, or BOUNDARY POINT, based on the intended purpose for establishing the original monument.

If SURVEY CORNER meets capture conditions and has an established SPOT ELEVATION,
Then capture SURVEY CORNER and SPOT ELEVATION.

PLSS Half-Mile Posts in Florida and Alabama are collected as Quarter-Section Corners.

Graphic

If SURVEY CORNER is isolated on the graphic,
Then capture SURVEY CORNER with Survey Corner Type = Unspecified.

If a Found Corner with the letters "CC" exists on the graphic,
Then Survey Corner Type = Section Corner.

Angle Points will be marked "AP" on the monument and on the plats.

Revision - General

Revision - Standard

Revision - Limited

Revise only in areas where new surveys have been performed where there have previously been no surveys, and the information is available from the Bureau of Land Management's Geographic Coordinate Data Base (GCDB). Retain existing features.

DATA EXTRACTION OR PRODUCT GENERATION at 1:24,000 scale

Inclusion Conditions

All required

Generalization

PRODUCT GENERATION at 1:24,000 scale

Symbolization

AM	Symbol#: SURVEY_CORNER_P001 Dimension: 0
----	---

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	Not Applicable	N/A	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Amended Monument		

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The section corner symbol can be completely generated by SURVEY LINE

AP	Symbol#: SURVEY_CORNER_P002 Dimension: 0
----	---

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	Not Applicable	N/A	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Angle Point		

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The section corner symbol can be completely generated by SURVEY LINE.

Symbol#: SURVEY_CORNER_P003
 Dimension: 0

MC

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	Not Applicable	N/A	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Meander Corner		

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The section corner symbol can be completely generated by SURVEY LINE.

Symbol#: SURVEY_CORNER_P004
 Dimension: 0

WC

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	Not Applicable	N/A	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Witness Corner		

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The section corner symbol can be completely generated by SURVEY LINE

Symbol#: SURVEY_CORNER_P005
 Dimension: 0

WP

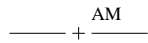
<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	Not Applicable	N/A	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Witness Point		

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The section corner symbol can be completely generated by SURVEY LINE.

Symbol#: SURVEY_CORNER_P006
 Dimension: 0

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	Not Applicable	N/A	N/A
Survey Corner Type	Section Corner		

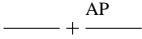
Symbol#: SURVEY_CORNER_P007
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	(Integer)	<u>Symbol Orientation</u> Origin: center of dashes	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Amended Monument	<u>Dash</u> Color: Red Lineweight: 0.01" Length: 0.03" Positioning: Generate one dash for each Controlling Line Orientation value. The value of Controlling Line Orientation represents the angle of the dash. Place dash with one end at origin, at the angle indicated by Controlling Line Orientation.	

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The symbol depicted is an example of one type of generated corner symbol. This example has 2 values for Controlling Line Orientation that equal 0 and 180. Only the Vertical segments of the symbolized corner are generated by SURVEY CORNER. The horizontal segments are generated by SURVEY LINE and are shown in these tables for clarity.

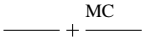
Symbol#: SURVEY_CORNER_P008
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	(Integer)	<u>Symbol Orientation</u> Origin: center of dashes	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Angle Point	<u>Dash</u> Color: Red Lineweight: 0.01" Length: 0.03" Positioning: Generate one dash for each Controlling Line Orientation value. The value of Controlling Line Orientation represents the angle of the dash. Place dash with one end at origin, at the angle indicated by Controlling Line Orientation.	

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The symbol depicted is an example of one type of generated corner symbol. This example has 2 values for Controlling Line Orientation that equal 0 and 180. Only the Vertical segments of the symbolized corner are generated by SURVEY CORNER. The horizontal segments are generated by SURVEY LINE and are shown in these tables for clarity.

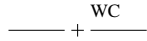
Symbol#: SURVEY_CORNER_P009
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	(Integer)	<u>Symbol Orientation</u> Origin: center of dashes	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Meander Corner	<u>Dash</u> Color: Black Lineweight: 0.01" Length: 0.03" Positioning: Generate one dash for each Controlling Line Orientation value. The value of Controlling Line Orientation represents the angle of the dash. Place dash with one end at origin, at the angle indicated by Controlling Line Orientation.	

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The symbol depicted is an example of one type of generated corner symbol. This example has 2 values for Controlling Line Orientation that equal 0 and 180. Only the Vertical segments of the symbolized corner are generated by SURVEY CORNER. The horizontal segments are generated by SURVEY LINE and are shown in these tables for clarity.

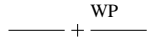
Symbol#: SURVEY_CORNER_P010
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	(Integer)	<u>Symbol Orientation</u> Origin: center of dashes	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Witness Corner	<u>Dash</u> Color: Red Lineweight: 0.01" Length: 0.03" Positioning: Generate one dash for each Controlling Line Orientation value. The value of Controlling Line Orientation represents the angle of the dash. Place dash with one end at origin, at the angle indicated by Controlling Line Orientation.	

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The symbol depicted is an example of one type of generated corner symbol. This example has 2 values for Controlling Line Orientation that equal 0 and 180. Only the Vertical segments of the symbolized corner are generated by SURVEY CORNER. The horizontal segments are generated by SURVEY LINE and are shown in these tables for clarity.

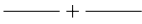
Symbol#: SURVEY_CORNER_P011
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	(Integer)	<u>Symbol Orientation</u> Origin: center of dashes	Label: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Witness Point	<u>Dash</u> Color: Red Lineweight: 0.01" Length: 0.03" Positioning: Generate one dash for each Controlling Line Orientation value. The value of Controlling Line Orientation represents the angle of the dash. Place dash with one end at origin, at the angle indicated by Controlling Line Orientation.	

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The symbol depicted is an example of one type of generated corner symbol. This example has 2 values for Controlling Line Orientation that equal 0 and 180. Only the Vertical segments of the symbolized corner are generated by SURVEY CORNER. The horizontal segments are generated by SURVEY LINE and are shown in these tables for clarity.

Symbol#: SURVEY_CORNER_P012
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Controlling Line Orientation	(Integer)	<u>Symbol Orientation</u> Origin: center of dashes	N/A
Survey Corner Type	Quarter-Section Corner, Section Corner, or Unspecified	<u>Dash</u> Color: Red Lineweight: 0.01" Length: 0.03" Positioning: Generate one dash for each Controlling Line Orientation value. The value of Controlling Line Orientation represents the angle of the dash. Place dash with one end at origin, at the angle indicated by Controlling Line Orientation.	

NOTE: SURVEY CORNER coincident with POINT MONUMENT. The symbol depicted is an example of one type of generated corner symbol. This example has 2 values for Controlling Line Orientation that equal 0 and 180. Only the Vertical segments of the symbolized corner are generated by SURVEY CORNER. The horizontal segments are generated by SURVEY LINE and are shown in these tables for clarity.

Symbol#: SURVEY_CORNER_P013
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Monument Number	(Alphanumeric)	<u>Symbol Orientation</u> Orientation: align base parallel with south projection line Origin: center of symbol	Monument Number: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Location Monument	<u>Isosceles Triangle</u> Color: Black Angle 1: 53° Angle 2: 74° Angle 3: 53° Height: 0.04" Fill: filled solid	

Symbol#: SURVEY_CORNER_P014
 Dimension: 0



<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Monument Number	(Alphanumeric)	<u>Dot</u> Color: Red Diameter: 0.006" Positioning: centered in square	Monument Number: Color: Black Style: UL CAPS Size: 6 Spacing: 0
Survey Corner Type	Special Survey Corner	<u>Symbol Orientation</u> Orientation: align parallel to south projection line Origin: center of symbol <u>Square</u> Color: Red Lineweight: 0.003" Dimension 1: 0.04" Dimension 2: 0.04"	

Conflict Detection and Resolution

Conflict detection and resolution rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

The hierarchy for symbolizing SURVEY CORNER, BOUNDARY POINT, and control station which are coincident and/or near each other is listed below. From most important to least important, the hierarchy is:

control station
BOUNDARY POINT
SURVEY CORNER

If SURVEY CORNER coincides a horizontal control station,
Then suppress_symbol.

If SURVEY CORNER symbol_coalesces a horizontal control station,
Then suppress_section.

If SURVEY CORNER symbol_coalesces ROAD, with Road Class = Class 1, Class 2, or Class 3, or coincides other linear features (TBD),
Then suppress_symbol.

Names and Labels

Selection and placement rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Selection

TBD

Placement

If SURVEY CORNER is coincident with a vertical control station,
Then control station takes the primary label position and SURVEY CORNER takes the secondary label position.

If SURVEY CORNER is coincident with SPOT ELEVATION,
Then SURVEY CORNER takes the primary label position and SPOT ELEVATION takes the secondary label position.

EXAMPLES

Reese River Canyon, NV (38118-G7) (3-way found corner with two lines and meander corner)
Dutch Blue Creek, AZ (33109-D2) (3-way and 4-way found corners)

SURVEY LINE - The limiting line between Public-Land and/or Private subdivisions.

ATTRIBUTE/ATTRIBUTE VALUE LIST

Name	Proper name, specific term, or expression
(Alphanumeric)	Length Value: 99
Not Applicable	The attribute does not apply and therefore cannot be valued
Survey Type	The method or procedure used to determine the measurement value for a line
Protracted	Theoretically extended from or fit between established surveyed points pending actual ground survey
Surveyed	Observations and measurements have been taken on the ground in order to establish monuments that mark the boundaries of an area. These surveys have fieldnotes and plats that are approved and accepted by the delegated authority
Positional Accuracy	The accuracy within which a feature can be confidently positioned
Approximate	Conditions permit the feature to be confidently positioned between 0.02" and 0.1", at map scale, of its true ground position.
Definite	Conditions permit the feature to be confidently positioned. Horizontal data are confidently positioned within 0.02", at map scale, of the true ground position. Vertical data are confidently positioned within one-half contour interval of the true ground position
Unspecified	The value is not known and is not required

DELINEATION

SURVEY LINE is defined by the best available evidence for **SURVEY CORNERS**. The ground positions of the original monuments remain the true positions, even though directions and lengths of lines indicate positions different from the ground positions.

REPRESENTATION RULES

Feature Object Representation, Composition, and Relationship Table

RELATIONSHIPS	INSTANCES (CARDINALITY)	WITH OBJECT
---------------	----------------------------	-------------

Representation Conditions

KIND OF FEATURE OBJECT	AREA	SHORTEST	LONGEST
0-dimensional			
1-dimensional		> 0	
2-dimensional			

Special Conditions:

DATA EXTRACTION

Capture Conditions

If SURVEY LINE is associated with LAND GRANT,
 Or
 If SURVEY LINE can be positioned within 200 feet,
 Or
 If SURVEY LINE is protracted, and is associated with PUBLIC LAND SURVEY SYSTEM AREA, and
 Origin of Survey Name = Copper River Meridian, Fairbanks Meridian, Seward Meridian, Kateel River
 Meridian, or Umiat Meridian,
 Then capture.

Attribute Information

Survey Type = Protracted,
 Only if within STATE with Name = Alaska.

If SURVEY LINE is associated with PUBLIC LAND SURVEY SYSTEM AREA, and SURVEY LINE
 can be plotted within 40 feet of its true position,
 Then Positional Accuracy = Definite.

If SURVEY LINE is associated with PUBLIC LAND SURVEY SYSTEM AREA, and SURVEY LINE
 can be plotted between 40 feet and 200 feet of its true position,
 Then Positional Accuracy = Approximate.

If SURVEY LINE is associated with SPECIAL SURVEY AREA, PUBLIC LAND SURVEY SYSTEM
 AREA with Survey Status = Not Approved by BLM, or LAND GRANT,
 Then Positional Accuracy = Unspecified.

If Name is associated with the survey line itself and not with the survey area captured,
Then Name = (Alphanumeric),
Else Name = Not Applicable. (examples: Fulton Line and Greenville Treaty Line)

Source Interpretation Guidelines

All

Principal Meridian names are associated with an area referenced to the Principal Meridian, and are therefore captured on the feature PRINCIPAL MERIDIAN, not on SURVEY LINE.

Graphic

If a survey line is not portrayed because it is coincident with a boundary line,
Then collect SURVEY LINE and value Positional Accuracy based on the accuracy of the boundary line.

If a portion of a survey line is not portrayed because it is coincident with a cultural feature such as a road or canal,
Then collect SURVEY LINE and value Positional Accuracy based on the symbology of the portrayed portion of the survey line.

