

**THE EVERGREEN STATE COLLEGE 2016 ARCHAEOLOGICAL
EXCAVATION AT BUSH HOMESTEAD TUMWATER,
WASHINGTON**

by
Ulrike Krotscheck, Ph.D.

Emily Louder
Cassandra Johnson
Madeline McGriff
.....

Prepared for

Department of Archaeology and Historic Preservation (DAHP) 1110
Capitol Way S #30
Olympia, WA 98504

Site Code:
45TN91H



The technical findings and conclusions in this report do not necessarily reflect the views or concurrence of the sponsoring agency.

Copyright ©
The Evergreen State College Archaeology Lab (TESCAL)
2700 Evergreen Pkwy NW
Olympia, WA 98505

ABSTRACT

This report outlines results of the excavation conducted in August 2016 by The Evergreen State College's second archaeological field school. The site 45TN91H is currently at the address 8400 Old Hwy 99 SE and owned by Kathleen and Mark Clark. The site is of historical importance because it is the location of one of the first Puget Sound homesteads, settled by George and Isabella Bush in 1845/6. Dr. Ulrike Krotscheck at The Evergreen State College (TESC) and a team of students and volunteers conducted field excavation at the site in August 2016. Lab work and database entry was also conducted at TESC. All surface finds were collected prior to excavation. 16 1x1 m units were excavated to an average depth of 30 cm. Five additional units of varying dimensions were opened on the property, one of which was opened over a new area of excavation, the trash pit. The excavation revealed uniform consistency of the matrix, due to turbation through historical plowing of the area. All deposits were screened with a ¼ inch screen to retrieve any small artifact fragments. Over 180 diagnostic artifacts were recovered, cleaned, and are being stored at TESC (though they remain legal property of the Clarks). One exception to this are three trade beads that were immediately turned over to Jackie Wall, THPO for the Nisqually Tribe. Other artifact types included glass, ceramics, metal, and organic. Due to the nature of prior subsurface interference, historical and non-historical artifacts were found in the same contexts, and a stratigraphical sequence could not be determined. Of the diagnostic artifacts, only few can securely be dated to the late 19th century. Research on the artifacts is not yet complete, and continues at TESC. The field school incorporated a public outreach program, which included daily tours at the site. After a successful second season we hope to propose a third season in the summer of 2017.

TABLE OF CONTENTS

Abstract	1
Table of Contents	2
List of Tables	4
List of Figures	4
Acknowledgements	5
Introduction	5
History	6
George Bush & his Family	6-8
Site Significance	8
Previous Investigations	8
SPSCC Field Survey	8
Survey Map and Findings	9
The Evergreen State College 2015 Field School	12
The Evergreen State College 2016 Field School	13
Research Goals & Questions	13
Expectations	14
Methods	14
Public Participation	16
Results	16
Deposits	17
Archaeological Features	17
Artifacts	19
Diagnostic Artifacts	19-22
Ceramics and Glass	18-19
Metal	19
Organic	19
Conclusion	19-20
Bibliography.	21
Appendix A: List of diagnostic artifacts	22-32
Appendix B: Plates	33-50
Modern Map of Location.	33

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

GIS Data Points	33
Diagnostic Artifact Photos	34-50
Appendix C, Attached Separately: Artifact Database	

LIST OF TABLES

Table 1: Surface artifacts documented during 2009 cultural survey	9
Table 2: Material type and Artifact Frequency, BUSH2015...	14

LIST OF FIGURES

Figure 1: William Owen Bush's house, appx. 1970...	8
Figure 2: SPSCC Final Survey Map...	8
Figure 3: South Wall Profile 45TN91H, Unit A3...	14
Figure 4: Feature 1 at 45TN91H, Unit F5, facing north...	15
Figure 5: Artifact Ratio by Type, Site 45TN91H, BUSH2015...	16
Figure 6: Artifact Ratios by Subtype, Site 45TN91H, BUSH2015...	17

APPENDICES

APPENDIX A: List of Diagnostic Artifacts	22-32
APPENDIX B: Plates	33-50
Modern Map of Location.	33
GIS Data Points	33
Diagnostic Artifact Photos	34-50
APPENDIX C Attached Separately: Artifact Database	

