Cultural Resource Consultants

TECHNICAL MEMO 1702C-1

DATE: March 9, 2017

TO: Dan Cox
Miles Sand and Gravel

FROM: Margaret Berger, Principal Investigator

RE: Cultural Resources Assessment for the Concrete Nor'West Grip Road Gravel Mine Project, Skagit County, Washington

The attached short report form constitutes our final report for the above referenced project. CRC's background research and field investigations did not identify any recorded or as yet unrecorded historic-era or precontact cultural resources within the project. No further cultural resource investigations are recommended prior to commencement of the project. An inadvertent discovery protocol is attached. Please contact our office should you have any questions about our findings and/or recommendations.

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CULTURAL RESOURCES REPORT COVER SHEET

Author: Margaret Berger

Title of Report: Cultural Resources Assessment for the Concrete Nor'West Grip Road Gravel Mine Project, Skagit County, Washington

Date of Report: March 9, 2017

County(ies): Skagit Section: 27 Township: 36 N Range: 4 E

Quad: Alger, WA (1998) Acres: ca. 51

PDF of report submitted (REQUIRED) ☐ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☐ Yes ☒ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:

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- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

Management Summary

This report describes the cultural resources assessment for the Concrete Nor'West Grip Road Gravel Mine project located north of Sedro-Woolley in Skagit County, Washington. Miles Sand and Gravel requested a cultural resources assessment prior to ground disturbing activities associated with the development of the gravel mine. This assessment was developed to identify any previously recorded archaeological or historic sites in the project location, identify any previously unrecorded cultural resources within the project, and to evaluate the potential for the project to affect cultural resources. Background research and field investigations conducted by Cultural Resource Consultants, LLC (CRC) did not result in the identification of any previously recorded or unrecorded historic or precontact archaeological sites or historic built environment features. No further cultural resources investigations are recommended prior to commencement of the project.

1. Administrative Data

Report Title: Cultural Resources Assessment for the Concrete Nor'West Grip Road Gravel Mine Project, Skagit County, Washington

Author (s): Margaret Berger

Report Date: March 9, 2017

Location: This project is located north of Sedro-Woolley in northwestern Skagit County, Washington. The mine would be located approximately 1.5 miles north of Grip Road near the Samish River. There is no street address at this time. The legal description for the project is on Skagit County Tax Parcels P125644, P125645, and P50155 in the N½ of the SE¼ of Section 27, Township 36 North, Range 4 East, W.M.

USGS 7.5' Topographic Map(s): Alger, WA (1998) (Figure 1).

Total Area Involved: ca. 51 acres.

Objective (Research Design): This assessment was developed as a component of preconstruction environmental review with the goal of preventing cultural resources from being disturbed during construction of the proposed project by identifying the potential for any as-yet unrecorded archaeological or historic sites within the project. CRC's work was intended, in part, to assist in addressing state regulations pertaining to the identification and protection of cultural resources (e.g., RCW 27.44, RCW 27.53). The Archaeological Sites and Resources Act (RCW 27.53) prohibits knowingly disturbing archaeological sites without a permit from the Washington State Department of Archaeology and Historic Preservation (DAHP), the Indian Graves and Records Act (RCW 27.44) prohibits knowingly disturbing Native American or historic graves, and the State of Washington Environmental Policy Act (SEPA) which requires that impacts to cultural resources be considered during the public environmental review process. Under SEPA, the DAHP is the sole agency with technical expertise in regard to cultural resources and provides

formal opinions to local governments and other state agencies on a site's significance and the impact of proposed projects upon such sites.

CRC's investigations consisted of review of available project information and correspondence provided by Miles Sand and Gravel, local environmental and cultural information, and historical maps. CRC contacted cultural resources staff of the Lummi Nation, Nooksack Tribe, Samish Tribe, Swinomish Indian Tribal Council, and Upper Skagit Tribe on a technical staff- to-technical staff basis to inquire about project-related cultural information or concerns (Attachment A). This communication is not intended to replace formal government-to-government consultation with area Tribes. Scott Schuyler of the Upper Skagit responded indicating interest in the project; CRC discussed survey methodology with Mr. Schuyler by telephone and in person. Jackie Ferry, Samish Tribe Tribal Historic Preservation Officer, responded indicating no specific cultural resources concerns. Any additional information made available subsequent to the submission of this report will be included in a revision of this report. This assessment utilized a research design that considered previous studies, the magnitude and nature of the undertaking, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the project area, as well as other applicable laws, standards, and guidelines (per 36CFR800.4 (b)(1)) (DAHP 2017a).

Project Description: Miles Sand and Gravel proposes to construct a gravel mine north of Grip Road in Skagit County north of Sedro-Woolley. Gravel mining operations will remove approximately 4,280,000 cubic yards of gravel from three parcels over an approximately 25-year period. The mine would be situated on three Assessor's Parcels Numbers, P125644, P125645, and P50155, all with Lot Certification. The mining proposal includes a total area of 68 acres including setbacks and buffers where no ground disturbance would occur; the mining operations would be within an approximately 51-acre area. An approved mining special use permit with the County is required before a reclamation and surface mining plan can be approved by the Washington Department of Natural Resources.

Working the mine will require logging and conversion of approximately 51 acres of forest land. The location will be dry mined using standard mining equipment such as front end loaders and excavators. The gravel will be loaded into trucks and transported to market. Access will be onto Grip Road via an existing improved gravel road. All drainage and runoff from the site will infiltrate into the gravel in the mine floor. Depth of the mine is to remain 10 feet above the water table with a mine floor from 154 feet to 163 feet in elevation.

For purposes of this assessment, the project location for cultural resources for this project is considered to contain the locations of all project elements as described above and as shown in Figures 1 – 5.

2. Background Research

Background research was conducted in February 2017.

Recorded Cultural Resources Present: Yes [ ] No [x]
No archaeological or historic sites have been previously recorded within or adjacent to the project.

Context Overview: Numerous cultural resources investigations have been prepared by CRC (Berger 2013, 2014; Schumacher and Kassa 2014) and other firms (e.g., Bush and Hutchings 2005; Kopperl 2004) in the Lower Skagit-Samish River Watershed. The context presented here summarizes environmental, ethnographic, historical, and archaeological information available in these reports by reference; archaeological and historic data from DAHP and the Washington Information System for Architectural and Archaeological Records Data (WISAARD) records search; ethnographic resources; geological and soils surveys (e.g., USDA NRCS 2017; WA DNR 2017); and historical maps and documents from Bureau of Land Management United States Surveyor General (USSG) Land Status & Cadastral Survey Records database, HistoryLink, Historic Map Works, HistoricAerials (NETR 2017), University of Washington's Digital Collection, Washington State University's Early Washington Maps Collection, and in CRC's library.

Environmental Context: The project is situated on a terrace south of the Samish River. Elevation within the project is currently approximately 180 to 250 feet above sea level. The river flows 200 to 890 feet from the proposed mining area. Dry Creek enters the Samish River approximately 600 feet to the north. Steep slopes to the north and east separate the project location from the river valley. Samish Bay is located 7.25 miles to the west. The geomorphic setting for this area consists of hills and terraces divided by floodplains of the Samish River and its tributaries. Topography in this area has been shaped in the Holocene by stream incision, landslides, and floods (Kruckeberg 1991).

The landscape of northwest Washington is a product of successive glacial scouring and deposition most recently during the Pleistocene; landslides, erosion and deposition, and human activity during the Holocene; and crustal deformation initiated by the Cascadia subduction zone Troost and Booth 2008). The project is within the *Tsuga heterophylla* (Western Hemlock) vegetation zone in the Willamette-Puget Lowland physiographic province characterized by the wide "trough" between the Coast and Cascade Ranges formed during the advance and retreat of Pleistocene epoch glaciers (Franklin and Dyrness 1973; McKee 1972:290). During the Late Pleistocene or last glacial period (110,000 to 12,000 years BP), the Cordilleran ice sheet covered much of the American northwest and scoured the landscape during advance and retreat episodes initiated by localized climate fluctuations.

The Vashon Stade of the Fraser Glaciation began around 18,000 BP with an advance of the Cordilleran ice sheet into the Puget Lowlands (Porter and Swanson 1998). The Puget Lobe of the ice sheet reached its terminus just south of Olympia between 14,500 and 14,000 BP (Clague and James 2002; Easterbrook 2003; Waitt and Thorson 1983). As the glacier retreated, glacial till was deposited and, glacial runoff carved drainage channels in areas of non-resistant tills and deposited outwash throughout the southern Puget Lowland. Immediately following deglaciation, isostatic rebound and eustatic sea level rise caused a relative increase in local sea levels, inundating the northern Puget Lowland and drowning early Holocene shorelines (Thorson 1981, 1989). Isostatic rebound between 13,500 and 11,300 years ago resulted in a marine transgression,

causing glaciomarine sediments to be deposited above present-day sea level in the project area (Booth et al. 2004; Dethier et al. 1995). The Cordilleran ice sheet advanced again during the Sumas Stade of the Fraser Glaciation from ca. 11,600 to 10,000 BP, leaving glacial till and outwash deposits in northwestern Washington (Kovanen and Easterbrook 2002).

While sedimentation during glacial times was widespread and voluminous, active deposition in nonglacial periods including the present day has been more restricted, occurring mostly by alluvial processes in major river valleys (Booth et al. 2003). Following deglaciation, topography was shaped by stream incision, delta progradation, channel migration, and flooding (Kruckeberg 1991:12). Streams incised rapidly in valleys filled with glacial sediments, which lowered the valley floors and created terraces, river mainstems, floodplain sloughs, and moderate-gradient tributaries on terraces (Dragovich et al. 2001).

The surface geologic unit in this area is Quaternary glacial marine drift (Qdgm) (WA DNR 2017). This unit consists of diamicton and poorly stratified gravelly silt with dropstones, and may contain lenses to thick layers of fluvial, deltaic, and glaciomarine gravel, sand, silt, and clay (WA DNR 2017). The locally mapped soil units are Skipopa silt loam, 3 to 8 percent slopes; Hoogdal silt loam, 30 to 60 percent slopes; and Sehome loam, 8 to 15 percent slopes (USDA NRCS 2017). The Skipopa soil formed on terraces in a mantle of loess and volcanic ash underlain by glaciolacustrine sediment. The typical Skipopa profile consists of 0 to 8 inches ashy silt loam, 8 to 16 inches silt loam, and 16 to 60 inches silty clay (USDA NRCS 2017). This soil has an abrupt textural change 12 to 20 inches below surface and the water table is typically 12 to 24 inches below surface. This unit forms on terraces in volcanic ash and loess over glaciolacustrine deposits, and covers the majority of the project location (USDA NRCS 2017). Sehome loam is mapped in the southwestern corner of the project; it formed in volcanic ash and loess underlain by glacial till. The typical profile consists of a mat of leaves and twigs 2 inches thick underlain by reddish brown loam, yellowish brown gravelly loam, and light olive gray dense glacial till present within 24 to 40 inches below surface (USDA NRCS 2017). Hoogdal silt loam is mapped on the terrace escarpments along the eastern and southwestern edges of the project. It formed in loess and glaciolacustrine sediment. The typical profile consists of a mat of needles, leaves and twigs 2 inches thick, underlain by dark brown silt loam, brown silt loam, and mottled olive gray and light olive gray silty clay (USDA NRCS 2017). These environmental conditions suggest that natural deposition within the project has been minimal in the Holocene and that if archaeological deposits are present, they would be found relatively near the ground surface.