If a complete survey line is not portrayed because it is coincident with a cultural feature such as a road or canal,
Then collect SURVEY LINE and value Positional Accuracy based on evidence of corners and surrounding survey lines. Positional Accuracy = Unspecified if the accuracy of the survey line cannot be confidently determined.

On maps published before 1940, rectangular survey subdivision lines are portrayed by black dotted lines.

On maps published between 1940 and 1948, rectangular survey subdivision lines are portrayed by black solid lines.

The limits of former Lighthouse Reservations, Indian Reservations, or Military Reservations which limit the Public Land Survey System are captured as SURVEY LINE.

In addition to depicted land lines, other lines that limit the land net must be collected to complete closure of all polygons. Where land lines have been dropped on the map because of coincidence with another linear feature, such as a road or boundary, SURVEY LINE is collected and Positional Accuracy is valued by looking at the overall pattern of the surrounding portrayed lines. Survey lines that have been dropped because of coincidence with another feature are generally collected as straight lines connecting section corner locations, even if the feature for which they have been dropped deviates from that line.

Revision - General

Revision - Standard

Revision - Limited

Revise only in areas where new surveys have been performed where there have previously been no surveys, and the information is available from the Bureau of Land Management's Geographic Coordinate Data Base (GCDB). Retain existing features.

DATA EXTRACTION OR PRODUCT GENERATION at 1:24,000 scale

Inclusion Conditions

All required

Generalization

PRODUCT GENERATION at 1:24,000 scale

Symbolization

<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">NAM</div>	Symbol#: SURVEY_LINE_L001 Dimension: 1
--	---

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Line</u> Color: Red Lineweight: 0.005"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Definite		
Survey Type	Surveyed		

NOTE: SURVEY LINE associated with PUBLIC LAND SURVEY SYSTEM AREA, First
 Division Type = Section or Undivided Area and Survey Status = Approved by BLM

<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">NAM</div>	Symbol#: SURVEY_LINE_L002 Dimension: 1
--	---

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Dashed Line</u> Color: Red Lineweight: 0.005"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Approximate	Dash Length: 0.1" Dash Spacing: 0.02"	
Survey Type	Surveyed		

NOTE: SURVEY LINE associated with PUBLIC LAND SURVEY SYSTEM AREA, First
 Division Type = Section or Undivided Area and Survey Status = Approved by BLM

Symbol#: SURVEY_LINE_L003
 Dimension: 1

NAM

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Dashed Line</u> Color: Red Lineweight: 0.005"	Name: Color: Red Style: SL CAPS
Survey Type	Protracted	Dash Length: 0.03" Dash Spacing: 0.02"	Size: 6 Spacing: 0

NOTE: SURVEY LINE associated with PUBLIC LAND SURVEY SYSTEM AREA, First
 Division Type = Section or Undivided Area and Survey Status = Approved by BLM

Symbol#: SURVEY_LINE_L004
 Dimension: 1

NAM

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Dotted Line</u> Color: Red Dot Spacing: 0.018"	Name: Color: Red Style: SL CAPS
Positional Accuracy	Unspecified	Diameter: 0.006"	Size: 6 Spacing: 0
Survey Type	Surveyed		

NOTE: SURVEY LINE associated with PUBLIC LAND SURVEY SYSTEM AREA, First
 Division Type = Section or Undivided Area and Survey Status = Not Approved by
 BLM



Symbol#: SURVEY_LINE_L005
 Dimension: 1

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Dashed Dotted Line</u> Color: Red Lineweight: 0.005"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Unspecified	Dash Length: 0.25" Dash Spacing: 0.033"	
Survey Type	Surveyed	Dot Spacing: 0.033" Diameter: 0.008"	

NOTE: SURVEY LINE associated with LAND GRANT, SPECIAL SURVEY AREA with Special Survey Area Type = Homestead Entry Survey, or PUBLIC LAND SURVEY SYSTEM AREA with First Division Type = Donation Land Claim, Lot, or Tract

Postscript image not in the database.

Symbol#: SURVEY_LINE_L006
 Dimension: 1

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Unspecified	<u>Line</u> Color: Red Lineweight: 0.005"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Unspecified		
Survey Type	Surveyed		

NOTE: SURVEY LINE associated with SPECIAL SURVEY AREA with Special Survey Area Type = Indian Allotment or US Survey

Symbol#: SURVEY_LINE_L101
 Dimension: 1

NAM

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Line</u> Color: Red Lineweight: 0.01"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Definite		
Survey Type	Surveyed		

Symbol#: SURVEY_LINE_L102
 Dimension: 1

NAM

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Dashed Line</u> Color: Red Lineweight: 0.01" Dash Length: 0.1" Dash Spacing: 0.02"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Approximate		
Survey Type	Surveyed		

Symbol#: SURVEY_LINE_L103
 Dimension: 1

NAM

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Dashed Line</u> Color: Red Lineweight: 0.01" Dash Length: 0.03" Dash Spacing: 0.02"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Survey Type	Protracted		

Symbol#: SURVEY_LINE_L104
 Dimension: 1

NAM

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	<u>Dotted Line</u> Color: Red Dot Spacing: 0.024" Diameter: 0.012"	Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Unspecified		
Survey Type	Surveyed		

Symbol#: SURVEY_LINE_L105
 Dimension: 1

NAM
 GRANT
 BOUNDARY

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Name	(Alphanumeric) or Not Applicable	N/A	Label and Name: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Positional Accuracy	Unspecified		
Survey Type	Surveyed		

Symbol#: SURVEY_LINE_L106
 Dimension: 1

BASE LINE

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Positional Accuracy	Definite	<u>Line</u> Color: Red	Label: Color: Red Style: SL CAPS Size: 6 Spacing: 0
Survey Type	Surveyed	Lineweight: 0.01"	

Symbol#: SURVEY_LINE_L107
 Dimension: 1

BASE LINE

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Positional Accuracy	Approximate	<u>Dashed Line</u> Color: Red	Label: Color: Red
Survey Type	Surveyed	Lineweight: 0.01" Dash Length: 0.1" Dash Spacing: 0.02"	Style: SL CAPS Size: 6 Spacing: 0

Symbol#: SURVEY_LINE_L108
 Dimension: 1

BASE LINE

<u>Attribute</u>	<u>Value</u>	<u>Symbol Specs</u>	<u>Type Specs</u>
Survey Type	Protracted	<u>Dashed Line</u> Color: Black	Label: Color: Red
		Lineweight: 0.01" Dash Length: 0.03" Dash Spacing: 0.02"	Style: SL CAPS Size: 6 Spacing: 0

Conflict Detection and Resolution

Conflict detection and resolution rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

The hierarchy of symbolizing SURVEY LINES which are coincident with other SURVEY LINES is according to the feature which is associated with the SURVEY LINE. The hierarchy is:

- SURVEY LINE associated with LAND GRANT
- SURVEY LINE associated with SPECIAL SURVEY AREA
- SURVEY LINE associated with PUBLIC LAND SURVEY SYSTEM AREA

There will be exceptions to some of the following rules. Further refinement and interactive editing may be required.

If SURVEY LINE separates two PUBLIC LAND SURVEY SYSTEM AREAS, with Survey Status = Approved by BLM, and the areas have different Township Numbers, or Township Fractions, or Range Numbers, or Range Fractions, or Range Directions,
 Then SURVEY LINE represents the edge of a township. resymbolize using L101, L102, or L104.

If SURVEY LINE separates two PUBLIC LAND SURVEY SYSTEM AREAS, with Survey Status = Not Approved by BLM, and the areas have different Township Numbers, or Township Fractions, or Range

Numbers, or Range Fractions, or Range Directions,
Then SURVEY LINE represents the edge of a township. Resymbolize using L103.

If an East-West SURVEY LINE separates two PUBLIC LAND SURVEY SYSTEM AREAS, and both areas have the same Origin of Survey Name, and both areas have Township Number = 1, but Township Direction is not the same,
Then SURVEY LINE represents a Base Line. Resymbolize using L106, L107, or L108.

If an East-West SURVEY LINE separates two PUBLIC LAND SURVEY SYSTEM AREAS, and one area has Township Number = 1, and the other area has Township Number > 2, and the Origin of Survey Names are not the same,
then SURVEY LINE may represent a Base Line. If so, resymbolize using L106, L107, or L108.

If an East-West SURVEY LINE separates a PUBLIC LAND SURVEY SYSTEM AREA with Township Number = 1 from an area that is not a PUBLIC LAND SURVEY SYSTEM AREA,
Then SURVEY LINE may represent a Base Line. If so, resymbolize using L106, L107, or L108.

If SURVEY LINE symbol_coalesces SURVEY CORNER, with Survey Corner Type = Land Grant Point or Location Monument,
Then suppress_section.

If SURVEY LINE symbol_coalesces a horizontal control station,
Then suppress_section.

If SURVEY LINE starts or ends at SURVEY CORNER and SURVEY CORNER is coincident with POINT MONUMENT,
Then resymbolize that end of SURVEY LINE with a 0.03" space and a 0.03" dash (dash lineweight = 0.01")

If SURVEY LINE coincides BOUNDARY LINE, ROAD, or other linear feature (TBD) for a distance \geq 0.1", and SURVEY LINE is not associated with LAND GRANT,
Then suppress_symbol. Do not suppress Name.

If SURVEY LINE coincides BOUNDARY LINE, ROAD, or other linear feature (TBD) for a distance \geq 0.1", and the SURVEY LINE is associated with LAND GRANT,
Then resymbolize using L105.

Names and Labels

Selection and placement rules are being developed. Additions and modifications to the rule set will continue until all features are completed.

Selection

TBD

Placement

TBD

EXAMPLES

Dulzura, CA (32116-F7) (Private Survey Lines, Rectangular Survey Lines, Special Survey Lines)
Russells Point, OH (40083-D3) (Greenville Treaty Line)
Valle Toledo, NM (35106-H3) (Boundary coincident with LAND GRANT)

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5A: Origin of Survey

APPENDIX 5A

Origin of Survey

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5A: Origin of Survey

All possible Attribute Values for Origin of Survey

PM = Principal Meridian, OH = Bases in Ohio

Origin of Survey	Type	State(s)	Date
First Principal Meridian	PM	OH ¹ , IN	1819
Second Principal Meridian	PM	IL, IN	1805
Third Principal Meridian	PM	IL	1805
Fourth Principal Meridian	PM	IL	1815
Fifth Principal Meridian	PM	AR, IA, MN, MO, ND, SD	1815
Sixth Principal Meridian	PM	CO, KS, NE, SD, WY	1855
Black Hills Meridian	PM	SD	1878
Boise Meridian	PM	ID	1867
Chickasaw Meridian	PM	MS	1833
Choctaw Meridian	PM	MS	1821
Cimarron Meridian	PM	OK	1881
Copper River Meridian	PM	AK	1905
Fairbanks Meridian	PM	AK	1910
Gila and Salt River Meridian	PM	AZ	1865
Humboldt Meridian	PM	CA	1853
Huntsville Meridian	PM	AL, MS	1807
Indian Meridian	PM	OK	1870
Louisiana Meridian	PM	LA	1807
Michigan Meridian	PM	MI, OH	1815
Principal Meridian	PM	MT	1867
Mount Diablo Meridian	PM	CA, NV	1851
Navajo Meridian	PM	AZ	1869
New Mexico Principal Meridian	PM	CO, NM	1855
Saint Helena Meridian	PM	LA	1819
Saint Stephens Meridian	PM	AL, MS	1805

¹ During collection from graphic source note that this area in Ohio is portrayed by USGS as either the Congress Lands or the Congress Lands Based on the First Principal Meridian.

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5A: Origin of Survey

Origin of Survey -- continued

Origin of Survey	Type	States	Date
Salt Lake Meridian	PM	UT	1855
San Bernardino Meridian	PM	CA, AZ ²	1852
Seward Meridian	PM	AK	1911
Tallahassee Meridian	PM	FL, AL	1824
Uintah Meridian	PM	UT	1875
Ute Meridian	PM	CO	1880
Washington Meridian	PM	MS	1803
Willamette Meridian	PM	OR, WA	1851
Wind River Meridian	PM	WY	1875
Ohio River	OH	OH, IN	1785
Muskingum River	OH	OH	1800
Scioto River	OH	OH	1799
Twelve Mile Square Reserve	OH	OH	1805
Kateel River Meridian	PM	AK	1956
Umiat Meridian	PM	AK	1956
Extended Fourth Principal Meridian	PM	MN, WI	1831
Great Miami River	OH	OH	1798
Base Line of the United States Military Survey	OH	OH	1797

² Although the San Bernardino Meridian is for California, BLM records show some Arizona townships are referenced to it.

