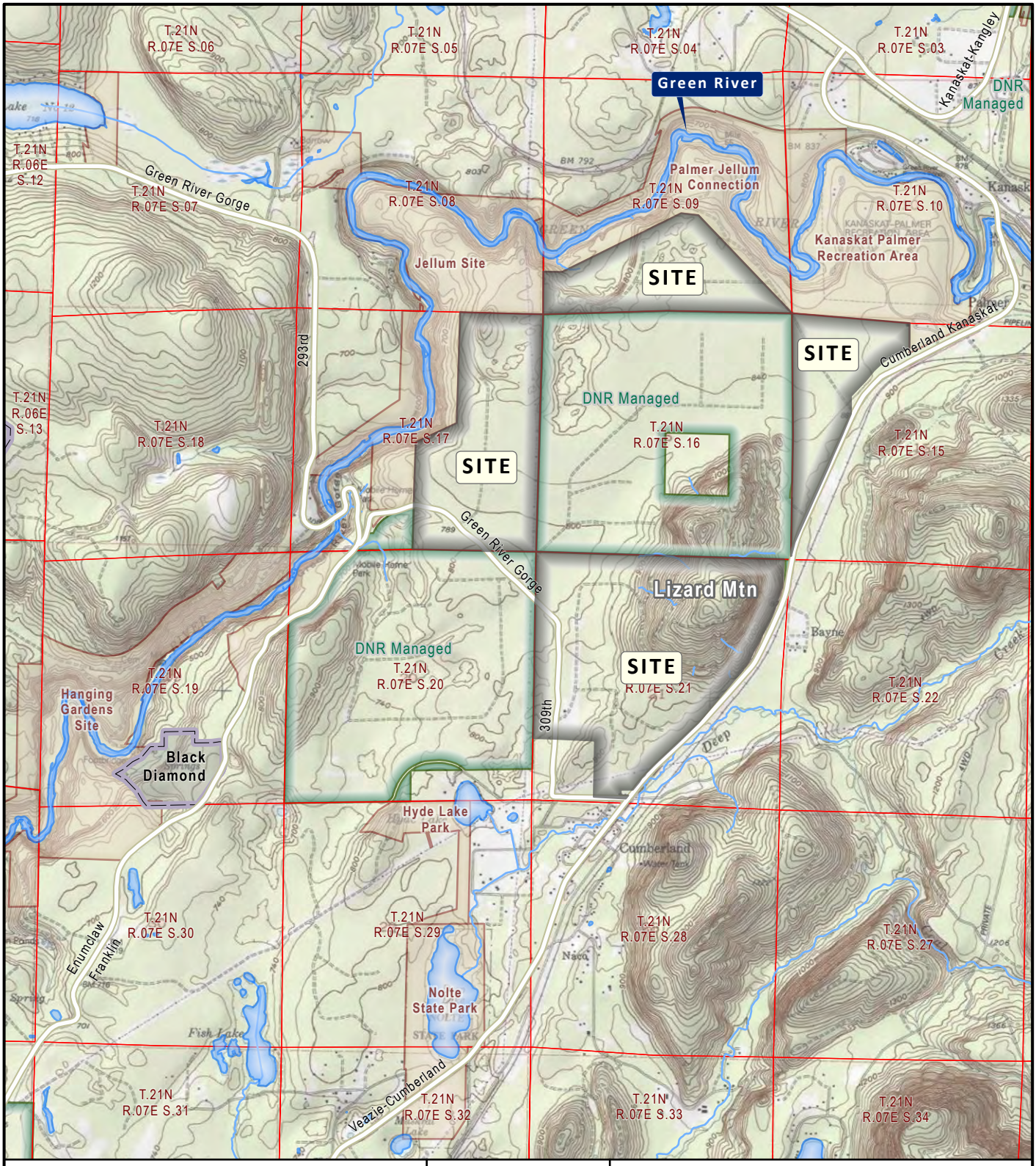


DATA SOURCES / REFERENCES:
USGS: 7.5' SERIES TOPOGRAPHIC MAPS, ESRI/I-CUBED/NGS 2013
KING CO: STREETS, CITY LIMITS, PARCELS, PARKS 9/21
LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

N

0 3000

FEET

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

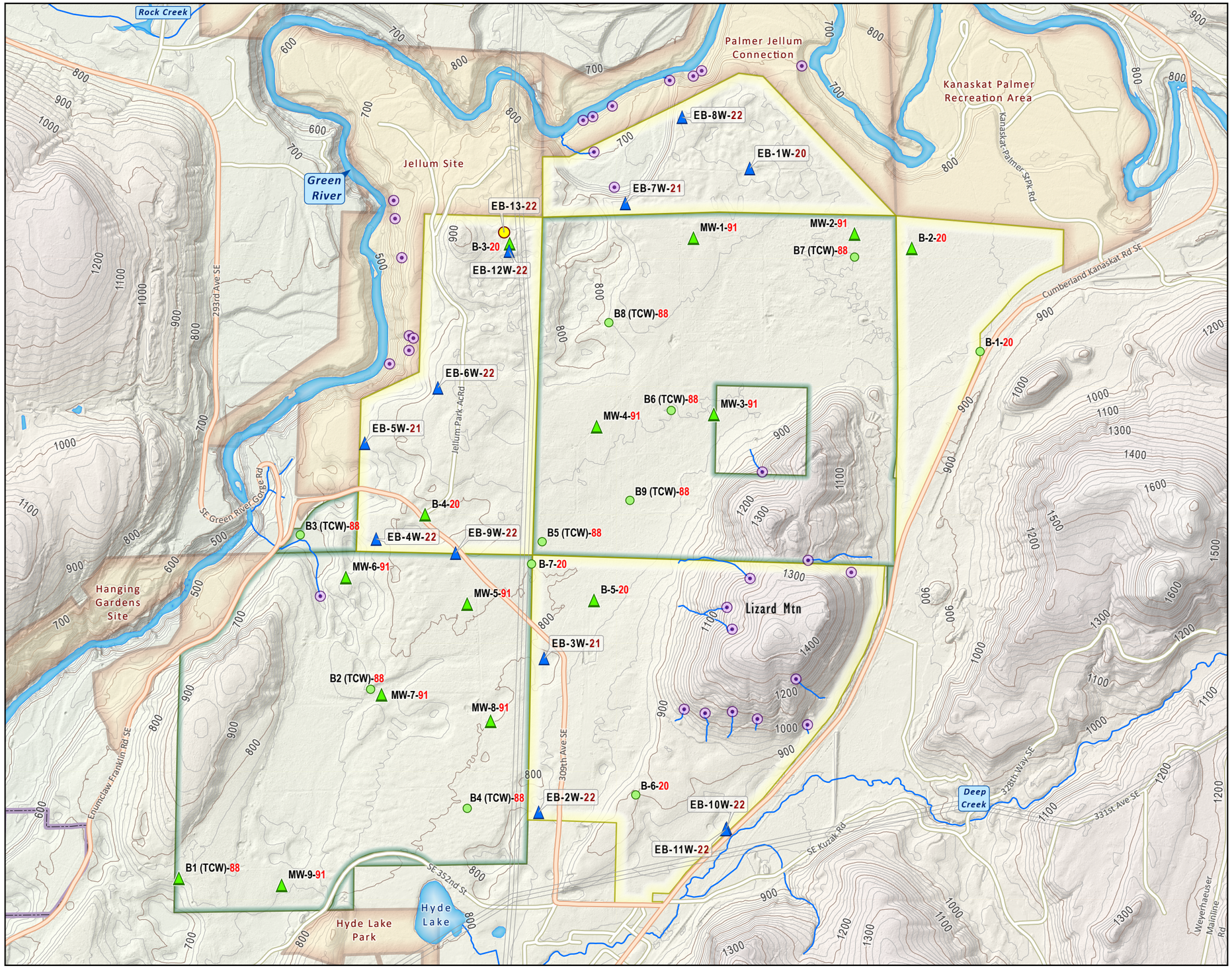
associated earth sciences incorporated

VICINITY MAP

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	3/23	1

G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_upd\200367H001 F1 VM EC_CP.aprx | 200367H001 F1 VM EC_CP | 3/23/2023 3:25 PM



SITE

AESI EXPLORATION TYPE-YEAR

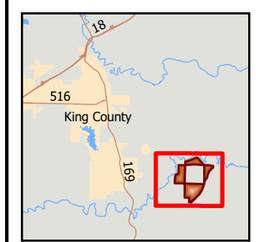
- EXPLORATION BORING
- MONITORING WELL

PREVIOUS EXPLORATION TYPE- YEAR BY OTHERS

- MONITORING WELL
- EXPLORATION BORING
- SPRING
- UTILITY CORRIDOR
- WADNR MANAGED PROPERTY
- PARK, OPEN SPACE, NATURAL AREA
- CITY BOUNDARY
- CONTOUR 100 FT
- CONTOUR 20 FT

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
CONTOURS FROM LIDAR
KING CO: STREETS, PARCELS, 4/22

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE



N

0 1500

FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

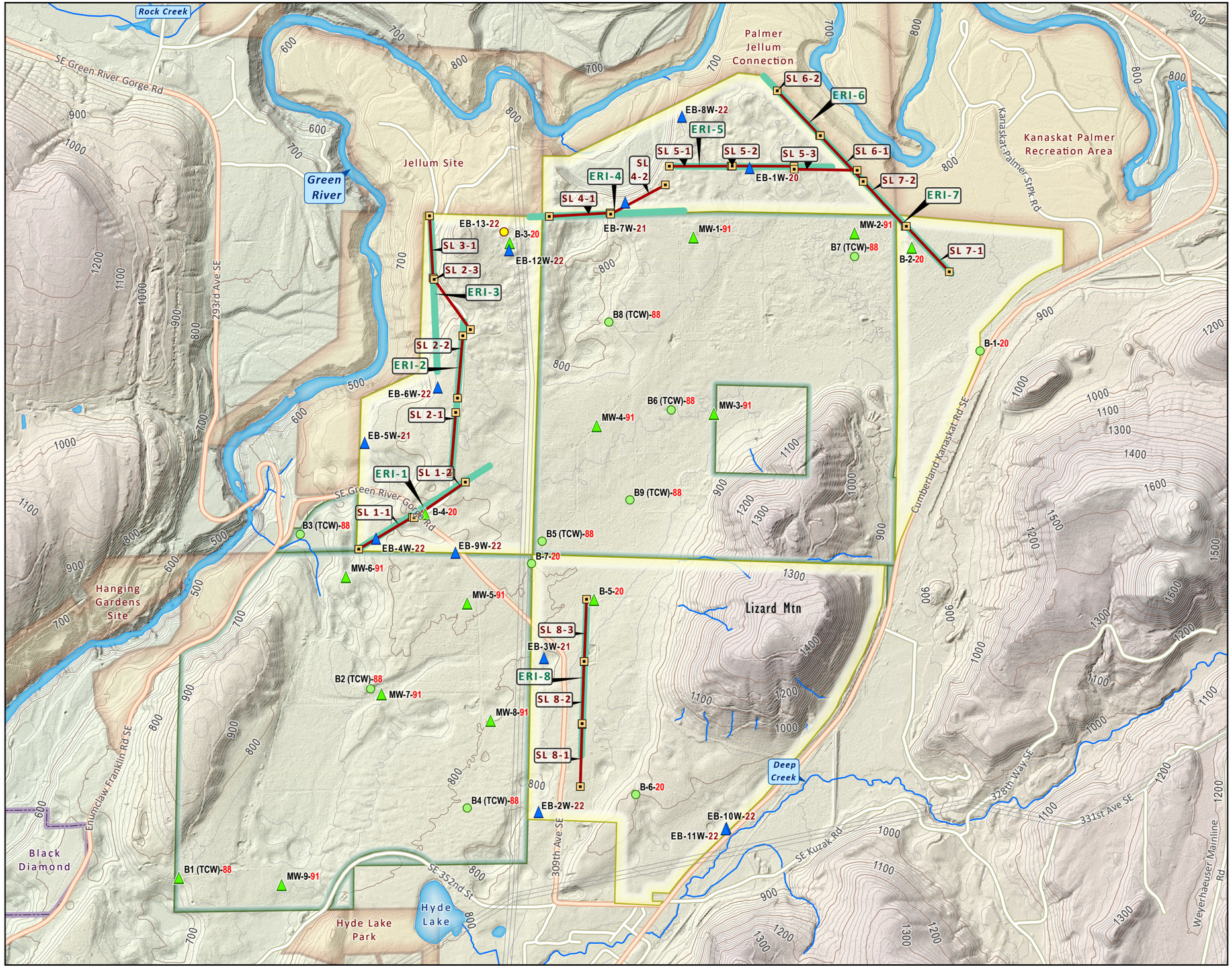
associated earth sciences incorporated

SUBSURFACE EXPLORATION PLAN

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	2

G:\GIS_Projects\aaY2020\200367 Cumberland 22aprx\EC_updt\200367H001 F2 ES EC_CP_0323.aprx | 200367H001 F2 ES EC_CP_0323 | 5/24/2023 1:11 PM



SITE

AESI EXPLORATION TYPE-YEAR

- EXPLORATION BORING
- MONITORING WELL

PREVIOUS EXPLORATION TYPE- YEAR BY OTHERS

- MONITORING WELL
- EXPLORATION BORING
- SEISMIC LINE START AND END

GEOPHYSICAL SURVEY LINE

- SEISMIC REFRACTION
- ELECTRICAL RESISITIVITY IMAGING
- UTILITY CORRIDOR
- WADNR MANAGED PROPERTY
- PARK, OPEN SPACE, NATURAL AREA
- CITY BOUNDARY
- CONTOUR 100 FT
- CONTOUR 20 FT

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
CONTOURS FROM LIDAR
PHIL DUOOS: GEOPHYSICS
KING CO: STREETS, PARCELS, 4/22

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

N

0 1500

FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

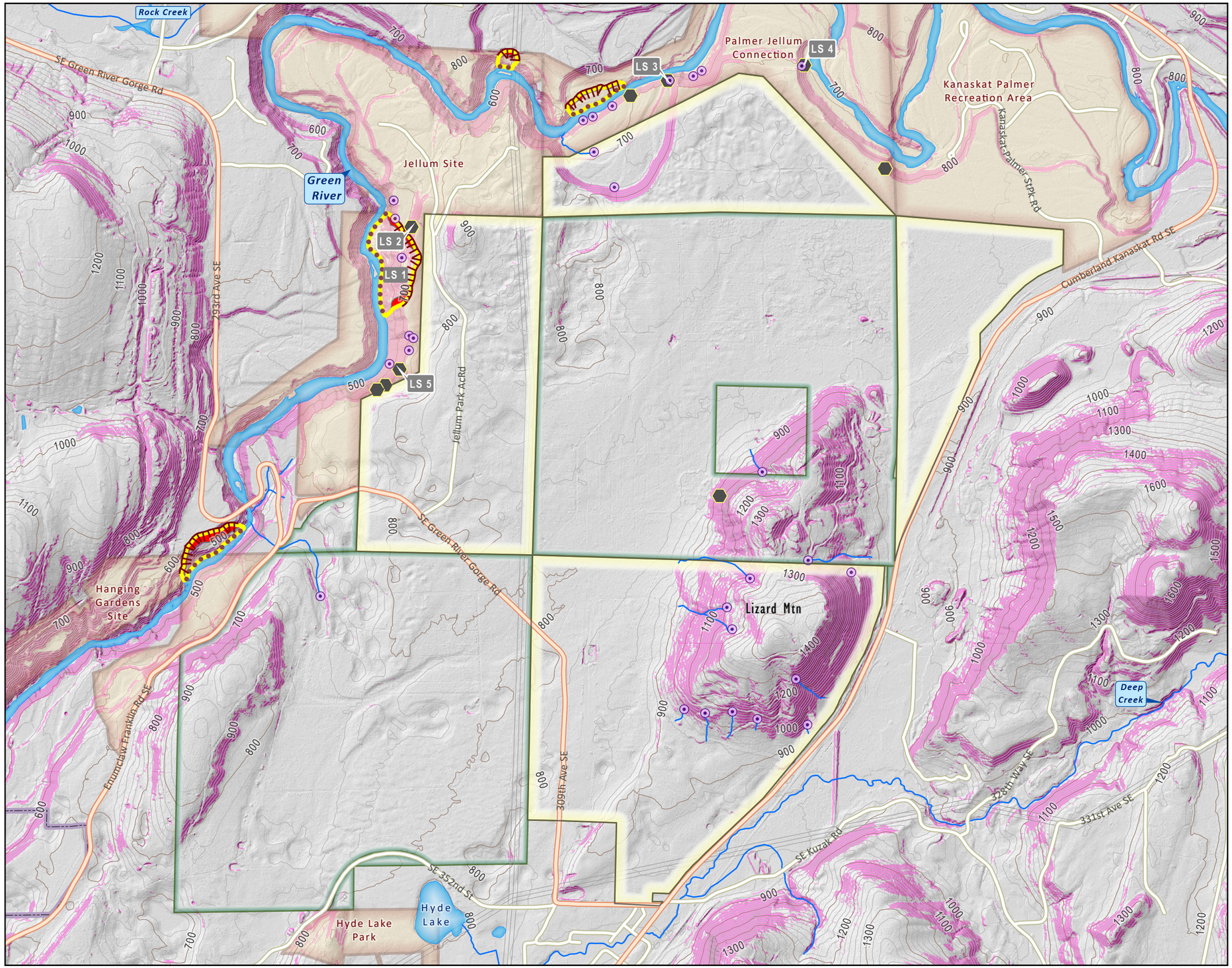
associated earth sciences incorporated

GEOPHYSICAL EXPLORATION PLAN

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	3

G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_upd\t200367H001 F3 GEOPHY EC_CP_0323.aprx | 200367H001 F3 GEOPHY EC_CP_0323 | 5/3/2023 5:28 PM



- SITE
- SPRING
- AESI IDENTIFIED SMALL SLIDE AREA
- LSR_HISTORICALLANDSLIDES_POINT
- TOP OF MAIN SCARP
- TOE OF LANDSLIDE ALONG RIVER
- LANDSLIDE OUTLINE
- HEAD SCARP FLANK AREA

VALUE

- < 40% SLOPE
- >10 FT HIGH AND >40% SLOPE
- CITY BOUNDARY
- UTILITY CORRIDOR
- PARK, OPEN SPACE, NATURAL AREA
- WADNR MANAGED PROPERTY
- CONTOUR 100 FT
- CONTOUR 20 FT

Steep slopes less than 10 feet high were filtered out of the data set, but some small slopes remain. In addition, for some areas the available LiDAR data are of very low-resolution and/or subject to data collection or processing problems that further limit accuracy. Although the LiDAR data provide the most accurate depiction of the ground surface we have, it is important to remember that corrupted and/or insufficient data locally result in inaccurate site depictions.