Archaeological Context: Thousands of years of human occupation of the Puget Sound have been summarized in a number of archaeological, ethnographic, and historical investigations over the past several decades that provide a regional context for evaluating the project (e.g., Blukis Onat 1987; Larson and Lewarch 1995; Morgan et al. 1999; Nelson 1990; Thompson 1978). Archaeological evidence suggests the presence of nomadic hunter-gatherers not long after glaciers retreated, meltwaters subsided, and landforms stabilized during the late Pleistocene-early Holocene. Following deglaciation, subsequent changes to landforms, climate, and vegetation influenced the available resources and, consequently, the spatial distribution of human activities (Carlson 1990). Similar to elsewhere, human land use was generally structured around the value of natural resources available in local environments including fresh water, terrestrial

and marine food resources, forests, and suitable terrain. Evidence of human occupation in the Puget Sound area dates to approximately 12,000 to 9,000 cal BP as evidenced by archaeological site 45KI839 identified below deeply buried, stratified Holocene sediments overlying Pleistocene glacial deposits at the confluence of Bear Creek and the Sammamish River approximately 63 miles south-southeast of the project (Kopperl 2016). Some evidence of human use of the North Cascades also dates to this early period (Mierendorf et al. 1998).

A synopsis of the cultural chronology identified in the Puget Sound region is provided by Berger (2014:18-19):

> Archeologists have identified broad similarities among sites and lithic assemblages that date to between 9000-5000 BP. Many of these early archaeological sites comprise the Olcott Phase in Western Washington and are contemporaneous with similar Cascade Phase sites identified east of Cascade Mountains. The Olcott Phase is characterized by occupation sites located on uplands or atop upper river terraces, lithic workshops, and temporary hunting camps that contain a wide variety of flaked stone tools and laurel-leaf-shaped bifaces suggestive of large game hunting, butchering and processing (Morgan et al. 1999). Several Olcott sites have been documented and studied throughout Western Washington and the Olympic Peninsula (e.g., Dancey 1968; Kidd 1964; Morgan et al. 1999; Samuels 1993).
>
> Generally, changes in subsistence economy and occupation patterns are reflected in archaeological assemblages that date between 5000-3000 BP. During this time, an increasing number of tools were manufactured by grinding stone, and more antler and bone were utilized for tools. This period is also indicated by the occurrence of smaller triangular projectile points. Living floors, evidence of structural supports and hearths are more common during this period in contrast to the Olcott Phase. In the Puget Lowland, evidence of task-specific, year-round activities that include salmon and clam processing, woodworking, basket and tool manufacture, date from approximately 4200 BP (Larson and Lewarch 1995).
>
> Characteristic of the ethnographic pattern in the region, seasonal residence and logistical mobility occurred from about 3000 BP. Organic materials, including basketry, wood and food stuffs, are more likely to be preserved in sites of this late precontact period, both in submerged, anaerobic sites and in sealed storage pits. Sites dating from this period represent specialized seasonal spring and summer fishing and root-gathering campsites and winter village locations. These kinds of sites have been identified in the Puget Lowland, typically located adjacent to rivers or marine transportation routes. Fish weirs and other permanent constructions are often associated with large occupation sites. Common artifact assemblages consist of a range of hunting, fishing and food processing tools, bone and shell implements and midden deposits. Similar economic and occupational trends persisted throughout the Puget Lowland until the arrival of European explorers.

The project is located in an area traditionally utilized by Southern Coast Salish groups who spoke Northern Lushootseed and Southern Lushootseed dialects including the Nuwhaha and

Mesekwegwils, whose descendants are represented in the present-day by the Upper Skagit, Nooksack, Lummi, Samish, and Swinomish Tribes. According to Sampson (1972), The Noo-wha-ah (Nuwhaha) People possessed the land from Red Creek (Dwochchurn-um) north along the waterfront to Nooksack River through the west half of Whatcom Lake, around Warner Prairie, down the Samish River valley and the Olympic Marsh, and back to Red Creek.

As previously discussed by Thompson (1978) and others, ethnohistoric economies of people in the northern Puget Lowland were structured upon a variable rotation of seasonally available resources. Permanent villages provided a central hub from which seasonal activities radiated. During the spring, summer and fall, temporary camps were utilized while traveling to obtain resources that included foodstuffs such as fish, shellfish, waterfowl, deer, roots and berries. Salmon was the single most important food source and was caught in weirs, traps, nets and other fashioned implements (Smith 1941). Local Indian people shared many broadly defined traditions with their inland Puget Sound neighbors, including subsistence emphasis on salmon and other fish, land game, and a wide variety of abundant vegetable foods, and household and village communities linked by family and exchange relations (Suttles and Lane 1990).

Ethnographers working in northern Puget Sound in the early to middle twentieth century recorded names for a variety of topographic features, locations significant in legends and oral histories, traditional resource areas, and villages. Ethnographic sources reviewed as a part of this study (e.g., Collins 1974; Snyder 1974; Spier 1936; Suttles 1974; Smith 1941; Waterman ca. 1920, 2001) note occupation and trail locations in the Samish valley, Warner Prairie, and Jarman Prairie. The sources reviewed in this study did not locate any villages or recorded traditional cultural properties (TCPs) in the project location.

Nuwhaha villages were located mainly on Padilla and Samish bays, on the upper Samish River, and at Warner and German (Jarman) prairies in the Samish River drainage north of Sedro-Woolley. Mesekwegwils territory was in the upper Samish River valley (Suttles and Lane 1990). The village nearest to the current project was duwáhah, a Nuwhaha village on Warner Prairie at a seasonal spring (Collins 1974:55; Sampson 1972:25-27). The prairies in this area were known as good locations for collecting roots and bulbs, and three types of fern were gathered from the north side of the river near Warner Prairie (Collins 1974:55; Hollenbeck 1986:133). Tiger lily and wild carrot plots were planted and weeded on Jarman Prairie and Warner Prairie, and camas also grew in this area but Collins (1974:55) did not learn whether the camas plants were as actively managed as the tiger lily or wild carrot.

Historic Context: The historic record of Northern Puget Sound begins in the late 1700s with the arrival of Spanish and British explorers. The first mapping of the Puget Sound is credited to Captain George Vancouver in 1792, under the auspices of the British Royal Navy. Vancouver surveyed much of the Sound, but the exploration did not extend inland and neglected several waterways including the Columbia and Fraser rivers (Morgan 1979:16).

The first permanent non-Native settlement in the Puget Sound region was the British Hudson Bay Company's (HBC) Fort Nisqually, established in 1834 in what was then called Oregon Territory. The territory was jointly occupied by the United States and Britain. In an attempt to increase American presence in Oregon Territory, the Wilkes Expedition produced the first

detailed map of the area and promoted the region's potential for economic development, arriving in Puget Sound in 1841 (Morgan 1979). Within a few years of the Wilkes party's survey, more Americans began to settle in the region. Euro-American settlement in Oregon Territory was further encouraged by the passage of the Donation Land Claims Act in 1850 and the Homestead Act in 1862.

Although the Euro-American population in the vicinity of the project was sparse until the late 1800s, British and American settlement in the Northwest had already drastically impacted local Native American groups and their traditions. In 1855, following the signing of the Point Elliot Treaty, many tribes were forced to abandon most of their Northern Puget Sound villages and relocate to reservations. The treaty dissolved Indian title to their traditional and accustomed lands and by 1855-1856 the federal government used military force to contain Indian people dissatisfied with the poor quality of reservation lands.

Early Euro-American settlement near the project began in the 1880s at Prairie, Thornwood, Sedro, Woolley, Clear Lake, and Big Lake, all situated in the Skagit River and Nookachamps Creek valleys east and south of the project. The map produced from the General Land Office (GLO) cadastral survey of the area in the 1880s and 1890s do not show any cultural features such as villages, trails, roads, or homestead improvements within the project (USSG 1874) (Figure 6). A prairie is mapped on the north side of the Samish River north of the project and a trail leads to it, following the right (north) bank of the river from the area now known as Jarman Prairie. This appears to be the trail described by Sampson (1972) as connecting Jarman Prairie via the Samish River (Squil-col-lich) to the village at Warner Prairie, then continuing north to Wickersham and over a saddle to Lake Whatcom.

Based upon review of an online federal land patent record database maintained by the Bureau of Land Management (BLM), the project is located within the land claimed by David O'Keefe (Accession No. WAOAA 073329, Sale-Cash Entry, 160 acres total, 6/1/1882) (BLM 2017). David O'Keefe joined with several other partners to form the Samish Lumber Company in 1881 (Jordan 1974). The company's first camp was near Bow and its early logging and river-clearing efforts took place between the mouth of the river and two miles upstream from Allen, a point approximately seven miles downstream (five miles southwest) from the current project. Other settlers arriving in the area around this time included Bill Jarman at Jarman Prairie and John Warner and his family at Warner Prairie.

Lumber mills were operating at Prairie, Thornwood, Clear Lake, Big Lake, and Lake McMurray by the end of the nineteenth century (Thompson 1989). East of the project in the North Cascades foothills, coal mines were established at Cokedale and Cumberland Creek (Jenkins 1924). Moody Brothers Company had a logging camp at the foot of the hill along the road from Samish River to Hoogdal, southeast of the project (Jordan 1974). Logging railroads were constructed throughout the Samish and Skagit valleys to assist in the distribution of timber from the surrounding forests. The logging railroad nearest to the project was located to the north near Alger (Metsker 1941; Corbett 1928 photograph on file at University of Washington Special Collections, Prentice Bloedel Photograph Collection, PH Coll 531.J89a).

Large tracts of land in the area, including the current project location, were owned by Bloedel Donovan Lumber Mills in the 1920s and were likely logged during this period (Metsker 1925). By the mid-1920s, Prairie Road appears on maps as an improved road and Grip Road appears as an unimproved road (Kenyon Company 1927; Metsker 1925). The 1941 county atlas shows both roads as dirt roads, and land ownership in the project location was unchanged (Metsker 1941). Alger Shingle Mill was north of the project in the NW¼ of Sec 15 (Metsker 1941). By the early 1970s, the project location was owned by Scott Paper Company (Metsker Maps 1972). Historical maps do not show any logging camps, railroads, or other developments within the project location (Anderson 1910; Metsker 1925, 1941; USGS 1918, 1952, 1954).

Aside from a small clearing in the northwestern part of the project (USGS 1954), topographic maps prior to the 1990s do not show any developments in the project location (USGS 1918, 1952, 1954) (Figures 7 and 8). The 1998 topographic quadrangle denotes a gravel pit near the center of the current project, indicating past gravel extraction activity within the currently proposed mine (USGS 1998). This borrow pit appears to have been limited to a relatively small area in the northwestern part of the current project. As indicated by aerial imagery from 1998, the project location was last logged ca. 1990 (Google Earth 2017; NETR 2017). Both of these activities would have resulted in disturbance of near-surface sediments with the potential to contain intact archaeological deposits.

Aerial imagery is available for the project beginning in 1951. At that time, vegetation consisted of shrubs and dispersed trees, suggesting that logging had occurred somewhat recently (NETR 2017). By 1969, the forest had regrown (NETR 2017). By 1998, the access roads leading into the project location had been established and an area in the northwestern part of the project (the borrow pit) was cleared. Vegetation appears thinner again in 1998, similar to 1951 conditions, suggesting that another logging episode had occurred (NETR 2017). Logging and other extractive industries continue in the project vicinity today, while lands in the valleys to the northeast and southwest have been cleared and used for agriculture, rural residential development, and transportation corridors.

DAHP WISAARD: A review of the WISAARD database identified previous cultural resource studies, recorded precontact and historic sites, and recorded built environment, which helped gauge the potential and likely nature of cultural resources present within the project vicinity (DAHP 2017b). No previously recorded cultural resources have been identified within the project. Two cultural resources surveys have previously been conducted within a distance of one mile of the project location (Croes and Albright 1996, 1997) and no archaeological sites have previously been identified within a one-mile radius around the project.

