

Identification\_Information:

Citation:

Citation\_Information:

Originator: Karen L. Wheeler, Ray E. Wells, Joseph M. Minervini, and Jessica L. Block

Originator: Karen L. Wheeler, Joseph M. Minervini, and Jessica L. Block (database)

Publication\_Date: 2009

Title: Geologic Map of the Carlton quadrangle, Yamhill County, Oregon

Geospatial\_Data\_Presentation\_Form: vector digital data

Series\_Information:

Series\_Name: Open-File Report

Issue\_Identification: OFR-2009-1172

Online\_Linkage: <http://pubs.usgs.gov/of/2009/1172>

Description:

Abstract: This digital map database, compiled from previously published and unpublished data and new mapping by the authors, represents the general distribution of bedrock and surficial deposits of the Carlton 7.5-minute quadrangle. The database delineates map units that are identified by general age and lithology following the stratigraphic nomenclature of the U.S. Geological Survey. The scale of the source maps limits the spatial resolution (scale) of the database to 1:24,000 or smaller.

Purpose: This database and accompanying PDF files depict the distribution of geologic materials and structures at a regional (1:24,000) scale. The report is intended to provide geologic information for the regional study of materials properties, earthquake shaking, landslide potential, mineral hazards, seismic velocity, and earthquake faults. In addition, the report contains new information and interpretations about the regional geologic history and framework. However, the regional scale of this report does not provide sufficient detail for site development purposes.

Supplemental\_Information:

DIGITAL COMPILATION-Several ESRI ArcGIS feature classes were generated within an ArcGIS personal geodatabase during the construction of the Carlton quadrangle geologic map. The topographic base map remains as a digital raster graphic (DRG) and is overlain on the geology feature class in ArcMap at a 60% transparency level. Some custom menus were used to project, transform, edit, tag, and build points in the map. A digital layout or map collar was made with Adobe Illustrator. The map was exported from the layout view in ArcMap as an Adobe Illustrator file and added to a single Adobe Illustrator file that also contained the description of map units, correlation of map units, cross sections, and an index map. Differences between the maps as they appear in the final map sheet and as they appear in either the .mxd or .pmf files represent changes made in the Adobe Illustrator file to the symbology only and do not reflect any changes in the actual source data. The map is in UTM projection, zone 10, meters, and 1:24,000 scale.

BASE MAP-The base map for the digital compilation is a Digital Raster Graphic (DRG) of the U.S. Geological Survey, 1:24,000-scale topographic map of the Carlton 7.5' quadrangle (1992), which has a 20-foot contour interval. The image inside the map neatline is georeferenced to the Universal Transverse Mercator projection, zone 10,

NAD27. The horizontal positional accuracy and datum of the DRG matches the accuracy and datum of the source map. The base map layer is a digital image, but no information other than location is attached to the lines. The base map is provided for reference only.

**SPATIAL RESOLUTION**-Uses of this digital geologic map should not violate the spatial resolution of the data. Although the digital form of the data removes the constraint imposed by the scale of a paper map, the detail and accuracy inherent in map scale are also present in the digital data. The fact that this database was edited at a scale of 1:24,000 means that higher resolution information is not present in the dataset. Plotting at scales larger than 1:24,000 will not yield greater real detail, although it may reveal fine-scale irregularities below the intended resolution of the database. Similarly, where this database is used in combination with other data of higher resolution, the resolution of the combined output will be limited by the lower resolution of these data.

Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 2009

Currentness\_Reference: publication date

Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

Spatial\_Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -123.250550

East\_Bounding\_Coordinate: -123.124725

North\_Bounding\_Coordinate: 45.375206

South\_Bounding\_Coordinate: 45.249794

Keywords:

Theme:

Theme\_Keyword: Geology

Place:

Place\_Keyword: Pacific Northwest

Place\_Keyword: Oregon

Place\_Keyword: Yamhill County

Place\_Keyword: Carlton

Place\_Keyword: Willamette Valley

Place\_Keyword: Yamhill River

Stratum:

Stratum\_Keyword: Yamhill Formation

Stratum\_Keyword: Eocene Stratigraphy

Stratum\_Keyword: Spencer Formation

Stratum\_Keyword: Missoula floods

Access\_Constraints: None

Use\_Constraints: Uses of this digital geologic map should not violate the spatial resolution of the data. Although the digital form of the data removes the constraint imposed by the scale of a paper map, the detail and accuracy inherent in map scale are

also present in the digital data. The fact that this database was edited for a scale of 1:24,000 means that higher resolution information is not present in the dataset. Plotting at scales larger than 1:24,000 will not yield greater real detail, although it may reveal fine-scale irregularities below the intended resolution of the database. Similarly, where this database is used in combination with other data of higher resolution, the resolution of the combined output will be limited by the lower resolution of these data.