ACKNOWLEDGEMENTS

We would like to thank TESC, the Summer Undergraduate Research Fellowship program at TESC, Dr. Dale Croes, Mark & Kathleen Clark of the Bush Prairie Farm, and DAHP for helping make this field school happen, as well as The Nisqually Tribe (in particular Jackie Wall, THPO, as well as her staff), the Squaxin Tribe, the Northwest African American Museum, The Burke Museum, Thurston County Historic Commission, Tumwater Historic Preservation Commission, and the Thurston County community for their support and collaboration. We would also like to thank our sponsors: the TESC Foundation and Sponsored Research Grant Committees, and the Summer Undergraduate Research Fellowship program at TESC. Further thanks are owed to the students and community volunteers who participated in the excavation and field school, and the members of the community who visited and shared their experience. We could not have done this without you.

INTRODUCTION

This report outlines the results of the excavation conducted in August 2016 by The Evergreen State College (TESC) archaeological field school. This site, 45TN91H, is currently at the address 8400 Old Hwy 99 SE and owned by Kathleen and Mark Clark. It is the site of one of the first homesteads in southern Puget Sound, originally settled by George and Isabella Bush in 1845/46. This project grew out of a query submitted by the current landowners, Mark and Kathleen Clark, who were well aware of the location's historical significance and were interested in an archaeological investigation of their property. Through Dr. Dale Croes, they contacted Dr. Ulrike Krotscheck at TESC, who submitted a permit application for an initial field school in spring 2015. This permit was renewed in spring 2016 following the successful first summer season. What follows is a description of the history of the site, including summary of finds from the 2015 season, description of the archaeological methods used, significant finds of 2016, and future areas of inquiry.

Briefly: eight undergraduates and seven volunteers were trained in archaeological field and lab methods, including mapping, stratigraphy, recording, preservation, and storage of artifacts. The area of investigation was chosen in 2015 based on surface find density as determined by a 2009 surface survey. Trimble GPS units (owned by TESC) and a Leica LS Total Station (rented from Kuker-Ranken) were used to geolocate and measure the parameters of the units. After surface clearing, fifteen 1x1 meter units were excavated to an average depth of 30cm. During the

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

investigation, six additional units were opened near the primary area of excavation. Four were shovel-tested units in a nearby cleared field. Two were 100x50 cm in dimension, and the other two were 200x50cm. All four units were excavated to a depth of 1m in an effort to uncover the source of anomalies in a Ground Penetrating Radar test of the field. The excavation of the fifteen units in the main area of excavation revealed uniform consistency of the matrix due to turbation through historical plowing of the area. Historical artifacts were consistently found alongside modern ones, further reinforcing the visible lack of chronological sequencing through stratigraphy. In addition, the Mazama Pocket Gopher had contributed to significant bioturbation of the area. All deposits were screened with a ¼ inch sieve to retrieve any small fragments. 152 diagnostic artifacts were recovered, cleaned, and are being stored at TESC alongside over 16 kilograms of non-diagnostic material, encompassing glass, metal, ceramic, plastic, and organics. Research on the artifacts is currently underway, and although they are being stored and studied at TESC, they remain legal property of the Clarks.

HISTORY

George Bush and his Family

George Bush, the son of a Black man of contested ethnicity¹ and a white Irish mother, was born around 1790 in Pennsylvania (Thomas 1965). The Bush family became a family of means after the death of a family friend, Captain Stevenson, because he left the Bush's most of his fortune (Oldham 2004, Thomas 1965).

As a young man, George moved to Clay County, Missouri (Thomas 1965, Oldham 2004). During his first years in Missouri, he worked with the Hudson Bay Company as a trapper (Thomas 1965). He met and married his wife, Isabella James in Missouri (Thomas 1965). Isabella was an American of German descent (Oldham 2004, Thomas 1965). The couple had nine children, five of whom were born in Missouri, before the family headed to Oregon Territory in 1844 (Thomas 1965). Those children were William Owen, Joseph Talbot, Rial Baily, Henry Sanford, and Jackson January (Thomas 1965). Their youngest son, Lewis Nisqually, was born in New Market, Washington in December 1847 (Thomas 1965).

Bush was believed to have been a successful cattle rancher, but as a man of possibly African descent, he would not have been allowed to own his own land in Missouri during the

¹ The exact origin of George Bush's father is contested, and a subject for another study. Important for the current investigation is that his son George was, apparently, visibly different enough from most of the other new settlers in the Oregon Territory to be discriminated against, which resulted in the party settling in the southern Puget Sound (Thomas 1965, Oldham 2004).