Croes and Albright (1996, 1997) conducted archaeological surveys for two proposed riparian fencing projects on the Samish River floodplain directly east of the current project. Methods included background research and pedestrian survey. Results of both surveys were negative. However, it was suggested that the proposed fencing work be monitored because the locations retained the potential to contain buried archaeological sites (Croes and Albright 1996:6; 1997:6).

Cultural resources investigations within an approximately 5-mile radius from the project have included surveys for road improvements and land exchanges. Kopperl (2004) conducted

background research, pedestrian survey, and shovel probe survey to identify cultural resources prior to construction of road improvements approximately two miles northeast of the current project. No archaeological or historic sites were identified by the investigation and no further work was recommended. Bush and Hutchings (2005) conducted background research, pedestrian survey, and shovel probe survey near Bow prior to a proposed land exchange. This study involved a landform analogous to the current project, a glaciated terrace overlooking the Samish River valley on the west side of Jarman Prairie. Pedestrian survey and excavation of 25 shovel probes did not identify any archaeological or historic sites and no further work was recommended (Bush and Hutchings 2005:14-21).

Few archaeological sites have been recorded in the vicinity of the project. The nearest recorded archaeological site is 45SK244, a segment of the historic Seattle, Lake Shore, and Eastern Railroad Grade that was identified during a survey for a gas pipeline project (Norman 2001). This site is located approximately 2.5 miles east-southeast of the project. The nearest recorded precontact archaeological sites are located over five miles away from the project. Site 45SK71 was identified in 1972 in an orchard and farm field on a 15 foot high bank on the north side of Gages Slough on the Skagit River near Sedro-Woolley. This site contained two distinct charcoal lenses, polished adzes, a projectile point, a groundstone knife, fire-cracked rock, and chipped stone (Jones 1972). Precontact archaeological sites have also been identified near the mouth of Edison Slough on Samish Bay, over six miles west of the project. These include site 45SK559, a precontact camp where fire-cracked rock, a ground slate artifact, and chipped stone tools were found (Bishop 2015). Previously recorded archaeological sites would not be affected by the proposed project.

One historic register property is located within one mile from the project location. The Bill Bell Barn, located on the north side of the Samish River within ¼ mile from the project, is listed on the Washington Heritage Barn Register. It was built in 1934 as part of a dairy farm (DAHP 2017b). One other historic structure has been inventoried within one mile from the project. This is a 1926 single-family residence approximately .6 mile west of the project that was determined not eligible for the NRHP (DAHP 2017b). Previously recorded historic properties would not be affected by the proposed project.

3. Archaeological Expectations

Archaeological Predictive Model: The DAHP statewide predictive model uses environmental data about the locations of known archaeological sites to identify where previously unknown sites are more likely to be found. The model correlates locations of known archaeological data to environmental data "to determine the probability that, under a particular set of environmental conditions, another location would be expected to contain an archaeological site" (Kauhi and Markert 2009:2-3). Environmental data categories included in the model are elevation, slope, aspect, distance to water, geology, soils, and landforms. According to the model, most of the project location is ranked as "Survey Recommended: Moderate Risk" and the northwestern, northern, and eastern edges are ranked "Survey Highly Advised: High Risk." Setting aside the history of ground disturbance in the project from past logging and borrow pit activity and related access road construction, expectations of the model are reasonable. Areas of the project at lower

elevations in proximity to or with views of the Samish River were likely more accessible and hospitable than areas deeper in the forest.

Archaeological Expectations: At the time of this survey, no recorded precontact archaeological sites or ethnographically named places were identified within the project location. However, the prairies located to the northeast and southwest of the project are known to have been occupied (Collins 1974; Sampson 1972) and it is likely that local inhabitants were familiar with this forested terrace above the Samish River. The kinds of precontact and ethnohistoric cultural resources that could be present may include evidence of resource procurement activities such as hunting and gathering of plant resources, overland travel, temporary camps as well as ceremonial or religious activities. Precontact use of the historically forested terrace and slopes of the project likely involved hunting game and collecting plants for food, technological, and medicinal uses. Archaeological evidence of these practices might include culturally modified trees, or tools or tool fragments lost, broken, or otherwise discarded in the course of hunting and gathering activity.

Historic-period uses of the project have included logging, which may have resulted in deposition of archaeological materials; such deposits could arguably be significant if they retained depositional integrity and could result in data that would inform research questions regarding facets of historical life relevant to the social, economic, or cultural development of the region. Historic-period materials and features that could occur in the project include remnants of logging equipment or machinery, trails, or roads. Heavily forested areas that have not been fully cleared may bear surficial expressions of logging, including springboard-notched stumps, pillow-and-cradle features of wind-thrown trees, drag-scars, abandoned logs, and fragmentary or broken logging equipment (Wessels 2010). However, surface and near-surface sediments within the project were likely profoundly affected by repeated logging and stump clearing.

4. Fieldwork

Field investigations were conducted by Margaret Berger, Emily Peterson, and Zachary Allen on March 1 – 3, 2017; notes and photographs are on file at CRC. Field investigations included pedestrian survey and subsurface testing.

Pedestrian survey was conducted in meandering transects throughout the property in order to identify any aboveground cultural resources and inspect any available surface sedimentary exposures. Transect spacing in the northern and eastern parts of the proposed mining area was 20 to 40 meters; in the central and southwestern parts, spacing ranged from 50 to 100 meters depending on slope and density of vegetation. Terrain in the southwestern part of the property slopes down to the northeast to a bench that forms the majority of the proposed mining area. Within the bench topography is flat to gradually sloped with some sharper breaks around the former borrow pit. From the bench, terrain slopes down to the northeast and northwest to a lower terrace in these respective corners of the proposed mining area. Slopes to the north and east of the proposed mining area are steep and lead down to the river. Vegetation consists of third-growth forest dominated by deciduous trees with understory composed mostly of sword fern and salal and some invasive species (e.g., Scot's broom and Himalayan blackberry) (Figures 9 – 13).

Sediments were exposed on the ground surface in the former borrow pit, along road cuts, and in recent tree tip-ups. However, surface visibility was typically poor due to coverage by vegetation, leaf litter, and wood debris. No culturally modified trees were found. Some cedar stumps were dispersed throughout the property but none of these were observed to include any features indicative of specific logging practices or other potential to provide significant historical information. No aboveground evidence of archaeological or historic sites was found in the pedestrian survey.

Subsurface testing was conducted in order to observe subsurface conditions and to further gauge the potential for archaeological sites to be present. Testing was conducted by hand shovel, and all excavated sediments were passed through ¼-inch hardware mesh. Each shovel probe measured 40 cm in diameter. Target depths for the probes were 10 cm below the surface of intact glacial deposits. Locally mapped soils and geology suggested that glacial deposits would not be deeply buried.

A total of 58 probes was excavated (Figure 14). Subsurface testing was conducted at 20 to 60 meter spacing in areas of the proposed mining area outside former or current roads, the former borrow pit, and areas with over 20 percent slope. Testing focused on terrace edges near the northern and eastern borders of the project, nearest to the Samish River and Warner Prairie. Locations in the central part of the project were also sampled but considered to be of lower archaeological probability. Probe locations were recorded using handheld GPS. Testing reached depths ranging from 36 to 108 centimeters below ground surface (Figures 15 – 17; Table 1). Excavation succeeded in reaching intact glacial sediments in most probes; in 14 of the probes it was necessary to terminate excavation above this depth due to blockage by large tree roots, boulders, or cobbles impenetrable with hand tools.

The typical profile in most of the probes was very similar to the Skipopa soil profile. The A horizon consisted of an organic-rich dark brown sandy loam with variable gravel and cobble content. Below this was a B horizon composed of reddish brown sandy loam or loamy sand with variable amounts of gravel, cobbles, and roots. Loose yellowish to grayish brown sand and gravel, sometimes with clay and silt, was the lowest stratum observed; this was identified as intact glacially deposited sediment. Some probes in the northern and central parts of the proposed mine contained slightly different stratigraphy including pockets or a layer of gray silt between the A and B horizons. Although charcoal fragments and pieces of fire-cracked rock were observed in a few of the probes, no definitive cultural material was found. No distinct charcoal lenses, fire-cracked rock concentrations, or other potential cultural features were observed in the probes. These signs of past fire were considered to be more consistent with relatively recent burning associated with brush and stump removal following logging. All probes were negative for archaeological material and were backfilled immediately following documentation.

Total Area Examined: The entire proposed mining area (ca. 51 acres).

Areas not examined: None.

Date of Survey: March 1 – 3, 2017.

Weather and Surface Visibility: Temperatures were in the 40s Fahrenheit, and skies varied from partly cloudy to overcast with periods of rain. Surface visibility of mineral soils was typically poor due to vegetation and plant debris.

5. Results

Cultural Resources Identified: No cultural resources were identified during this survey.

Project Conclusions, Findings, and Recommendations: Background research and field investigations did not identify any previously recorded archaeological or historic sites within the project. Pedestrian survey and subsurface testing did not locate any evidence of archaeological or historic sites in the project location. Environmental conditions and land use history suggested a moderate to high potential for buried archaeological sites. However, subsurface testing and pedestrian survey did not identify any archaeological deposits. Widespread impacts of past logging activity were observed. The testing interval used was considered adequate to identify significant archaeological deposits, if present, particularly in the northern and eastern extent of the proposed mine, nearest to the Samish River and Warner Prairie, where archaeological potential was considered to be higher. Based upon the results of field investigations and background research, impacts to archaeological resources are not anticipated.

Miles Sand and Gravel should distribute this assessment to Skagit County, any other applicable regulatory agencies, DAHP, and appropriate Tribal cultural resources staff. This report should not be made available to the public because it contains information about archaeological sites, which are exempt from public disclosure requirements under state law (RCW 42.56.300).

In the event that any ground-disturbing or other construction activities result in the inadvertent discovery of archaeological resources, work should be halted in the immediate area, and contact made with county officials, the technical staff at DAHP, and tribal representatives. A protocol for inadvertent discoveries is provided in Attachment B. Work should be stopped until further investigation and appropriate consultation have concluded. In the unlikely event of the inadvertent discovery of human remains, work should be immediately halted in the area, the discovery covered and secured against further disturbance, and contact effected with law enforcement personnel, consistent with the provisions set forth in RCW 27.44.055 and RCW 68.60.055.

No historic properties affected [x]
Historic properties affected [ ]
No adverse effect to historic properties [ ]
Adverse effect to historic properties [ ]

Attachments:

Figures	[x]
Photographs	[x]
Other	[x] Copies of project related correspondence between CRC and Tribal cultural resources staff.
	[x] Proposed inadvertent discovery protocol.

6. Limitations of this Assessment

No cultural resources study can wholly eliminate uncertainty regarding the potential for prehistoric sites, historic properties or traditional cultural properties to be associated with a project. The information presented in this report is based on professional opinions derived from our analysis and interpretation of available documents, records, literature, and information identified in this report, and on our field investigation and observations as described herein. Conclusions and recommendations presented apply to project conditions existing at the time of our study and those reasonably foreseeable. The data, conclusions, and interpretations in this report should not be construed as a warranty of subsurface conditions described in this report. They cannot necessarily apply to site changes of which CRC is not aware and has not had the opportunity to evaluate.

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8. Figures and Tables

Figure 1. USGS Alger, WA (1998) 7.5-minute quadrangle annotated with the location of the project in red.