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
SLOPES AND CONTOURS FROM LIDAR
KING CO: STREETS, PARCELS, 4/22, LANDSLIDE INVENTORY 2017

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

N

0 1500

FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

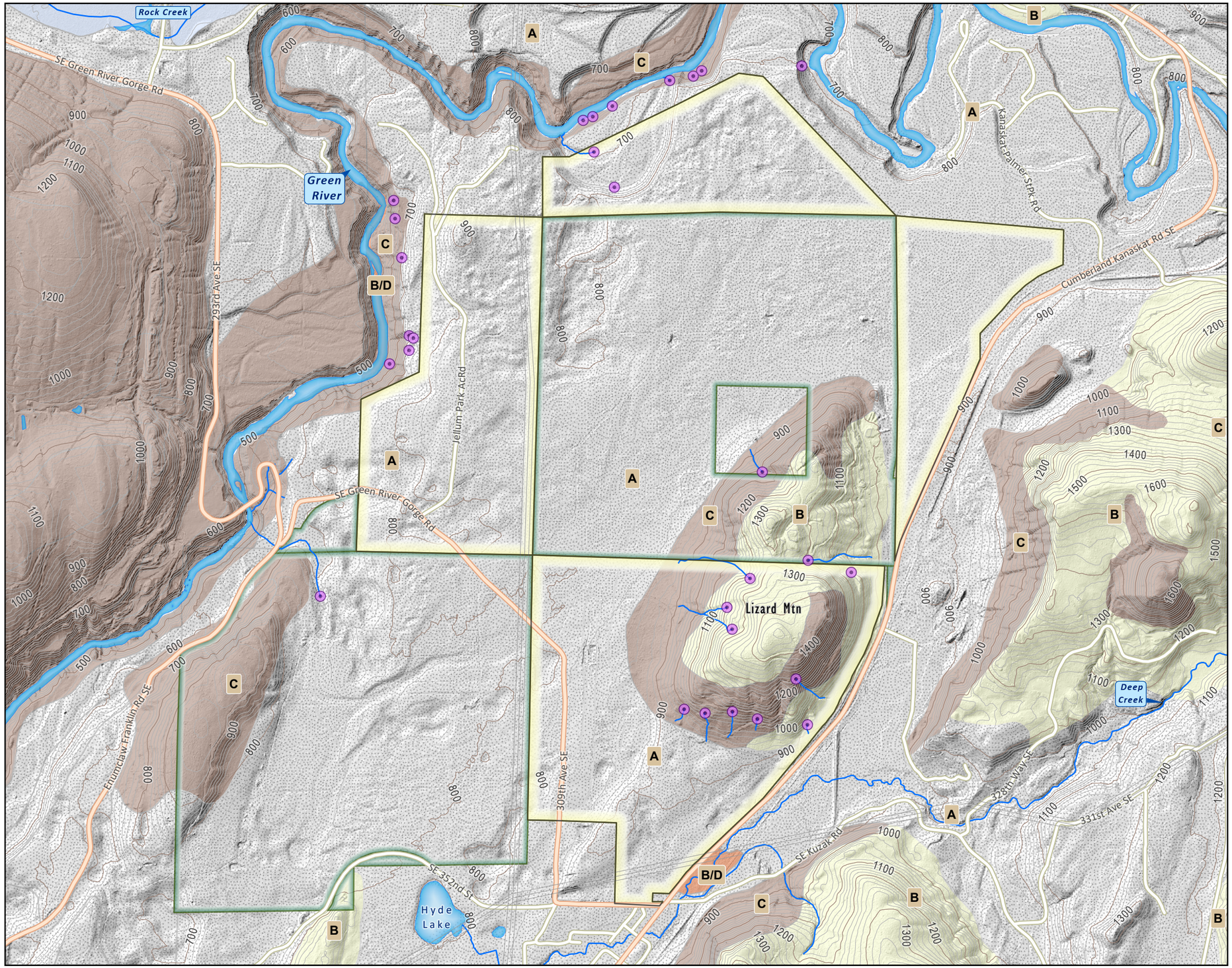
associated earth sciences incorporated

LANDSLIDE AND STEEP SLOPE HAZARDS

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	4

G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_updt\200367H001 F4 LSSS EC_CP_0323.aprx | 200367H001 F4 LSSS EC_CP_0323 | 5/3/2023 7:02 PM



SITE

SPRING

HYDROLOGIC GROUP

A - HIGH INFILTRATION RATE

B - MODERATE INFILTRATION RATE

B/D - CAN BE DRAINED, WATER TABLE WITHIN 24" OF SURFACE

C - LOW INFILTRATION RATE

WADNR MANAGED PROPERTY

UTILITY CORRIDOR

CONTOUR 100 FT

CONTOUR 20 FT

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
CONTOURS FROM LIDAR
KING CO: STREETS, PARCELS, 4/22
NRCS: SOILS

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

N

0 1500

FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

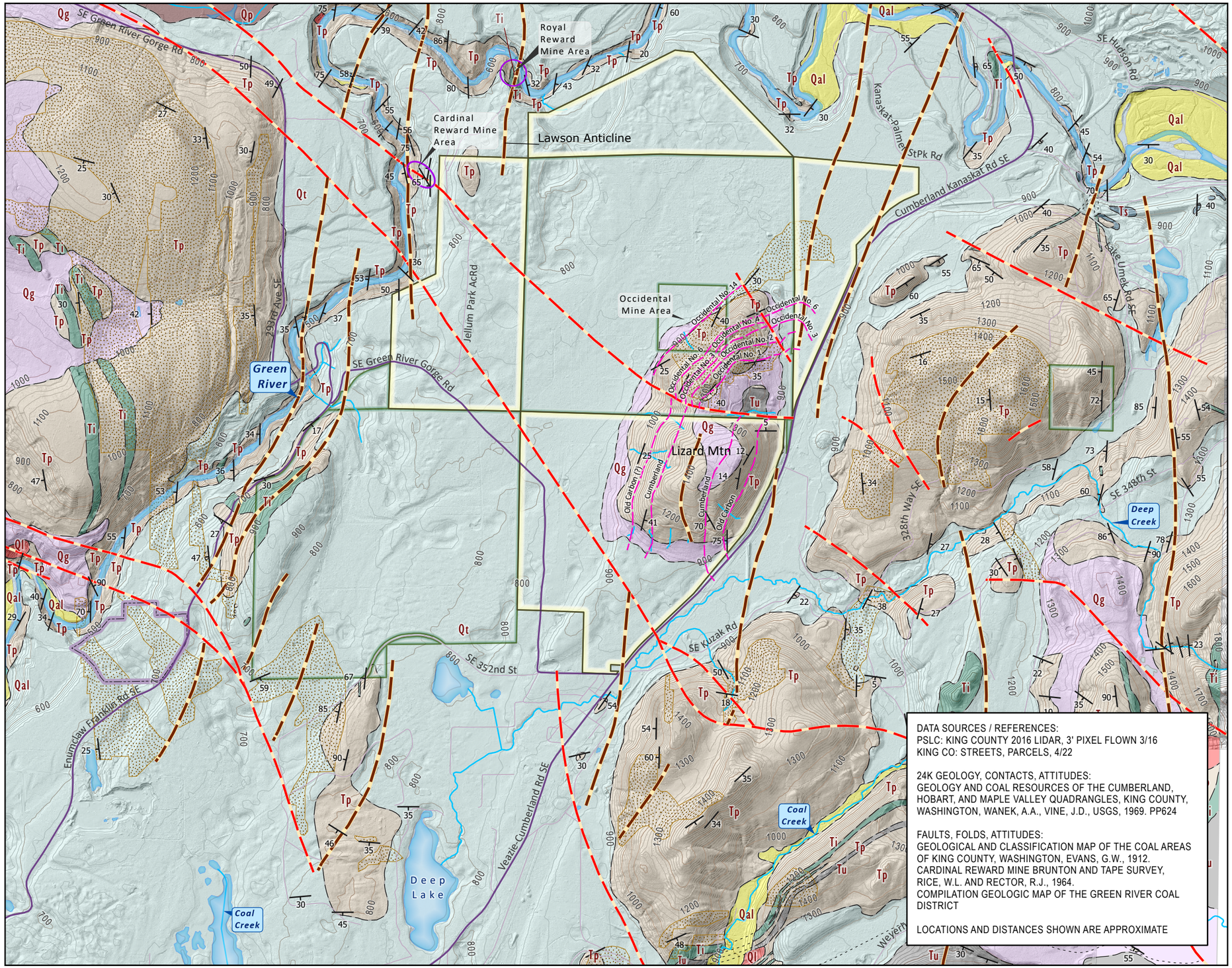
associated earth sciences incorporated

SOIL HYDROLOGIC GROUP

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	5

G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_updt\200367H001 F5 Soils EC_CP_0323.aprx | 200367H001 F5 Soils EC_CP_0323 | 5/3/2023 7:35 PM



DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
KING CO: STREETS, PARCELS, 4/22

24K GEOLOGY, CONTACTS, ATTITUDES:
GEOLOGY AND COAL RESOURCES OF THE CUMBERLAND, HOBART, AND MAPLE VALLEY QUADRANGLES, KING COUNTY, WASHINGTON, WANEK, A.A., VINE, J.D., USGS, 1969. PP624

FAULTS, FOLDS, ATTITUDES:
GEOLOGICAL AND CLASSIFICATION MAP OF THE COAL AREAS OF KING COUNTY, WASHINGTON, EVANS, G.W., 1912.
CARDINAL REWARD MINE BRUNTON AND TAPE SURVEY, RICE, W.L. AND RECTOR, R.J., 1964.
COMPILATION GEOLOGIC MAP OF THE GREEN RIVER COAL DISTRICT

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

- SITE
- WADNR MANAGED PROPERTY
- AREA OF IDENTIFIED MINERAL RESOURCES (MINED-OUT COAL AREAS)
- MINE AREA (APPROXIMATE)
- STRIKE AND DIP
- COAL SEAM, LOCATION FROM USGS PP624
- FAULTS
- FOLDS

GEOLOGIC UNIT SYMBOL

- QAL - ALLUVIUM
- QP - PEAT
- QL - LANDSLIDE DEBRIS
- QT - VASHON DRIFT, TERRACE GRAVEL AND STRATIFIED DRIFT
- QG - VASHON GLACIAL DRIFT; CHIEFLY TILL
- TS; TSG - SEDIMENTARY ROCKS
- TI - IGNEOUS ROCK
- TU - UNNAMED VOLCANIC ROCK
- TP - PUGET GROUP, UNDIFFERENTIATED
- WATER
- CONTOUR 100 FT
- CONTOUR 20 FT

N

0 2000
FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

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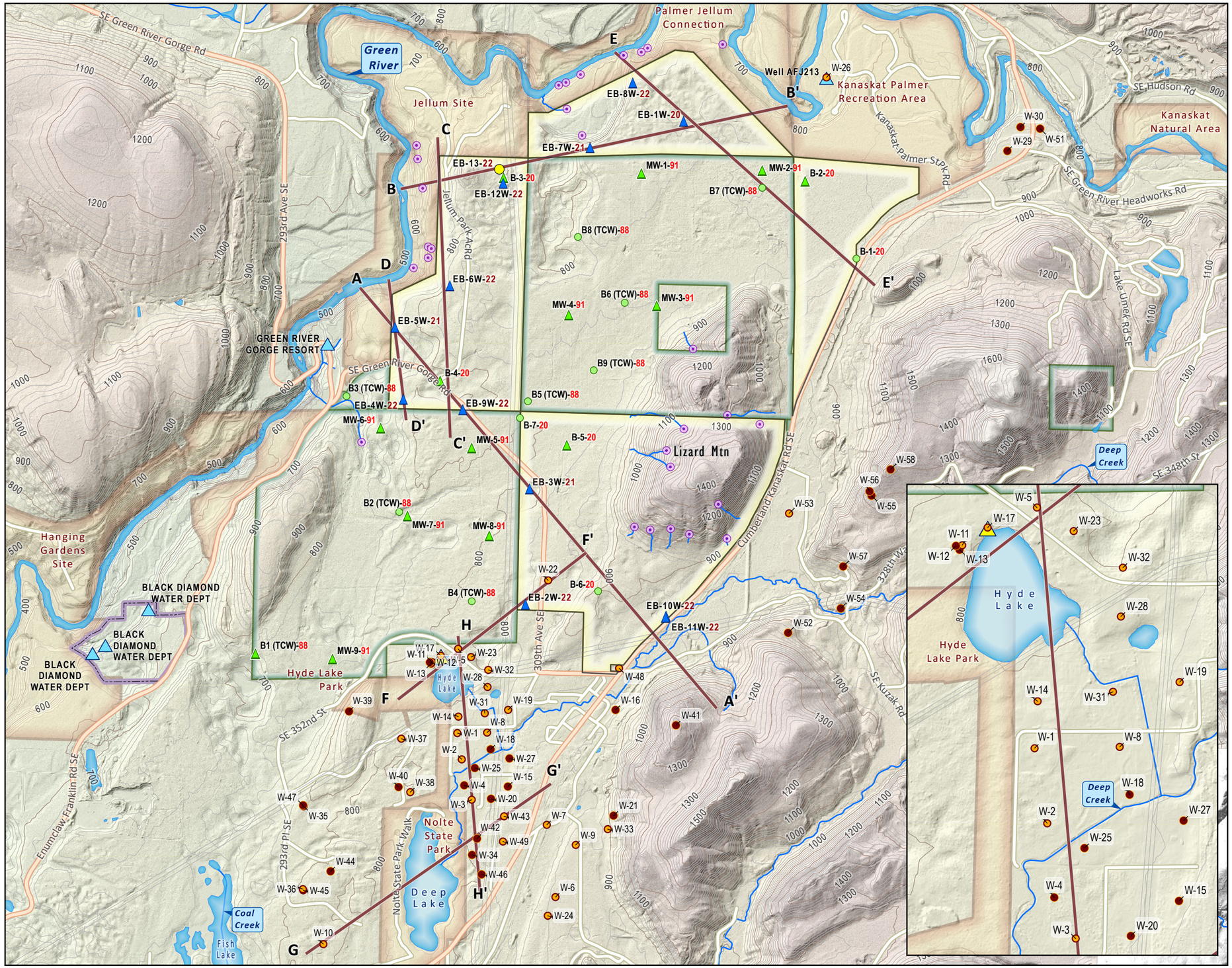
GEOLOGY

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	6

G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_upd\t\200367H001 F6 GEO69_ECCP_0523v2.aprx | 200367H001 F6 GEO69_ECCP_0523v2 | 5/24/2023 3:39 PM



G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_upd\200367H001 F7 CS EC_CP_0323.aprx | 200367H001 F7 CS EC_CP_0323 | 5/11/2023 2:47 PM

SITE

AESI EXPLORATION TYPE-YEAR

- EXPLORATION BORING (AESI)
- MONITORING WELL (AESI)

PREVIOUS EXPLORATION TYPE- YEAR BY OTHERS

- MONITORING WELL
- EXPLORATION BORING
- GROUP A WATER SUPPLY
- GROUP B WELL; PWSID 52236D

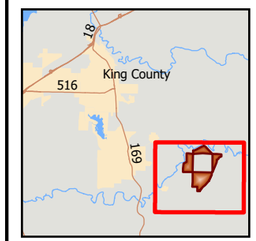
WELL COMPLETION

- ABOVE / AT BEDROCK
- IN BEDROCK

- SPRING
- CROSS SECTION
- UTILITY CORRIDOR
- WADNR MANAGED PROPERTY
- PARK, OPEN SPACE, NATURAL AREA
- CONTOUR 100 FT
- CONTOUR 20 FT

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
CONTOURS FROM LIDAR
DOH: DRINKING WATER 2019
DOE: WELL LOGS 2021
KING CO: STREETS, PARCELS, 4/22

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE



N

0 2000

FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

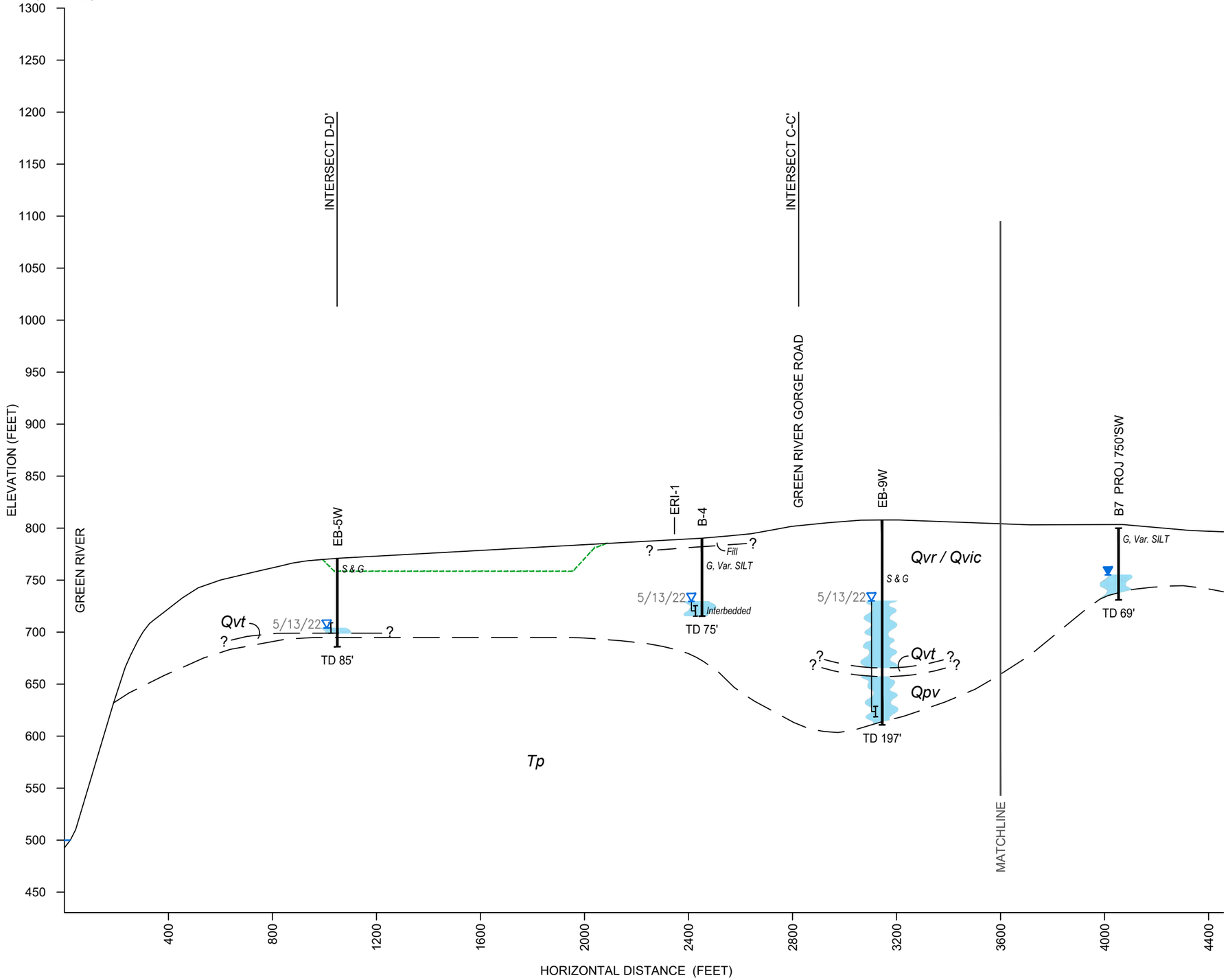
associated earth sciences incorporated

CROSS SECTIONS

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	7

A
NORTHWEST



LEGEND:

Fill	EXISTING FILL / DISTURBED GROUND
Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Qpv	PRE-VASHON DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
G	GRAVEL

BORING / WELL / EXPLORATION

WATER LEVEL AT TIME OF DRILLING

STATIC WATER LEVEL

SCREENED INTERVAL

WATER BEARING SEDIMENTS

TD TOTAL DEPTH OF BORING

GEOLOGIC CONTACT

MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

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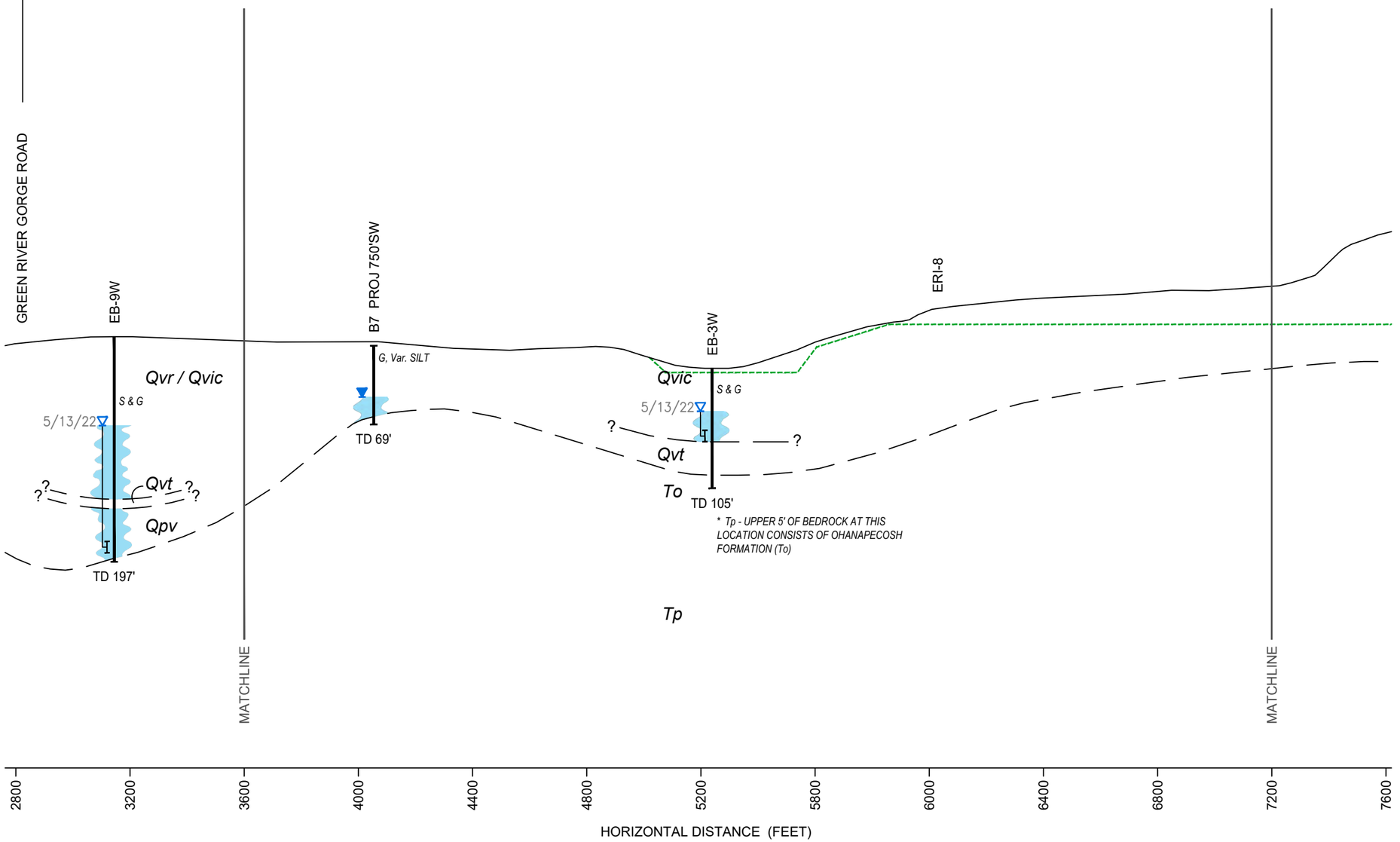
HYDROGEOLOGIC CROSS-SECTION A - A' NORTHWEST
CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	8

A-A'



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Qpv	PRE-VASHON DEPOSITS
To	OLIGOCENE OHANAPECOSH FORMATION BEDROCK
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
G	GRAVEL
	BORING / WELL / EXPLORATION
	WATER LEVEL AT TIME OF DRILLING
	STATIC WATER LEVEL
	SCREENED INTERVAL
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT
	MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

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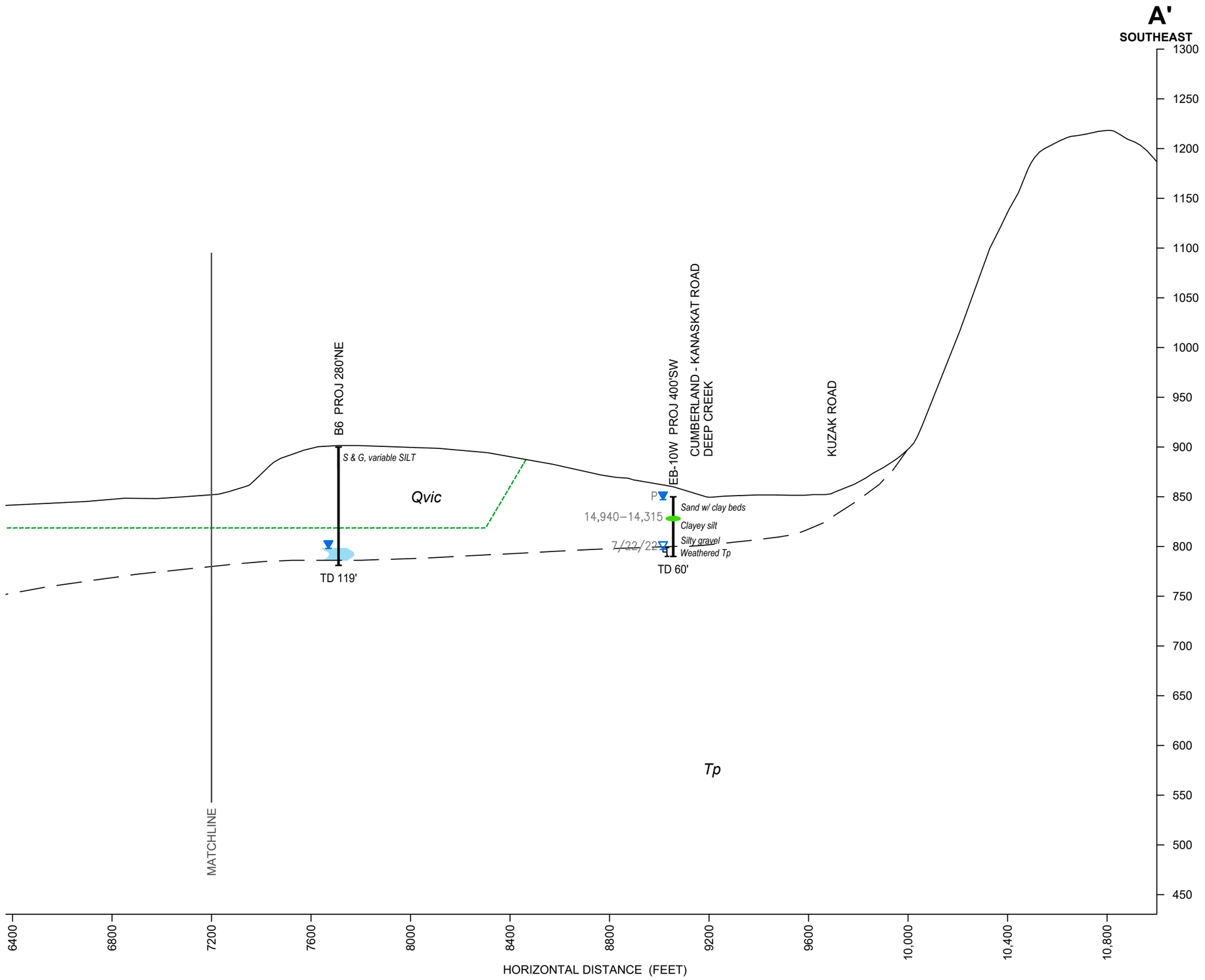
HYDROGEOLOGIC CROSS-SECTION A - A' CENTER
CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	9



LEGEND:

Qvic	VASHON ICE CONTACT DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
	BORING / WELL / EXPLORATION
	WATER LEVEL AT TIME OF DRILLING
P	PERCHED
	STATIC WATER LEVEL
	SCREENED INTERVAL
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT
	MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

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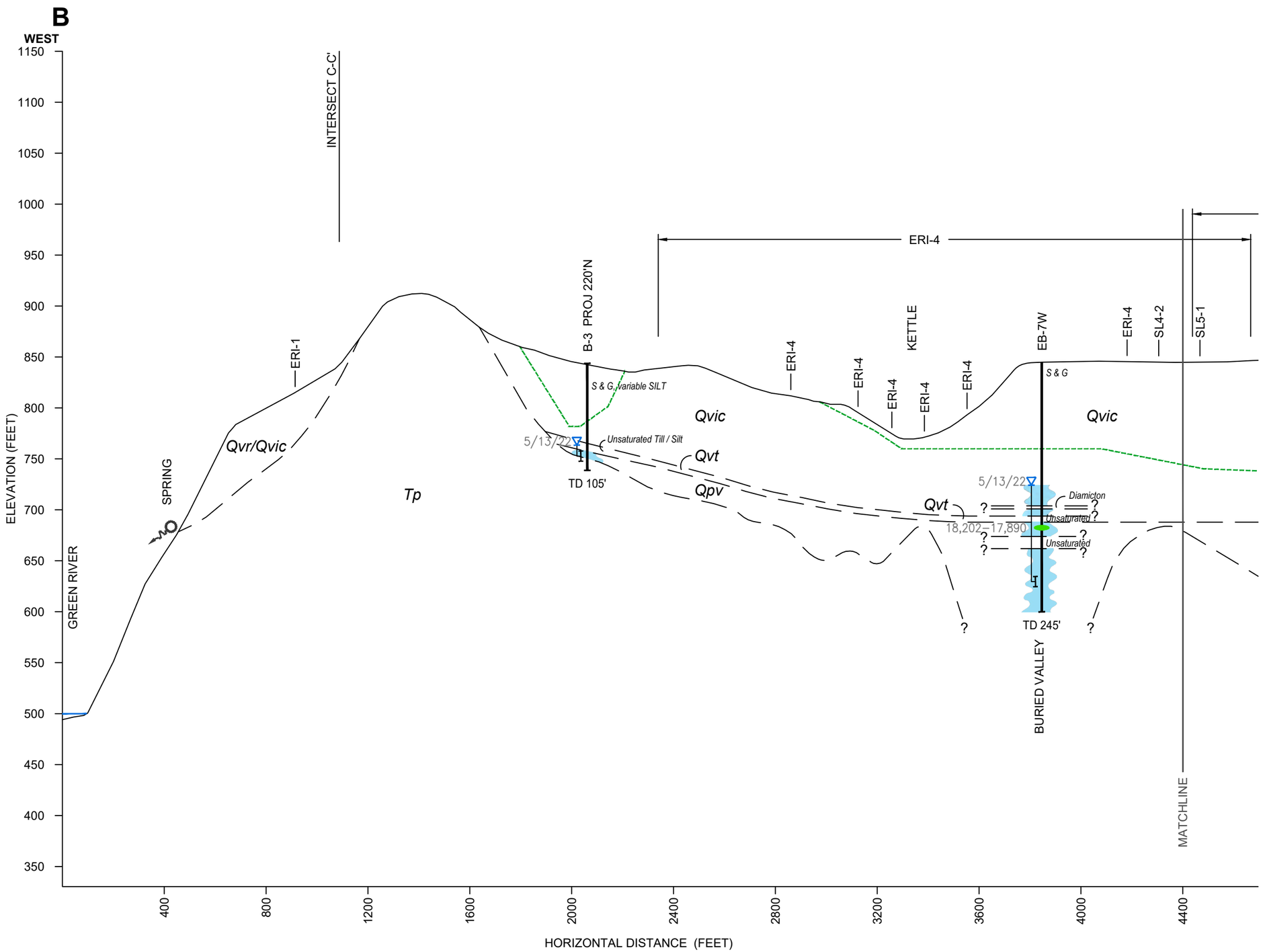
HYDROGEOLOGIC CROSS-SECTION A - A' SOUTHEAST

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	10



LEGEND:

Fill	EXISTING FILL / DISTURBED GROUND
Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Qpv	PRE-VASHON DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL

BORING / WELL / EXPLORATION

STATIC WATER LEVEL

SCREENED INTERVAL

WATER BEARING SEDIMENTS

TD TOTAL DEPTH OF BORING

GEOLOGIC CONTACT

SPRING

MINE LIMIT PER 7/22 CONCEPTUAL PLAN

^{14}C CAL BP

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

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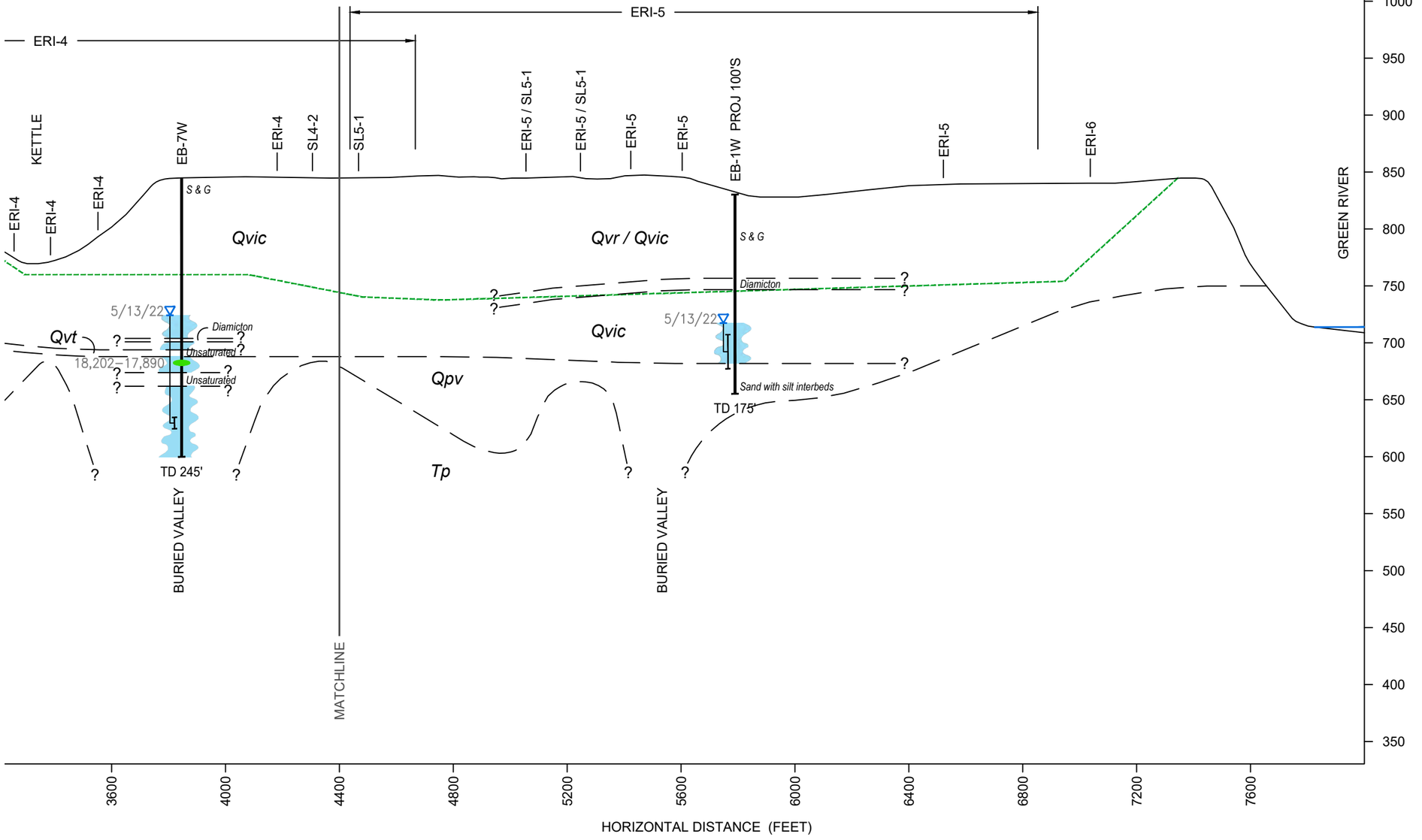
HYDROGEOLOGIC CROSS-SECTION B - B' WEST