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5B: Township and Range Designators

APPENDIX 5B

Township and Range Designators

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5B: Township and Range Designators

Township Designators are made up of three separate attributes:

<u>ATTRIBUTE</u>	<u>VALUES</u>
Township Number	Integer Not Applicable
Township Fraction	1/4 1/2 3/4 Not Applicable
Township Direction	N S Not Applicable*

Examples:

Township 23 North would be:

On the graphic: T23N
 In DLG-3: 302 0023
 In BLM GCDB: 0230N
 In DLG-F: Township Number = 23
 Township Fraction = Not Applicable
 Township Direction = N

Township 4 1/2 South would be:

In DLG-F: Township Number = 4
 Township Fraction = 1/2
 Township Direction = S

Range Designators are made up of three separate attributes:

<u>ATTRIBUTE</u>	<u>VALUES</u>
Range Number	Integer Not Applicable
Range Fraction	1/4 1/2 3/4 Not Applicable
Range Direction	E W Not Applicable*

* Some township layouts, such as in Ohio and Indiana, number the tiers of townships or ranges from a line (such as the Ohio River). Such layouts do not have an initial point as an origin for both township and range numbering; townships are not identified as north or south of a point and ranges are not identified as east or west of a point.

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5B: Township and Range Designators

The Duplication Status attribute is used to distinguish between identical sets of Origin of Survey - Township - Range numbers. Such duplicate designations occur most commonly at State boundaries and both the duplicate townships are identified according to their location relative to the base line or meridian. The township which falls closest to the base line is given the value "First Duplicate", and the one farthest from the base line is the "Second Duplicate". (In areas with no base line, a river base may be used to determine which township is the first duplicate.) If the duplicate townships are equidistant from the base line, the one closest to the meridian is considered the "First Duplicate". This differs from the DLG-3 attribute coding, where duplicates were identified in the Range code of only one of the townships. The "Second Duplicate" is equivalent to the townships labeled "A" in BLM GCDB coding. A partial list of township duplicates is on page 5B-4.

Examples:

Durango, CO 1:24,000-scale quadrangle

Township 34 North, Range 7 West (South of Ute Line) would be:

In DLG-F: Township Number = 34
Township Fraction = Not Applicable
Township Direction = N
Range Number = 7
Range Fraction = Not Applicable
Range Direction = W
Duplication Status = First Duplicate

Township 34 North, Range 7 West (North of Ute Line) would be:

In DLG-F: Township Number = 34
Township Fraction = Not Applicable
Township Direction = N
Range Number = 7
Range Fraction = Not Applicable
Range Direction = W
Duplication Status = Second Duplicate

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5B: Township and Range Designators

Partial List of Township Duplicates

State	Meridian	Township and Range
California/Nevada	Mt. Diablo Meridian	Township 1N, Ranges 31E - 32E
		Township 2N, Ranges 30E - 31E
		Township 3N, Ranges 29E - 30E
		Township 4N, Ranges 28E - 29E
		Township 5N, Ranges 26E - 28E
		Township 6N, Ranges 25E - 27E
		Township 7N, Ranges 24E - 26E
		Township 8N, Ranges 23E - 25E
		Township 9N, Ranges 22E - 24E
		Township 10N, Ranges 21E - 22E
		Township 1S, Ranges 32E - 33E
		Township 2S, Ranges 33E - 34E
		Township 3S, Ranges 34E - 35E
		Township 4S, Ranges 35E - 36E
		Township 5S, Ranges 37E - 38E
		Township 6S, Ranges 38E - 39E
		Township 7S, Ranges 39E - 40E
		Township 8S, Ranges 39E - 41E
		Township 9S, Ranges 40E - 42E
		Township 10S, Ranges 41E - 43E
Township 11S, Ranges 42E - 44E		
Township 12S, Ranges 43E - 45E		
Township 13S, Ranges 45E - 46E		
Township 14S, Ranges 45E - 46E		
Township 15S, Range 46E		
Colorado	New Mexico Principal Meridian	Township 34N, Ranges 3W - 15W
Colorado/Wyoming	6th Principal Meridian	Township 12N, Ranges 85W - 104W
North Dakota/South Dakota	5th Principal Meridian	Township 128N, Ranges 47W - 49W
		Township 129N, Ranges 49W - 55W
		Township 130N, Ranges 53W - 55W
Oregon	Willamette Meridian	Township 36S, Range 7E
South Dakota	5th Principal Meridian	Township 118N, Range 52W
		Township 119N, Ranges 51W - 53W
		Township 120N, Ranges 51W - 53W
		Township 121N, Range 51W
		Township 122N, Ranges 50W - 51W
		Township 123N, Range 50W
		Township 124N, Ranges 50W and 54W
		Township 125N, Ranges 49W - 50W
		Township 126N, Ranges 48W - 49W
Township 127N, Ranges 47W - 48W		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

APPENDIX 5C

Codes for Named Land Grants
(Numeric Order by State)

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

Land Grant Codes for DLG-F are comprised of the two digit State FIPS code plus the three digit Land Grant code shown in the following tables.

For example, the code for the Zapato land grant in Colorado would be 08007. 08 is the FIPS code for Colorado and 007 is the code for the Zapato land grant.

This appendix lists the codes in numeric order by State. See Appendix 5D for an alphabetic listing.

An asterisk (*) following a code indicates that either the land grant name is not in the Bureau of Land Management (BLM) data dictionary, or the use of the name is ambiguous. These codes are not used by BLM. These land grant names do, however, appear on USGS maps and are stored in the Geographic Names Information System (GNIS).

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

01 ARIZONA

001	ARIBACA	009	SAN IGNACIO DE LA CANOA
002	LUIS MARIA BACA FLOAT #3	010	SAN IGNACIO DEL BABOCOMARI
003	LUIS MARIA BACA FLOAT #5	011	SAN JOSE DE SONOITA
004	LOS NOGALES DE ELLAS	012	SAN JUAN DE LAS BOQUILLAS Y NOGALES
005	MARIA SANTISIMA DEL CARMEN	013	SAN RAFAEL DE LA ZANJA
006	RANCHO DE MARTINEZ	014	SAN RAFAEL DEL VALLE
007	SABINO OTERO ET AL	015	TUMACACORI AND CALABAZAS
008	SAN BERNARDINO	016*	SAN RAFAEL DEL VALLE (in Cochise County)

06 CALIFORNIA

001	SAN BUENA VENTURA	043	SAN RAFAEL
002	EL PRIMER CANON	044	SAN PEDRO SANTA MAGARITA Y LAS GALLINAS
003	LA BARRANCA COLORADA	045	SAN JOSE--PACHECO
004	LAS FLORES	046	NOVATO
005	SAUCOS	047	CORTE MADERA DE NOVATO
006	RIO DE LOS MOLINOS	048	OLOMPALI
007	BOSQUEJO	049	PETALUMA
008	CAPAY	050	ROBLAR DE LA MISERIA
009	ARROYO CHICO	051	CANADA DE POGOLIMI
010	RANCHO DE FARWELL	052	CANADA DE JONIVE
011	JACINTO	053	MOLINOS
012	LLANO SECO	054	SOTOYOME
013	AGUAS FRIAS	055	TZABACO
014	ESQUON	056	RINCON DE MUSALACON
015	FERNANDEZ	057	CASLAMAYOMI
016	LARKINS CHILDRENS RANCHO	058	GUENOC
017	COLUSA	059	COLLAYOMI
018	BOGA	060	MALLACOMES OR MORISTUL
019	HONCUT	061	MALLACOMES Y PLAN DE AGUA CALIENTE
020	NEW HELVETIA	062	SAN MIGUEL--WEST
021	JOHNSON RANCHO	063	CABEZA DE SANTA ROSA
022	JIMENO	064	LLANO DE SANTA ROSA
023	YOKAYA	065	COTATE
024	SANEL	066	LOS GUILICOS
025	GERMAN	067	AGUA CALIENTE (in Sonoma County)
026	MUNIZ	068	PUEBLO LANDS OF SONOMA
027	BODEGA	069	LAC
028	ESTERO AMERICANO	070	S F SOLAND IN SONOMA MISSION
029	BLUCHER	071	SONOMA CITY LOT IN
030	LAGUNA DE SAN ANTONIO	072	HUICHICA
031	SOULAJULE LANDS	073	RINCON DE LOS CARNEROS
032	NICASIO LANDS	074	ENTRE NAPA
033	PUNTA DE LOS REYES--RANDALL	075	TULUCAY
034	PUNTA DE LOS REYES--SOBRANTE	076	NAPA
035	LAS BAULINES	077	YAJOME
036	SAUCELITO	078	CAYMUS
037	TOMALES Y BAULINES--PHELPS	079	CARNE HUMANA
038	TOMALES Y BAULINES--GARCIA	080	LA JOTA
039	SAN GERONIMO (in Marin County)	081	LOCOALLOMI
040	CANADA DE HERRERA	082	CATACULA
041	PUNTA DE QUENTIN	083	LAS PUTAS
042	CORTE DE MADERA DEL PRESIDIO	084	CANADA DE CAPAY

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

CALIFORNIA -- continued

085	GUESISOSI	136	AGUA CALIENTE (in Alameda & Santa Clara Counties)
086	RIO JESUS MARIA	137	TULARCITOS--HIGUERA
087	RIO DE LOS PUTOS	138	MILPITAS--ALVISO
088	LOS PUTOS	139	RINCON DE LOS ESTEROS--WHITE
089	CHIMILES	140	RINCON DE LOS ESTEROS--BERREYESA
090	TOLENAS	141	RINCON DE LOS ESTEROS--ALVISO
091	SUISUN	142	EMBARCADERO DE SANTA CLARA
092	LOS ULPINOS	143	ULISTAC
093	SANJON DE LOS MOQUELUMNES	144	PASTORIA DE LAS BORREGAS
094	COSUMNES	145	POSOLMI
095	OMOCHUMNES	146	RINCON DE SAN FRANCISQUITO
096	DEL PASO	147	RINCONADA DEL ARROYO DE SAN FRANCISQUITO
097	SAN JUAN	148	PULGAS
098	RIO DE LOS AMERICANOS	149	SAN MATEO
099	ARROYO SECO	150	BURI BURI
100	CAMPO DE LOS FRANCESES	151	CANADA DE GUADALUPE VISITACION Y RODEO VIEJO
101	STANISLAUS RIVER	152	CANADA DE GUADALUPE Y RODEO VIEJO
102	RANCHERIA DEL RIO ESTANISLAO	153	RINCON DE LAS SALINAS Y POTRERO VIEJO
103	YOSEMITE & BIG TREE GRANTS	154	SAN MIGUEL--NOE
104	LAS MARIPOSAS	155	PUEBLO LANDS OF SAN FRANCISCO
105	ORESTIMBA	156	MISSION DOLORES
106	RANCHO DEL PUERTO	157	MISSION DOLORES 50 VARA LOT IN DE HARO
107	EL PESCADERO--GRIMES	158	MISSION DOLORES--BERNAL
108	EL PESCADERO--PICO AND NAGLEE	159	OJO DE AGUA DE FIGUEROA S F
109	CANADA DE LOS VAQUEROS	160	MISSION DOLORES SUERTE IN
110	LOS MEGANOS	161	MISSION DOLORES
111	LOS MEDANOS	162	SAN FRANCISCO
112	MONTE DEL DIABLO	163	LAGUNA DE LA MERCED
113	LAS JUNTAS	164	SAN PEDRO--SANCHEZ
114	CANADA DEL HAMBRE Y LOS BOLSAS	165	CORRAL DE TIERRA--PALOMARES
115	ARROYO DE LAS NUECES Y BOLBONES	166	CORRAL DE TIERRA--VASQUEZ
116	SAN RAMON--CARPENTIER	167	FELIZ
117	SAN RAMON--NORRIS	168	CANADA DE RAYMUNDO
118	SAN RAMON--AMADOR	169	MIRAMONTES
119	SANTA RITA	170	CANADA DE VERDE Y ARROYO DE LA PURISIMA
120	LAS POSITAS	171	SAN GREGORIO--RODRIGUEZ
121	VALLE DE SAN JOSE--SUNOL & BERNAL	172	SAN GREGORIO--CASTRO
122	SAN LORENZO--CASTRO	173	EL CORTE DE MADERA
123	LAGUNA DE LOS PALOS COLORADOS	174	SAN FRANCISQUITO--RODRIGUEZ
124	ACALANES	175	LA PURISIMA CONCEPCION
125	LA BOCA DE LA CANADA DEL PINOLE	176	SAN ANTONIO--MESA
126	PINOLE	177	SANTA CLARA TR NR--ENRIGHT
127	SAN PABLO	178	EL POTRERO DE SANTA CLARA
128	SAN ANTONIO--V & D PERALTA	179	PUEBLO LANDS OF SAN JOSE
129	SAN ANTONIO--A M PERALTA	180	PALA
130	SAN ANTONIO--Y PERALTA	181	CANADA DE PALA
131	SAN LEANDRO	182	LOS HUECOS
132	SAN LORENZO--SOTO	183	YERBA BUENA
133	ARROYO DE LA ALEMEDA	184	SANTA TERESA
134	POTRERO DE LOS CERRITOS		
135	MISSION SAN JOSE		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