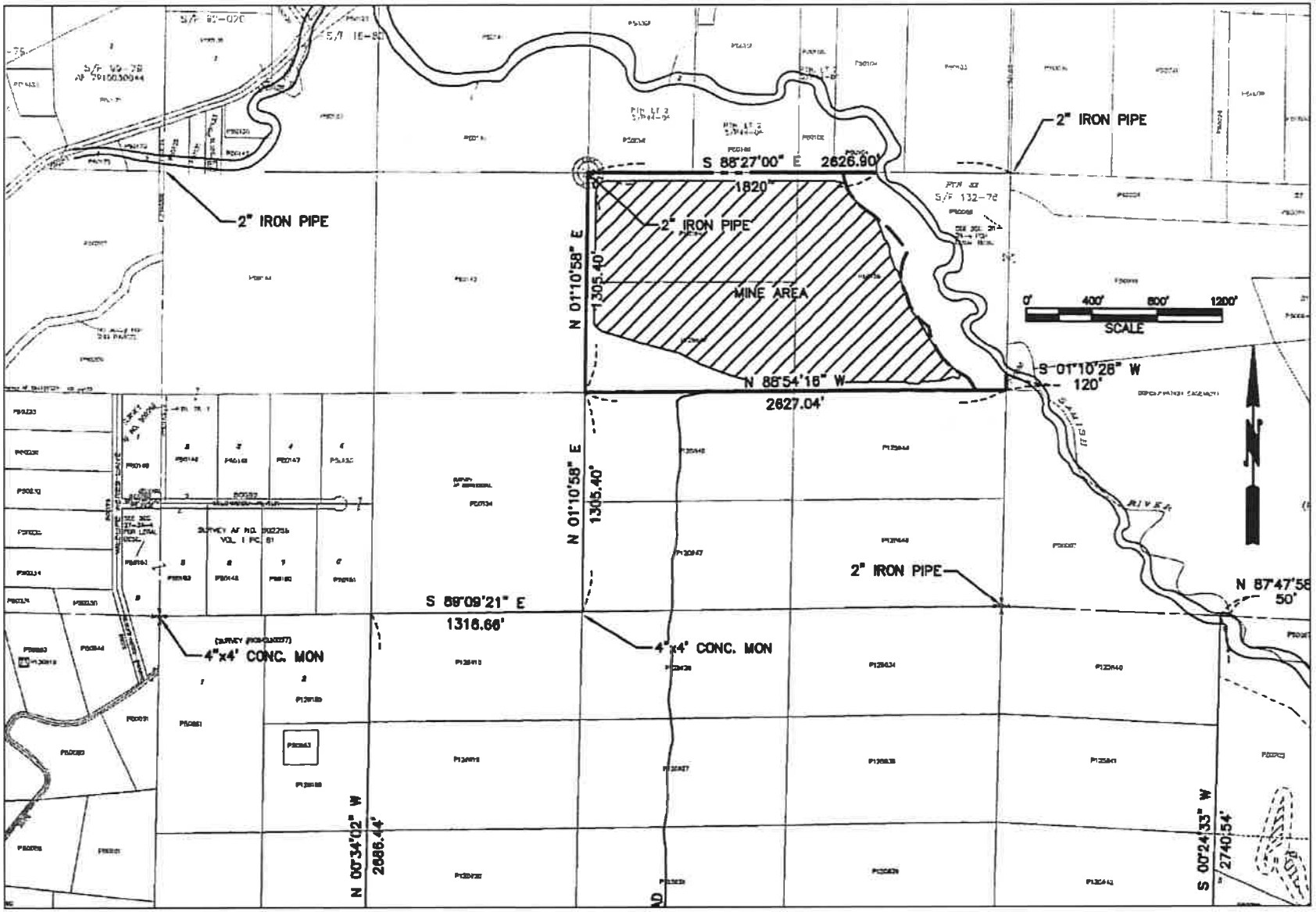

Figure 2. Project overview map showing existing features, parcels, and proposed mine area, provided by Miles Sand and Gravel.

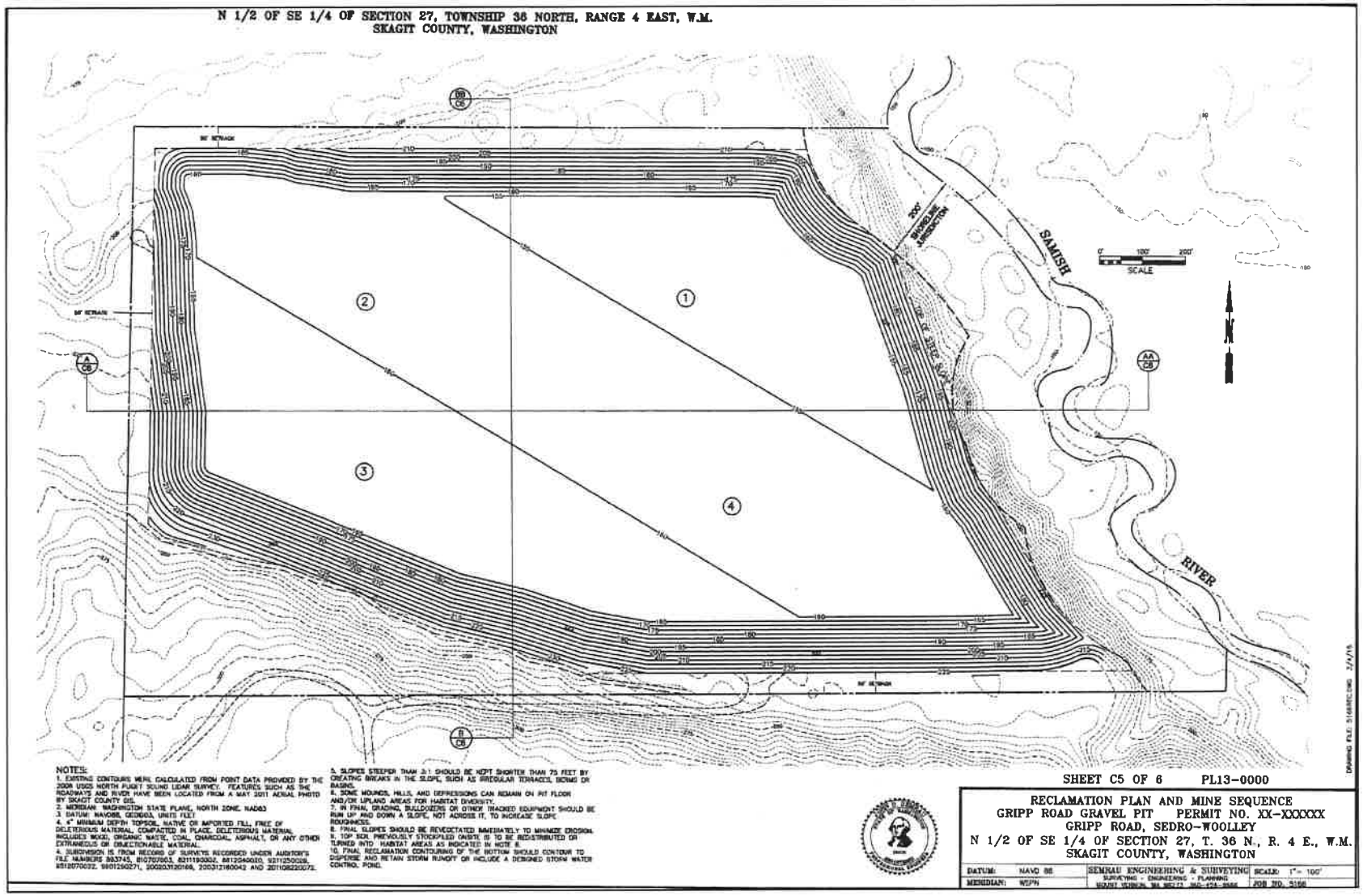

Figure 3. Proposed mining plan provided by Miles Sand and Gravel.

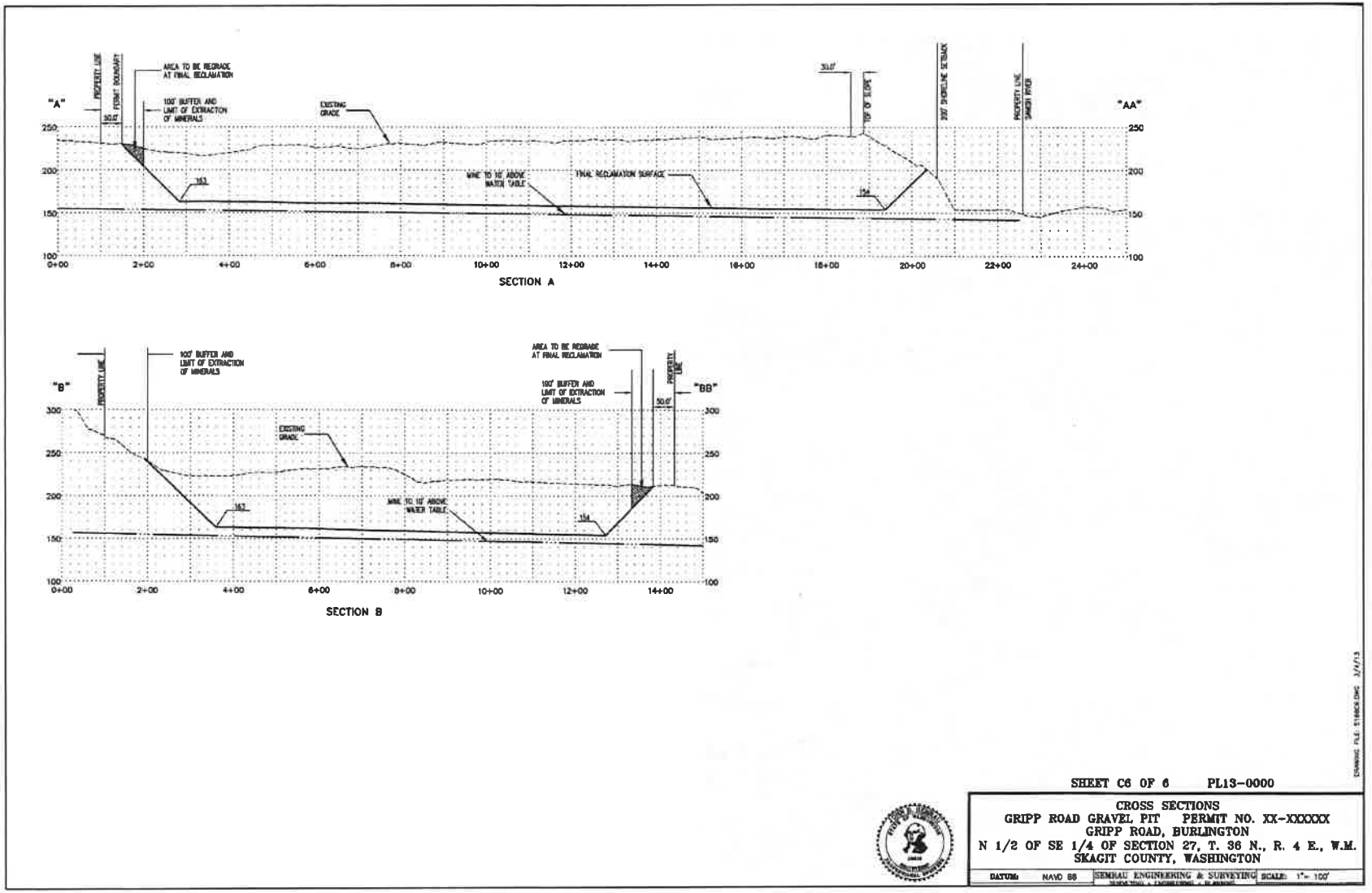

Figure 4. Proposed mining cross-section provided by Miles Sand and Gravel.