Native\_Data\_Set\_Environment: Microsoft Windows XP Version 5.1 (Build 2600)  
Service Pack 3; ESRI ArcCatalog 9.2.6.1500

Spatial\_Data\_Organization\_Information:

Direct\_Spatial\_Reference\_Method: Vector

Point\_and\_Vector\_Object\_Information:

SDTS\_Terms\_Description:

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Point\_and\_Vector\_Object\_Count: 659

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: G-polygon

Point\_and\_Vector\_Object\_Count: 210

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 61

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Entity point

Point\_and\_Vector\_Object\_Count: 86

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: G-polygon

Point\_and\_Vector\_Object\_Count: 85

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 1

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: G-polygon

Point\_and\_Vector\_Object\_Count: 312

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Entity point

Point\_and\_Vector\_Object\_Count: 312

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Entity point

Point\_and\_Vector\_Object\_Count: 329

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Entity point

Point\_and\_Vector\_Object\_Count: 331

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Entity point

Point\_and\_Vector\_Object\_Count: 280

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 1  
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     Planar:  
       Grid\_Coordinate\_System:  
         Grid\_Coordinate\_System\_Name: Universal Transverse Mercator  
         Universal\_Transverse\_Mercator:  
           UTM\_Zone\_Number: 10  
           Transverse\_Mercator:  
             Scale\_Factor\_at\_Central\_Meridian: 0.999600  
             Longitude\_of\_Central\_Meridian: -123.000000  
             Latitude\_of\_Projection\_Origin: 0.000000  
             False\_Easting: 500000.000000  
             False\_Northing: 0.000000  
         Planar\_Coordinate\_Information:  
           Planar\_Coordinate\_Encoding\_Method: coordinate pair  
           Coordinate\_Representation:  
             Abscissa\_Resolution: 0.000100  
             Ordinate\_Resolution: 0.000100  
           Planar\_Distance\_Units: meters  
       Geodetic\_Model:  
         Horizontal\_Datum\_Name: North American Datum of 1927  
         Ellipsoid\_Name: Clarke 1866  
         Semi-major\_Axis: 6378206.400000  
         Denominator\_of\_Flattening\_Ratio: 294.978698  
     Vertical\_Coordinate\_System\_Definition:  
       Altitude\_System\_Definition:  
         Altitude\_Resolution: 0.000010  
         Altitude\_Encoding\_Method: Explicit elevation coordinate included with horizontal coordinates  
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     Entity\_Type:  
       Entity\_Type\_Label: CarltonGeologyContacts  
   Detailed\_Description:  
     Entity\_Type:  
       Entity\_Type\_Label: CarltonGeologyPolysAnno  
   Detailed\_Description:  
     Entity\_Type:  
       Entity\_Type\_Label: CarltonStrucLines  
   Detailed\_Description:  
     Entity\_Type:  
       Entity\_Type\_Label: CarltonStrucPoints

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonStrucPointsAnno

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonXsecLine

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonGeologyPolys

Identification\_Information:

Citation:

Citation\_Information:

Online\_Linkage:

\\typhoon\esp2\wells12\data\or\yamhill\carlton\OFR2009\_1172\Carlton.mdb

Data\_Quality\_Information:

Lineage:

Process\_Step::

Process\_Description: Dataset copied.

Source\_Used\_Citation\_Abbreviation: G:\or\yamhill\carlton\Carlton.mdb

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonGeologyContacts

Entity\_Type\_Definition: Geologic Contacts

Entity\_Type\_Definition\_Source: Author

Attribute:

Attribute\_Label: Shape

Attribute\_Definition: Feature geometry.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

Attribute:

Attribute\_Label: OBJECTID

Attribute:

Attribute\_Label: Shape\_Length

Attribute\_Definition: Length of feature in internal units.