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	11



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Qpv	PRE-VASHON DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
	BORING / WELL / EXPLORATION
	STATIC WATER LEVEL
	SCREENED INTERVAL
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT
	MINE LIMIT PER 7/22 CONCEPTUAL PLAN
	^{14}C CAL BP

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

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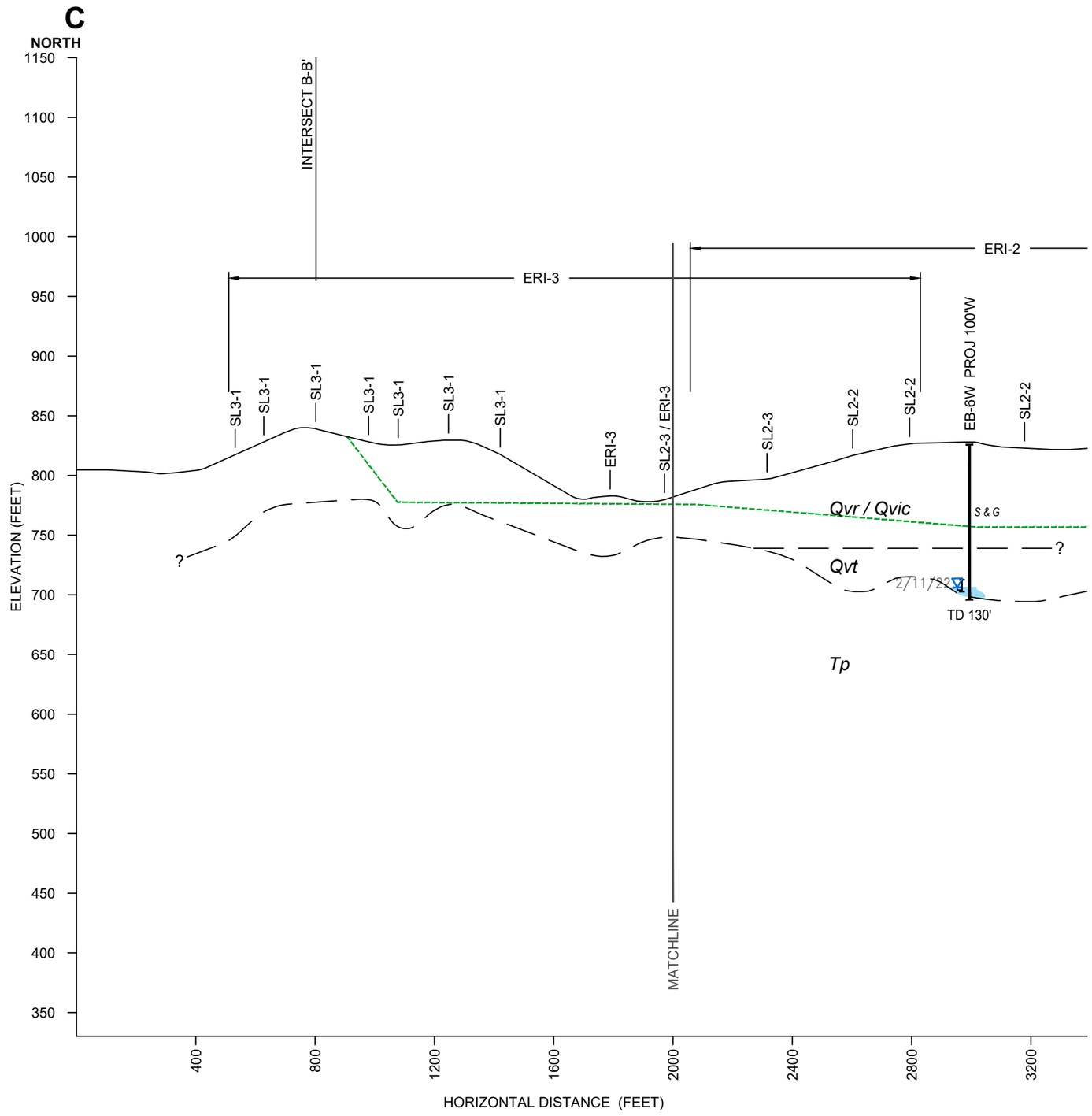
HYDROGEOLOGIC CROSS-SECTION B - B' EAST

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	12



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL

BORING / WELL / EXPLORATION

STATIC WATER LEVEL

SCREENED INTERVAL

WATER BEARING SEDIMENTS

TD — TOTAL DEPTH OF BORING

GEOLOGIC CONTACT

MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

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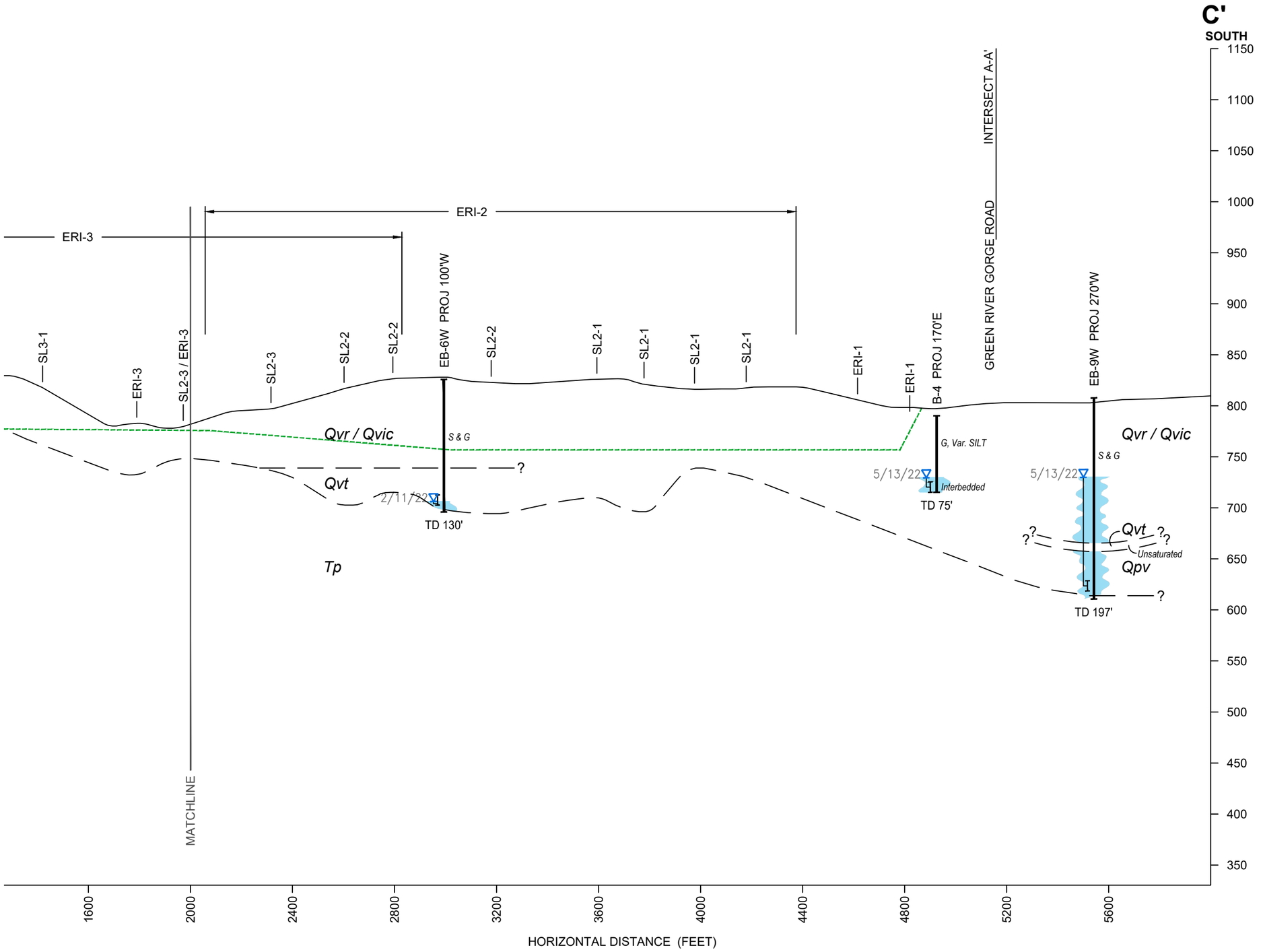
HYDROGEOLOGIC CROSS-SECTION C - C' NORTH

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	13



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Qpv	PRE-VASHON DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
	BORING / WELL / EXPLORATION
	STATIC WATER LEVEL
	SCREENED INTERVAL
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT
	MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

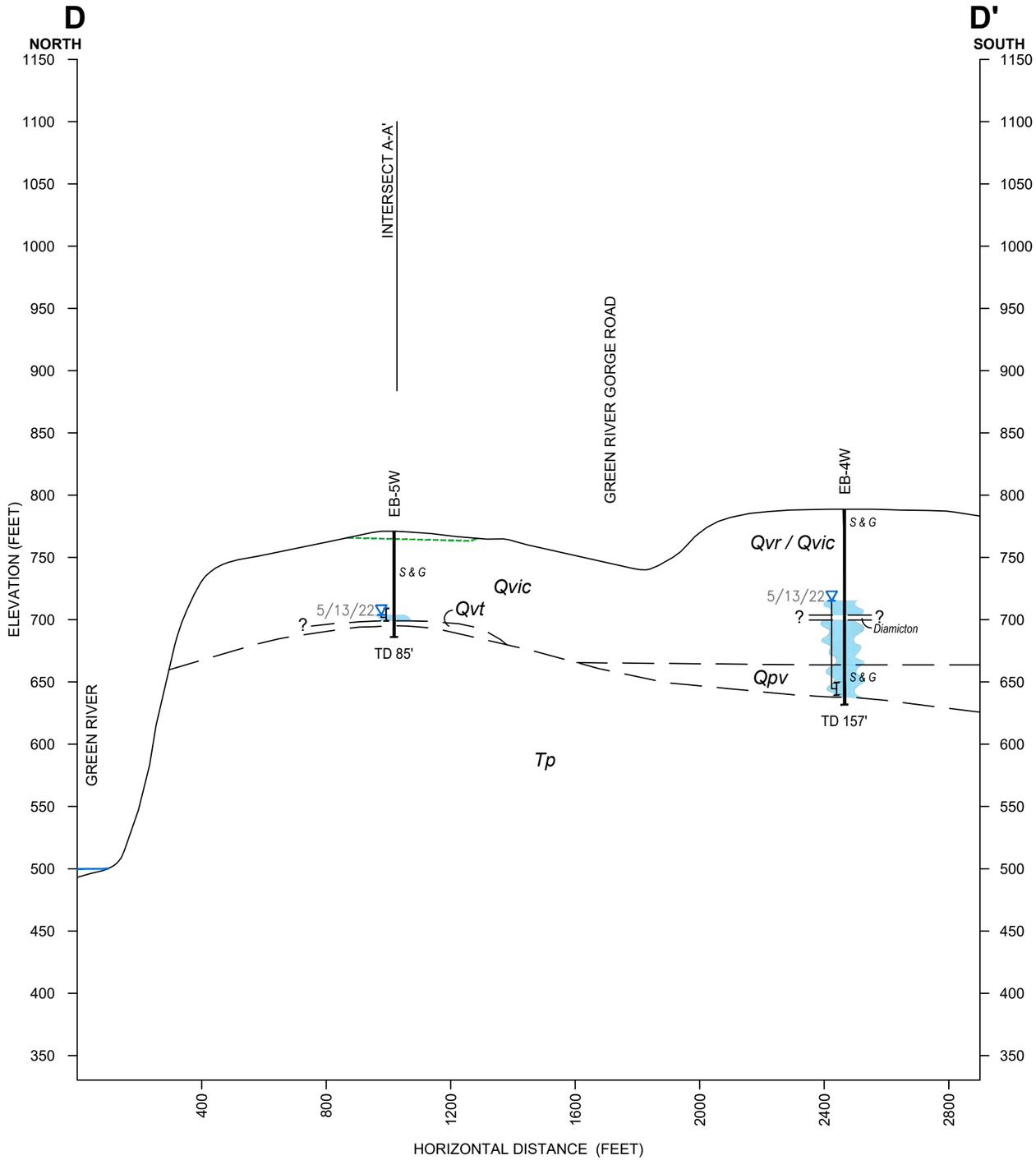
NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION C - C' SOUTH

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	14



2020 \ 20200367 Cumberland \ 20200367 GeoSects 7-22.dwg LAYOUT: H001 F15 Sect D-D 5-23 EC

LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Qpv	PRE-VASHON DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL

BORING / WELL / EXPLORATION

STATIC WATER LEVEL

SCREENED INTERVAL

WATER BEARING SEDIMENTS

TD TOTAL DEPTH OF BORING

GEOLOGIC CONTACT

MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

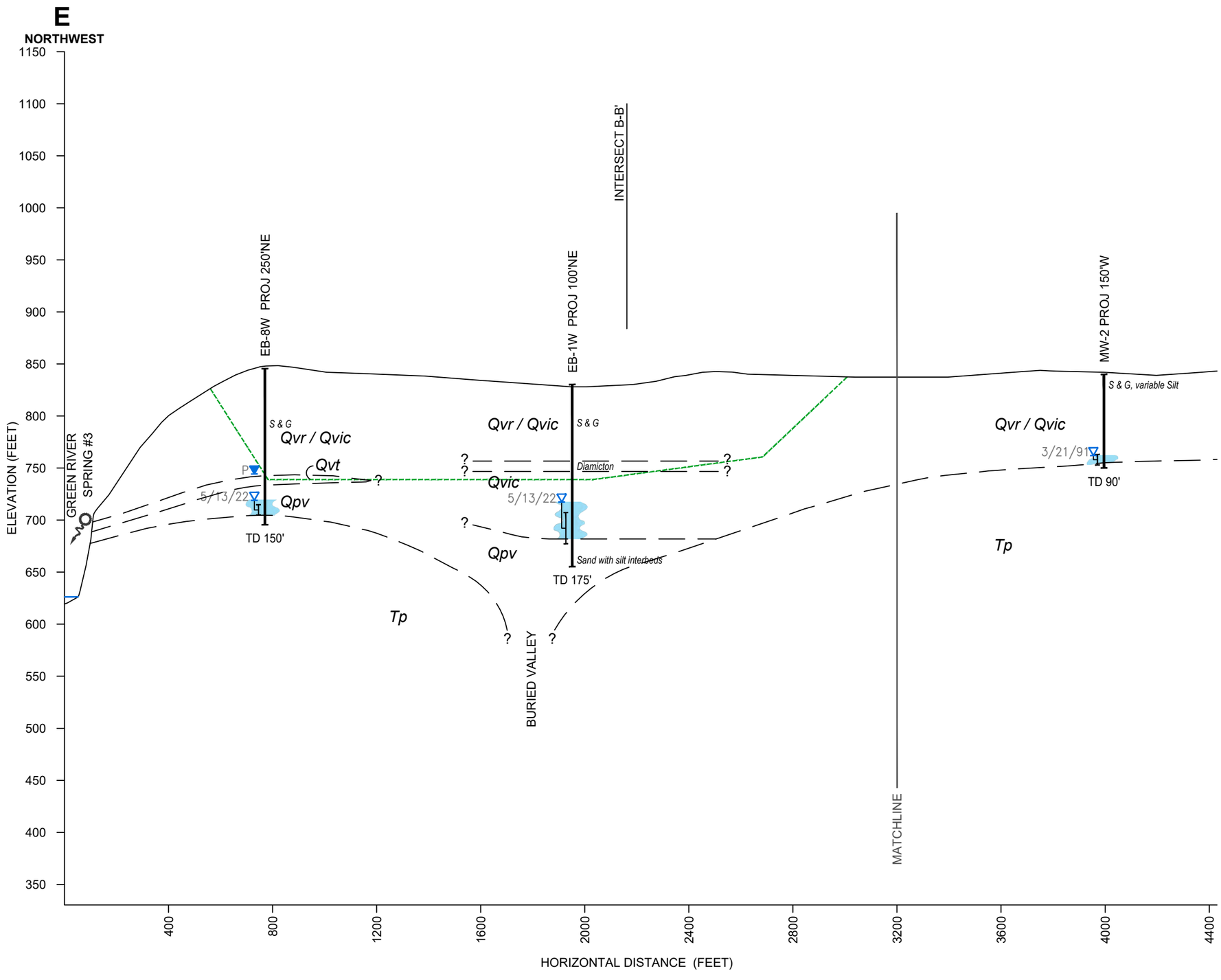
BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION D - D'

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	15



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Qpv	PRE-VASHON DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL

BORING / WELL / EXPLORATION

WATER LEVEL AT TIME OF DRILLING

P PERCHED

STATIC WATER LEVEL

SCREENED INTERVAL

WATER BEARING SEDIMENTS

TD TOTAL DEPTH OF BORING

GEOLOGIC CONTACT

SPRING

MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

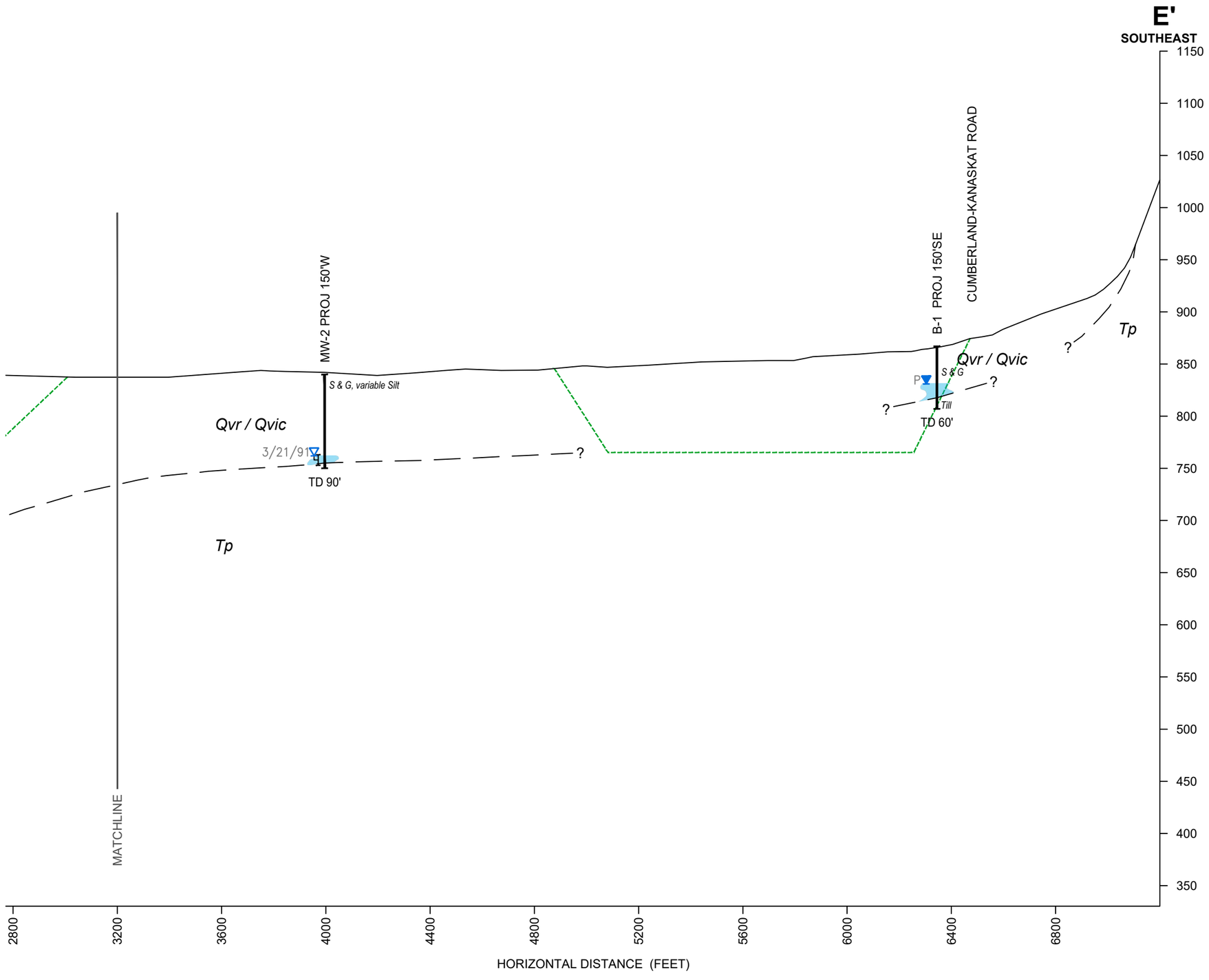
NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION E - E' NW

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	16



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qpv	PRE-VASHON DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL

BORING / WELL / EXPLORATION

WATER LEVEL AT TIME OF DRILLING

P PERCHED

STATIC WATER LEVEL

SCREENED INTERVAL

WATER BEARING SEDIMENTS

TD TOTAL DEPTH OF BORING

GEOLOGIC CONTACT

MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:

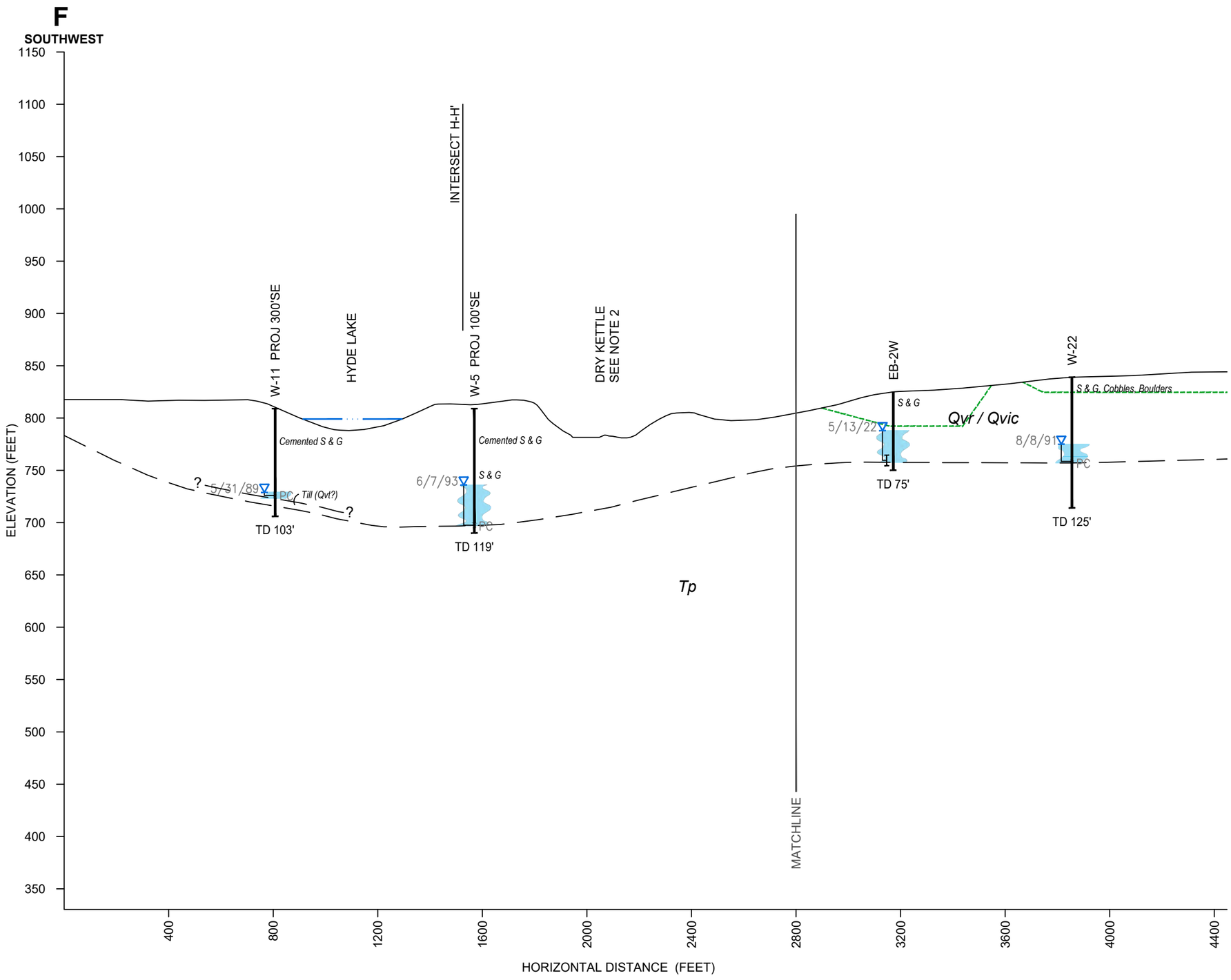
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION E - E' SE

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	17



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Qvt	VASHON LODGEMENT TILL
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL

BORING / WELL / EXPLORATION

STATIC WATER LEVEL

SCREENED INTERVAL

PC — PERFORATED CASING

WATER BEARING SEDIMENTS

TD — TOTAL DEPTH OF BORING

GEOLOGIC CONTACT

MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:

1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

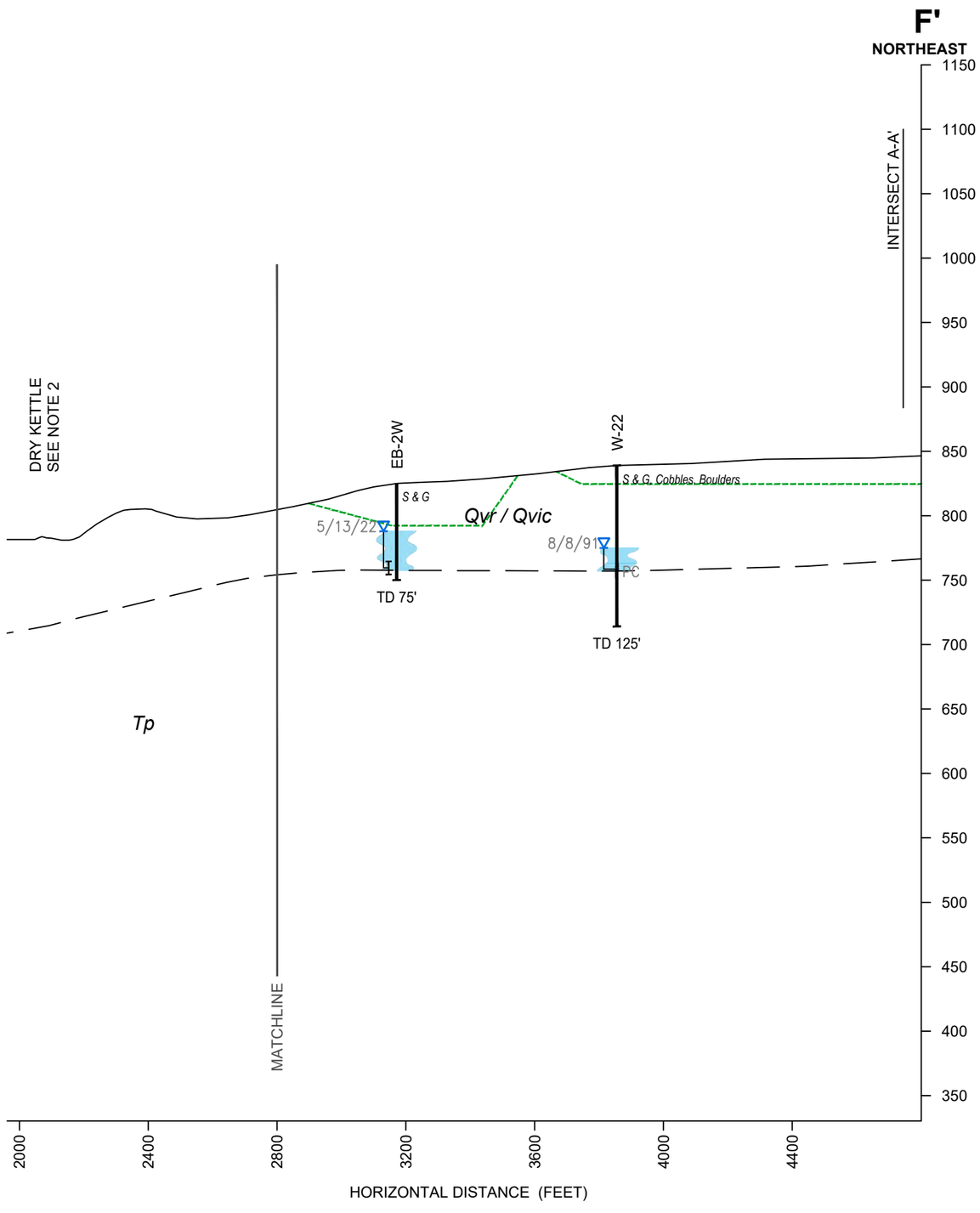
2. KETTLE DRY AS REPORTED BY TCW (1989); THIS AREA NOT ACCESSED BY AESI.

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION F - F' SW

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	18



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
	BORING / WELL / EXPLORATION
	STATIC WATER LEVEL
	SCREENED INTERVAL
PC	PERFORATED CASING
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT
	MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

2. KETTLE DRY AS REPORTED BY TCW (1989); THIS AREA NOT ACCESSED BY AESI.

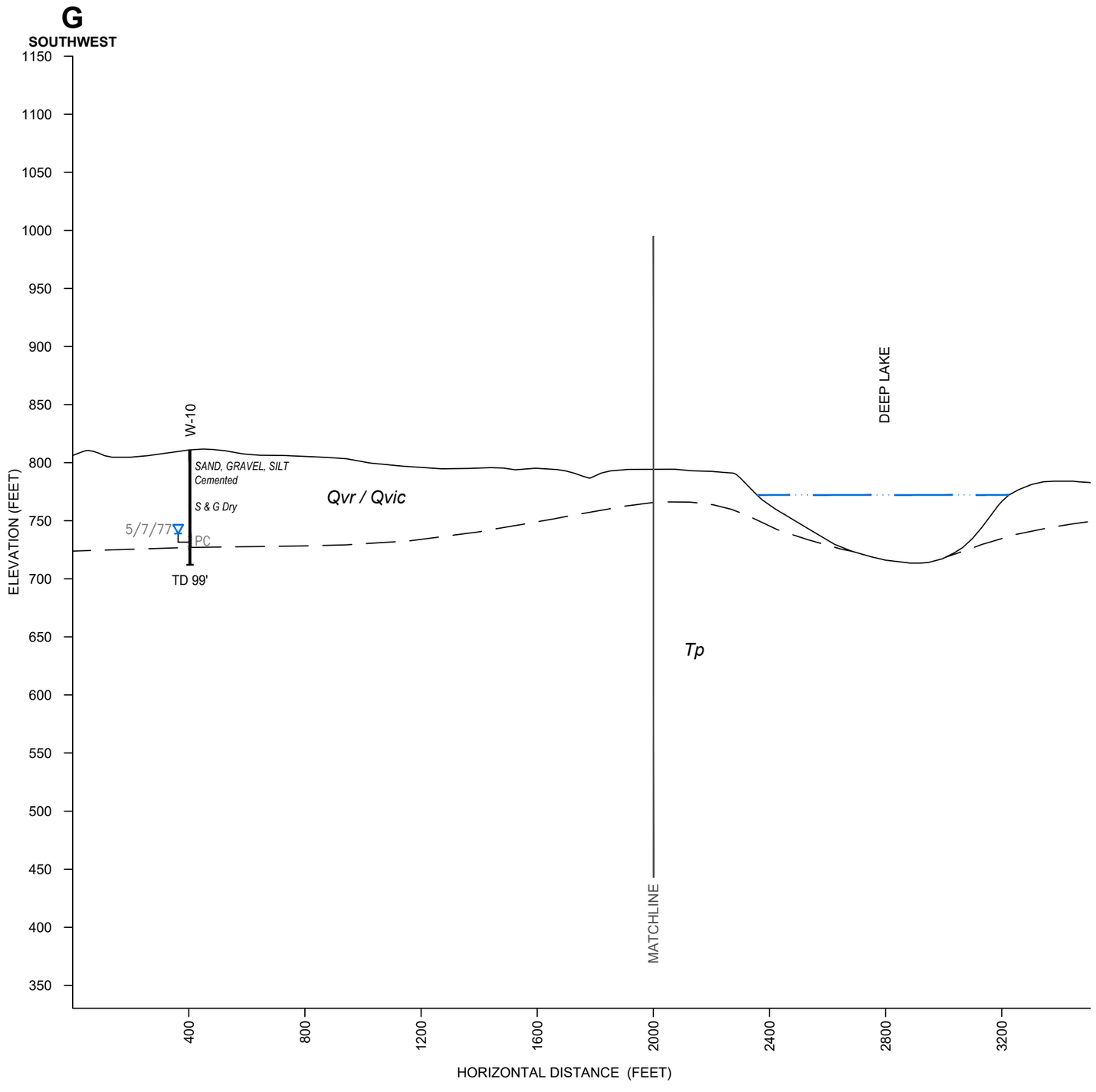
associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION F - F' NE

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	19

2020 \ 20200367 Cumberland \ 20200367 GeoSects 7-22.dwg LAYOUT: H001 F20 Sect F-F' NE 5-23 EC



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
	BORING / WELL / EXPLORATION
	STATIC WATER LEVEL
PC	PERFORATED CASING
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT
--------	MINE LIMIT PER 7/22 CONCEPTUAL PLAN

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:

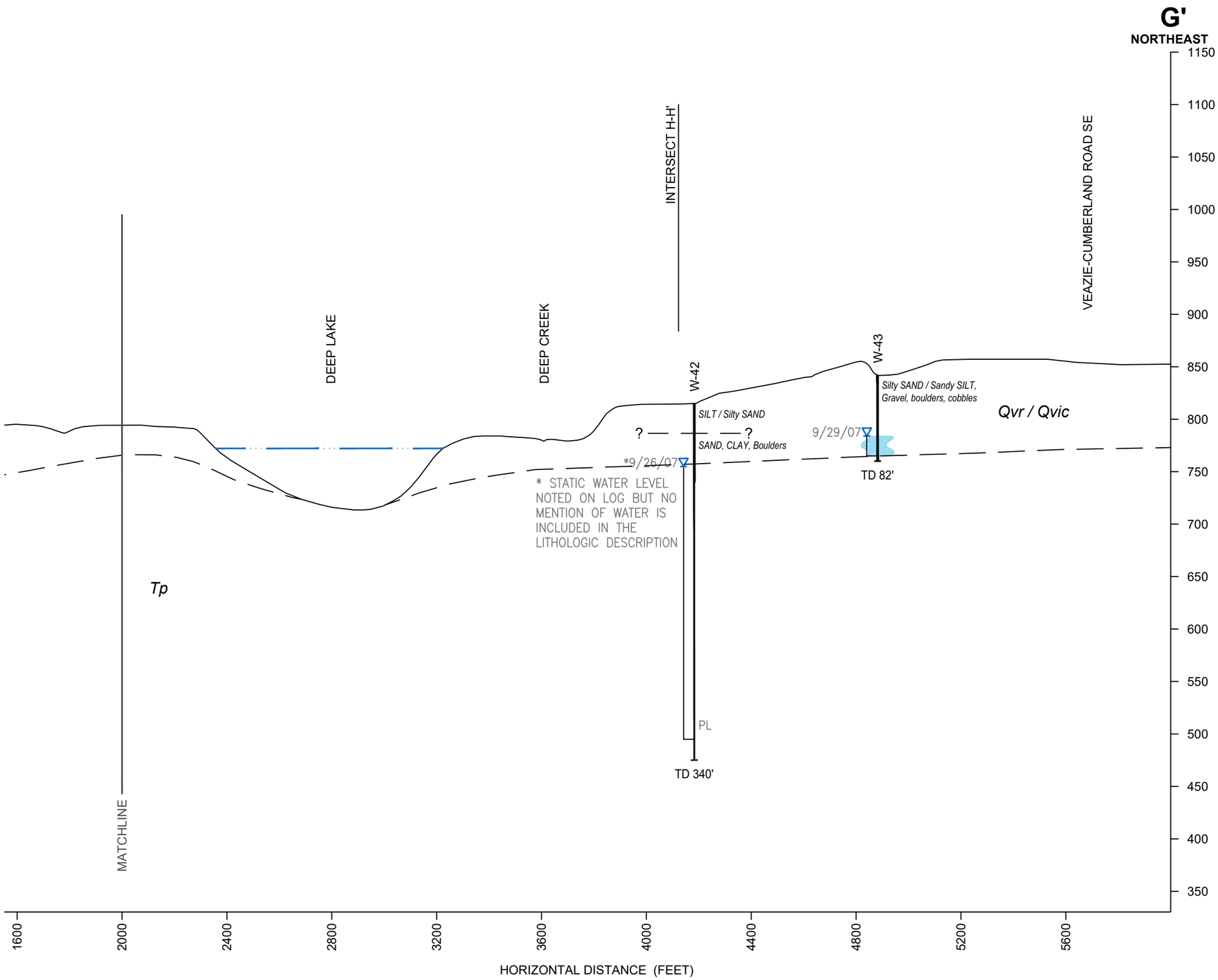
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION G - G' SW