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

mid-1800's, although, according to an 1830 Federal census, Bush was considered a "free white person" (Thomas 1965). However, according to accounts from Ezra Meeker on the matter, "Bush doubtless left Missouri because of the virulent prejudice against his race in the community he lived." (Thomas 1965).

In 1844, Bush and his family joined four other families, comprised of close family and friends, on a wagon train bound for Oregon territory (Thomas 1965). However, when they arrived in Oregon, discriminatory laws, known as the 'lash laws', had been_

passed in the territory disallowing non-whites from settling there (Thomas 1965, Oldham 2004). His party, not wanting to abandon Bush, agreed to continue north of the Columbia River (Thomas 1965, Oldham 2004). The Simmons Party, as the group was known, spent the winter of 1844/1845 just north of the Columbia River near Fort Vancouver (Oldham 2004, Thomas 1965).

Eventually, the party reached the area presently known as Tumwater, WA in November of 1845 (Fullmer, Henderson and Woodard 2009, Oldham 2004, Thomas 1965). As they settled, the families relied heavily on the generosity of the local Indians and the Hudson Bay Company's Fort Nisqually for food and supplies (Thomas 1965). The indigenous tribes taught the settlers how to dig for clams and fish for salmon from the rivers (Oldham 2004). During the winter of 1846-47, Simmons and Bush set up the first gristmill in the region (Thomas 1965). Additionally, the settlers soon set up and organized a sawmill company – The Puget Sound Milling Company (Thomas 1965).

The family, and the newly formed New Market community, continued a friendly relationship with the local natives (Thomas 1965). So close was the relationship between the local natives and the Bush family, that eventually everyone in the family learned to speak the local Indian language (Thomas 1965). So strong was the relationship between the local Indians and the New Market community that in the 1850's when the Indian Wars started, Chief Leschi contacted the families promising that none of the whites would be harmed if they remained west of the Deschutes River (Thomas 1965). Bush's eldest son, William Owen, even acted as a translator between the Americans and the local Indians (Oldham 2004).

As George Bush grew older, he started to hand over the duties of managing and running the family farm to his sons (Thomas 1965). On April 5, 1863 George Bush died suddenly (Thomas 1965, Oldham 2004). After the passing of his father, William Owen and his wife returned to the family farm at Bush Prairie (Thomas 1965, Olsen and Stevenson

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

n.d.). William Owen became the head of the family and carried on the family business for the next forty years (Thomas 1965).

William Owen (commonly referred to as Owen) later became involved in politics and was elected to serve on the first Washington State legislature in 1889 (Oldham 2004, Olsen and Stevenson n.d.). When he died in 1907, the family estate was passed to other members of the family, where it remained until the 1960-70's (Thomas 1965, Sapp 1945).

Site Significance

Historical sites like the George Bush Homestead represent our own-shared collective history. The property is an integral part of Washington State and therefore significant to all of its citizens, and great efforts to represent the site appropriately should be taken

PREVIOUS INVESTIGATIONS

SPSCC Field Survey

In 2009, students at South Puget Sound Community College (SPSCC), under the guidance of Dr. Dale Croes, conducted an archaeological field survey of the Clark's property (Fullmer, Henderson and Woodard 2009). The report of this survey was filed with Thurston County and the Washington Department of Archaeology and Historic Preservation (DAHP) June 10th, 2010. The report concluded that its results demonstrate considerable archaeological integrity of the site. Dr. Croes and his team mapped the 5 acre parcel and recovered 132 artifacts. The objectives of this survey were to identify and document any archaeological and or cultural resources that may have been part of the George Bush Homestead. Dr. Croes and his team visited the site of a total of four times, finding more than 200 artifacts that dated to the mid 1800's. Finds included ceramics, the leg of a wood stove, bricks from a fireplace, glass, and a variety of artifacts of other materials (Henderson et al. 2009).

Survey Map and Findings

The survey identified two areas of interest on the property based on the density of surface artifacts documents (Fullmer, Henderson and Woodard 2009). The first area, deemed Area A, is located in the Northeastern corner of the property and the second area, deemed Area B, is located on the Southeastern side of the property (Fullmer, Henderson and Woodard 2009).