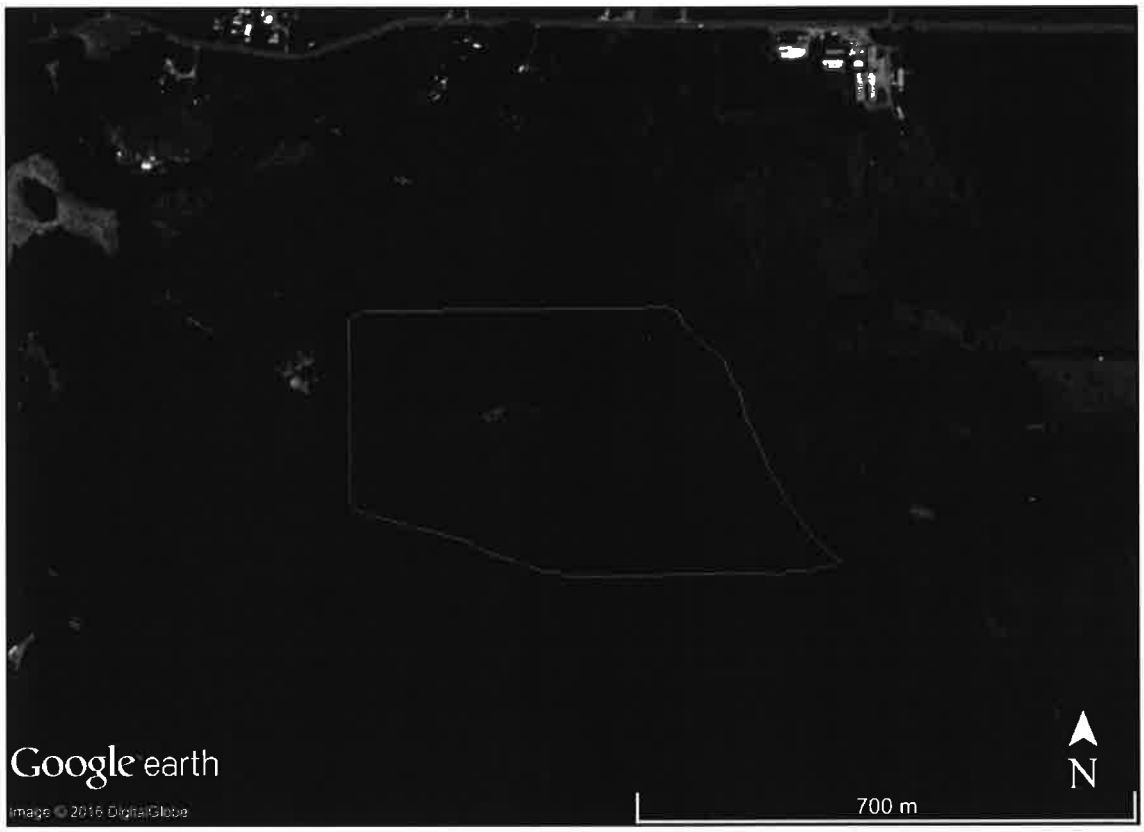

Figure 5. Satellite imagery annotated with the project location in red (base map: Google Earth).

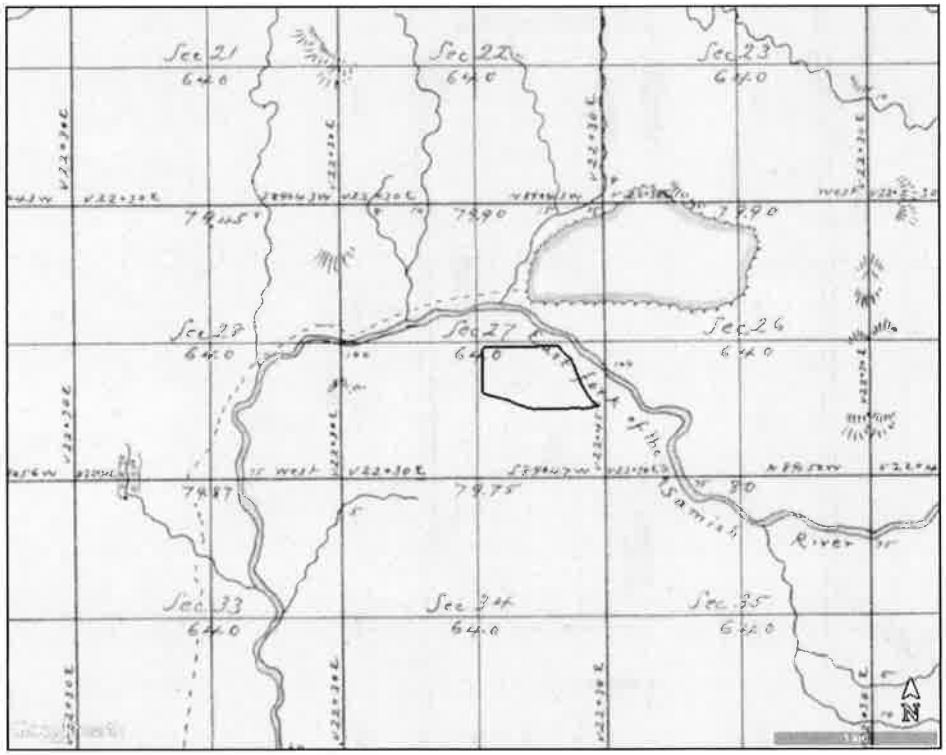

Figure 6. USSG (1874) map with the approximate project location marked in red.

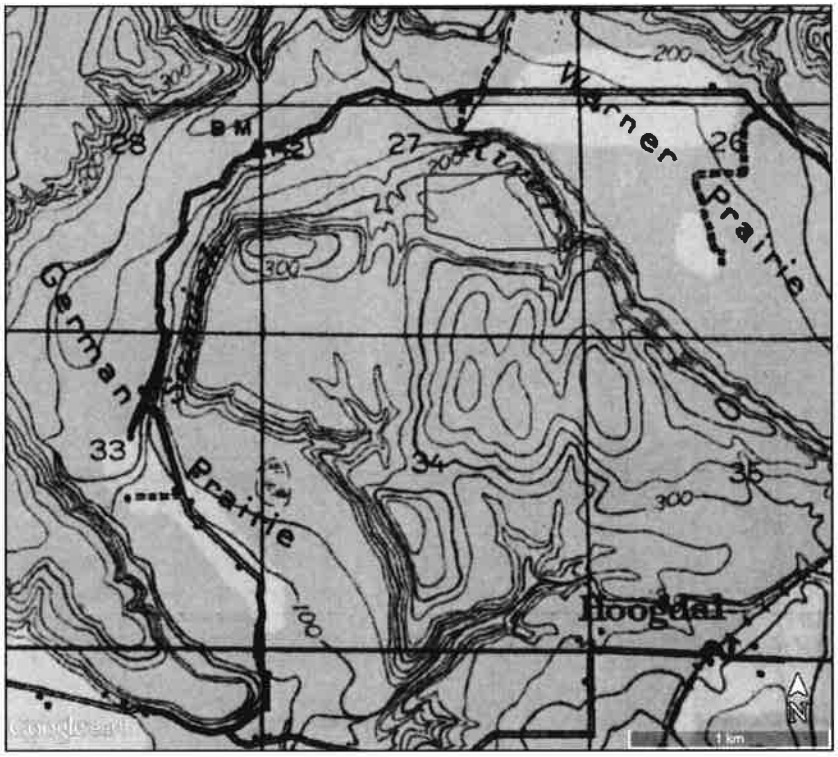

Figure 7. Historical topographic map (USGS 1918) with the approximate project location marked in red.

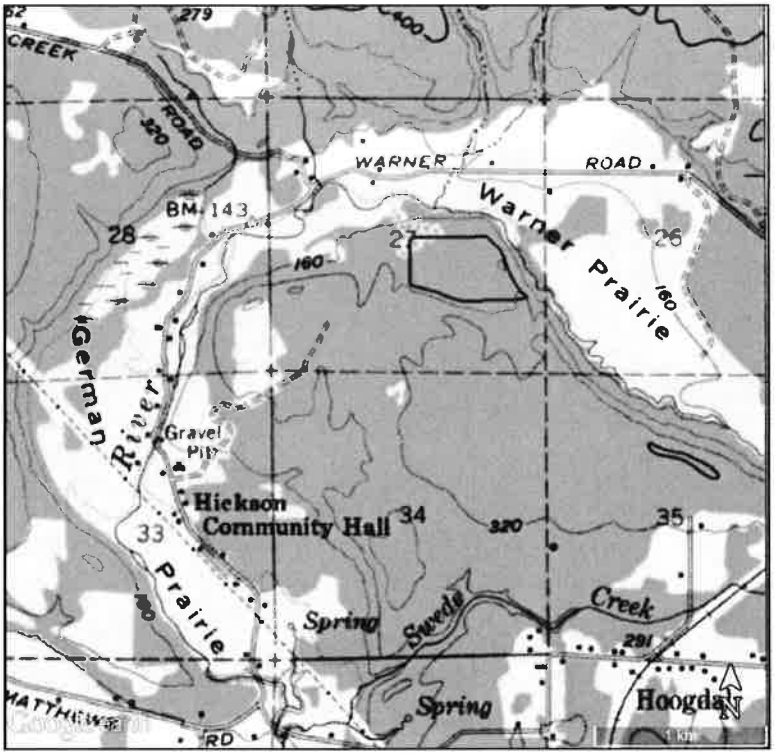

Figure 8. Historical topographic map (USGS 1954) with the approximate project location marked in red.

Figure 9. Typical conditions encountered during cultural resources survey; view is to the northwest.

Figure 10. Existing conditions along gravel access road and former borrow pit; view is to the east.

Figure 11. Conditions in the northeastern part of the project; view is to the northeast.

Figure 12. Conditions along the eastern edge of the project; view is to the east with Samish River and Warner Prairie in background.

Figure 13. Conditions along former logging road in eastern part of the project; view is to the north.