CALIFORNIA -- continued

185	SAN JUAN BAUTISTA	234	SAN LUIS GONZAGA
186	LOS COCHES (in Santa Clara County)	235	PANOCHES DE SAN JUAN Y LOS CARRISALITOS
187	QUITO	236	REAL DE LAS AGUILAS
188	SANTA CLARA MISSION TR	237	SANTA ANA Y QUIEN SABE
189	SANTA CLARA COUNTY--BENNETT	238	SAN JUSTO
190	SAN ANTONIO OR PESCADERO	239	LOMERIAS MUERTAS
191	BUTANO	240	MISSION SAN JUAN BAUTISTA
192	RINCONADA DE LOS GATOS	241	JURISTA
193	CANADA DE LOS CAPITANCILLOS	242	LAS AROMITAS Y AGUA CALIENTE
194	LOS CAPITANCILLOS	243	CANADA DE LA CARPENTERIA
195	SAN VICENTE--BERREYESA	244	LOS CARNEROS--LITTLEJOHN
196	LA LAGUNA SECA	245	BOLSA NUEVA Y MORO COJO
197	CANADA DE SAN FELIPE Y LAS ANIMAS	246	LOS CARNEROS--MCDUGAL
198	SANJON DE SANTA RITA	247	SAN JUAN BAUTISTA TR NR
199	OJO DE AGUA DE LA COCHE	248	SAN JUAN BAUTISTA--BREEN
200	LAS UVAS	249	LOS VERGELES
201	SHOQUEL AUGMENTATION	250	CIENEGA DEL GABILAN
202	SAN AUGUSTIN	251	LA NATIVIDAD
203	ZAYANTA	252	BOLSA DE LAS ESCORPINAS
204	SAN VICENTE--ESCARRILLA	253	LOS GATOS OR SANTA RITA
205	PUNTA DEL AÑO NUEVO	254	BOLSA DEL POTRERO Y MORO COJO
206	AGUA PUERCA Y LAS TRANCAS	255	RINCON DE LAS SALINAS
207	REFUGIO	256	MONTEREY CITY
208	CANADA DEL RINCON EN EL RIO SAN LORENZO	257	LAS SALINAS
209	LA CARBONERA	258	MONTEREY COUNTY--CASTRO
210	SANTA CRUZ MISSION	259	EL TUCHO
211	TRES OJOS DE AGUA	260	TWO SUERTES
212	MESA DE OJO DE AGUA	261	RINCON DE SANJON
213	POTRERO Y RINCON DE SAN PADRO DE REGLADO	262	MONTEREY COUNTY--COCKS
214	ARROYO DEL RODEO	263	NACIONAL
215	SHOQUEL	264	SAUSAL
216	APTOS	265	EL ALISAL--BERNAL
217	LAGUNA DE LAS CALABASAS	266	LLANO DE BUENA VISTA
218	LOS CORRALITOS	267	EL ALISAL--HARTNELL
219	SAN ANDRES	268	CIENEGA DE LOS PAICINES
220	BOLSA DEL PAJARO	269	ENCINAL Y BUENA ESPERANZA
221	BOLSA DE SAN CAYETANO	270	CHUALAR
222	VEGA DEL RIO DEL PAJARO	271	ZANJONES
223	SALSIPUEDES	272	RINCON DE LA PUENTE DEL MONTE
224	LAS ANIMAS	273	GUADALUPE Y LLANITOS DE LOS CORREOS
225	SOLIS	274	BUENA VISTA
226	SAN FRANCISCO DE LAS LLAGAS	275	EL TORO
227	LA POLKA	276	LAGUNA SECA
228	SAN YSIDRO--GILROY	277	SAUCITO
229	SAN YSIDRO--ORTEGA	278	NOCHE BUENA
230	LLANO DEL TEQUISQUITA	279	PUNTA DE PINOS
231	BOLSA DE SAN FELIPE	280	EL PESCADERO--JACK
232	SAN JOAQUIN (in San Benito County)	281	MISSION CARMELOCHORRO
233	AUSAYMAS Y SAN FELIPE	282	AGUAJIT
		283	CANADA DE LA SEGUNDA
		284	JAMES MEADOWS TRACT

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

CALIFORNIA -- continued

285	LOS LAURELLES--RANSOM	334	RANCHITA DE SANTA FE
286	EL POTRERO DE SAN CARLOS	335	SAN MIGUELITO (in San Luis Obispo County)
287	SAN FRANCISQUITO	336	PISMO
288	EL SUR	337	CORRAL DE PIEDRA
289	LOS LAURELLES--BERONDA	338	SANTA MANUELA
290	CORRAL DE TIERRA--MCCOBB	339	ARROYO GRANDE
291	LOS TULARCITOS--GOMEZ	340	HUASNA
292	PARAJE DE SANCHEZ	341	CUYAMA--M A DE LA G Y LATAILLADE
293	SAN VICENTE--MUNRASS	342	CUYAMA--CESARIO LATAILLADE
294	EX-MISSION SOLEDAD	343	SAN EMIDIO
295	MISSION SOLEDAD	344	EL TEJON
296	LOS COCHES (in Monterey County)	345	CASTAC
297	ARROYO SECO--TORRE	346	LOS ALAMOS Y AGUA CALEINTE
298	POSA DE LOS OSITOS	347	LA LIEBRE
299	SAN LORENZO--SOBERANES	348	SISQUOC
300	SAN LORENZO--SANCHEZ	349	TEPUSQUET
301	LAGUNA DE TACHE	350	SUEY
302	SAN LORENZO--RANDALL	351	NIPOMO
303	SAN BERNABE	352	BOLSA DE CHAMISAL
304	SAN BENITO	353	GUADALUPE
305	SAN LUCAS	354	PUNTA DE LA LAGUNA
306	SAN BERNARDO--SOBERANES	355	CASMALIA
307	MILPITAS	356	JESUS MARIA
308	MISSION SAN ANTONIO	357	TODOS SANTOS Y SAN ANTONIO
309	SAN MIGUELITO (in Monterey County)	358	LOS ALAMOS
310	EL PIOJO	359	TINAQUAIC
311	LOS OJITOS	360	LA LAGUNA--GUTIERREZ
312	PLEYTO	361	LA ZACA
313	MISSION SAN MIGUEL	362	CORRAL DE QUATI
314	CHOLAME	363	CANADA DE LOS PINOS OR COLLEGE RANCHO
315	HUERHUERO	364	SAN MARCOS
316	SANTA MARGARITA	365	TEQUEPIS
317	ATASCADERO	366	LOMAS DE LA PURIFICACION
318	ASUNCION	367	NOJOQUI
319	SANTA YSABEL (in San Luis Obispo County)	368	MISSION OF SANTA YNEZ
320	PASO DE ROBLES	369	SAN CARLOS DE JONATA
321	PIEDRA BLANCA	370	SANTA ROSA--COTA
322	SAN SIMEON	371	SANTA RITA--MALO
323	SANTA ROSA--ESTRADA	372	MISSION LA PURISMA (in Santa Barbara County)
324	SAN GERONIMO (in San Luis Obispo County)	373	MISSION LA PURISMA
325	MORO Y CAYUCOS	374	LOMPOC
326	SAN BERNARDO--CANE	375	PUNTA DE LA CONCEPCION
327	SAN LUISITO	376	LA MISSION VIEJA DE LA PURISMA
328	EL CHORRO	377	CANADA DE SALSIPUEDES
329	POTRERO DE SAN LUIS OBISPO	378	SAN JULIAN
330	HUERTA DE ROMUALDO	379	NUESTRA SENORA DEL REFUGIO
331	CANADA DE LOS OSOS Y PECHO Y ISLAY	380	CANADA DEL CORRAL
332	LAGUNA	381	LOS DOS PUEBLOS
333	SAN LUIS OBISPO MISSION	382	LA GOLETA
		383	LAS CIENEGAS

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

CALIFORNIA -- continued

384	MISSION SANTA BARBARA	435	RINCON DE LOS BUEYES
385	LAS POSITAS Y LA CALERA	436	CIENEGA O PASO DE LA TIJERA
386	PUEBLO LANDS OF SANTA BARBARA	437	AGUAJE DE LA CENTINELLA
387	EL RINCON--ARELLANES	438	SAUSAL REDONDO
388	SANTA ANA	439	LOS PALOS VERDES
389	OJAI	440	SAN PEDRO--DOMINGUEZ
390	CANADA LARGA O VERDE	441	TAJAUTA
391	CANADA DE SAN MIGUELITO	442	SAN ANTONIO--LUGO
392	MISSION SAN BUENAVENTURA	443	LA MERCED
393	LOT MISSION SAN BUENAVENTURA	444	PORTRERO CHICO
394	SAN MIGUEL--OLIVAS & LORENZANA	445	PORTRERO GRANDE
395	SANTA PAULA Y SATICOY	446	POTRERO DE FELIPE LUGO
396	EX-MISSION SAN BUENAVENTURA LANDS OF	447	SAN FRANCISCO--DALTON
397	SESPE	448	MISSION SAN GABRIEL
398	TEMASCAL	449	SAN GABRIEL TR NR--AGUILAR
399	SAN FRANCISCO	450	SAN GABRIEL TR NR--SALES
400	SIMI	451	SAN GABRIEL TR NR--SIMEON
401	LAS POSAS	452	SAN GABRIEL TR NR--SEXTON
402	SANTA CLARA DEL NORTE	453	SAN GABRIEL TR NR--DOMINGO
403	RIO DE SANTA CLARA	454	SANTA ANITA
404	SANTA CRUZ ISLAND OF	455	AZUSA--DUARTE
405	SANTA ROSA ISLAND OF	456	AZUSA--DALTON
406	GUADALASCA	457	SAN JOSE ADDITION TO
407	CALLEGUAS	458	SAN JOSE--DALTON ET AL
408	EL CONEJO	459	LOS NOGALES
409	EL ESCORPIO	460	LA PUENTE
410	EX-MISSION DE SAN FERNANDO	461	RINCON DE LA BREA
411	EL ENCINO	462	LA HABRA
412	MISSION SAN FERNANDO	463	SANTA GERTRUDES--COLIMA
413	TUJUNGA	464	PASO DE BARTOLO--PICO
414	LA CANADA	465	PASO DE BARTOLO--GUIRADO
415	SAN PASCUAL--GARFIAS	466	SANTA GERTRUDES--MCFARLAND & DOWNEY
416	SAN GABRIEL TR NR--COURTNEY	467	LOS CERRITOS
417	SAN GABRIEL TR NR--LEDESMA	468	LOS ALIMITOS
418	LAND 1000 VARAS SQ--SEXTON	469	LA BOLSA CHICA
419	PROSPERO TRACT	470	SANTA CATALINA ISLAND
420	SAN GABRIEL TR NR--WHITE	471	LAS BOLSAS
421	HUERTO DE CUATI	472	LOS COYOTES
422	SAN PASCUAL--WILSON	473	SAN JUAN CAJON DE SANTA ANA
423	SAN RAFAEL	474	SANTIAGO DE SANTA ANA
424	PROVIDENCIA	475	CANON DE SANTA ANA
425	CAHUENGA	476	EL RINCON
426	LOS FELIS	477	SANTA ANA DEL CHINO
427	LOS ANGELES CITY LANDS OF	478	SANTA ANA DEL CHINO ADDITION
428	LAS CIENEGAS	479	CUCAMONGA
429	LA BREA	480	MUSCUPIABE
430	SAN ANTONIO OR RODEO DE LAS AGUAS	481	SAN BERNARDINO
431	SAN JOSE DE BUENOS AYRES	482	JURUPA--ROUBIDEAU
432	SAN VICENTE Y SANTA MONICA	483	JURUPA--STEARNS
433	TOPANGA MALIBU SEQUIT	484	LA SIERRA--SEPULVEDA
434	BALLONA	485	LA SIERRA--YORBA