Based on the composition of artifact types located and historical records, Area A is believed to have been the location of one of the original barns built on the property (Fullmer, Henderson and

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

Woodard 2009). The surveyors interpreted Area B to be the location of both the original split log cabin first built by the Bush's when they arrived to the Puget Sound and later the location of William Owen Bush's house built in 1878 (Oldham 2004, Unknown 1980, Bence 1960). Owen Bush's house stood on the property until February of 1970 when it was finally demolished, despite The Olympic Soroptimist Club's efforts to seek funding for repair and historical landmark registry. (Unknown 1970).

"Figure 2" shows the final survey map from 2009. Table 1 shows the distribution of artifacts by material type for each area. According to the survey's final report, the artifacts found in Area A were more consistent with those that would be found in a barn or workshop such as nails, while the artifacts found in Area B were consistent with household items such as ceramic dishes and glassware. All artifacts documented during the survey were left in situ (Fullmer, Henderson and Woodard 2009).

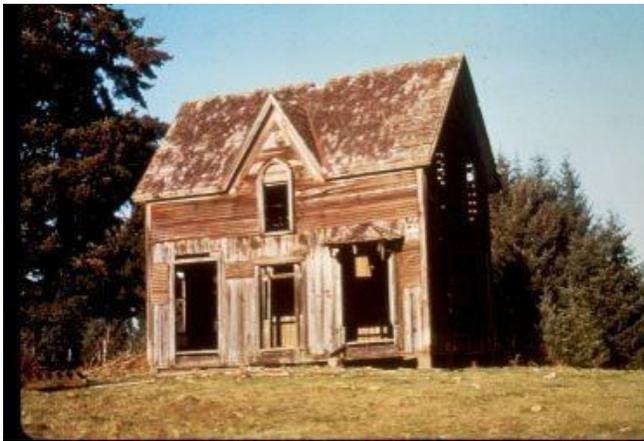


Figure 1: William Owen Bush's house, n.d.

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



Figure 2: SPSCC Final Survey Map

Artifact Type	Area A	Area B	Total
Metal	44	1	45
Ceramic	13	17	30
Brick	33	4	37
Glass	55	33	88
Bone	1	2	3
Shell	0	9	9
Plastic	1	0	1

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

Tooth	0	1	1
All Types	147	67	214

Table 1: Surface artifacts documented during 2009 cultural survey

As a result of these findings, the survey team proposed excavation was warranted and suggested that focus should be on Area B, the suspected location of Owen Bush’s house and the original split log cabin. As such, one of the goals of the excavation could be to find the original foundation(s) of one or both of the houses. Despite the recent demolition, the exact location of Owen Bush’s house (built over the site of the original log cabin) is unknown (Fullmer, Henderson and Woodard 2009). However, based on the artifacts found during the 2009 survey and historical records, the team concluded that Area B would be the best place to start looking (Fullmer, Henderson and Woodard 2009).

The Evergreen State College 2015 Field School

In July and August of 2015, 16 TESC students, local archaeologists, and volunteers excavated 20 1x1m test units in Area B of the Clark’s property. A total of 4.9 cubic meters, or 173 cubic feet, was excavated from the units. The average excavation unit was taken to a depth of 20 centimeters. The soil at the excavation site displays historic agricultural turbation caused by repeated plowing of the land. As a result, the soil had no clear stratigraphic structure. Accordingly, an archaeological context was defined to be 5-10cm intervals. All deposits were screened through ¼-inch screens to ensure the recovery of fragmentary or organic deposits.

The 2015 field school revealed a vast array of archaeological artifacts. Non-diagnostic fragments of metal, glass, wood, shell, ceramic, charcoal, bone, and other organic or unidentifiable materials were uncovered with a total of 3651 non-diagnostic artifacts found. 257 diagnostic artifacts of glass, ceramic, metal, and organic type were collected and identified in the field, though in the lab that number was later pared down to 250 determinable diagnostic artifacts. Additionally, the excavation area was combed for surface artifacts before the excavation began in full, and a total of 237 surface finds collected. A complete summary of artifacts collected during the field school is below in Table 2.