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	20



LEGEND:

Qvr	VASHON RECESSIONAL OUTWASH
Qvic	VASHON ICE CONTACT DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
	BORING / WELL / EXPLORATION
	STATIC WATER LEVEL
PL	PERFORATED LINER
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

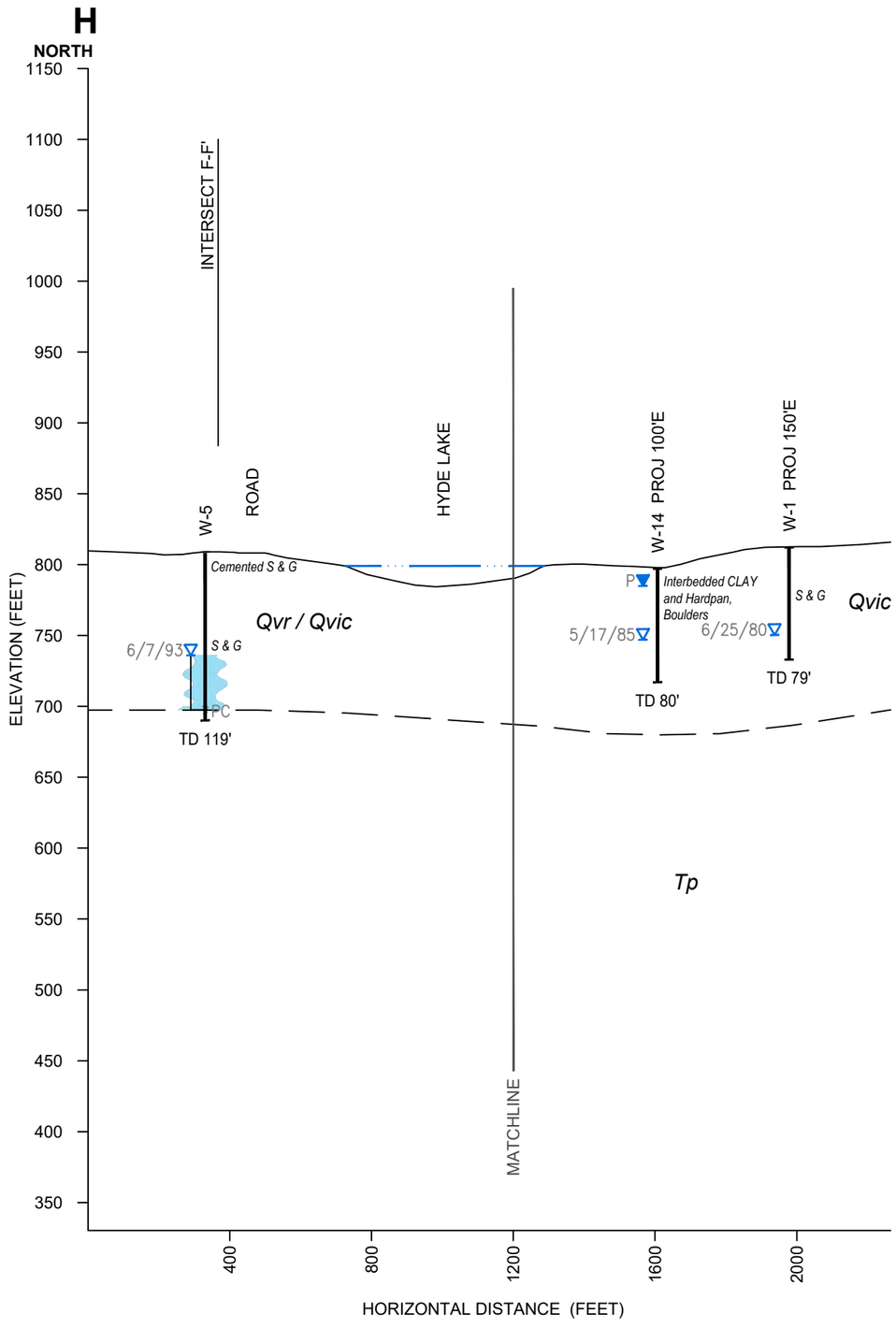
NOTES:
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION G - G' NE

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	21



LEGEND:

Qvic	VASHON ICE CONTACT DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
G	GRAVEL
	BORING / WELL / EXPLORATION
	WATER LEVEL AT TIME OF DRILLING
P	PERCHED
	STATIC WATER LEVEL
PC	PERFORATED CASING
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:
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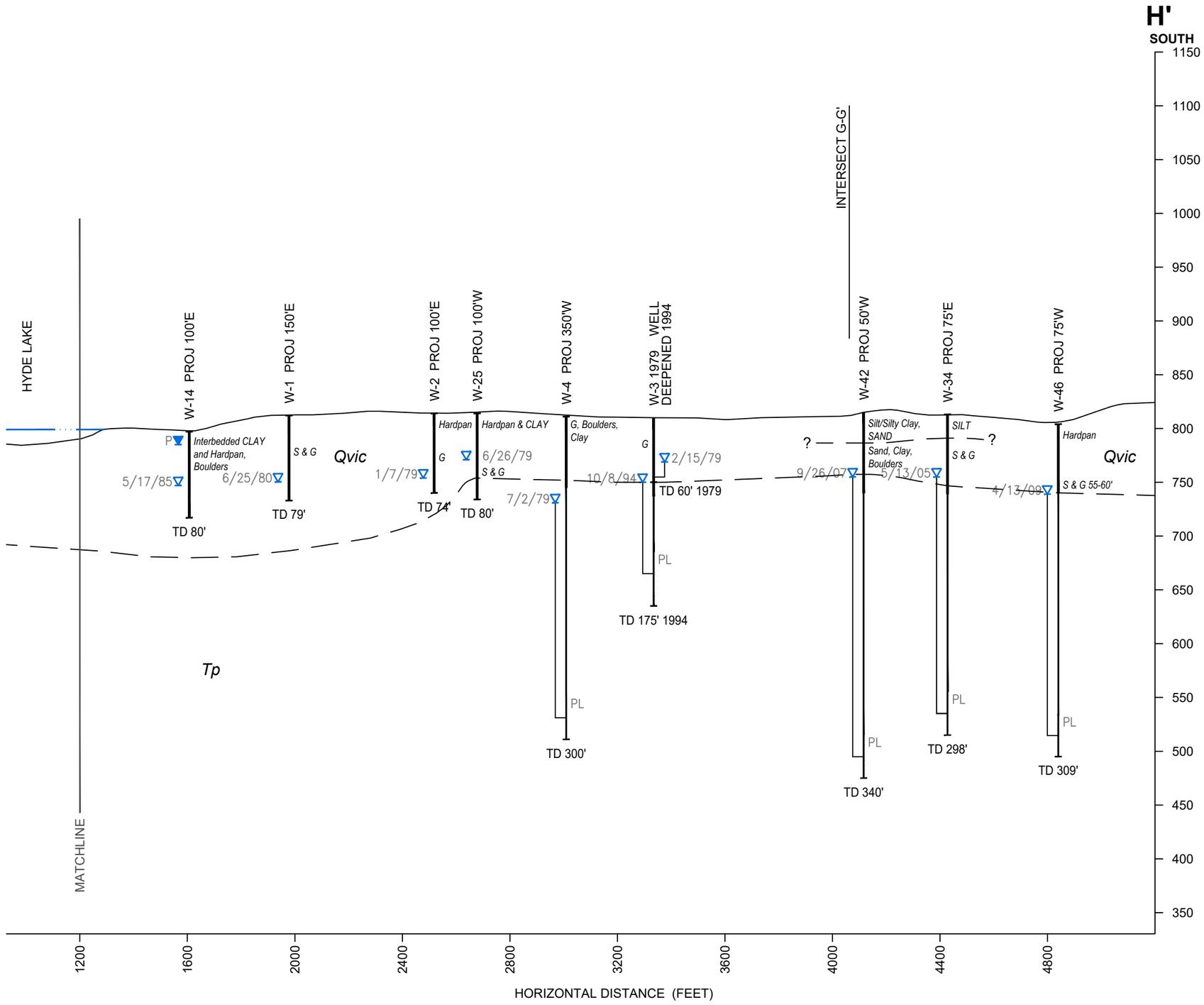
associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION H - H' N

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	22



LEGEND:

Qvic	VASHON ICE CONTACT DEPOSITS
Tp	EOCENE PUGET GROUP BEDROCK
S & G	SAND AND GRAVEL
G	GRAVEL
	BORING / WELL / EXPLORATION
	WATER LEVEL AT TIME OF DRILLING
P	PERCHED
	STATIC WATER LEVEL
PL	PERFORATED LINER
	WATER BEARING SEDIMENTS
TD	TOTAL DEPTH OF BORING
	GEOLOGIC CONTACT

VERTICAL EXAGGERATION = 10X

NOTE: LOCATION AND DISTANCES SHOWN ARE APPROXIMATE

NOTES:

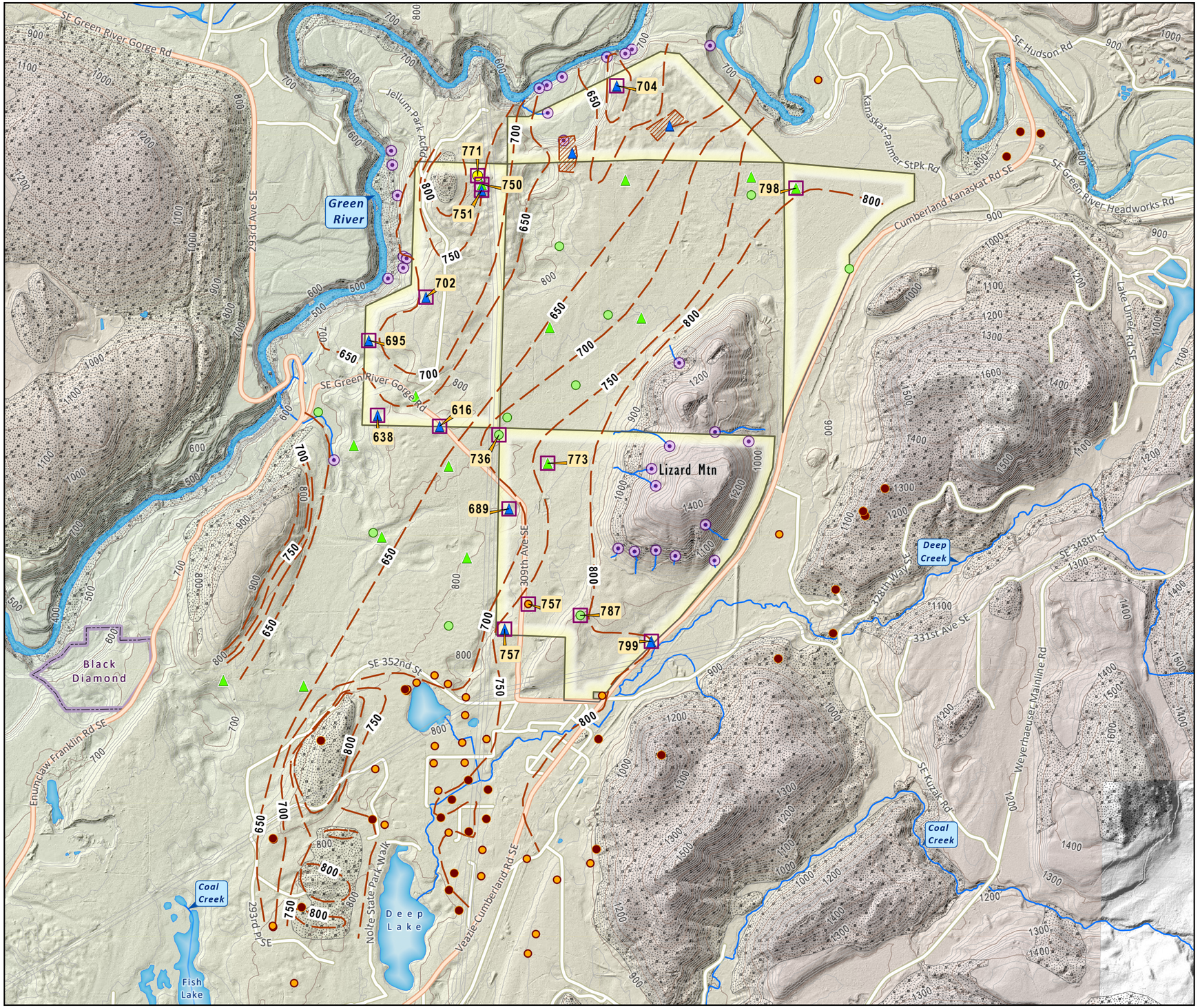
1. THE SUBSURFACE CONDITIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION ARE BASED ON AN INTERPRETATION OF CONDITIONS ENCOUNTERED IN WIDELY SPACED EXPLORATIONS COMPLETED AT THE SUBJECT SITE AND RELEVANT SITE INFORMATION DEVELOPED AND PROVIDED BY OTHERS. THE SUBSURFACE INTERPRETATIONS PRESENTED IN THIS GEOLOGIC CROSS-SECTION SHOULD NOT BE CONSTRUED AS A WARRANTY OF ACTUAL SUBSURFACE CONDITIONS AT THE SITE. OUR EXPERIENCE HAS SHOWN THAT SOIL AND GROUNDWATER CONDITIONS CAN VARY SIGNIFICANTLY OVER SMALL DISTANCES.

associated earth sciences incorporated

HYDROGEOLOGIC CROSS-SECTION H - H' S

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	23



- SITE
- EXPLORATION BORING (AESI)
- MONITORING WELL (AESI)

PREVIOUS EXPLORATIONS BY OTHERS

- MONITORING WELL
- EXPLORATION BORING

WELL COMPLETION

- ABOVE / AT BEDROCK
- IN BEDROCK
- BEDROCK ELEVATION FROM EXPLORATION
- SPRING
- BEDROCK ELEVATION CONTOUR
- BURIED VALLEY, <=600' ELEVATION
- NEAR SURFACE BEDROCK
- UTILITY CORRIDOR
- CITY BOUNDARY
- CONTOUR 100 FT
- CONTOUR 20 FT

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
CONTOURS FROM LIDAR
KING CO: STREETS, 4/22
WADNR WGS: BEDROCK 24K 2019
WADOE: WELL LOG DATA 5/22

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

N

0 2000
FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

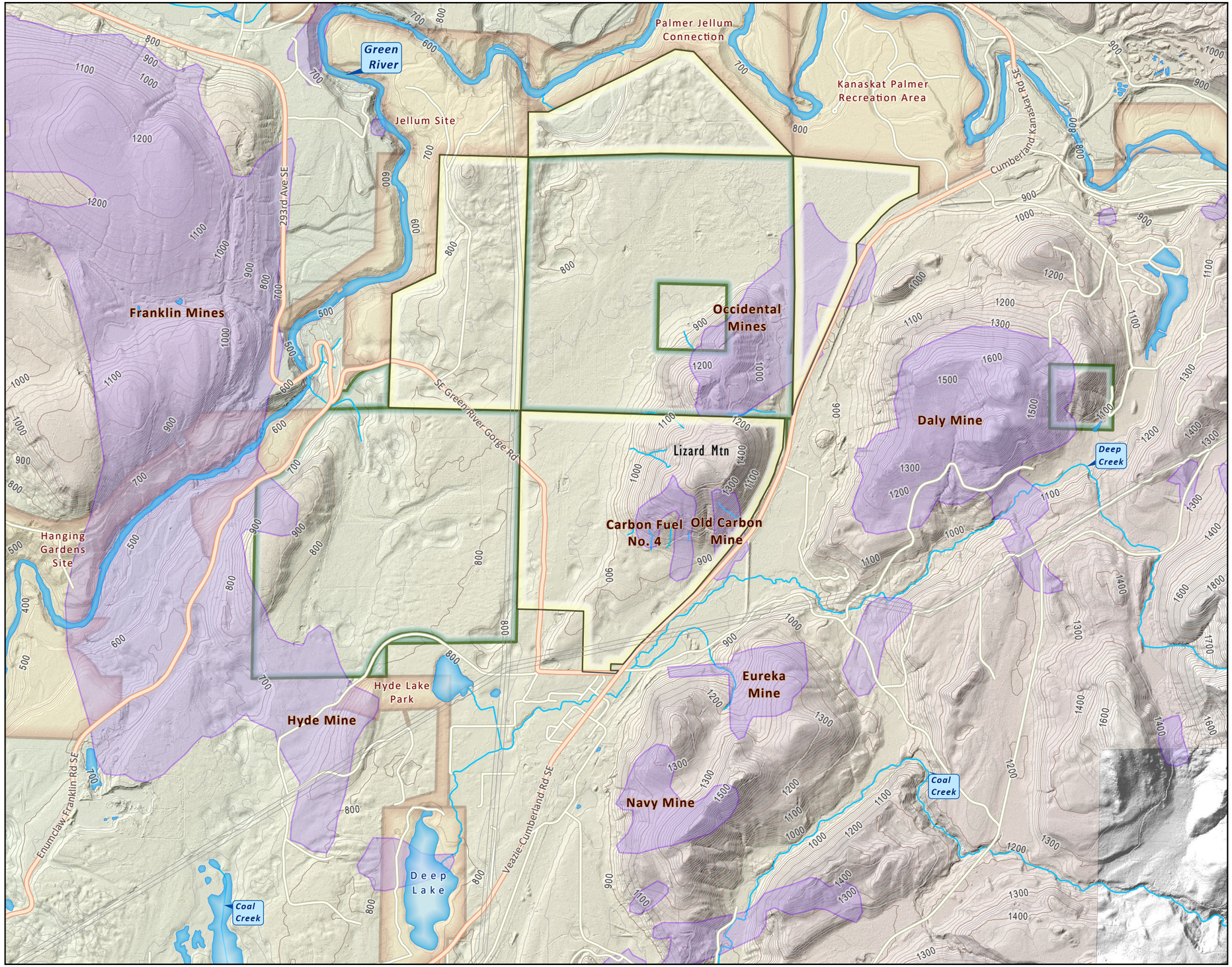
associated earth sciences incorporated

BEDROCK ELEVATION

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	24

G:\GIS_Projects\aaY2020\200367 Cumberland 22aprx\EC_updt\200367H001 F24 TopBedrock EC_CP_0323.aprx | 200367H001 F24 TopBedrock EC_CP_0323 | 5/11/2023 2:25 PM



SITE

COAL MINE HAZARD AREA (REGIONAL HAZARD DATA FROM KING CO)

UTILITY CORRIDOR

WADNR MANAGED PROPERTY

PARK, OPEN SPACE, NATURAL AREA

CONTOUR 100 FT

CONTOUR 20 FT

NOTE: COAL MINE HAZARD AREAS ARE DEFINED BY THE KING COUNTY CODE. REGIONAL HAZARD AREAS ARE AN APPROXIMATION OF THE COAL MINE DISTRIBUTION SHOWN ON HISTORICAL COAL MINE MAPS.