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

CALIFORNIA -- continued

486	EL SOBRANTE DE SAN JACINTO	534	EL CAJON
487	SAN JACINTO NUEVO Y POTRERO	535	CANADA DE LOS COCHES--INSIDE 534
488	SAN JACINTO & SAN GORGONIO TRACT BETWEEN	536	EL CHAMISAL
489	SAN JAACINTO VIEJO	537	LOS PRIETOS Y NAJALAYEGUA
490	PAUBA	538	CUCA OR EL POTRER
491	VALLEY O TEMECULA	539	BOCA DE SANTA MONICA
492	TEMECULA	540	ARROYO DE LA LAGUNA
493	SANTA ROSA--MORINO	541	JAMUL
494	POTREROS SAN JUAN CAPISTRANO	542	PUEBLO LOT NO 6
495	LA LAGUNA--STEARNS	543	CAMARITAS IN SAN FRANCISCO
496	MISSION VIEJO OR LA PAZ	545	LAS VIRGENES
497	TRABUCO	546	CANADA DE LOS NOGALES
498	CANADA DE LOS ALISOS	547	PASO DE BARTOLO--MCFARLAND & DOWNEY
499	LOMAS DE SANTIAGO	548	PASO DE BARTOLO--SEPULVEDA
500	SAN JOAQUIN (in Orange County)	549	LAS CRUCES
501	NIGUEL	550	EL SOBRANTE
502	BOCA DE LA PLAYA	551	CANADA DEL CORTE DE MADERA
503	MISSION SAN JUAN CAPISTRANO 5 TR AT	552	SAN JOSE Y SUR CHIQUITO
504	EX-MISSION SAN JUAN CAPISTRANO # TR AT	553	ONE SUERTE
505	SANTA MARGARITA Y LAS FLORES	554	RESSIGHINI
506	MONSERATE	556	100 VARA LOT AT SAN PEDRO
507	PAUMA	557	RANCHO AGUAS NIEVES
508	VALLE DE SAN JOSE--PORTILLA	558	JUAN SILVAS
509	SAN JOSE DEL VALLE	560	EX-MISSION SAN JOSE
510	SANTA YSABEL (in San Diego County)	561*	AGUA JITA
511	VALLE DE SAN FELIPA	562*	APTOS
512	CUYAMACA	563*	CANAL RANCH
513	CANADA DE SAN VICENTE Y MESA DEL PADRE BARONA	564*	GUADALUPE Y LLANITOS DE LOS CORREOS
514	VALLE DE PAMO OR SANTA MARIA	565*	LITTLE TEMECULA
515	GUEJITO	566*	MISSION LANDS (in San Luis Obispo County)
516	RINCON DEL DIABLO	567*	MISSION SAN DIEGO DE ACALA
517	LOS VALLECITOS DE SAN MARCOS	568*	MISSION SAN RAFAEL
518	BUENA VISTA	569*	NAVAJO
519	GUAJOME	570*	PESCADERO
520	EX-MISSION SAN LUIS REY 4 TRACTS	571*	POTRERO DE LA CIENEGA
521	AGUA HEDIONDA	572*	POTRERO EL CARISO
522	LOS ENCENITOS	573*	POTRERO LOS PINOS
523	SAN DIEGUITO	574*	PUEBLO LANDS OF SAN DIEGO
524	SAN BERNARDO--SNOOK	575*	SAN BERNARDINO
525	LOS PENASQUITOS	576*	SAN VICENTE
526	SAN DIEGO PUEBLO LANDS OF	577*	SANTA GERTRUDES
527	SAN DIEGO ISLAND OR PENINSULA	578*	SANTA ROSA
528	LA NACION	579*	COCHIL DEHE RANCHERIA
529	OTAY--ESTUDILLO		
530	OTAY--DOMINGUEZ		
531	JAMACHO		
532	MISSION SAN DIEGO		
533	EX-MISSION SAN DIEGO 3 TR AT--CH PR		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

08 COLORADO

001	BEAUBIEN AND MIRANDA	007	ZAPATO
002	LUIS MARIA BACA NO. 4 ¹	008	DURANGO RESRV
003	LUIS MARIA B. ¹	009	SANGRE DE CRI. ²
004	MONTROSE RES	010	NOLAN GRANT
005	SANGRE DE CRISTO ²	011	VIGIL AND SAINT VRAIN
006	TIERRA AMARILLA	012	VIGIL AND SAINT VRAIN NO. 6

1. 002 and 003 are probably the same grant but entered in the land records with two different representations.

2. 005 and 009 are probably the same grant but entered in the land records with two different representations.

12 FLORIDA

003	FLEMING GRANT	017	PABLO ROSETTE
004	DELESPINE GRANT	018	JOHN LOW
005	ARRENDONDO GRANT	019	JOSEPH WALES
006	MOSES E LEVY	020	CHARLES SIBBOLD
007	GOMEZ	021	C E MCHARDY
008	HANSON	022	JOSEPH GAUNT
009	BERNARDO SEGUI	023	GEORGE F CLARK
010	DOMINGO ACOSTA	024	JANE MURRAY
011	WILLIAM GARVIN	025	JOHN BOLTON
012	PETER FOUCHARD	026	SAMUEL BETTS
013	LUCAS CRAYON	027	AMBROSE HULL
014	JOHN H McINTOSH	028	GERONIMO ALVAREZ
015	H M GOMEZ	030	FORBES PURCHASE
016	ANTELM GAY		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

35 NEW MEXICO

001	AGUA SALADA	076	FELIPE TAFOYA
003	ALAMEDA	077	FERNANDO DE TAOS
004	ALAMITOS	078	FRANCISCO MONTES VIGIL
007	CASA COLORADA	079	GALISTEO
008	ANGOSTURA	080	GIJOSA
010	JOSE SUTTON	081	BENJAMIN EDWARDS
011	ANTON CHICO	082	GOTERA
012	ANTONIO DE ABEYTA	087	IGNACIO CHAVEZ
013	ANTONIO GUTTIEREZ AND JOAQUIN SEDILLO	088	JACONA
014	ANTONIO MARTINEZ	090	JOHN SCOLLY
015	ANTONIO ORTIZ	091	JUAN DE GABALDON
018	PEDRO ARMENDARIS	092	SIERRA MOSCA
021	ARROYO HONDO	093	NUESTRA SENORA DE LA LUZ DE LAS LAGUNITAS
022	ARROYO SECO	094	LAGUNA PUEBLO
024	BARTOLOME FERNANDEZ	096	LA MAJADA
025	BARTOLOME SANCHEZ	098	LA SALINA
026	MAXWELL	099	LAS VEGAS
027	BELEN	101	LO DE PADILLA
028	BERNABE MONTANO	102	LOS CERRILLOS
029	BERNALLILO	105	LOS FRIJOLES
030	BLACK MESA	107	LOS TRIGOS
031	BOSQUE DEL APACHE	108	ANTONIO SALAZAR
032	M AND S MONTOYA	110	UNA DE GATO
033	BRAZITO	111	MANZANO
034	CAJA DEL RIO	113	MESITA DE JUANA LOPEZ
035	CANADA DE COCHITI	115	JUAN DE MESTAS
036	CANADA DE LOS ALAMOS	116	MORA
037	ANTONIO SEDILLO	118	NICOLAS DURAN DE CHAVEZ
041	ANTONIO ARMENTA	121	NUESTRA SENORA DEL ROSARIO SAN FERNANDO
042	CANON DE CARNUE	124	OJO DEL BORREGO
043	CANON DE CHAMA	125	OJO CALIENTE
044	CANON DEL AGUA	126	OJO DE LA CABRA
046	BACA LOCATION NUMBER TWO	127	OJO DEL ESPIRITU SANTO
047	CANON DE SAN DIEGO	129	OJO DE SAN JOSE
049	NOLAN	130	SAN MATEO SPRINGS
050	SALVADOR GONZALES	132	ORTIZ MINE
051	GASPAR ORTIZ	133	PABLO MONTOYA
052	CHILILI	134	PACHECO
056	DONA ANA BEND COLONY	135	PAGUATE PURCHASE
057	MESILLA CIVIL COLONY	136	PAJARITO
058	SANTO TOMAS DE YTURBIDE	137	PENA BLANCA
059	REFUGIO COLONY	138	PETACA
060	JUAN JOSE LOBATO	140	PIEDRE LUMBRE
061	CRISTOVAL DE LA SERNA	141	PLAZA BLANCA
062	CUBERO	142	PLAZA COLORADA
063	CUYAMUNGUE PUEBLO	143	POLVADERA
064	DABOLOS	144	PRESTON BECK
068	ELENA GALLEGOS	145	PUEBLO OF ACOMA
069	PUEBLO OF SANTA ANA	146	PUEBLO OF COCHITI
072	JUAN BATISTA VALDEZ	148	PUEBLO OF ISLETA
074	ESTANCIA	149	PUEBLO OF JEMEZ

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5C: Codes for Named Land Grants (Numeric Order by State)

NEW MEXICO -- continued

150	PUEBLO OF NAMBE	230	TORREON
152	PECOS PUEBLO	231	TOWN OF ABIQUI
153	PUEBLO OF PICURIS	232	TOWN OF ALAMEDA
154	PUEBLO OF POJOAQUE	233	TOWN OF ALBUQUERQUE
156	PUEBLO OF SANDIA	237	TOWN OF ATRISCO
157	PUEBLO OF SAN FELIPE	241	CEBOLLETA
158	PUEBLO OF SAN ILDEFONSO	242	SEBASTIAN MARTIN
159	PUEBLO OF SAN JUAN	243	TOWN OF CHIMITA
160	JOSE MANUEL SANCHEZ BACA	245	CIENEGUILLA
162	SANTA CLARA PUEBLO	250	IGNACIO SANCHEZ VERGASA
163	PUEBLO OF SANTO DIMONGO	251	TOWN OF LAS TRAMPAS
164	PUEBLO OF TAOS	253	LUIS ARMENTA
165	PUEBLO OF TESUQUE	257	SANTA ANA
166	PUEBLO OF ZIA	258	BALTHAZAR BACA
167	PUEBLO OF ZUNI	259	TOWN OF TECOLATE
168	RAMON VIGIL	260	TOWN OF TEJON
180	RANCHO DEL RIO GRANDE	262	LAS TRUCHAS
181	RANCHO EL RIJO	264	VALLECITO
189	RIO COLORADO	265	BISHOP JOHN LAMY
192	RIO DE TESUQUE	266	AGUA NEGRA
195	RITO DE LOS	267	JOSE PEREA
196	SAN ANTONIO DEL RIO COLORADO	269	ALEXANDER VALLEY
197	SAN ANTONIO DE LAS HUERTAS	270	ANTONIO CHAVEZ
198	SAN CLEMENTE	271	NERIO ANTONIO MONTOYA
199	SAN CRISTOVAL	272	BACA LOCATION NUMBER ONE
200	SANGRE DE CRISTO	274	JOSE TRUJILLO
202	SAN JOAQUIN DEL NACIEMENTO	275	ANTOINE LEROUX
203	SAN MARCOS PUEBLO	276	ROGUE LOVATO
204	SAN MIGUEL DEL BADO	278	MARQUEZ AND PADILLA
205	SAN PEDRO	279	CEBOLLA
206	SANTA BARBARA	280	JOSE F BACA Y TERRUS
207	SANTA CRUZ	281	JOAQUIN MESTAS
208	SANTO DOMINGO DE CUNDIYO	283	BACA Y PINO
209	SANTE FE	285	PUEBLO OF SANTA CLARA
211	SANTA ROSA DE CUBERO	286	PUEBLOS OF SANTO DOMINGO AND SAN FELIPE
213	SANTA TERESA	300	ZIA SANTA ANA AND JEMEZ
216	SANTIAGO RAMIREZ	301	SERAFIN RAMIREZ
218	SAN YSIDRO	302	PUEBLO OF SANTA ANA
219	SEBASTIAN DE VARGAS	303*	ACOMA PURCHASE
220	SEVILLETA	304*	BEAUBIEN & MIRANDA--MAXWELL
221	SITIO DE JUANA LOPEZ	305*	EL RANCHITO GRANT
222	SITIO DE LOS CERRILLOS	306*	EL RITO
223	SOCORRO	307*	JUAN OTERO GRANT
224	TAJIQUE	308*	LAS TRAMPAS GRANT
225	TALAYA HILL	309*	SHO 1235
226	TECOLOTE	310*	SHO 1898
227	TEJON		
228	TIERRA AMARILLA		
229	TOME		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

APPENDIX 5D

Codes for Named Land Grants
(Alphabetic Order by State)

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

Land Grant Codes for DLG-F are comprised of the two digit State FIPS code plus the three digit Land Grant code shown in the following tables.