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

An archaeological feature displaying characteristics of burning was discovered at the end of the field school in unit F5 along the northern boundary. It was a segment of burned wood beginning at approximately 15cm, or the third context, of unit F5. At the close of the excavation, all units were covered with a thick, synthetic landscaping fabric to preserve the excavated progress of all units, particularly in the case of F5.

In the lab, preliminary artifact analysis was done on the most detailed of our diagnostic artifacts. Three ceramic fragments could be traced to estimated origin dates. BUSH20150137's maker's mark identified the manufacturer as Copeland & Garret of Stoke, Staffordshire, England, used between 1833-1846 (Jewwit 1883, 382 & 392). The few other identifiable artifacts from the 2015 field school indicated late 19th century and 20th century manufacturing. A challenge of the excavation is in the extreme intermixture of contexts through repeated tilling of the soil over the years, thus artifacts of varying temporal contexts are found alongside each other, often broken. The field school suggested further excavation be focused around and underneath Feature 1, colloquially known as "the hearth", in F5 where there is the greatest likelihood of undisturbed contexts. Further shovel testing in more locations on the property were suggested as a means to test other sites where a home or barn foundation may be.

Artifact Type	Surface Finds	Non-Diagnostic	Diagnostic	Total
Glass	174	2727	134	3035
Ceramic	35	233	81	349
Metal	2	476	37	515
Organic	22	201	5	229
All Types	237	3651	257	4146

Table 2: Material type and Artifact Frequency, BUSH2015

THE EVERGREEN STATE COLLEGE 2016 FIELD SCHOOL

Location

The historic Bush homestead is currently located at 8400 Old Highway 99 in SE Tumwater, Washington, 98501. The property, currently owned by Mark and Kathleen Clark, is a 5-acre parcel,

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

No.12712330300. The excavation site from the 2015 field school was uncovered and re-plotted. The excavation site is likely adjacent to the location of Owen Bush's house.

Research Goals & Questions

The aim of the 2016 archaeological investigation was to recover and preserve any artifacts related to occupation by the original owners, George and Isabella Bush and their children, within a context of an undergraduate field school run by TESC. One of the tangential research projects was to ascertain the location of the original buildings on the property. The 2015 field school did not yield any evidence that the area of investigation was a primary residence area.

However, south of the initial area of excavation the overgrowth of foliage gave the appearance of a slight obtrusiveness in the rough dimension of a rectangular house. This was observed by the property owner many times as the field's foliage grew unabated in the spring and summer. He removed the surface vegetation mechanically for the field school prior to the commencement of the 2016 season so that we could investigate the field with greater attention. This was accomplished through collaboration with Steve Hackenberger from CWU, who helped identify specific areas of interest with Ground Penetrating Radar (GPR). A secondary research goal was to uncover a purported trash pit near the area of excavation, discovered by the property owner earlier in the year and subsequently recovered undisturbed.

As this field school was a continuation of the 2015 year, the research design was the same and the broad goals similar if not identical in many respects. They were:

- To provide field training for student archaeologists
- To involve the community by encouraging guided tours and visits to the site
- To carefully record, excavate, and curate all artifacts, to be available for future study
- To ensure public access to our results
- To produce opportunities for further research and publication for archaeology students
- To determine the feasibility of a continuing field school at the site

Expectations

Given the results from the previous year, we were prepared to continue to uncover small, fragmented artifacts related to the domestic lives of the Bush family. All excavators were made aware that recent or modern artifacts had a likelihood of turning up alongside historic material artifacts due to the agricultural activity of the site. We expected cultural deposits to be either *in situ* or disturbed and recontextualized.

Methods

The 2016 field school ran for five weeks, beginning in August through mid-September. Prior to the first day of training for all archaeology students, the director Dr. Ulrike Krotscheck, field supervisor Emily Lounder, and volunteer Kelson McConnell transported all heavy equipment to the site. Following classroom training, six TESC students, two volunteers, the director, and both of her field supervisors uncovered the excavation grid from 2015. Hand tools were used to clear the area of surface vegetations and surface finds were bagged and recorded as they were discovered. Field Supervisor Nathan Jeffryes conducted and managed all work with the Leica Total Station. He plotted all relevant geospatial data as the excavation site was defined and uncovered, taking perimeter readings and surface spatial data so that a definitive GIS database could be effectively used for present and future archaeological analysis.