Attribute\_Definition\_Source: ESRI

Attribute:

Attribute\_Label: LTYPE

Attribute\_Definition: Geologic Contact description

Attribute\_Definition\_Source: Author

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: contact, approx. located

Enumerated\_Domain\_Value\_Definition: Approximately located boundary between geologic units; positional accuracy generally within 5 mm at 1:24,000 (120 m on the ground)

Enumerated\_Domain:

Enumerated\_Domain\_Value: contact, concealed

Enumerated\_Domain\_Value\_Definition: Boundary between geologic units that is concealed by a younger unit; positional accuracy uncertain but probably generally within 5 mm at 1:24,000 (120 m on the ground)

Enumerated\_Domain:

Enumerated\_Domain\_Value: fault, certain

Enumerated\_Domain\_Value\_Definition: Trace of fault, positional accuracy generally within 2 mm at 1:24,000 (48 m on the ground)

Enumerated\_Domain:

Enumerated\_Domain\_Value: fault, concealed

Enumerated\_Domain\_Value\_Definition: Trace of fault concealed by younger unit positional accuracy uncertain but probably generally within 5 mm at 1:24,000 (120 m on the ground)

Enumerated\_Domain:

Enumerated\_Domain\_Value: fault, concealed, queried

Enumerated\_Domain\_Value\_Definition: Trace of fault concealed, identity or existence questionable, concealed by younger unit positional accuracy uncertain but probably generally within 5 mm at 1:24,000 (120 m on the ground)

Enumerated\_Domain:

Enumerated\_Domain\_Value: fault, inferred

Enumerated\_Domain\_Value\_Definition: Trace of fault of uncertain location; positional accuracy uncertain; fault exists but location inferred from indirect evidence.

Enumerated\_Domain:

Enumerated\_Domain\_Value: fault, inferred, queried

Enumerated\_Domain\_Value\_Definition: Trace of fault of uncertain location, identity or existence questionable; positional accuracy uncertain; fault exists but location inferred from indirect evidence.

Enumerated\_Domain:

Enumerated\_Domain\_Value: normal fault, concealed

Enumerated\_Domain\_Value\_Definition: Trace of normal fault concealed by younger unit positional accuracy uncertain but probably generally within 5 mm at 1:24,000 (120 m on the ground)

Enumerated\_Domain:

Enumerated\_Domain\_Value: normal fault, inferred

Enumerated\_Domain\_Value\_Definition: Trace of normal fault of uncertain location; positional accuracy uncertain; fault exists but location inferred from indirect evidence.

Enumerated\_Domain:

Enumerated\_Domain\_Value: normal fault, inferred, queried

Enumerated\_Domain\_Value\_Definition: Trace of normal fault of uncertain location, identity or existence questionable; positional accuracy uncertain; fault exists but location inferred from indirect evidence.

Enumerated\_Domain:  
   Enumerated\_Domain\_Value: quad boundary  
   Enumerated\_Domain\_Value\_Definition: map boundary of this 1:24000 study  
 Attribute\_Domain\_Values:  
   Unrepresentable\_Domain: Positive real numbers that are automatically generated.

Entity\_and\_Attribute\_Information:  
 Detailed\_Description:  
   Entity\_Type:  
     Entity\_Type\_Label: CarltonGeologyPolys  
     Entity\_Type\_Definition: Geologic Unit Descriptions  
     Entity\_Type\_Definition\_Source: Authors  
   Attribute:  
     Attribute\_Label: OBJECTID  
     Attribute\_Definition: Internal feature number.  
     Attribute\_Definition\_Source: ESRI  
     Attribute\_Domain\_Values:  
       Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated.  
     Attribute:  
       Attribute\_Label: Shape  
       Attribute\_Definition: Feature geometry.  
       Attribute\_Definition\_Source: ESRI  
       Attribute\_Domain\_Values:  
         Unrepresentable\_Domain: Coordinates defining the features.  
     Attribute:  
       Attribute\_Label: PTYPE  
       Attribute\_Definition: Geologic Unit Abbreviation  
       Attribute\_Definition\_Source: Authors  
     Attribute\_Domain\_Values:  
       Enumerated\_Domain:  
         Enumerated\_Domain\_Value: Qa  
         Enumerated\_Domain\_Value\_Definition: Alluvial deposits (Holocene)—  
         Unconsolidated clay, silt, sand, and gravel deposited on floodplains and in channels of  
         rivers and streams; locally includes colluvium and terrace deposits along valley margins  
         Enumerated\_Domain:  
           Enumerated\_Domain\_Value: Qaf  
           Enumerated\_Domain\_Value\_Definition: Alluvial fan and colluvial deposits  
           (Holocene and Pleistocene)— Unconsolidated sand and gravel deposited at the mouths of  
           steep tributary streams. Includes colluvial aprons  
         Enumerated\_Domain:  
           Enumerated\_Domain\_Value: Qls  
           Enumerated\_Domain\_Value\_Definition: Landslide deposits (Holocene and  
           Pleistocene)—Accumulation of angular to subrounded clasts of weathered bedrock,  
           commonly in a mud-dominated matrix, transported from upslope. Forms hummocky  
           topography and may include thick colluvial and debris-fan deposits. Many small  
           unmapped landslides exist