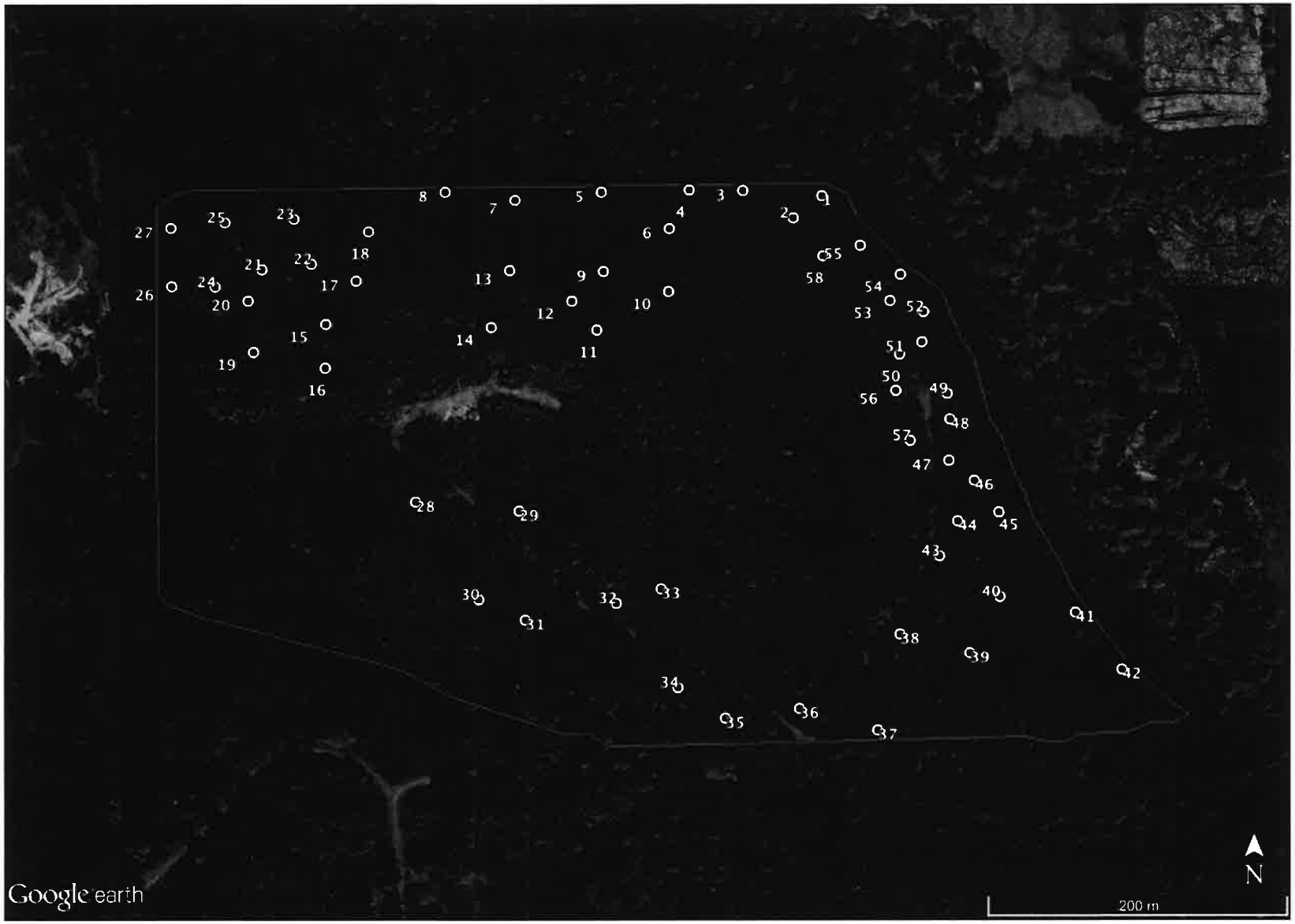

Figure 14. Satellite imagery annotated locations of shovel probes (base map: Google Earth).

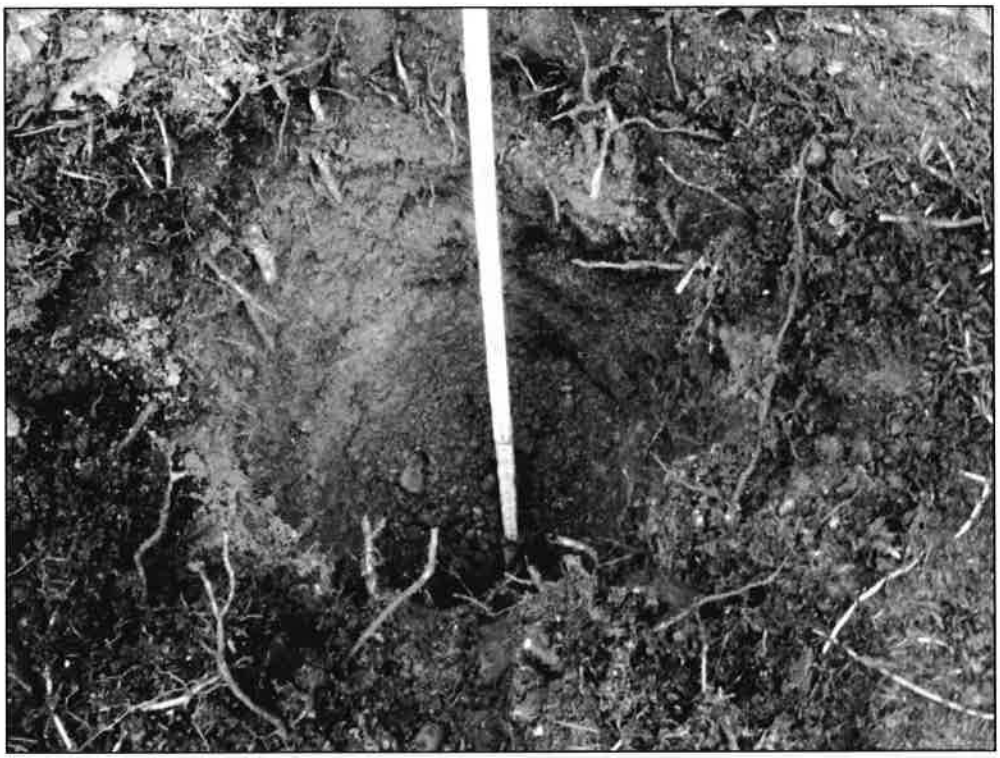

Figure 15. Typical subsurface conditions in the northern part of the project as seen in probe 7.

Figure 16. Typical subsurface conditions in the northwestern part of the project as seen in probe 26.

Figure 17. Typical subsurface conditions in the eastern part of the project as seen in probe 49.

Table 1. Summary of subsurface testing for the Grip Road Gravel Mine Project.

Probe #	Probe Location (WGS 84 Zone 10 UTM coordinates, +/- 5 meters)	Stratigraphic Description (depths are centimeters below surface [cmbs])	Archaeological Material Found
1	553632 E, 5381004 N	0-12: very dark brown fine to medium sandy loam with few sub-rounded gravels, charcoal fragments, and roots; 12-33: reddish brown gravelly fine to coarse sandy loam with few roots; 33-55: yellowish brown loose, very gravelly medium to coarse sand (glacial).	None.
2	553613 E, 5380989 N	0-22: dark brown cobbly loam with roots, leaf litter, and wood debris; 22-44: reddish brown cobbly loamy sand; 44-63: light brown gravelly clay loam (glacial).	None.
3	553579 E, 5381007 N	0-11: very dark brown fine to medium sandy loam with few sub-rounded gravels, charcoal fragments, and roots; 11-58: reddish brown cobbly, gravelly fine to coarse sandy loam with few roots; 58-67: yellowish brown loose, very gravelly medium to coarse sand (glacial).	None.
4	553543 E, 5381007 N	0-15: dark brown gravelly loam with roots, leaf litter, and wood debris; 15-42: reddish brown gravelly loamy sand; 42-71: light brown gravelly silt and sand (glacial).	None.
5	553484 E, 5381005 N	0-13: dark brown loam with roots, leaf litter, and wood debris; 13-50: reddish brown gravelly loamy sand; 50-61: light brown gravelly silt and sand (glacial).	None.

Probe #	Probe Location (WGS 84 Zone 10 UTM coordinates, +/- 5 meters)	Stratigraphic Description (depths are centimeters below surface [cmbs])	Archaeological Material Found
6	553530 E, 5380981 N	0-18: very dark brown fine to medium sandy loam with few sub-rounded gravels, charcoal fragments, and roots; 18-40: reddish brown gravelly, cobbly fine to coarse sandy loam with few roots; 40-57: yellowish brown loose, very gravelly, cobbly medium to coarse sand (glacial).	None.
7	553426 E, 5380999 N	0-12: very dark brown fine to medium sandy loam with few sub-rounded gravels, charcoal fragments, and roots; 12-14: gray fine to medium sandy loam with few sub-rounded gravels, charcoal fragments, and roots; 14-42: reddish brown gravelly fine to coarse sandy loam with few roots; 42-57: yellowish brown loose, very gravelly, cobbly medium to coarse sand (glacial).	None.
8	553379 E, 5381004 N	0-13: dark brown loam with roots, leaf litter, and wood debris; 13-39: reddish brown gravelly loamy sand; 39-61: light brown gravelly silt and sand (glacial).	None.
9	553486 E, 5380952 N	0-9: dark brown loam with roots, leaf litter, and wood debris; 9-36: reddish brown gravelly loamy sand with many cobbles, halted on boulder.	None.
10	553530 E, 5380939 N	0-4: very dark brown fine to medium sandy loam with few sub-rounded gravels, charcoal fragments, and roots; 4-26: reddish brown gravelly fine to coarse sandy loam with few roots; 26-40: yellowish brown loose, very gravelly medium to coarse sand (glacial).	None.
11	553482 E, 5380913 N	0-24: dark brown fine sandy loam with many gravels, cobbles, and roots; 24-31: reddish brown fine sandy loam with many gravels, cobbles, and roots; 31-43: yellowish brown loose, very gravelly, cobbly medium to coarse sand, halted on densely packed cobbles.	None.
12	553465 E, 5380932 N	0-14: dark brown loam with roots, leaf litter, and wood debris; 14-59: reddish brown gravelly loamy sand; 59-66: light brown gravelly silt and sand (glacial).	None.
13	553423 E, 5380952 N	0-12: dark brown loam with roots, leaf litter, and wood debris; 12-38: reddish brown gravelly loamy sand, halted on boulder.	None.
14	553411 E, 5380914 N	0-52: dark brown sandy loam with many rounded to sub-rounded gravels and cobbles, halted on densely packed cobbles.	None.
15	553300 E, 5380915 N	0-15: very dark brown fine to medium sandy loam with few sub-rounded gravels, many roots, and charcoal; 15-33: reddish brown fine to medium loamy sand with sub-rounded gravels and cobbles, many roots; 33-65: yellowish brown gravelly fine to coarse loamy sand with many sub-rounded gravels and cobbles, few large roots; 65-77: yellowish brown gravelly medium to coarse sand with gravel and cobbles (glacial).	None.
16	553300 E, 5380886 N	0-19: dark brown loam with roots, leaf litter, and wood debris; 19-57: reddish brown gravelly loamy sand, halted on boulder.	None.

Probe #	Probe Location (WGS 84 Zone 10 UTM coordinates, +/- 5 meters)	Stratigraphic Description (depths are centimeters below surface [cmbs])	Archaeological Material Found
17	553320 E, 5380944 N	0-17: very dark brown fine to medium sandy loam with few sub-rounded gravels, many roots, and charcoal; 17-39: reddish brown fine to medium loamy sand with sub-rounded gravels and cobbles, many roots; 39-56: yellowish brown gravelly medium to coarse sand with cobbles (glacial).	None.
18	553328 E, 5380977 N	0-11: dark brown loam with roots, leaf litter, and wood debris; 11-32: reddish brown gravelly loamy sand; 32-75: light brown gravelly silt and sand (glacial).	None.
19	553252 E, 5380896 N	0-14: dark brown loam with roots, leaf litter, and wood debris; 14-39: reddish brown gravelly loamy sand; 39-60: light brown gravelly silt and sand (glacial).	None.
20	553248 E, 5380930 N	0-16: very dark brown fine to medium sandy loam with few sub-rounded gravels, many roots, and charcoal; 16-32: reddish brown fine to medium loamy sand with sub-rounded gravels and cobbles, many roots; 32-48: reddish brown medium to coarse sand with gravel and cobbles, woody debris, and charcoal; 48-54: yellowish brown gravelly medium to coarse sand with cobbles (glacial).	None.
21	553257 E, 5380951 N	0-13: dark brown loam with roots, leaf litter, and wood debris; 13-35: reddish brown gravelly loamy sand; 35-66: light brown gravelly silt and sand (glacial).	None.
22	553290 E, 5380955 N	0-12: very dark brown fine to medium sandy loam with few sub-rounded gravels, many roots, and charcoal; 12-25: reddish brown fine to medium loamy sand with sub-rounded gravels and cobbles, many roots; 25-41: reddish brown medium to coarse sand with gravel and cobbles, woody debris, and charcoal; 41-49: yellowish brown gravelly medium to coarse sand (glacial).	None.
23	553278 E, 5380985 N	0-12: dark brown loam with roots, leaf litter, and wood debris; 12-37: reddish brown gravelly loamy sand; 37-63: light brown gravelly silt and sand (glacial).	None.
24	553226 E, 5380939 N	0-8: very dark brown fine to medium sandy loam with few sub-rounded gravels, many roots, and charcoal; 8-27: reddish brown fine to medium loamy sand with sub-rounded gravels and cobbles, many roots; 27-52: reddish brown medium to coarse sand with gravel and cobbles, woody debris, and charcoal; 52-61: yellowish brown gravelly medium to coarse sand with gravel and cobbles (glacial).	None.
25	553232 E, 5380982 N	0-11: dark brown cobbly loam with roots, leaf litter, and wood debris; 11-43: reddish brown gravelly loamy sand; 43-76: light brown gravelly silt and sand (glacial).	None.