Excavators chose unexcavated units from the grid, focusing their attention on the units nearest to F5. Each excavator was instructed to proceed in 5-10cm intervals that would serve as our archaeological contexts. All contexts were screened through ¼ inch screens. Fragmentary artifacts determined to be non-diagnostic and smaller than an ½ inch were generally not collected. Artifacts were collected from the screens and in situ, placed in bags, and labeled with the date recovered, section, unit, context number, material type, and excavator's initials. Diagnostic artifacts were photographed in situ, recorded in a Diagnostic Artifact field notebook, recorded in the personal field notebook of the excavator, and then bagged and labeled independently with its own database number. All field notebooks remain in the possession of The Evergreen State College Archaeology Lab (TESCAL) for future use. Additionally, photographs of the excavation process were taken throughout the field school.

Diagnostic artifacts are defined as possessing trademarks, labels, other identifying marks, and temporal attributes that associate the artifact with a definable or researchable time or time period. All artifacts were daily transferred to the lab. Each week all excavators spent one day in the lab, cleaning, sorting, and entering diagnostic artifacts into the database. In the lab, diagnostic artifacts were occasionally found to be non-diagnostic and marked VOID in the database. All artifact data was recorded in the Excel spreadsheet containing the database from the 2015 field school. Artifacts were not counted this year. Rather, we decided to weigh all artifacts to gauge a better understanding of distribution of material. Although glass and ceramic admittedly weigh less than metal artifacts, the size of the fragments recovered of glass and metal are disparate, often smaller than 1 inch. With that in mind, assessing artifact distribution by weight proved more illuminating.

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

Laboratory work also included the processing, cleaning, washing, and brushing of artifacts and photography of all diagnostic artifacts. According to the parameters of the permit, all excavated artifacts remain in the property of the Clark's but will be processed, stored, and curated at TESC until further notice with the exception of any apparent tribal artifacts. This year the field school found three trade beads. Upon discovery, they were handed over to the Nisqually THPO, Jackie Wall. Due to the size of these beads – ca 1-2mm each – we recommend future excavations in this area to use smaller sieves, to ensure that these important artifacts can be retrieved.

Public Participation

Public tours at the Bush Homestead site proved popular among the public. Public tours were offered for 7 days in two hour blocks of time. Two children's excavation units were constructed this year with the help of the lab aids from the Science Support Center at TESC. We filled these practice units with screened soil from our units and added in non-diagnostic artifacts collected during the 2015 school. Visitors were allowed to "excavate" the kid's units, collect and bag artifacts. In addition to public tours, we maintained an active blog detailing our excavation activities. A local newspaper, The Olympian, also published a detailed, front-page article about this year's excavation activities which generated much public interest.

RESULTS

Through excavation and shovel-testing we opened and excavated a total of 21 units. The maximum depth of the units which were not shovel-tested (all but five) was 48cm. Our average depth of excavation was 30 centimeters. In addition to the main area of excavation, six other units were opened throughout the property. Four were excavated to a depth of one meter. Two of the test units had dimensions of 200x50x100cm, and the other two of 100x50x100cm. These units assisted in some of our stratigraphic analysis of the property. The test units showed that the GPR had picked up a compact layer of clay associated with glacial retreat. None of the four test units identified by the GPR contained any cultural material.

Our fifth test unit was near a purported trash pit discovered in early spring of 2016 by the property owner, Mark Clark. The test unit was initially opened with the dimensions of 100x50cm and shovel-tested to a depth of 50cm. Along the northern quadrant of the unit, artifact distribution seemed to concentrate, so a further unit was opened at 50cm northeast from the test pit. This new unit, termed the trash pit 2 or TP2, was opened at 150x100cm in dimension. After surface vegetation removal and excavation of the first context, the soil was found to be heavily compact

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

and stratified. Many artifacts were discovered in situ among deposits of charcoal. This unit was excavated according to stratigraphic layers to a depth of 25cm.

A total of 152 diagnostic artifacts were recovered. A breakdown of the diagnostic material can be found in the table blow. Artifacts were weighed in grams primarily due to the overwhelming quantity of small pieces of nondiagnostic material.