Enumerated\_Domain:

Enumerated\_Domain\_Value: Qff

Enumerated\_Domain\_Value\_Definition: Missoula Flood deposits (upper Pleistocene)—Unconsolidated clay, silt, and fine sand finely micaceous, deposited by glacial outburst floods that flowed down the Columbia River from glacial Lake Missoula. Floods filled the Willamette Valley to a depth of about 120 m (Glenn, 1965; Allison, 1978; O'Connor and others, 2001; Minervini and others, 2003) and back flooded up the Yamhill River. Deposits are commonly 2-3 m thick on uplands in this map area, thickening to 30 m elsewhere in the Willamette Valley. Ice-rafted exotic boulders to pebbles of plutonic and metamorphic rocks occur locally up to 120 m elevation. Radiocarbon dating, tephrochronology, and stratigraphic relations outside the map area indicate a <sup>14</sup>C age of 15 to 12.7 ka (approximately 18-15 ka; O'Connor and others, 2001)

Enumerated\_Domain:

Enumerated\_Domain\_Value: Qtd

Enumerated\_Domain\_Value\_Definition: Terrace deposits (upper Pleistocene)—Unconsolidated to semiconsolidated sand and gravel of Coast Range source in terraces along the North Yamhill River. Gravel consists of basalt and silicic volcanic clasts. Forms planar to slightly undulating surfaces up to 20 meters above the modern floodplain. Deposits exposed in hand auger holes and a few small outcrops along the western side of North Yamhill River

Enumerated\_Domain:

Enumerated\_Domain\_Value: Tk

Enumerated\_Domain\_Value\_Definition: Keasey Formation (upper Eocene)—Siltstone, silty claystone, and mudstone; tuffaceous, light gray to buff, laminated to bioturbated and massive; found only near northeast corner of map. West of the map area, in the Tillamook Highlands, the Keasey Formation contains foraminifera referable to the Refugian stage of Schenck and Kleinpell (1936) (W.W. Rau, written communication, 1988) and a molluscan assemblage referable to the type Keasey Formation (Warren and others, 1945; Wells and others, 1995)

Enumerated\_Domain:

Enumerated\_Domain\_Value: Tes

Enumerated\_Domain\_Value\_Definition: Spencer Formation (upper Eocene)—Quartzofeldspathic and lithofeldspathic sandstone; fine to medium grained, light gray to tan, friable, plane laminated to hummocky cross stratified, very micaceous, carbonaceous, and locally concretionary; lesser amounts of laminated thin-bedded mudstone becoming more massive and locally tuffaceous upsection. Forms ridgetops along east side of map area. In adjacent Tillamook Highlands, contains foraminifera referable to the uppermost Narizian stage (W.W. Rau, written communication, 1988; Wells and others, 1995). Weathers to golden yellow, friable sand; case-hardened with many burrows, fractures, and spheroidal weathering that obscures internal bedding. Contact with underlying Yamhill Formation locally gradational or unconformable; springs along contact

Enumerated\_Domain:

Enumerated\_Domain\_Value: Ty

Enumerated\_Domain\_Value\_Definition: Yamhill Formation (upper middle Eocene)—Siltstone and mudstone, dark gray, laminated, finely micaceous and



carbonaceous, thin to massively bedded, with calcareous and iron-stained concretions and carbonaceous plant fragments. Unit contains minor lithic sandstone, submarine basaltic lapilli breccia, and white, cross-bedded and ripple-laminated, silicic tuff beds. Lower part of unit is intruded by thick regional diabase sill complex (Tidb). Thin, graded, arkosic sandstone beds occur in upper part of unit. Forms lowlands and low hills covered by thin mantle of Missoula flood silt below 400 ft elevation. Exposure is poor; weathered, yellowish tan siltstone exposed in roadside ditches and animal burrows. Rare foraminifera in adjacent Tillamook Highlands are referred to the upper Ulatisian-lower Narizian stages, and coccoliths from the Gales Creek quadrangle to the north are assigned to the CP 13c subzone (D. Bukry, written communication, 1997)

Enumerated\_Domain:

Enumerated\_Domain\_Value: Tsr

Enumerated\_Domain\_Value\_Definition: Siletz River Volcanics (early Eocene and late Paleocene)—Aphyric to plagioclase- and pyroxene-phyric pillow basalt, subaerial basalt flows, basalt breccia, submarine basaltic tuffs, and interbedded lithic sandstone and mudstone. Shown in cross section only; presence at depth inferred from proprietary seismic line in adjacent Gaston Quadrangle (Jack Meyer, written communication, 2001)

Enumerated\_Domain:

Enumerated\_Domain\_Value: Tidb

Enumerated\_Domain\_Value\_Definition: Diabase (middle Eocene)—Aphyric to plagioclase-phyric, amygdaloidal diabase with smectite, zeolite and calcite vesicle fillings. Forms sills with well developed columnar joints and locally layered appearance. Intrudes late middle Eocene Yamhill Formation; west of the map area sills are hundreds of meters thick and are cut by Tillamook-age dikes at 41.0 Ma (Wells and others, 1995), suggesting an age of about 42-45 Ma; as mapped, may include some basalt and diabase correlative with the Tillamook Volcanics (Wells and others, 1995). Contact relations with Yamhill Formation sedimentary rocks poorly exposed beneath thick colluvium of weathered diabase and sediment. Weathers to a reddish orange clay-rich soil containing spheroidally weathered diabase clasts. Multiple sills are inferred, and complex interfingering relations with Yamhill Formation are not shown on maps or cross section

Attribute:

Attribute\_Label: Style

Attribute\_Definition: Reference Number for Color of Polygon Links to Style

Attribute\_Definition\_Source: Authors

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Attribute\_Label: Shape\_Length

Attribute\_Definition: Length of feature in internal units.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Positive real numbers that are automatically generated.

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Attribute\_Label: Shape\_Area

Attribute\_Definition: Area of feature in internal units squared.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Positive real numbers that are automatically generated.

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonGeologyPolysAnno

Attribute:

Attribute\_Label: OBJECTID

Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute\_Label: SHAPE

Attribute\_Definition: Feature geometry.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

Attribute:

Attribute\_Label: FeatureID

Attribute:

Attribute\_Label: ZOrder

Attribute:

Attribute\_Label: AnnotationClassID

Attribute:

Attribute\_Label: Element

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Attribute\_Label: SHAPE\_Length

Attribute\_Definition: Length of feature in internal units.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Positive real numbers that are automatically generated.

Attribute:

Attribute\_Label: SHAPE\_Area

Attribute\_Definition: Area of feature in internal units squared.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Positive real numbers that are automatically generated.

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonStrucLines

Entity\_Type\_Definition: Location of structural lines (folds).

Entity\_Type\_Definition\_Source: Authors

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Attribute\_Label: OBJECTID

Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated.

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Attribute\_Label: Shape

Attribute\_Definition: Feature geometry.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

Attribute:

Attribute\_Label: LTYPE

Attribute\_Definition: Structural line type.

Attribute\_Definition\_Source: Authors

Attribute\_Domain\_Values:

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Enumerated\_Domain\_Value: f.a., anticline, concealed

Enumerated\_Domain\_Value\_Definition: fold axis, anticline, concealed

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: f.a., anticline, concealedm

Enumerated\_Domain\_Value\_Definition: fold axis, anticline, concealed, "m"

marker symbol segment

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: f.a., anticline, inferred

Enumerated\_Domain\_Value\_Definition: fold axis, anticline, inferred

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: f.a., anticline, inferred, plungeE

Enumerated\_Domain\_Value\_Definition: fold axis, anticline, inferred, plunging

east

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: f.a., anticline, inferredm