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
WADNR WGS: HISTORICAL COAL MINE MAP COLLECTION
KING CO: STREETS, PARCELS, COAL MINE HAZARD AREA 4/22

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

N

0 2000

FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

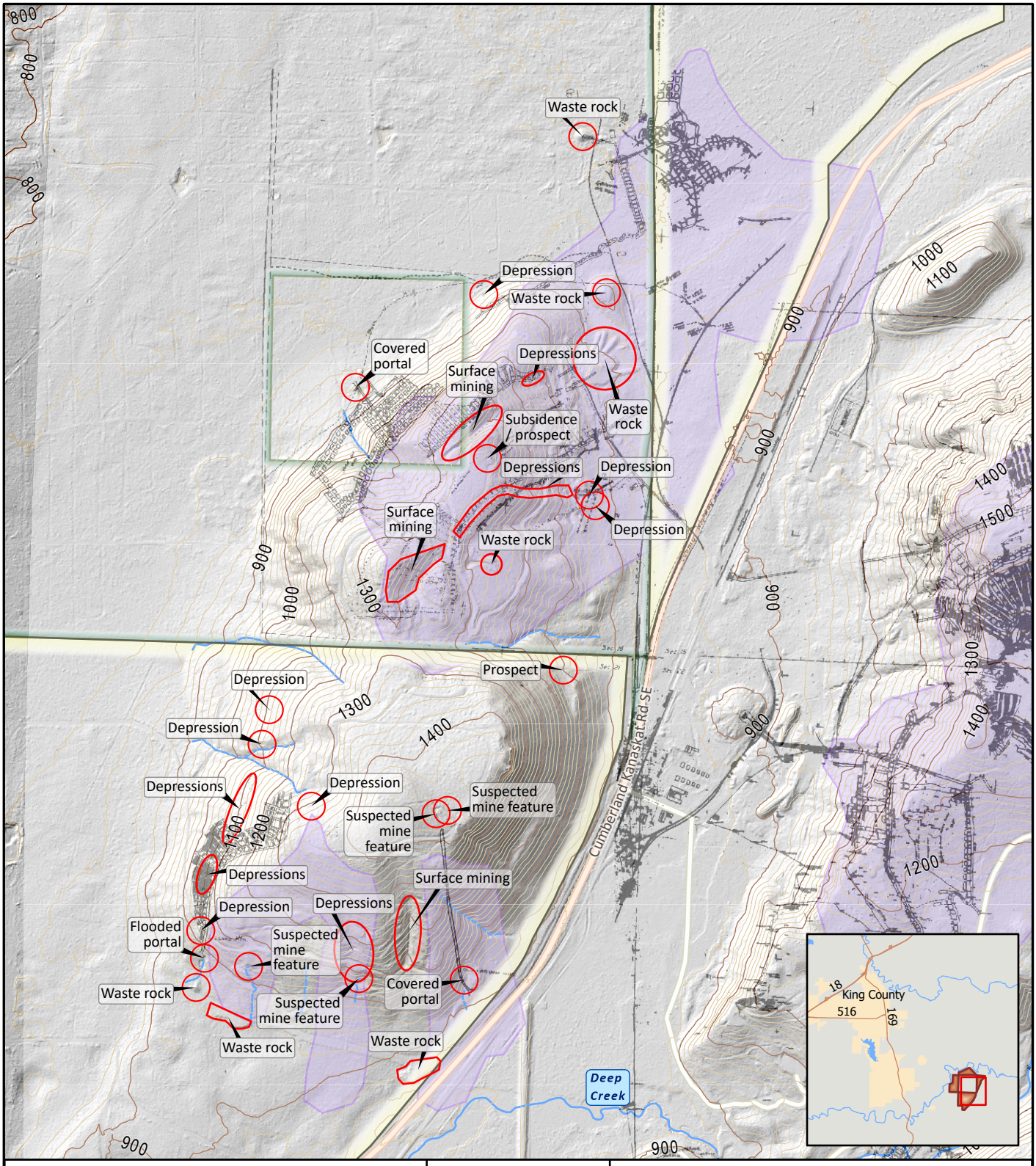
associated earth sciences incorporated

REGIONAL COAL MINES AND COAL MINE HAZARD AREAS

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	25

G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_upd\200367H001 F25 RegCoalHaz EC_CP_0323.aprx | 200367H001 F25 RegCoalHaz EC_CP_0323 | 5/11/2023 2:30 PM



SITE

MINE FEATURE

COAL MINE HAZARD AREA (REGIONAL HAZARD DATA FROM KING CO)

WADNR MANAGED PROPERTY

CONTOUR 100 FT

CONTOUR 20 FT

DATA SOURCES / REFERENCES:
WADNR COAL MINE MAP K0_A
KING CO: ROADS 4/22, COAL HAZARD AREAS
PSRC: KING CO 2016 LIDAR, CONTOURS FROM LIDAR
LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

N

0 150

FEET

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

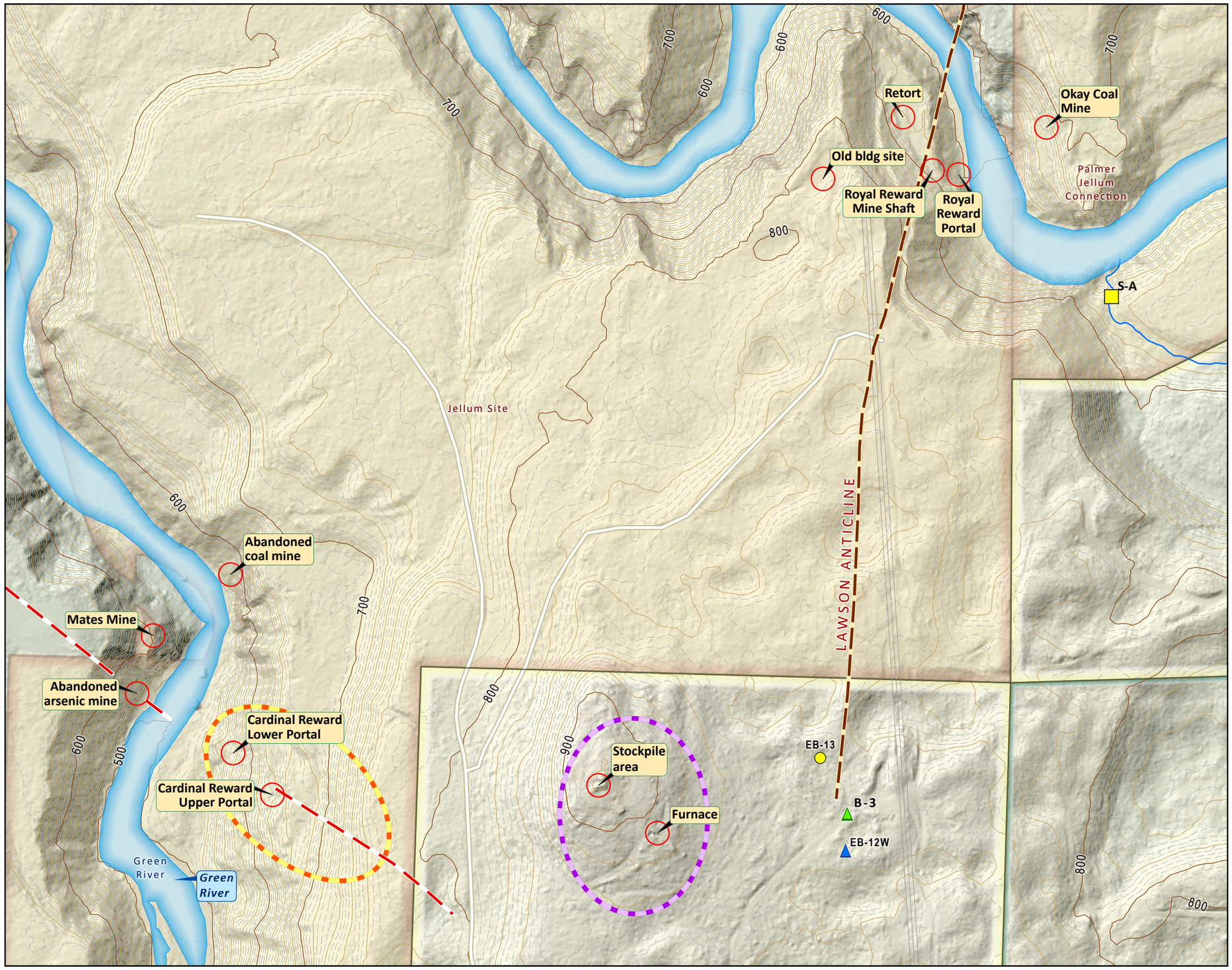
associated earth sciences incorporated

LIZARD MOUNTAIN COAL MINES

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	26

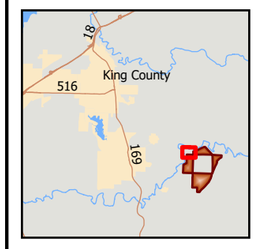
G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_upd\200367H001 F26 LizardMtn_CP_0323.aprx | 200367H001 F26 LizardMtn_CP_0323 | 5/3/2023 5:12 PM



SITE
PLANT / PROCESSING AREA
CARDINAL MINE WORK EXTENT
HISTORIC MINE FEATURE
EXPLORATION BORING
MONITORING WELL (AESI)
GROUNDWATER QUALITY WELL
SURFACE WATER QUALITY SITE
FAULTS
LAWSON ANTICLINE
UTILITY CORRIDOR
WADNR MANAGED PROPERTY
PARK, OPEN SPACE, NATURAL AREA
CONTOUR 100 FT
CONTOUR 20 FT
CONTOUR 5 FT

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
CONTOURS FROM LIDAR
KING CO: STREETS, PARCELS, 4/22
WADNR WGS: FOLDS AND FAULTS 24K,
ROYAL REWARD MINE, 1991
SUMMARY OF CARDINAL REWARD & ROYAL REWARD MINE 7/62,
MINE 03878 ROYAL REWARD WORKINGS,
REALGAR FROM THE ROYAL REWARD MINE, VOL 66, 7/91,
WASHINGTON MINING CORP.

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE



N

0 300
FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

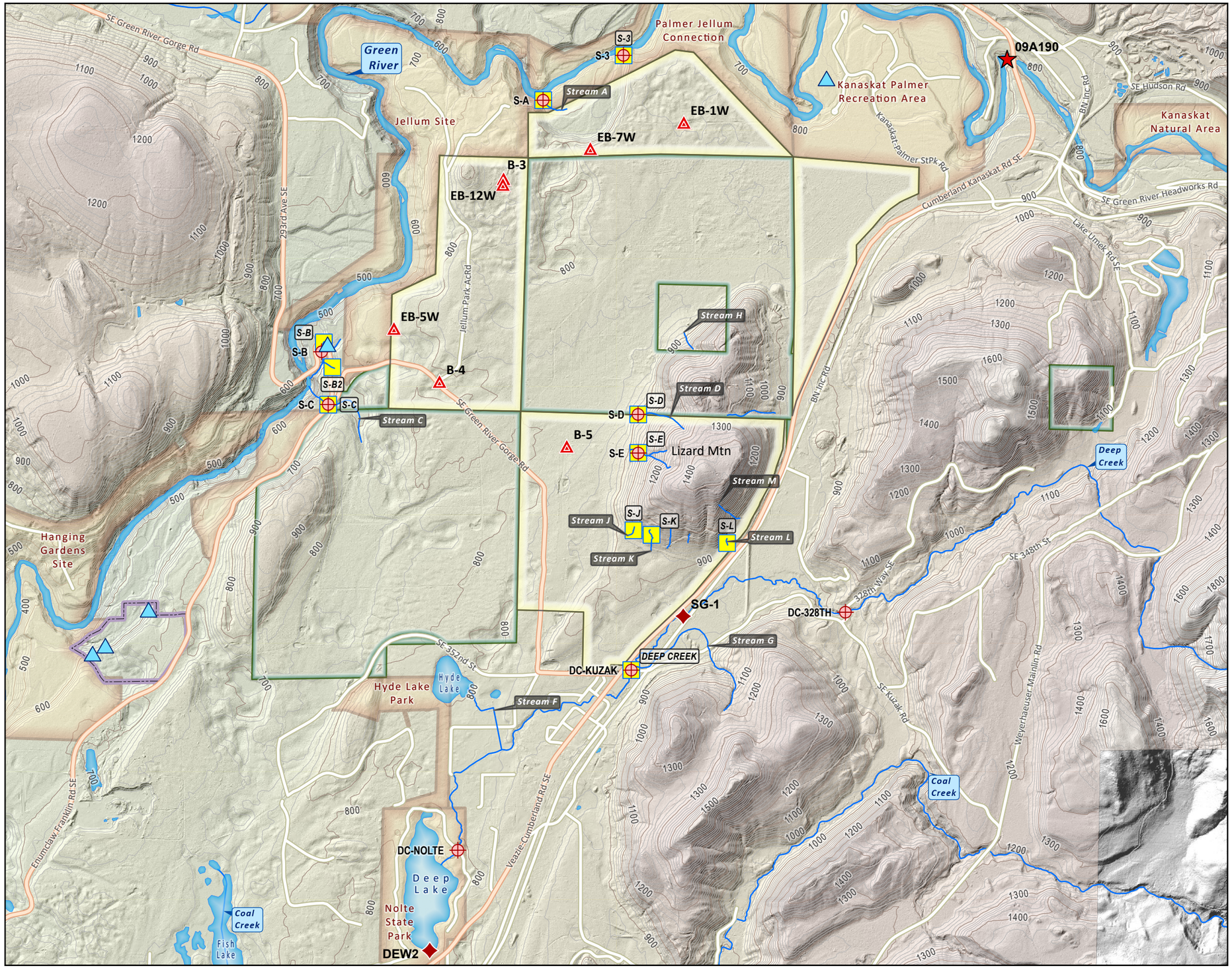
associated earth sciences incorporated

METAL MINES

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	27

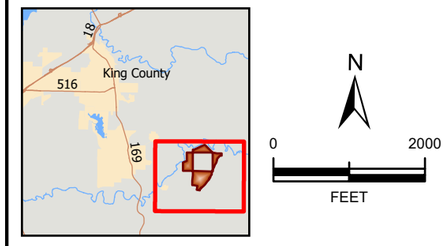
G:\GIS_Projects\aaY2020\200367 Cumberland 22\aprx\EC_upd\200367H001 F27 MM EC_CP_0323.aprx | 200367H001 F27 MM EC_CP_0323 | 5/8/2023 1:12 PM



- SITE
- GROUP A WATER SUPPLY
- SURFACE WATER FLOW STATION
- GROUNDWATER QUALITY WELL
- SURFACE WATER QUALITY SITE
- STAFF GUAGE
- WADOE WATER QUALITY MONITORING SITE
- WADNR MANAGED PROPERTY
- PARK, OPEN SPACE, NATURAL AREA
- CONTOUR 100 FT
- CONTOUR 20 FT

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
CONTOURS FROM LIDAR
KING CO: STREETS, PARCELS, 4/22
GEODESIGN WELLS 2020
DOH: DRINKING WATER SUPPLY 2019
WADOE: WATER QUALITY SITE - WEBSITE:
HTTPS://APPS.ECOLOGY.WA.GOV/EIM/SEARCH/SMP/RIVERSTREAMSINGLESTATIONOVERVIEW.ASPX?LOCATIONUSERIDS=09A190&RESULTTYPE=RIVERSTREAMOVERVIEWLIST