Material Type and Frequency of Artifacts, Bush Field School 2016

Artifact Type	Nondiagnostic (g)	Diagnostic (g)
Glass	6296.23	1746.26
Ceramic	606.81	125.6
Metal	6389.06	539.43
Other	2133.45	N/A
All Types	15425.55	2411.79

Deposits

Shovel Tests

Artifacts at the Bush Homestead site represent an agricultural depositional environment. The stratigraphy in our original excavation area as well as in four of our test units was relatively uniform, and the concurrent recovery of historical and modern artifacts indicated that soil disturbance and re-contextualization had occurred. The soil in each unit was described as compact which loosened to a powder-like consistency when worked and was recorded as Munsell number 10YR3/2.

In our test units, which were separate from the field excavation units, three layers of stratigraphic soil were observed. The top layer represented the same powdery characteristics as the soil in our excavation units and was recorded at Munsell number 10YR3/2. The second layer was observed to begin at approximately 54cm in depth and end at 83cm. It was observed to be a thick clay of Munsell number 10YR4/6, and the third layer, beginning at 85cm, was found to be a light clay of Munsell number 2.5Y5/4. This soil pattern was uniform across all four of our test units. The

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

test units were chosen based on anomalies in the Ground Penetrating Radar testing conducted by excavators under the supervision of Dr. Steve Hackenberger from Central Washington University.

Archaeological Features

At the end of the 2015 season, a depositional feature called Feature 1 had been discovered at the northern boundary of unit F5. The feature was a segment of burned wood approximately 0.38 meters by 0.46 meters, oriented north-south towards the easternmost boundary of the excavation area. We hypothesized that continued excavation below this point would uncover an undisturbed context. We opened up units E6 and F6 as a continuous unit officially labeled EF6 around Feature 1 in order to try to discover the limits of the feature. The Feature was fully excavated and removed to the lab, where further analysis discovered that it was primarily an aggregate collection of dirt, charcoal and nails. A second Feature was discovered in unit EF6, continuous from Feature 1. It was noted to be in the Northern corner of EF6, beginning with the charcoal and discoloration associated with burning at 19cm.



Figure 3: Students remove Feature 1, “the hearth” for analysis back in the lab

A second excavation unit opened this season. Test Pit 2 (TP2) was opened over the site of a trash pit. TP2 was opened as a single unit 150x100cm in dimension. The trash pit was treated as a feature by excavators, and instead of excavating the unit context-by-context, the goal was to expose

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

and excavate the topmost layer of the pit. A total of 20 diagnostic artifacts were found within the first 20cm of excavation into TP2, along with 6926.03g of non diagnostic artifacts. A large amount of charcoal and burnt wood was discovered in the eastern quadrant of the unit. In the northern quadrant of the unit, a stack of burnt magazine or newspaper together as a singular feature was discovered. It was excavated and removed back to the lab, where the fragments were photographed to preserve their intelligible details. Initial analysis found advertisements dating between 1889 and 1916. The prevalence of preserved diagnostic material within TP2, as well as indications within the unit that the trash pit extends outside of the initial excavation area, suggested that there may be artifacts possibly interred in the soil dating to the initial settlement of the homestead at this location and further excavation may lead to more historical finds.