Enumerated\_Domain\_Value\_Definition: fold axis, anticline, inferred, "m" marker

symbol segment

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: f.a., syncline, certain

Enumerated\_Domain\_Value\_Definition: fold axis, syncline, certain

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: f.a., syncline, certain, plungeE

Enumerated\_Domain\_Value\_Definition: fold axis, syncline, certain, plunging east

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       Enumerated\_Domain\_Value\_Definition: fold axis, syncline, concealed  
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     Enumerated\_Domain:  
       Enumerated\_Domain\_Value: f.a., syncline, concealedm  
       Enumerated\_Domain\_Value\_Definition: fold axis, syncline, concealed, “m”  
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       Enumerated\_Domain\_Value\_Definition: fold axis, syncline, inferred  
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       Enumerated\_Domain\_Value: f.a., syncline, inferred, plungeE  
       Enumerated\_Domain\_Value\_Definition: fold axis, syncline, inferred, plunging east  
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       Enumerated\_Domain\_Value: f.a., syncline, inferred, plungeW  
       Enumerated\_Domain\_Value\_Definition: fold axis, syncline, inferred, plunging  
 west  
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     Enumerated\_Domain:  
       Enumerated\_Domain\_Value: f.a., syncline, inferredm  
       Enumerated\_Domain\_Value\_Definition: fold axis, syncline, inferred, “m” marker  
 symbol segment  
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     Attribute\_Definition: Length of feature in internal units.  
     Attribute\_Definition\_Source: ESRI  
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     Unrepresentable\_Domain: Positive real numbers that are automatically generated.  
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       Entity\_Type\_Label: CarltonStrucPoints  
       Entity\_Type\_Definition: Geologic Bedding Measurements  
       Entity\_Type\_Definition\_Source: Authors  
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     Attribute\_Label: OBJECTID  
     Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute\_Label: Shape

Attribute\_Definition: Feature geometry.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

Attribute:

Attribute\_Label: PTTYPE

Attribute\_Definition: Geologic Bedding Description

Attribute\_Definition\_Source: Authors

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: bedding

Enumerated\_Domain\_Value\_Definition: Strike and dip of beds

Enumerated\_Domain:

Enumerated\_Domain\_Value: horizontal bedding

Enumerated\_Domain\_Value\_Definition: beds horizontal

Enumerated\_Domain:

Enumerated\_Domain\_Value: joint

Enumerated\_Domain\_Value\_Definition: Strike and dip of joint in rock

Enumerated\_Domain:

Enumerated\_Domain\_Value: \_1\_faultdip\_i\_

Enumerated\_Domain\_Value\_Definition: fault dip and inclination

Enumerated\_Domain:

Enumerated\_Domain\_Value: \_1\_lineation\_i\_

Enumerated\_Domain\_Value\_Definition: lineation on fault

Attribute:

Attribute\_Label: STRIKE

Attribute\_Definition: Strike of beds

Attribute:

Attribute\_Label: DIP

Attribute\_Definition: Dip of beds

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonStrucPointsAnno

Attribute:

Attribute\_Label: OBJECTID

Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute\_Label: SHAPE

Attribute\_Definition: Feature geometry.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

Attribute:

Attribute\_Label: FeatureID

Attribute:

Attribute\_Label: ZOrder

Attribute:

Attribute\_Label: AnnotationClassID

Attribute:

Attribute\_Label: Element

Attribute:

Attribute\_Label: SHAPE\_Length

Attribute\_Definition: Length of feature in internal units.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Positive real numbers that are automatically generated.

Attribute:

Attribute\_Label: SHAPE\_Area

Attribute\_Definition: Area of feature in internal units squared.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Positive real numbers that are automatically generated.

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: CarltonXsecLine

Entity\_Type\_Definition: Location of Cross Section Lines

Entity\_Type\_Definition\_Source: Authors

Attribute:

Attribute\_Label: OBJECTID

Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute\_Label: SHAPE

Attribute\_Definition: Feature geometry.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

Attribute:

Attribute\_Label: Linetype

Attribute\_Definition: Cross Section Lines

Attribute\_Definition\_Source: Authors

Enumerated\_Domain\_Value: contact

Enumerated\_Domain\_Value\_Definition: Location of author's cross section

Attribute:

Attribute\_Label: XSecName

Attribute\_Definition: Cross Section Label

Attribute\_Definition\_Source: Authors

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: a1

Enumerated\_Domain\_Value\_Definition: Cross Section Line A-A'

Attribute:

Attribute\_Label: SHAPE\_Length

Attribute\_Definition: Length of feature in internal units.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Positive real numbers that are automatically generated.