For example, the code for the Zapato land grant in Colorado would be 08007. 08 is the FIPS code for Colorado and 007 is the code for the Zapato land grant.

This appendix lists the codes in alphabetic order by State. See Appendix 5C for a numeric listing.

An asterisk (*) following a code indicates that either the land grant name is not in the Bureau of Land Management (BLM) data dictionary, or the use of the name is ambiguous. These codes are not used by BLM. These land grant names do, however, appear on USGS maps and are stored in the Geographic Names Information System (GNIS).

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

01 ARIZONA

001	ARIBACA	005	MARIA SANTISIMA DEL CARMEN
004	LOS NOGALES DE ELLAS	006	RANCHO DE MARTINEZ
002	LUIS MARIA BACA FLOAT #3	007	SABINO OTERO ET AL
003	LUIS MARIA BACA FLOAT #5	008	SAN BERNARDINO
009	SAN IGNACIO DE LA CANOA	013	SAN RAFAEL DE LA ZANJA
010	SAN IGNACIO DEL BABOCOMARI	014	SAN RAFAEL DEL VALLE
011	SAN JOSE DE SONOITA	016*	SAN RAFAEL DEL VALLE (in Cochise County)
012	SAN JUAN DE LAS BOQUILLAS Y NOGALES	015	TUMACACORI AND CALABAZAS

06 CALIFORNIA

556	100 VARA LOT AT SAN PEDRO	191	BUTANO
124	ACALANES	063	CABEZA DE SANTA ROSA
136	AGUA CALIENTE (in Alameda & Santa Clara Counties)	425	CAHUENGA
067	AGUA CALIENTE (in Sonoma County)	407	CALLEGUAS
521	AGUA HEDIONDA	543	CAMARITAS IN SAN FRANCISCO
561*	AGUA JITA	100	CAMPO DE LOS FRANCESES
206	AGUA PUERCA Y LAS TRANCAS	084	CANADA DE CAPAY
437	AGUAJE DE LA CENTINELLA	151	CANADA DE GUADALUPE VISITACION Y RODEO VIEJO
282	AGUAJIT	152	CANADA DE GUADALUPE Y RODEO VIEJO
013	AGUAS FRIAS	040	CANADA DE HERRERA
216	APTOS	052	CANADA DE JONIVE
562*	APTOS	243	CANADA DE LA CARPENTERIA
009	ARROYO CHICO	283	CANADA DE LA SEGUNDA
133	ARROYO DE LA ALEMEDA	498	CANADA DE LOS ALISOS
540	ARROYO DE LA LAGUNA	193	CANADA DE LOS CAPITANCILLOS
115	ARROYO DE LAS NUECES Y BOLBONES	535	CANADA DE LOS COCHES--INSIDE 534
214	ARROYO DEL RODEO	546	CANADA DE LOS NOGALES
339	ARROYO GRANDE	331	CANADA DE LOS OSOS Y PECHO Y ISLAY
099	ARROYO SECO	363	CANADA DE LOS PINOS OR COLLEGE RANCHO
297	ARROYO SECO--TORRE	109	CANADA DE LOS VAQUEROS
318	ASUNCION	181	CANADA DE PALA
317	ATASCADERO	051	CANADA DE POGOLIMI
233	AUSAYMAS Y SAN FELIPE	168	CANADA DE RAYMUNDO
456	AZUSA--DALTON	377	CANADA DE SALSIPUEDES
455	AZUSA--DUARTE	197	CANADA DE SAN FELIPE Y LAS ANIMAS
434	BALLONA	391	CANADA DE SAN MIGUELITO
029	BLUCHER	513	CANADA DE SAN VICENTE Y MESA DEL PADRE BARONA
502	BOCA DE LA PLAYA	170	CANADA DE VERDE Y ARROYO DE LA PURISIMA
539	BOCA DE SANTA MONICA	380	CANADA DEL CORRAL
027	BODEGA	551	CANADA DEL CORTE DE MADERA
018	BOGA	114	CANADA DEL HAMBRE Y LOS BOLSAS
352	BOLSA DE CHAMISAL	208	CANADA DEL RINCON EN EL RIO SAN LORENZO
252	BOLSA DE LAS ESCORPINAS	390	CANADA LARGA O VERDE
221	BOLSA DE SAN CAYETANO	563*	CANAL RANCH
231	BOLSA DE SAN FELIPE	475	CANON DE SANTA ANA
220	BOLSA DEL PAJARO	008	CAPAY
254	BOLSA DEL POTRERO Y MORO COJO	079	CARNE HUMANA
245	BOLSA NUEVA Y MORO COJO	057	CASLAMAYOMI
007	BOSQUEJO	355	CASMALIA
274	BUENA VISTA	345	CASTAC
518	BUENA VISTA	082	CATACULA
150	BURI BURI		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

CALIFORNIA -- continued

078	CAYMUS	396	EX-MISSION SAN BUENAVENTURA LANDS OF
089	CHIMILES	533	EX-MISSION SAN DIEGO 3 TR AT--CH PR
314	CHOLAME	560	EX-MISSION SAN JOSE
270	CHUALAR	504	EX-MISSION SAN JUAN CAPISTRANO # TR AT
268	CIENEGA DE LOS PAICINES	520	EX-MISSION SAN LUIS REY 4 TRACTS
250	CIENEGA DEL GABILAN	294	EX-MISSION SOLEDAD
436	CIENEGA O PASO DE LA TIJERA	167	FELIZ
579*	COCHIL DEHE RANCHERIA	015	FERNANDEZ
059	COLLAYOMI	025	GERMAN
017	COLUSA	406	GUADALASCA
337	CORRAL DE PIEDRA	353	GUADALUPE
362	CORRAL DE QUATI	273	GUADALUPE Y LLANITOS DE LOS CORREOS
290	CORRAL DE TIERRA--MCCOBB	564*	GUADALUPE Y LLANITOS DE LOS CORREOS
165	CORRAL DE TIERRA--PALOMARES	519	GUAJOME
166	CORRAL DE TIERRA--VASQUEZ	515	GUEJITO
042	CORTE DE MADERA DEL PRESIDIO	058	GUENOC
047	CORTE MADERA DE NOVATO	085	GUESISOSI
094	COSUMNES	019	HONCUT
065	COTATE	340	HUASNA
538	CUCA OR EL POTRER	315	HUERHUERO
479	CUCAMONGA	330	HUERTA DE ROMUALDO
342	CUYAMA--CESARIO LATAILLADE	421	HUERTO DE CUATI
341	CUYAMA--M A DE LA G Y LATAILLADE	072	HUICHICA
512	CUYAMACA	011	JACINTO
096	DEL PASO	531	JAMACHO
265	EL ALISAL--BERNAL	284	JAMES MEADOWS TRACT
267	EL ALISAL--HARTNELL	541	JAMUL
534	EL CAJON	356	JESUS MARIA
536	EL CHAMISAL	022	JIMENO
328	EL CHORRO	021	JOHNSON RANCHO
408	EL CONEJO	558	JUAN SILVAS
173	EL CORTE DE MADERA	241	JURISTA
411	EL ENCINO	482	JURUPA--ROUBIDEAU
409	EL ESCORPIO	483	JURUPA--STEARNS
107	EL PESCADERO--GRIMES	003	LA BARRANCA COLORADA
280	EL PESCADERO--JACK	125	LA BOCA DE LA CANADA DEL PINOLE
108	EL PESCADERO--PICO AND NAGLEE	469	LA BOLSA CHICA
310	EL PIOJO	429	LA BREA
286	EL POTRERO DE SAN CARLOS	414	LA CANADA
178	EL POTRERO DE SANTA CLARA	209	LA CARBONERA
002	EL PRIMER CANON	382	LA GOLETA
476	EL RINCON	462	LA HABRA
387	EL RINCON--ARELLANES	080	LA JOTA
550	EL SOBRANTE	196	LA LAGUNA SECA
486	EL SOBRANTE DE SAN JACINTO	360	LA LAGUNA--GUTIERREZ
288	EL SUR	495	LA LAGUNA--STEARNS
344	EL TEJON	347	LA LIEBRE
275	EL TORO	443	LA MERCED
259	EL TUCHO	376	LA MISSION VIEJA DE LA PURISMA
142	EMBARCADERO DE SANTA CLARA	528	LA NACION
269	ENCINAL Y BUENA ESPERANZA	251	LA NATIVIDAD
074	ENTRE NAPA	227	LA POLKA
014	ESQUON	460	LA PUENTE
028	ESTERO AMERICANO	175	LA PURISIMA CONCEPCION
410	EX-MISSION DE SAN FERNANDO	484	LA SIERRA--SEPULVEDA

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

CALIFORNIA -- continued

485	LA SIERRA--YORBA	066	LOS GUILICOS
361	LA ZACA	182	LOS HUECOS
069	LAC	289	LOS LAURELLES--BERONDA
332	LAGUNA	285	LOS LAURELLES--RANSOM
163	LAGUNA DE LA MERCED	111	LOS MEDANOS
217	LAGUNA DE LAS CALABASAS	110	LOS MEGANOS
123	LAGUNA DE LOS PALOS COLORADOS	459	LOS NOGALES
030	LAGUNA DE SAN ANTONIO	311	LOS OJITOS
301	LAGUNA DE TACHE	439	LOS PALOS VERDES
276	LAGUNA SECA	525	LOS PENASQUITOS
418	LAND 1000 VARAS SQ--SEXTON	537	LOS PRIETOS Y NAJALAYEGUA
016	LARKINS CHILDRENS RANCHO	088	LOS PUTOS
224	LAS ANIMAS	291	LOS TULARCITOS--GOMEZ
242	LAS AROMITAS Y AGUA CALIENTE	092	LOS ULPINOS
035	LAS BAULINES	517	LOS VALLECITOS DE SAN MARCOS
471	LAS BOLSAS	249	LOS VERGELES
383	LAS CIENEGAS	393	LOT MISSION SAN BUENAVENTURA
428	LAS CIENEGAS	060	MALLACOMES OR MORISTUL
549	LAS CRUCES	061	MALLACOMES Y PLAN DE AGUA CALIENTE
004	LAS FLORES	212	MESA DE OJO DE AGUA
113	LAS JUNTAS	307	MILPITAS
104	LAS MARIPOSAS	138	MILPITAS--ALVISO
401	LAS POSAS	169	MIRAMONTES
120	LAS POSITAS	281	MISSION CARMELOCHORRO
385	LAS POSITAS Y LA CALERA	156	MISSION DOLORES
083	LAS PUTAS	161	MISSION DOLORES
257	LAS SALINAS	157	MISSION DOLORES 50 VARA LOT IN DE HARO
200	LAS UVAS	160	MISSION DOLORES SUERTE IN
545	LAS VIRGENES	158	MISSION DOLORES--BERNAL
565*	LITTLE TEMECULA	373	MISSION LA PURISMA
266	LLANO DE BUENA VISTA	372	MISSION LA PURISMA (in Santa Barbara County)
064	LLANO DE SANTA ROSA	566*	MISSION LANDS (in San Luis Obispo County)
230	LLANO DEL TEQUISQUITA	368	MISSION OF SANTA YNEZ
012	LLANO SECO	308	MISSION SAN ANTONIO
081	LOCOALLOMI	392	MISSION SAN BUENAVENTURA
366	LOMAS DE LA PURIFICACION	532	MISSION SAN DIEGO
499	LOMAS DE SANTIAGO	567*	MISSION SAN DIEGO DE ACALA
239	LOMERIAS MUERTAS	412	MISSION SAN FERNANDO
374	LOMPOC	448	MISSION SAN GABRIEL
358	LOS ALAMOS346LOS ALAMOS Y AGUA CALEINTE	135	MISSION SAN JOSE
468	LOS ALIMITOS	240	MISSION SAN JUAN BAUTISTA
427	LOS ANGELES CITY LANDS OF	503	MISSION SAN JUAN CAPISTRANO 5 TR AT
194	LOS CAPITANCILLOS	313	MISSION SAN MIGUEL
244	LOS CARNEROS--LITTLEJOHN	568*	MISSION SAN RAFAEL
246	LOS CARNEROS--MCDUGAL	384	MISSION SANTA BARBARA
467	LOS CERRITOS	295	MISSION SOLEDAD
296	LOS COCHES (in Monterey County)	496	MISSION VIEJO OR LA PAZ
186	LOS COCHES (in Santa Clara County)	053	MOLINOS
218	LOS CORRALITOS	506	MONSERATE
472	LOS COYOTES	112	MONTE DEL DIABLO
381	LOS DOS PUEBLOS	256	MONTEREY CITY
522	LOS ENCENITOS	258	MONTEREY COUNTY--CASTRO
426	LOS FELIS	262	MONTEREY COUNTY--COCKS
253	LOS GATOS OR SANTA RITA		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