Probe #	Probe Location (WGS 84 Zone 10 UTM coordinates, +/- 5 meters)	Stratigraphic Description (depths are centimeters below surface [cmbs])	Archaeological Material Found
26	553197 E, 5380939 N	0-22: very dark brown fine to medium sandy loam with few sub-rounded gravels, many roots, and charcoal; 22-36: reddish brown compact fine to medium loamy sand with sub-rounded gravels and cobbles, many roots, charcoal; 36-60: yellowish brown gravelly fine to coarse loamy sand with many sub-rounded gravels and cobbles, few large roots; 60-68: yellowish brown gravelly medium to coarse sand with gravel and cobbles (glacial).	None.
27	553196 E, 5380978 N	0-16: dark brown loam with roots, leaf litter, and wood debris; 16-39: reddish brown gravelly loamy sand; 39-68: light brown gravelly silt and sand (glacial).	None.
28	553361 E, 5380797 N	0-13: dark brown fine to medium sandy loam with few sub-rounded to sub-angular gravels, many roots; 13-34: reddish brown with pockets of gray fine to medium sandy loam with few sub-angular to sub-rounded gravels, charcoal fragments; 34-48: sub-rounded to angular cobbles in sparse matrix of grayish brown fine sand and silt, halted on densely packed cobbles.	None.
29	553431 E, 5380792 N	0-12: dark brown loam with roots, leaf litter, and wood debris; 12-44: reddish brown gravelly loamy sand; 44-49: light brown gravelly silt and sand, halted on boulder.	None.
30	553405 E, 5380733N	0-18: dark brown gravelly fine to medium sandy loam with sub-rounded gravels, many cobbles, roots, and charcoal fragments; 18-33: reddish brown gravelly fine to medium loamy sand with cobbles; 33-49: yellowish brown compact gravelly fine to coarse sand; 49-56: yellowish brown to gray very gravelly fine to coarse sand (glacial).	None.
31	553431 E, 5380719 N	0-4: dark brown gravelly fine to medium sandy loam with sub-rounded gravels, many cobbles, roots, and charcoal fragments; 4-28: reddish brown gravelly fine to medium loamy sand with many cobbles and roots, halted on large root.	None.
32	553497 E, 5380731 N	0-11: dark brown loam with roots, leaf litter, and wood debris; 11-43: reddish brown cobbly loamy sand; 43-56: light brown gravelly, cobbly silt and sand (glacial).	None.
33	553527 E, 5380741 N	0-11: dark brown loam with roots, leaf litter, and wood debris; 11-48: reddish brown gravelly loamy sand, halted on boulder.	None.
34	553539 E, 5380675 N	0-19: dark brown fine to medium sandy loam with few sub-rounded gravels and roots; 19-65: reddish brown fine to medium sandy loam with sub-rounded few gravels and roots; 65-78: yellowish brown gravelly medium to coarse sand with cobbles (glacial).	None.
35	553571 E, 5380655 N	0-2: decomposing leaf litter; 2-15: gray consolidated silt; 15-50: reddish brown loamy gravelly sand; 50-60: yellowish brown gravelly, cobbly coarse sand (glacial).	None.
36	553621 E, 5380662 N	0-23: dark brown loam with roots, leaf litter, and wood debris; 32-44: reddish brown gravelly loamy sand; 44-68: light brown gravelly, cobbly silt and sand (glacial).	None.

Probe #	Probe Location (WGS 84 Zone 10 UTM coordinates, +/- 5 meters)	Stratigraphic Description (depths are centimeters below surface [cmbs])	Archaeological Material Found
37	553673 E, 5380648 N	0-17: dark brown cobbly loam with roots, leaf litter, and wood debris; 17-65: reddish brown gravelly, cobbly loamy sand; 65-78: light brown gravelly silt and sand (glacial).	None.
38	553687 E, 5380712 N	0-11: dark brown fine to medium sandy loam with few sub-rounded gravels and roots; 11-30: reddish brown fine to medium sandy loam with sub-rounded few gravels and roots; 30-88: yellowish brown fine to medium loamy sand with few roots or gravels; 88-94: yellowish brown gravelly medium to coarse sand with cobbles (glacial).	None.
39	553734 E, 5380700 N	0-9: dark brown fine to medium sandy loam with few sub-rounded gravels and roots; 9-38: reddish brown fine to medium sandy loam with sub-rounded few gravels and roots; 38-65: yellowish brown fine to medium loamy sand with few roots or gravels; 65-73: yellowish brown gravelly medium to coarse sand with cobbles (glacial).	None.
40	553753 E, 5380738 N	0-14: dark brown silt loam with roots, leaf litter, and wood debris; 14-39: reddish brown gravelly, cobbly loamy sand, halted on boulder.	None.
41	553804 E, 5380728 N	0-14: dark brown cobbly silt loam with roots, leaf litter, and wood debris; 14-38: reddish brown gravelly, cobbly loamy sand; 38-52: light brown gravelly, cobbly loamy sand, halted on boulder.	None.
42	553835 E, 5380690 N	0-25: dark brown fine to medium sandy loam with few small to medium gravels and many fine roots; 25-41: reddish brown fine sandy loam with few small to medium gravels, few roots; 41-76: light yellowish brown fine to medium sand and silt with few sub-rounded small to medium gravels, halted on boulder.	None.
43	553713 E, 5380765 N	0-12: dark brown cobbly silt loam; 12-47: reddish brown gravelly, cobbly loamy sand; 47-57: light brown gravelly, cobbly silt and sand (glacial).	None.
44	553725 E, 5380788 N	0-8: dark brown fine sandy loam with few gravels and one large cobble, many fine roots, decomposing leaf litter and wood debris; 8-10: gray fine sand and silt with charcoal fragments; 10-33: reddish brown fine to coarse loamy sand with many small to medium sub-rounded gravels, few roots; 33-51: yellowish brown to gray medium to coarse sand and gravel (glacial).	None.
45	553752 E, 5380794 N	0-26: dark brown fine to medium sandy loam with few small to medium gravels, many fine roots, decomposing leaf litter and wood debris; 26-68: reddish brown fine sandy loam with few small to medium gravels, few roots, and one boulder; 68-79: grayish to yellowish brown medium to coarse sand with many sub-rounded to sub-angular gravels (glacial).	None.

Probe #	Probe Location (WGS 84 Zone 10 UTM coordinates, +/- 5 meters)	Stratigraphic Description (depths are centimeters below surface |cmbs|)	Archaeological Material Found
46	553736 E, 5380815 N	0-15: dark brown cobbly silt loam; 15-49: reddish brown gravelly, cobbly loamy sand; 49-69: light brown gravelly silt and sand (glacial).	None.
47	553719 E, 5380828 N	0-20: dark brown fine sandy loam with few gravels and one large cobble, many fine roots, decomposing leaf litter and wood debris; 20-51: reddish brown fine to coarse loamy sand with many small to medium sub-rounded gravels, few roots; 51-62: yellowish brown to gray medium to coarse sand and gravel (glacial).	None.
48	553719 E, 5380856 N	0-14: dark brown cobbly silt loam; 14-52: reddish brown cobbly loamy sand; 52-58: light brown gravelly, very cobbly silt and sand (glacial).	None.
49	553717 E, 5380873 N	0-17: dark brown gravelly fine to medium sandy loam with cobbles, gravels, roots, and woody debris; 17-26: reddish brown fine to coarse loamy sand with many small to medium sub-rounded gravels and cobbles, few roots, halted on boulder.	None.
50	553685 E, 5380899 N	0-18: dark brown gravelly fine to medium sandy loam with cobbles, gravels, roots, and woody debris; 18-62: reddish brown gravelly loamy sand with cobbles, halted on boulder.	None.
51	553700 E, 5380907 N	0-26: dark brown gravelly fine to medium sandy loam with cobbles, gravels, roots, and woody debris; 26-52: reddish brown fine to coarse loamy sand with many small to medium sub-rounded gravels and cobbles, few roots; 52-69: yellowish brown to gray medium to coarse sand and gravel (glacial).	None.
52	553701 E, 5380927 N	0-15: dark brown fine to medium sandy loam with sub-rounded to sub-angular gravels and many roots; 15-44: reddish brown fine to medium loamy sand with many sub-angular to sub-rounded gravels and cobbles; 44-57: yellowish brown to gray medium to coarse sand and gravel (glacial).	None.
53	553678 E, 5380934 N	0-11: dark brown gravelly fine to medium sandy loam with cobbles, gravels, roots, and woody debris; 11-41: reddish brown fine to coarse loamy sand with cobbles; 41-60: light brown cobbly, gravelly, sand and silt (glacial).	None.
54	553685 E, 5380952 N	0-15: dark brown fine to medium sandy loam with sub-rounded to sub-angular gravels and many roots; 15-53: reddish brown fine to medium loamy sand with many sub-angular to sub-rounded gravels and cobbles; 53-66: yellowish brown to gray medium to coarse sand and gravel (glacial).	None.
55	553658 E, 5380971 N	0-16: dark brown gravelly fine to medium sandy loam with roots and woody debris; 16-40: reddish brown gravelly loamy sand; 40-67: light brown cobbly, gravelly, sand and silt (glacial).	None.
56	553683 E, 5380875 N	0-13: dark brown sandy loam with roots, rounded to sub-rounded gravels and cobbles; 13-60: reddish brown gravelly loamy sand with roots and wood debris; 60-73: light brown gravelly sand (glacial).	None.

Probe #	Probe Location (WGS 84 Zone 10 UTM coordinates, +/- 5 meters)	Stratigraphic Description (depths are centimeters below surface [cmbs])	Archaeological Material Found
57	553693 E, 5380842 N	0-14: very dark brown sandy loam with roots, rounded to sub-rounded gravels and cobbles; 14-58: reddish brown gravelly, cobbly loamy sand; 58-70: gray gravels, cobbles, and sand (glacial).	None.
58	553633 E, 5380964 N	0-17: very dark brown sandy loam with roots and woody debris; 17-91: reddish brown gravelly loam; 91-108: light brown cobbly, gravelly, sand and silt (glacial).	None.

Attachment A. Correspondence between CRC and area Tribes.

Cultural Resource Consultants

February 9, 2017

Lummi Nation
Lena Tso, THPO Cultural Resources
2616 Kwina Road
Bellingham, WA 98226-9298

Re: Cultural Resources Assessment for the Grip Road Mine Project, Skagit County, WA

Dear Lena:

I am writing to inform you of a cultural resources assessment for the above referenced project and to seek additional information about the project area the Tribe may have that is not readily available through other written sources. This letter is on a technical staff-to-technical staff basis to inquire about project-related cultural information or concerns. It is not intended as formal government-to-government consultation to be initiated by the appropriate regulatory agency. The project is located in Section 27, Township 36 North, Range 04 East Willamette Meridian at Grip Road in unincorporated Skagit County, Washington. The project is a 68 acre gravel mine north of Grip Road, with no site address at this time. Property is identified by three Assessor's Parcels Numbers P125644, P125645, and P50155. The project area adjoins the Samish River to the east. An approved mining special use permit with the County is required before a reclamation and surface mining plan can be approved by the DNR. The site will be dry mined using standard mining equipment such as front end loaders and excavators. All drainage and runoff from the site will infiltrate into the gravel in the mine floor. Depth of the mine is to remain 10 feet above the water table with a mine floor from 154 feet to 163 feet in elevation.