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Title: ctn\_drg.tif

Geospatial\_Data\_Presentation\_Form: remote-sensing image

Online\_Linkage: ctn\_drg.tif

Description:

Abstract: BASE MAP-The base map for the digital compilation is a Digital Raster Graphic (DRG) of the U.S. Geological Survey, 1:24,000-scale topographic map of the Carlton 7.5' quadrangle (1992), which has a 20-foot contour interval. The image inside the map neatline is georeferenced to the Universal Transverse Mercator projection, zone 10, NAD27. The horizontal positional accuracy and datum of the DRG matches the accuracy and datum of the source map. The base map layer is a digital image, but no information other than location is attached to the lines. The base map is provided for reference only.

Purpose: Base material for geology map

Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 2009

Currentness\_Reference: publication date

Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

Spatial\_Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -123.250550

East\_Bounding\_Coordinate: -123.124725

North\_Bounding\_Coordinate: 45.375206

South\_Bounding\_Coordinate: 45.249794

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: DRG

Theme\_Keyword: DRG

Access\_Constraints: none

Use\_Constraints: none

Native\_Data\_Set\_Environment: Microsoft Windows XP Version 5.1 (Build 2600)

Service Pack 3; ESRI ArcCatalog 9.2.6.1500

Spatial\_Data\_Organization\_Information:

Direct\_Spatial\_Reference\_Method: Raster

Raster\_Object\_Information:

Raster\_Object\_Type: Pixel

Row\_Count: 4032

Column\_Count: 5705

Vertical\_Count: 1

Spatial\_Reference\_Information:

Horizontal\_Coordinate\_System\_Definition:

Planar:

Planar\_Coordinate\_Information:

Planar\_Coordinate\_Encoding\_Method: row and column

Coordinate\_Representation:

Abscissa\_Resolution: 2.438400

Ordinate\_Resolution: 2.438400

Distribution\_Information:

Distributor:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization: USGS Information Services

Contact\_Address:

Address\_Type: mailing address

Address: Box 25286, Denver Federal Center

City: Denver

State\_or\_Province: CO

Postal\_Code: 80225-0046

Country: USA

Contact\_Voice\_Telephone: (303) 202-4200

Contact\_Voice\_Telephone: 1-888-ASK-USGS

Contact\_Facsimile\_Telephone: (303) 202-4695

Contact\_Electronic\_Mail\_Address: [infoservices@usgs.gov](mailto:infoservices@usgs.gov)

Resource\_Description:

Downloadable Data

USGS Scientific Open-File Report 2009-1172



Distribution\_Liability: Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government. Although this publication has been subjected to rigorous review and is substantially complete, the USGS reserves the right to revise the data pursuant to further analysis and review. Furthermore, it is released on condition that neither the USGS nor the United States Government may be held liable for any damages resulting from its authorized or unauthorized use.

Standard\_Order\_Process:

Digital\_Form:

Digital\_Transfer\_Option:

Online\_Option:

Computer\_Contact\_Information:

Network\_Address:

Network\_Resource\_Name: <http://pubs.usgs.gov/of/2009/1172/>

Fees: free

Metadata\_Reference\_Information:

Metadata\_Date: 20090728

Metadata\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization: U.S. Geological Survey Pacific Northwest Urban Corridor

Mapping Project

Contact\_Person: Karen Wheeler

Contact\_Address:

Address\_Type: mailing and physical address

Address: 345 Middlefield Rd

Address: MS 973

City: Menlo Park

State\_or\_Province: CA

Postal\_Code: 94025

Country: USA

Contact\_Voice\_Telephone: (650) 329-4935

Contact\_Facsimile\_Telephone: (650) 329-4936

Contact\_Electronic\_Mail\_Address: [kwheeler@usgs.gov](mailto:kwheeler@usgs.gov)

Metadata\_Standard\_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata\_Standard\_Version: FGDC-STD-001-1998

Metadata\_Time\_Convention: local time

Metadata\_Extensions:

Online\_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile\_Name: ESRI Metadata Profile