CALIFORNIA -- continued

325	MORO Y CAYUCOS	574*	PUEBLO LANDS OF SAN DIEGO
026	MUNIZ	155	PUEBLO LANDS OF SAN FRANCISCO
480	MUSCUIABE	179	PUEBLO LANDS OF SAN JOSE
263	NACIONAL	386	PUEBLO LANDS OF SANTA BARBARA
076	NAPA	068	PUEBLO LANDS OF SONOMA
569*	NAVAJO	542	PUEBLO LOT NO 6
020	NEW HELVETIA	148	PULGAS
032	NICASIO LANDS	375	PUNTA DE LA CONCEPCION
501	NIGUEL	354	PUNTA DE LA LAGUNA
351	NIPOMO	033	PUNTA DE LOS REYES--RANDALL
278	NOCHE BUENA	034	PUNTA DE LOS REYES--SOBRANTE
367	NOJOQUI	279	PUNTA DE PINOS
046	NOVATO	041	PUNTA DE QUENTIN
379	NUESTRA SENORA DEL REFUGIO	205	PUNTA DEL ANO NUEVO
389	OJAI	187	QUITO
159	OJO DE AGUA DE FIGUEROA S F	102	RANCHERIA DEL RIO ESTANISLAO
199	OJO DE AGUA DE LA COCHE	334	RANCHITA DE SANTA FE
048	OLOMPALI	557	RANCHO AGUAS NIEVES
095	OMOCHUMNES	010	RANCHO DE FARWELL
553	ONE SUERTE	106	RANCHO DEL PUERTO
105	ORESTIMBA	236	REAL DE LAS AGUILAS
530	OTAY--DOMINGUEZ	207	REFUGIO
529	OTAY--ESTUDILLO	554	RESSIGHINI
180	PALA	461	RINCON DE LA BREA
235	PANOCHE DE SAN JUAN Y LOS CARRISALITOS	272	RINCON DE LA PUENTE DEL MONTE
292	PARAJE DE SANCHEZ	255	RINCON DE LAS SALINAS
465	PASO DE BARTOLO--GUIRADO	153	RINCON DE LAS SALINAS Y POTRERO VIEJO
547	PASO DE BARTOLO--MCFARLAND & DOWNEY	435	RINCON DE LOS BUEYES
464	PASO DE BARTOLO--PICO	073	RINCON DE LOS CARNEROS
548	PASO DE BARTOLO--SEPULVEDA	141	RINCON DE LOS ESTEROS--ALVISO
320	PASO DE ROBLES	140	RINCON DE LOS ESTEROS--BERREYESA
144	PASTORIA DE LAS BORREGAS	139	RINCON DE LOS ESTEROS--WHITE
490	PAUBA	056	RINCON DE MUSALACON
507	PAUMA570*PESCADERO	146	RINCON DE SAN FRANCISQUITO
049	PETALUMA	261	RINCON DE SANJON
321	PIEDRA BLANCA	516	RINCON DEL DIABLO
126	PINOLE	192	RINCONADA DE LOS GATOS
336	PISMO	147	RINCONADA DEL ARROYO DE SAN FRANCISQUITO
312	PLEYTO	098	RIO DE LOS AMERICANOS
444	POTRERO CHICO	006	RIO DE LOS MOLINOS
445	POTRERO GRANDE	087	RIO DE LOS PUTOS
298	POSA DE LOS OSITOS	403	RIO DE SANTA CLARA
145	POSOLMI	086	RIO JESUS MARIA
446	POTRERO DE FELIPE LUGO	050	ROBLAR DE LA MISERIA
571*	POTRERO DE LA CIENEGA	070	S F SOLAND IN SONOMA MISSION
134	POTRERO DE LOS CERRITOS	223	SALSIPUEDES
329	POTRERO DE SAN LUIS OBISPO	219	SAN ANDRES
572*	POTRERO EL CARISO	190	SAN ANTONIO OR PESCADERO
573*	POTRERO LOS PINOS	430	SAN ANTONIO OR RODEO DE LAS AGUAS
213	POTRERO Y RINCON DE SAN PADRO DE REGLADO	129	SAN ANTONIO--A M PERALTA
494	POTREROS SAN JUAN CAPISTRANO	442	SAN ANTONIO--LUGO
419	PROSPERO TRACT	176	SAN ANTONIO--MESA
424	PROVIDENCIA	128	SAN ANTONIO--V & D PERALTA
		130	SAN ANTONIO--Y PERALTA
		202	SAN AUGUSTIN

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

CALIFORNIA -- continued

304	SAN BENITO	132	SAN LORENZO--SOTO
303	SAN BERNABE	305	SAN LUCAS
481	SAN BERNARDINO	234	SAN LUIS GONZAGA
575*	SAN BERNARDINO	333	SAN LUIS OBISPO MISSION
326	SAN BERNARDO--CANE	327	SAN LUISITO
524	SAN BERNARDO--SNOOK	364	SAN MARCOS
306	SAN BERNARDO--SOBERANES	149	SAN MATEO
001	SAN BUENA VENTURA	154	SAN MIGUEL--NOE
369	SAN CARLOS DE JONATA	394	SAN MIGUEL--OLIVAS & LORENZANA
527	SAN DIEGO ISLAND OR PENINSULA	062	SAN MIGUEL--WEST
526	SAN DIEGO PUEBLO LANDS OF	309	SAN MIGUELITO (in Monterey County)
523	SAN DIEGUITO	335	SAN MIGUELITO (in San Luis Obispo County)
343	SAN EMIDIO	127	SAN PABLO
162	SAN FRANCISCO	415	SAN PASCUAL--GARFIAS
399	SAN FRANCISCO	422	SAN PASCUAL--WILSON
226	SAN FRANCISCO DE LAS LLAGAS	044	SAN PEDRO SANTA MAGARITA Y LAS GALLINAS
447	SAN FRANCISCO--DALTON	440	SAN PEDRO--DOMINGUEZ
287	SAN FRANCISQUITO	164	SAN PEDRO--SANCHEZ
174	SAN FRANCISQUITO--RODRIGUEZ	043	SAN RAFAEL
449	SAN GABRIEL TR NR--AGUILAR	423	SAN RAFAEL
416	SAN GABRIEL TR NR--COURTNEY	118	SAN RAMON--AMADOR
453	SAN GABRIEL TR NR--DOMINGO	116	SAN RAMON--CARPENTIER
417	SAN GABRIEL TR NR--LEDESMA	117	SAN RAMON--NORRIS
450	SAN GABRIEL TR NR--SALES	322	SAN SIMEON
452	SAN GABRIEL TR NR--SEXTON	576*	SAN VICENTE
451	SAN GABRIEL TR NR--SIMEON	432	SAN VICENTE Y SANTA MONICA
420	SAN GABRIEL TR NR--WHITE	195	SAN VICENTE--BERREYESA
039	SAN GERONIMO (in Marin County)324SAN GERONIMO (in San Luis Obispo County)	204	SAN VICENTE--ESCARRILLA
172	SAN GREGORIO--CASTRO	293	SAN VICENTE--MUNRASS
171	SAN GREGORIO--RODRIGUEZ	228	SAN YSIDRO--GILROY
489	SAN JAACINTO VIEJO	229	SAN YSIDRO--ORTEGA
488	SAN JACINTO & SAN GORGONIO TRACT BETWEEN	024	SANEL
487	SAN JACINTO NUEVO Y POTRERO	093	SANJON DE LOS MOQUELUMNES
500	SAN JOAQUIN (in Orange County)	198	SANJON DE SANTA RITA
232	SAN JOAQUIN (in San Benito County)	388	SANTA ANA
457	SAN JOSE ADDITION TO	477	SANTA ANA DEL CHINO
431	SAN JOSE DE BUENOS AYRES	478	SANTA ANA DEL CHINO ADDITION
509	SAN JOSE DEL VALLE	237	SANTA ANA Y QUIEN SABE
552	SAN JOSE Y SUR CHIQUITO	454	SANTA ANITA
458	SAN JOSE--DALTON ET AL	470	SANTA CATALINA ISLAND
045	SAN JOSE--PACHECO	189	SANTA CLARA COUNTY--BENNETT
097	SAN JUAN	402	SANTA CLARA DEL NORTE
185	SAN JUAN BAUTISTA	188	SANTA CLARA MISSION TR
247	SAN JUAN BAUTISTA TR NR	177	SANTA CLARA TR NR--ENRIGHT
248	SAN JUAN BAUTISTA--BREEN	404	SANTA CRUZ ISLAND OF
473	SAN JUAN CAJON DE SANTA ANA	210	SANTA CRUZ MISSION
378	SAN JULIAN	577*	SANTA GERTRUDES
238	SAN JUSTO	463	SANTA GERTRUDES--COLIMA
131	SAN LEANDRO	466	SANTA GERTRUDES--MCFARLAND & DOWNEY
122	SAN LORENZO--CASTRO	338	SANTA MANUELA
302	SAN LORENZO--RANDALL	316	SANTA MARGARITA
300	SAN LORENZO--SANCHEZ	505	SANTA MARGARITA Y LAS FLORES
299	SAN LORENZO--SOBERANES	395	SANTA PAULA Y SATICOY
		119	SANTA RITA
		371	SANTA RITA--MALO

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

CALIFORNIA -- continued

578*	SANTA ROSA	492	TEMECULA
405	SANTA ROSA ISLAND OF	349	TEPUSQUET
370	SANTA ROSA--COTA	365	TEQUEPIS
323	SANTA ROSA--ESTRADA	359	TINAQUAIC
493	SANTA ROSA--MORINO	357	TODOS SANTOS Y SAN ANTONIO
184	SANTA TERESA	090	TOLENAS
510	SANTA YSABEL (in San Diego County)	038	TOMALES Y BAULINES--GARCIA
319	SANTA YSABEL (in San Luis Obispo County)	037	TOMALES Y BAULINES--PHELPS
474	SANTIAGO DE SANTA ANA	433	TOPANGA MALIBU SEQUIT
036	SAUCCELITO	497	TRABUCO
277	SAUCITO	211	TRES OJOS DE AGUA
005	SAUCOS	413	TUJUNGA
264	SAUSAL	137	TULARCITOS--HIGUERA
438	SAUSAL REDONDO	075	TULUCAY
397	SESPE	260	TWO SUERTES
215	SHOQUEL	055	TZABACO
201	SHOQUEL AUGMENTATION	143	ULISTAC
400	SIMI	514	VALLE DE PAMO OR SANTA MARIA
348	SISQUOC	511	VALLE DE SAN FELIPA
225	SOLIS	508	VALLE DE SAN JOSE--PORTILLA
071	SONOMA CITY LOT IN	121	VALLE DE SAN JOSE--SUNOL & BERNAL
054	SOTOYOME	491	VALLEY O TEMECULA
031	SOULAJULE LANDS	222	VEGA DEL RIO DEL PAJARO
101	STANISLAUS RIVER	077	YAJOME
350	SUEY	183	YERBA BUENA
091	SUISUN	023	YOKAYA
441	TAJAUTA	103	YOSEMITE & BIG TREE GRANTS
398	TEMASCAL	271	ZANJONES
		203	ZAYANTA

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

08 COLORADO

001	BEAUBIEN AND MIRANDA	009	SANGRE DE CRI. ²
008	DURANGO RESRV	005	SANGRE DE CRISTO ²
003	LUIS MARIA B. ¹	006	TIERRA AMARILLA
002	LUIS MARIA BACA NO. 4 ¹	011	VIGIL AND SAINT VRAIN
004	MONTROSE RES	012	VIGIL AND SAINT VRAIN NO. 6
010	NOLAN GRANT	007	ZAPATO

1. 002 and 003 are probably the same grant but entered in the land records with two different representations.

2. 005 and 009 are probably the same grant but entered in the land records with two different representations.