We are in the process of reviewing available information. Background research will include a site files search at the Washington State Department of Archaeology and Historic Preservation, review of previously recorded cultural resource reports, and review of pertinent published literature and ethnographies. Results of our investigations will be presented in a technical memo.

We are aware that not all information is contained within published sources. Should the Tribe have additional information to support our assessment, we would very much like to include it in our study. Please contact me at sonja@crcwa.com or 360-395-8879 should you wish to provide any comments. I appreciate your assistance in this matter and look forward to hearing from you.

Sincerely,

Sonja Kassa
Projects Manager

CULTURAL RESOURCE CONSULTANTS, LLC , BALLARD LABS, 1416 NW 46TH ST, STE 105 PMB346, SEATTLE, WA 98107
PHONE 206 855 9090 - sonja@crcwa.com

Cultural Resource Consultants

February 9, 2017

Nooksack Tribe
George Swanaset Jr, THPO Cultural Resources
PO Box 157
Deming, WA 98244

Re: Cultural Resources Assessment for the Grip Road Mine Project, Skagit County, WA

Dear George:

I am writing to inform you of a cultural resources assessment for the above referenced project and to seek additional information about the project area the Tribe may have that is not readily available through other written sources. This letter is on a technical staff-to-technical staff basis to inquire about project-related cultural information or concerns. It is not intended as formal government-to-government consultation to be initiated by the appropriate regulatory agency. The project is located in Section 27, Township 36 North, Range 04 East Willamette Meridian at Grip Road in unincorporated Skagit County, Washington. The project is a 68 acre gravel mine north of Grip Road, with no site address at this time. Property is identified by three Assessor's Parcels Numbers P125644, P125645, and P50155. The project area adjoins the Samish River to the east. An approved mining special use permit with the County is required before a reclamation and surface mining plan can be approved by the DNR. The site will be dry mined using standard mining equipment such as front end loaders and excavators. All drainage and runoff from the site will infiltrate into the gravel in the mine floor. Depth of the mine is to remain 10 feet above the water table with a mine floor from 154 feet to 163 feet in elevation.

We are in the process of reviewing available information. Background research will include a site files search at the Washington State Department of Archaeology and Historic Preservation, review of previously recorded cultural resource reports, and review of pertinent published literature and ethnographies. Results of our investigations will be presented in a technical memo.

We are aware that not all information is contained within published sources. Should the Tribe have additional information to support our assessment, we would very much like to include it in our study. Please contact me at sonja@crcwa.com or 360-395-8879 should you wish to provide any comments. I appreciate your assistance in this matter and look forward to hearing from you.

Sincerely,

Sonja Kassa
Projects Manager

CULTURAL RESOURCE CONSULTANTS, LLC , BALLARD LABS, 1416 NW 46TH ST, STE 105 PMB346, SEATTLE, WA 98107
PHONE 206.855.9020 - sonja@crcwa.com

Cultural Resource Consultants

February 9, 2017

Samish Tribe
Jackie Ferry, Cultural Resources
PO Box 217
Anacortes, WA 98221

Re: Cultural Resources Assessment for the Grip Road Mine Project, Skagit County, WA

Dear Jackie:

I am writing to inform you of a cultural resources assessment for the above referenced project and to seek additional information about the project area the Tribe may have that is not readily available through other written sources. This letter is on a technical staff-to-technical staff basis to inquire about project-related cultural information or concerns. It is not intended as formal government-to-government consultation to be initiated by the appropriate regulatory agency. The project is located in Section 27, Township 36 North, Range 04 East Willamette Meridian at Grip Road in unincorporated Skagit County, Washington. The project is a 68 acre gravel mine north of Grip Road, with no site address at this time. Property is identified by three Assessor's Parcels Numbers P125644, P125645, and P50155. The project area adjoins the Samish River to the east. An approved mining special use permit with the County is required before a reclamation and surface mining plan can be approved by the DNR. The site will be dry mined using standard mining equipment such as front end loaders and excavators. All drainage and runoff from the site will infiltrate into the gravel in the mine floor. Depth of the mine is to remain 10 feet above the water table with a mine floor from 154 feet to 163 feet in elevation.

We are in the process of reviewing available information. Background research will include a site files search at the Washington State Department of Archaeology and Historic Preservation, review of previously recorded cultural resource reports, and review of pertinent published literature and ethnographies. Results of our investigations will be presented in a technical memo.

We are aware that not all information is contained within published sources. Should the Tribe have additional information to support our assessment, we would very much like to include it in our study. Please contact me at sonja@crcwa.com or 360-395-8879 should you wish to provide any comments. I appreciate your assistance in this matter and look forward to hearing from you.

Sincerely,

Sonja Kassa
Projects Manager

CULTURAL RESOURCE CONSULTANTS, LLC , BALLARD LABS, 1416 NW 46TH ST, STE 105 PMB346, SEATTLE, WA 98107
PHONE 206.855.9020 - sonja@crcwa.com

Cultural Resource Consultants

February 9, 2017

Swinomish Indian Tribal Community
Larry Campbell, THPO/ Cultural Resources
Josephine Peters, Cultural Resources
11430 Moorage Way
La Conner, WA 98257

Re: Cultural Resources Assessment for the Grip Road Mine Project, Skagit County, WA

Dear Larry and Josephine:

I am writing to inform you of a cultural resources assessment for the above referenced project and to seek additional information about the project area the Tribe may have that is not readily available through other written sources. This letter is on a technical staff-to-technical staff basis to inquire about project-related cultural information or concerns. It is not intended as formal government-to-government consultation to be initiated by the appropriate regulatory agency. The project is located in Section 27, Township 36 North, Range 04 East Willamette Meridian at Grip Road in unincorporated Skagit County, Washington. The project is a 68 acre gravel mine north of Grip Road, with no site address at this time. Property is identified by three Assessor's Parcels Numbers P125644, P125645, and P50155. The project area adjoins the Samish River to the east. An approved mining special use permit with the County is required before a reclamation and surface mining plan can be approved by the DNR. The site will be dry mined using standard mining equipment such as front end loaders and excavators. All drainage and runoff from the site will infiltrate into the gravel in the mine floor. Depth of the mine is to remain 10 feet above the water table with a mine floor from 154 feet to 163 feet in elevation.

We are in the process of reviewing available information. Background research will include a site files search at the Washington State Department of Archaeology and Historic Preservation, review of previously recorded cultural resource reports, and review of pertinent published literature and ethnographies. Results of our investigations will be presented in a technical memo.

We are aware that not all information is contained within published sources. Should the Tribe have additional information to support our assessment, we would very much like to include it in our study. Please contact me at sonja@crcwa.com or 360-395-8879 should you wish to provide any comments. I appreciate your assistance in this matter and look forward to hearing from you.

Sincerely,

Sonja Kassa
Projects Manager

CULTURAL RESOURCE CONSULTANTS, LLC , BALLARD LABS, 1416 NW 46TH ST, STE 105 PMB346, SEATTLE, WA 98107
PHONE 206.855.9020 - sonja@crcwa.com

Hi Teresa,

At this time, we have no specific cultural resources concerns with this project. Looking forward to the results of your investigations.

Thanks,

Jackie

Jackie Ferry, MA, RPA | Cultural Director | Tribal Historic Preservation Officer | Samish Indian Nation

2918 Commercial Ave | Anacortes, WA 98221-2738 | Monday - Thursday

Office: 360 293 6404 ext. 126 | Fax: 360 299 0790 | E-mail: jferry@samishtribe.nsn.us

From: Teresa Peterson [mailto:teresa@crcwa.com]
Sent: Thursday, February 9, 2017 11:52 AM
To: Jackie Ferry <jferry@samishtribe.nsn.us>
Cc: Sonja Kassa <sonja@crcwa.com>
Subject: 1702C Letter regarding Concrete Nor'West Grip Road Mine project

Hi Jackie -

[Quoted text hidden]

Attachment B. Inadvertent discovery protocol.

Protocols for Discovery of Archaeological Resources
In the event that archaeological resources are encountered during project implementation, the following actions will be taken:

In the find location, all ground disturbing activity will stop. The find location will be secured from any additional impacts and the supervisor will be informed.

The project proponent will immediately contact the agencies with jurisdiction over the lands where the discovery is located, if appropriate. The appropriate agency archaeologist or the proponent's contracting archaeologist will determine the size of the work stoppage zone or discovery location in order to sufficiently protect the resource until further decisions can be made regarding the work site.

The project proponent will consult with DAHP regarding the evaluation of the discovery and the appropriate protection measures, if applicable. Once the consultation has been completed, and if the site is determined to be NRHP-eligible, the project proponent will request written concurrence from the agency or tribe(s) that the protection and mitigation measures have been fulfilled. Upon notification of concurrence from the appropriate parties, the project proponent will proceed with the project.

Within six months after completion of the above steps, the project proponent will prepare a final written report of the discovery. The report will include a description of the contents of the discovery, a summary of consultation, and a description of the treatment or mitigation measures.

Protocols for Discovery of Human Remains
If human remains are found within the project area, the project proponent, its contractors or permit-holders, the following actions will be taken, consistent with Washington State RCWs 68.50.645, 27.44.055, and 68.60.055:

If ground-disturbing activities encounter human skeletal remains during the course of construction then all activity will cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance. The project proponent will prepare a plan for securing and protecting exposed human remains and retain consultants to perform these services. The finding of human skeletal remains will be reported to the county medical examiner/coroner and local law enforcement in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the county medical examiner/coroner determines the remains are non-forensic, then they will report that finding to DAHP, which will then take jurisdiction over the remains. DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected tribes. DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

Lead Representative and Primary Contact

Lummi Nation
2616 Kwina Road, Bellingham, WA 98226-9298
Primary Contact: Lena Tso, Cultural Resources, 360-384-2298

Nooksack Tribe
P.O. Box 157, Deming, WA 98244
Primary Contact: George Swanaset Jr., Cultural Resources, 360-592-5176

Samish Nation
P.O. Box 217, Anacortes, WA 98221
Primary Contact: Jacquelyn Ferry, Cultural Resources, 360-293-6404 ext. 126

Swinomish Tribe
11430 Moorage Way, LaConner, WA 98257
Primary Contact: Larry Campbell, Cultural Resources, 360-466-7352

Upper Skagit Tribe
25944 Community Plaza Way, Sedro-Woolley, WA 98284
Primary Contact: Scott Schuyler, Cultural Resources, 360-854-7009

Washington Department of Archaeology and Historic Preservation
PO Box 48343, Olympia, WA 98504-8343
Lead Representative: Allyson Brooks, State Historic Preservation Officer, 360-586-3066
Primary Contact: Gretchen Kaehler, Local Government Archaeologist, 360-586-3088
Primary Contact for Human Remains: Guy Tasa, State Physical Anthropologist, 360-586-3534

Skagit County Coroner's Office
116 South 11th Street, Mount Vernon, WA 98274
Primary Contact: Hayley L. Thompson, Coroner, 360-416-1996

Skagit County Sheriff
600 South Third Street, Mount Vernon, WA 98273
Primary Contact: Non-Emergency Line, 306-428-3211