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE



BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

associated earth sciences incorporated

FLOW MONITORING AND WATER QUALITY

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
20200367H001	5/23	28

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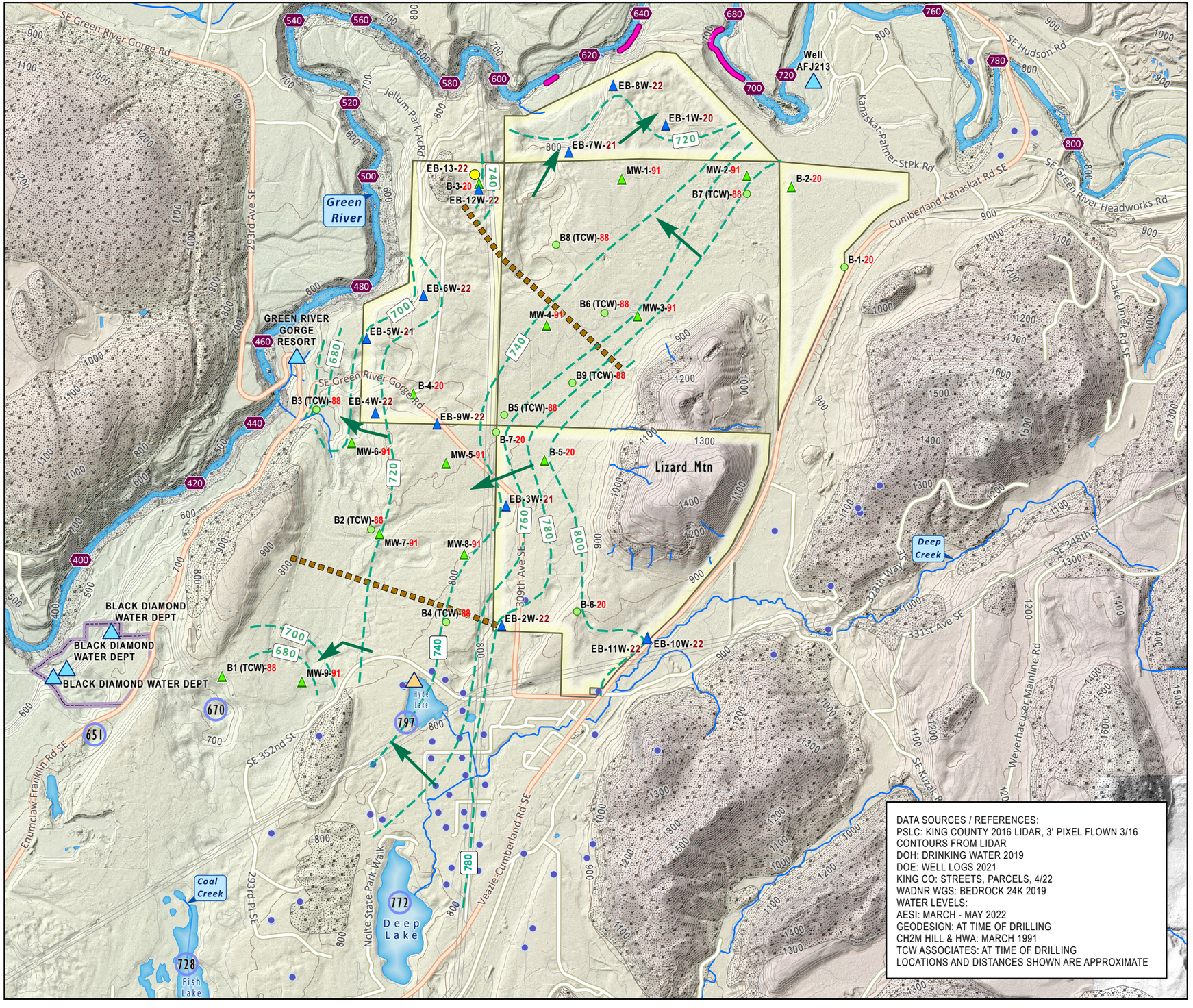


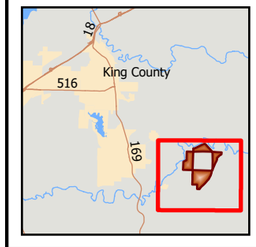
SITE

AESI EXPLORATION TYPE-YEAR

- EXPLORATION BORING (AESI)
- MONITORING WELL (AESI)

PREVIOUS EXPLORATION TYPE- YEAR BY OTHERS

- MONITORING WELL
- EXPLORATION BORING
- GROUP A WATER SUPPLY
- GROUP B WELL, PWSID 52236D
- WELL
- APPROXIMATE SEASONAL LAKE ELEVATION
- GROUNDWATER FLOW
- DIRECT GROUNDWATER DISCHARGE TO RIVER
- WET SEASON HIGH GROUNDWATER ELEVATION
- CAPTURE ZONE LIMIT
- NEAR SURFACE BEDROCK
- UTILITY CORRIDOR
- CONTOUR 100 FT
- CONTOUR 20 FT
- RIVER ELEVATION IN FT



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FEET

BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

associated earth sciences incorporated

WET SEASON GROUNDWATER ELEVATION AND FLOW

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

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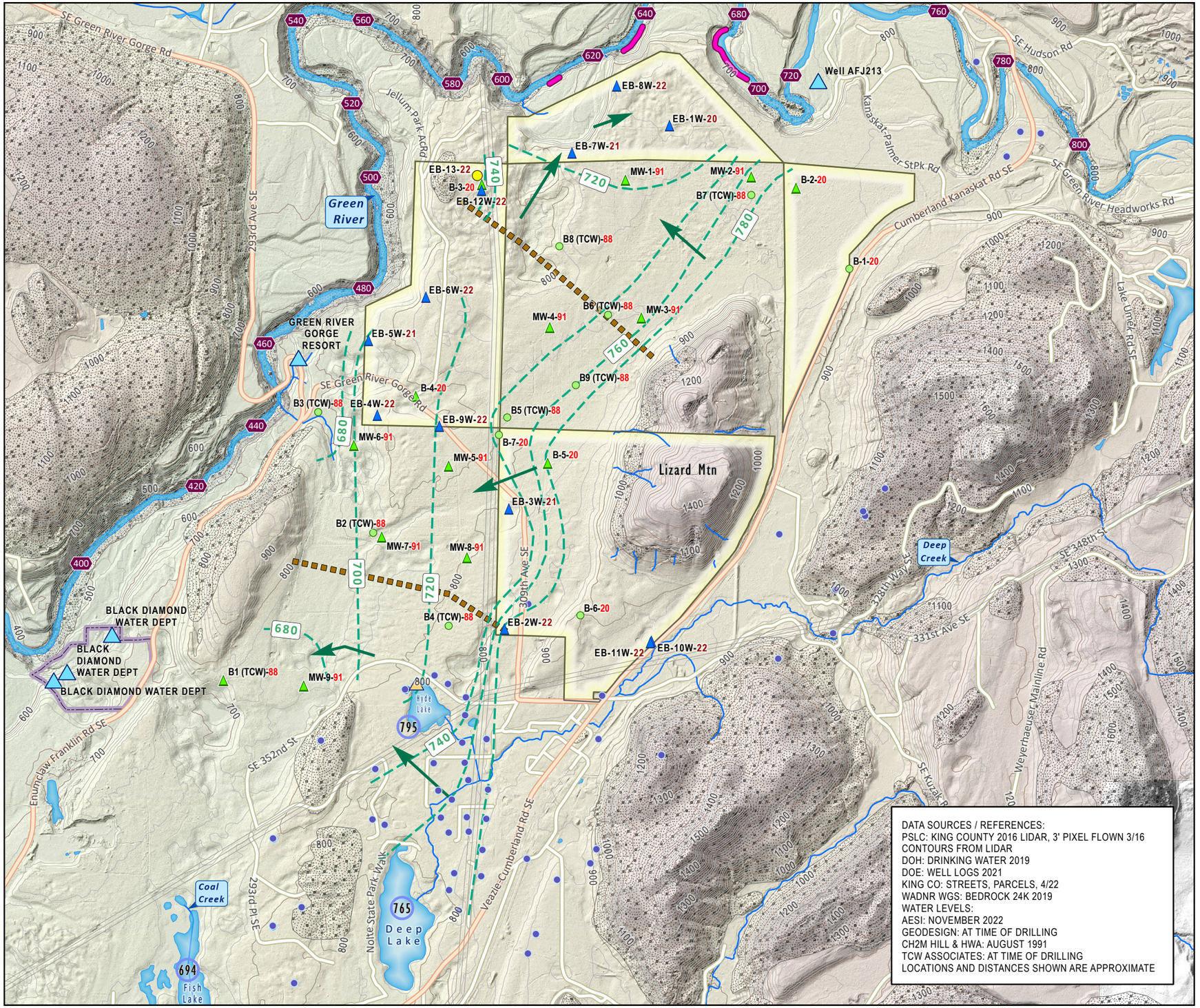


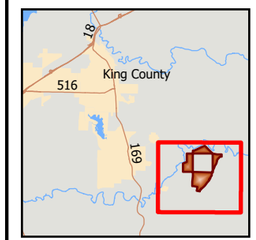
SITE

AESI EXPLORATION TYPE-YEAR

- EXPLORATION BORING (AESI)
- MONITORING WELL (AESI)

PREVIOUS EXPLORATION TYPE- YEAR BY OTHERS

- MONITORING WELL
- EXPLORATION BORING
- GROUP A WATER SUPPLY
- GROUP B WELL, PWSID 52236D
- WELL
- APPROXIMATE SEASONAL LAKE ELEVATION
- DIRECT GROUNDWATER DISCHARGE TO RIVER
- GROUNDWATER FLOW
- SEASONAL LOW GROUNDWATER ELEVATIONS
- CAPTURE ZONE LIMIT
- NEAR SURFACE BEDROCK
- UTILITY CORRIDOR
- CONTOUR 100 FT
- CONTOUR 20 FT
- RIVER ELEVATION IN FT



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BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

associated earth sciences incorporated

DRY SEASON GROUNDWATER ELEVATION AND FLOW

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

PROJ NO.	DATE:	FIGURE:
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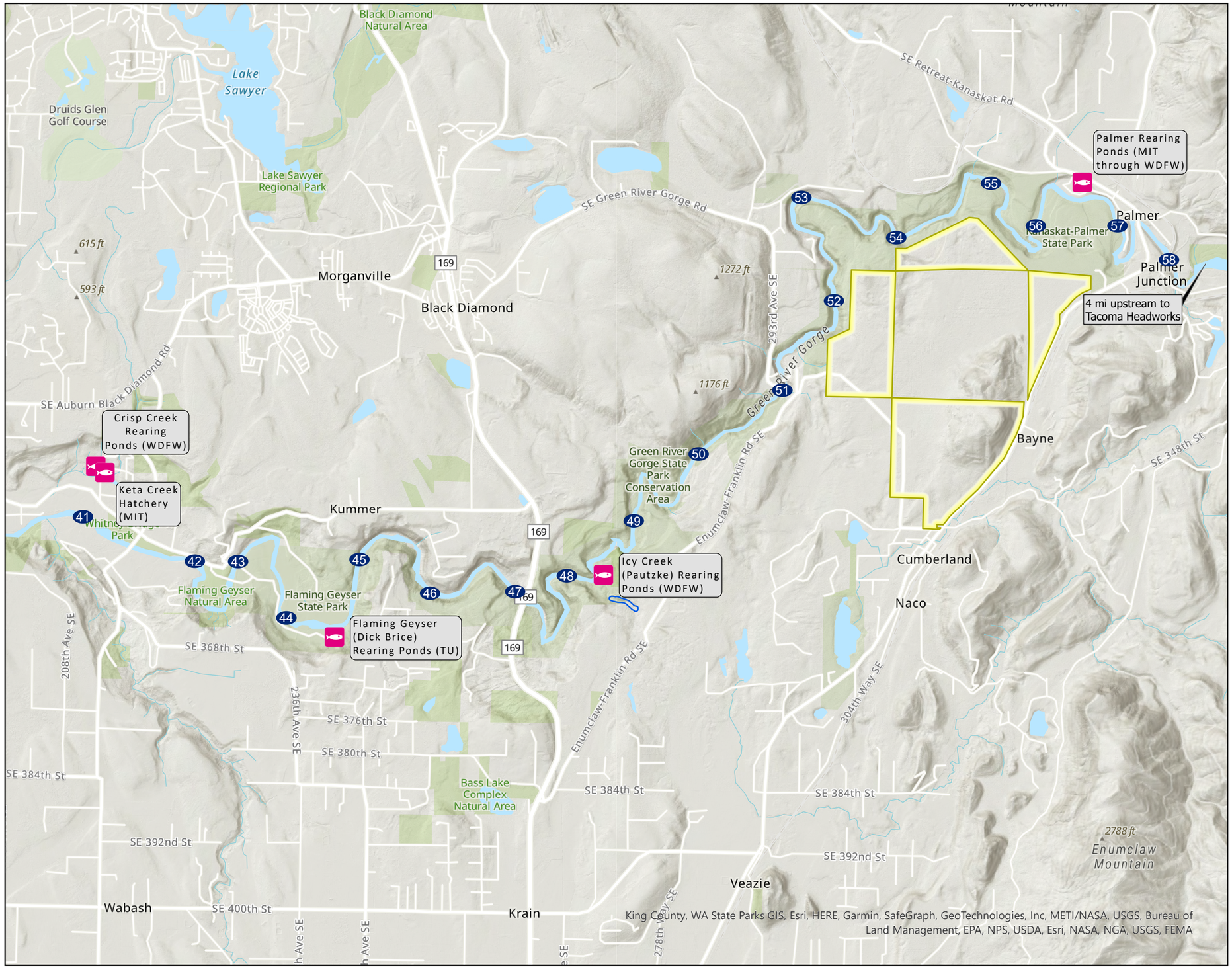

SITE
FISH REARING FACILITY
ICY CREEK SPRING ZONE
RIVER MILE

MIT = MUCKLESHOOT INDIAN TRIBE
TU = TROUT UNLIMITED
WDFW = WASHINGTON STATE DEPT OF FISH AND WILDLIFE

DATA SOURCES / REFERENCES:
KING CO: STREETS, PARCELS, 4/22
WDFW: FISH REARING FACILITIES
WADOE: RIVER MILES 2007
BROWN AND CALDWELL, MARCH 1989, ICY CREEK SPRINGS, GEOHYDROLOGY STUDIES OF THE METRO SECTION 16 SILVIGROW PROJECT

LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE

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FISH FACILITIES

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

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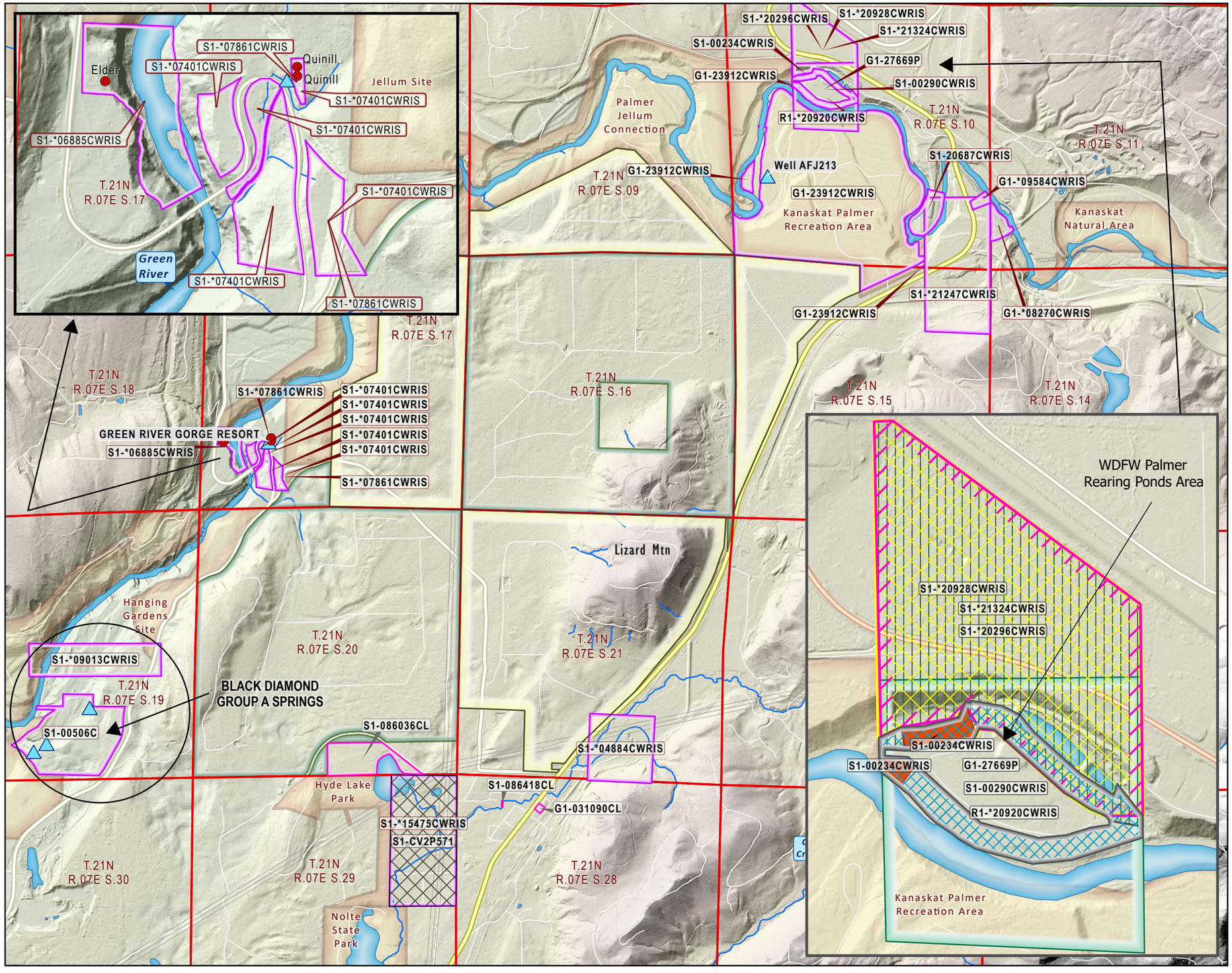


PROPOSED DEVELOPMENT BOUNDARY

GROUP A WATER SUPPLY WELL

UNMAPPED WATER RIGHT CLAIM, LOCATION WITHIN QUARTER SECTION. THIS IS NOT A POINT OF WITHDRAWEL OR POINT OF DIVERSION

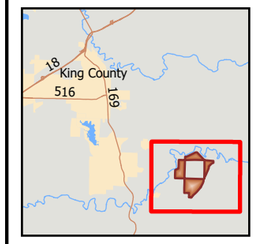
WATER RIGHT TYPE

- CERTIFICATE (CWRIS)
- CERTIFICATE OF CHANGE
- CLAIM (CL)
- UTILITY CORRIDOR
- SECTION
- WADNR MANAGED PROPERTY
- PARK, OPEN SPACE, NATURAL AREA

WATER RIGHT DOCUMENT FOR PALMER REARING PONDS AREA

- S1-*20296CWRIS
- S1-*21324CWRIS
- S1-*20928CWRIS
- S1-00290CWRIS
- G1-27669P
- S1-00234CWRIS
- R1-*20920CWRIS

DATA SOURCES / REFERENCES:
PSLC: KING COUNTY 2016 LIDAR, 3' PIXEL FLOWN 3/16
KING CO: STREETS, PARCELS, 8/21
DOE: GWIS 1/22, WELL LOGS 2019
LOCATIONS AND DISTANCES SHOWN ARE APPROXIMATE



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BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

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WATER RIGHT PLACE OF USE

CUMBERLAND PROPERTY
KING COUNTY, WASHINGTON

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