12 FLORIDA

027	AMBROSE HULL	008	HANSON
016	ANTELM GAY	024	JANE MURRAY
005	ARENDRONDO GRANT	025	JOHN BOLTON
009	BERNARDO SEGUI	014	JOHN H McINTOSH
021	C E McHARDY	018	JOHN LOW
020	CHARLES SIBBOLD	022	JOSEPH GAUNT
004	DELESPINE GRANT	019	JOSEPH WALES
010	DOMINGO ACOSTA	013	LUCAS CRAYON
003	FLEMING GRANT	006	MOSES E LEVY
030	FORBES PURCHASE	017	PABLO ROSETTE
023	GEORGE F CLARK	012	PETER FOUCHARD
028	GERONIMO ALVAREZ	026	SAMUEL BETTS
007	GOMEZ	011	WILLIAM GARVIN
015	H M GOMEZ		

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
 Part 5: Public Land Survey System
 Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

35 NEW MEXICO

303*	ACOMA PURCHASE	076	FELIPE TAFOYA
266	AGUA NEGRA	077	FERNANDO DE TAOS
001	AGUA SALADA	078	FRANCISCO MONTES VIGIL
003	ALAMEDA	079	GALISTEO
004	ALAMITOS	051	GASPAR ORTIZ
269	ALEXANDER VALLEY	080	GIJOSA
008	ANGOSTURA	082	GOTERA
275	ANTOINE LEROUX	087	IGNACIO CHAVEZ
011	ANTON CHICO	250	IGNACIO SANCHEZ VERGASA
041	ANTONIO ARMENTA	088	JACONA
270	ANTONIO CHAVEZ	281	JOAQUIN MESTAS
012	ANTONIO DE ABEYTA	090	JOHN SCOLLY
013	ANTONIO GUTTIEREZ AND JOAQUIN SEDILLO	280	JOSE F BACA Y TERRUS
014	ANTONIO MARTINEZ	160	JOSE MANUEL SANCHEZ BACA
015	ANTONIO ORTIZ	267	JOSE PEREA
108	ANTONIO SALAZAR	010	JOSE SUTTON
037	ANTONIO SEDILLO	274	JOSE TRUJILLO
021	ARROYO HONDO	072	JUAN BATISTA VALDEZ
022	ARROYO SECO	091	JUAN DE GABALDON
272	BACA LOCATION NUMBER ONE	115	JUAN DE MESTAS
046	BACA LOCATION NUMBER TWO	060	JUAN JOSE LOBATO
283	BACA Y PINO	307*	JUAN OTERO GRANT
258	BALTHAZAR BACA	096	LA MAJADA
024	BARTOLOME FERNANDEZ	098	LA SALINA
025	BARTOLOME SANCHEZ	094	LAGUNA PUEBLO
304*	BEAUBIEN & MIRANDA--MAXWELL	308*	LAS TRAMPAS GRANT
027	BELEN	262	LAS TRUCHAS
081	BENJAMIN EDWARDS	099	LAS VEGAS
028	BERNABE MONTANO	101	LO DE PADILLA
029	BERNALLILO	102	LOS CERRILLOS
265	BISHOP JOHN LAMY	105	LOS FRIJOLES
030	BLACK MESA	107	LOS TRIGOS
031	BOSQUE DEL APACHE	253	LUIS ARMENTA
033	BRAZITO	032	M AND S MONTOYA
034	CAJA DEL RIO	111	MANZANO
035	CANADA DE COCHITI	278	MARQUEZ AND PADILLA
036	CANADA DE LOS ALAMOS	026	MAXWELL
042	CANON DE CARNUE	057	MESILLA CIVIL COLONY
043	CANON DE CHAMA	113	MESITA DE JUANA LOPEZ
047	CANON DE SAN DIEGO	116	MORA
044	CANON DEL AGUA	271	NERIO ANTONIO MONTOYA
007	CASA COLORADA	118	NICOLAS DURAN DE CHAVEZ
279	CEBOLLA	049	NOLAN
241	CEBOLLETA	093	NUESTRA SENORA DE LA LUZ DE LAS LAGUNITAS
052	CHILILI	121	NUESTRA SENORA DEL ROSARIO SAN FERNANDO
245	CIENEGUILLA	125	OJO CALIENTE
061	CRISTOVAL DE LA SERNA	126	OJO DE LA CABRA
062	CUBERO	129	OJO DE SAN JOSE
063	CUYAMUNGUE PUEBLO	124	OJO DEL BORREGO
064	DABOLOS	127	OJO DEL ESPIRITU SANTO
056	DONA ANA BEND COLONY	132	ORTIZ MINE
305*	EL RANCHITO GRANT	133	PABLO MONTOYA
306*	EL RITO	134	PACHECO
068	ELENA GALLEGOS	135	PAGUATE PURCHASE
074	ESTANCIA	136	PAJARITO

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5D: Codes for Named Land Grants (Alphabetic Order by State)

NEW MEXICO -- continued

152	PECOS PUEBLO	203	SAN MARCOS PUEBLO
018	PEDRO ARMENDARIS	130	SAN MATEO SPRINGS
137	PENA BLANCA	204	SAN MIGUEL DEL BADO
138	PETACA	205	SAN PEDRO
140	PIEDRE LUMBRE	218	SAN YSIDRO
141	PLAZA BLANCA	200	SANGRE DE CRISTO
142	PLAZA COLORADA	257	SANTA ANA
143	POLVADERA	206	SANTA BARBARA
144	PRESTON BECK	162	SANTA CLARA PUEBLO
145	PUEBLO OF ACOMA	207	SANTA CRUZ
146	PUEBLO OF COCHITTI	211	SANTA ROSA DE CUBERO
148	PUEBLO OF ISLETA	213	SANTA TERESA
149	PUEBLO OF JEMEZ	209	SANTE FE
150	PUEBLO OF NAMBE	216	SANTIAGO RAMIREZ
153	PUEBLO OF PICURIS	208	SANTO DOMINGO DE CUNDIYO
154	PUEBLO OF POJOAQUE	058	SANTO TOMAS DE YTURBIDE
157	PUEBLO OF SAN FELIPE	219	SEBASTIAN DE VARGAS
158	PUEBLO OF SAN ILDEFONSO	242	SEBASTIAN MARTIN
159	PUEBLO OF SAN JUAN	301	SERAFIN RAMIREZ
156	PUEBLO OF SANDIA	220	SEVILLETA
069	PUEBLO OF SANTA ANA	309*	SHO 1235
302	PUEBLO OF SANTA ANA	310*	SHO 1898
285	PUEBLO OF SANTA CLARA	092	SIERRA MOSCA
163	PUEBLO OF SANTO DIMONGO	221	SITIO DE JUANA LOPEZ
164	PUEBLO OF TAOS	222	SITIO DE LOS CERRILLOS
165	PUEBLO OF TESUQUE	223	SOCORRO
166	PUEBLO OF ZIA	224	TAJIQUE
167	PUEBLO OF ZUNI	225	TALAYA HILL
286	PUEBLOS OF SANTO DOMINGO AND SAN FELIPE	226	TECOLOTE
168	RAMON VIGIL	227	TEJON
180	RANCHO DEL RIO GRANDE	228	TIERRA AMARILLA
181	RANCHO EL RIJO	229	TOME
059	REFUGIO COLONY	230	TORREON
189	RIO COLORADO	231	TOWN OF ABIQUI
192	RIO DE TESUQUE	232	TOWN OF ALAMEDA
195	RITO DE LOS	233	TOWN OF ALBUQUERQUE
276	ROGUE LOVATO	237	TOWN OF ATRISCO
050	SALVADOR GONZALES	243	TOWN OF CHIMITA
197	SAN ANTONIO DE LAS HUERTAS	251	TOWN OF LAS TRAMPAS
196	SAN ANTONIO DEL RIO COLORADO	259	TOWN OF TECOLATE
198	SAN CLEMENTE	260	TOWN OF TEJON
199	SAN CRISTOVAL	110	UNA DE GATO
202	SAN JOAQUIN DEL NACIMIENTO	264	VALLECITO
		300	ZIA SANTA ANA AND JEMEZ

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5E: Ohio Surveys

APPENDIX 5E

Ohio Surveys

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5E: Ohio Surveys

Introduction

The rectangular system of surveys was in its initial stage of development when the state of Ohio was surveyed, beginning in 1785. Because the current system of principal meridians and baselines was not yet established, the Ohio surveys used a number of different reference meridians and bases.

Public land surveys in Ohio are identified by a name. These surveys are listed in the table of "public land surveys having no initial point as an origin" in Chapter III of the BLM Manual of Surveying Instructions. The table further describes the references used for the set of townships within the survey, or how the townships and ranges were numbered for each of the surveys. For example, the Ohio River Survey has "Townships numbered...North from Ohio River" and "Ranges numbered...West from west boundary of Pennsylvania."

In the collection of DLG data, the origin of survey for these named public land surveys in Ohio is identified as the river base or other baseline used to number the townships within the survey. For example, if the public land survey is the Ohio River Survey, the base line is the Ohio River, as described in Chapter III of the Manual of Surveying Instructions. The river bases and base lines for the named public land surveys of Ohio, along with the Principal Meridians used for all other PLSS lands, are listed in Appendix A "Origin of Survey".

The names of the public land surveys in Ohio are collected using the attribute Name. The names of privately subdivided surveys in Ohio (Symmes Purchase, Connecticut Western Reserve, and Ohio Company Purchase) are also collected using Name. However, Origin of Survey is identified only for public land surveys and not for private surveys. For these subdivided private surveys the value for Origin of Survey is Unspecified.

There are several surveys that were not subdivided into townships and so have no reference for townships. These include the French Grants, the Donation Tract, and the Virginia Military Survey. The Origin of Survey for these areas is Not Applicable. These surveys also do not qualify as the feature LAND GRANT. None of the surveys in Ohio are land grants that were "conferred by a predecessor government and confirmed by the U.S. Government", rather the land was owned and disposed of by the Federal government, sometimes in the form of grants. These surveys are, therefore, collected as undivided PUBLIC LAND SURVEY SYSTEM AREAS.

The Ohio River Survey consists of several individually named surveys: Old Seven Ranges, Congress Lands North of Old Seven Ranges, Congress Lands East of Scioto River, and Refugee Lands. For all of these areas, townships were numbered from the Ohio River and ranges from the Pennsylvania boundary. The Scioto River Base includes the surveys Refugee Lands and Congress Lands East of Scioto River. These townships were all numbered north from the Scioto River. In order to collect these individually named surveys, the attribute Secondary Survey Name is used. (The BLM only identifies the Ohio River Survey and Scioto River Base as public land surveys having no initial point)

This appendix shows the attribution for the named surveys in Ohio that have been shown on USGS quadrangles. The appropriate value for the attributes Name, Secondary Survey Name, and Origin of Survey Name is shown for each survey.

Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps
Part 5: Public Land Survey System
Appendix 5E: Ohio Surveys

Values for Name, Secondary Survey Name and Origin of Survey in Ohio

Name	Secondary Survey Name	Origin of Survey
Between the Miamis, North of Symmes Purchase	Not Applicable	Great Miami River
Connecticut Western Reserve	Not Applicable	Unspecified
Donation Tract	Not Applicable	Not Applicable
French Grants	Not Applicable	Not Applicable
Michigan Survey	Not Applicable	Michigan Meridian
Muskingum River Survey ¹	Not Applicable	Muskingam River
Ohio Company Purchase	Not Applicable	Unspecified
Ohio River Survey ²	Congress Lands East of Scioto River ³	Ohio River
Ohio River Survey	Congress Lands North of Old Seven Ranges	Ohio River
Ohio River Survey	Old Seven Ranges	Ohio River
Scioto River Base ⁴	Congress Lands East of Scioto River ⁵	Scioto River
Symmes Purchase	Not Applicable	Unspecified
Twelve Mile Square Reserve	Not Applicable	Twelve Mile Square Reserve
United States Military Survey	Not Applicable	Base Line of the United States Military Survey
Virginia Military Survey	Not Applicable	Unspecified
West of the Great Miami	Not Applicable	Great Miami River

¹ Applies to two townships only: R 10 W, T 1 N and T 2 N.

² R 21 W has duplicate Townships numbered 9, 10, 11.

³ Lands within both Congress Lands East of Scioto River and Refugee Lands are collected with Secondary Survey Name multivalued with both Congress Lands East of Scioto River and Refugee Lands.

⁴ Covers only R 22 W; and R 23 W, T 1 N. R 22 W has duplicate Townships numbered 2, 3, 4.

⁵ Lands within both Congress Lands East of Scioto River and Refugee Lands (occurs in R 22 W, T 5 N only) are collected with Secondary Survey Name multivalued with both names.