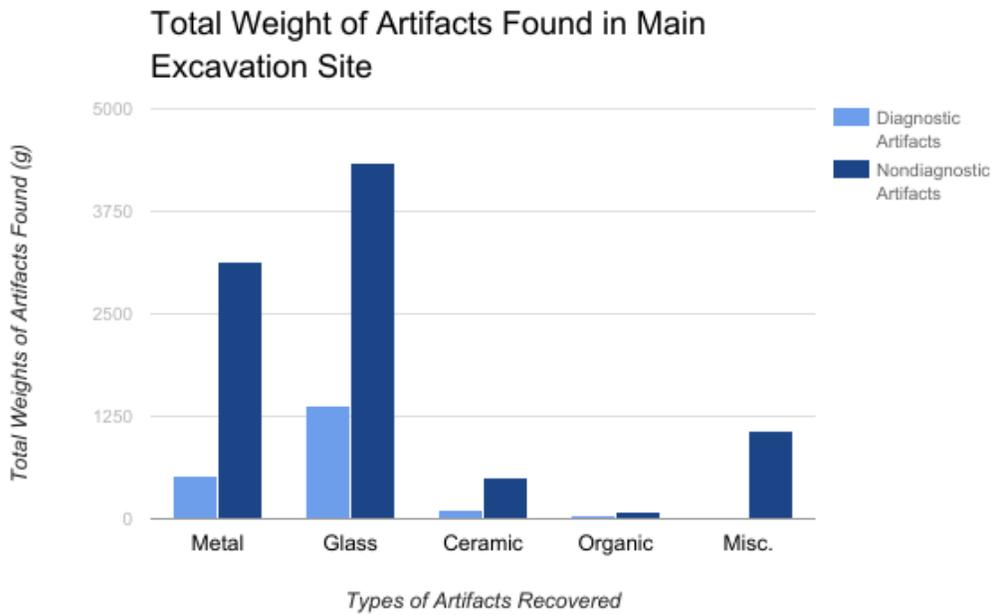
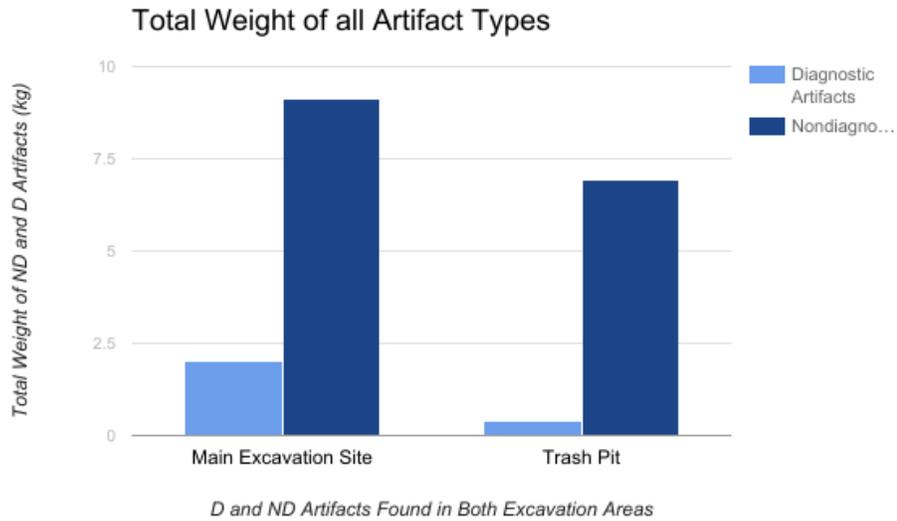
Artifacts

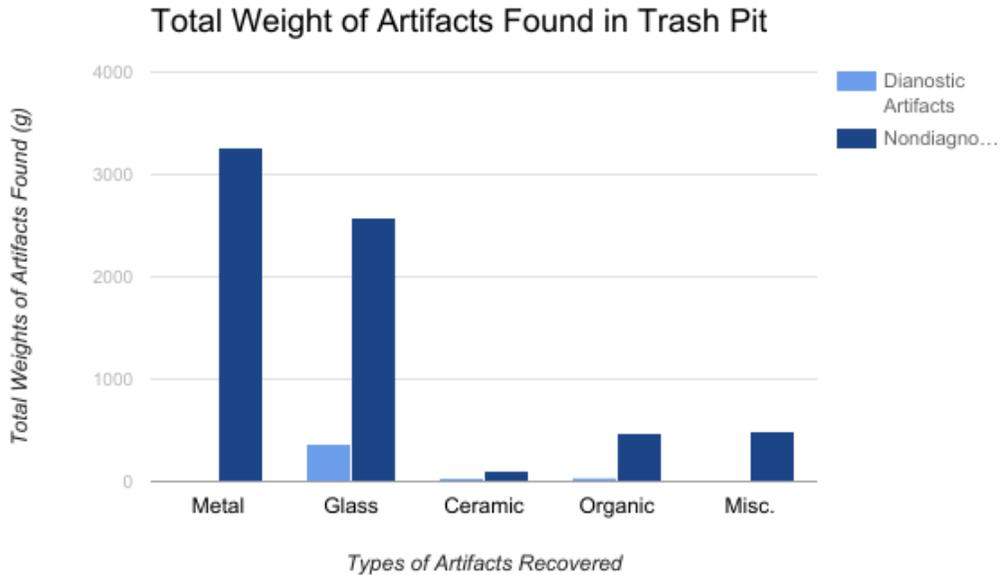
156 diagnostic artifacts were recovered at site 45TN91H. The total weight of all recovered artifacts, diagnostic and nondiagnostic, was over 17kg. The artifacts were classified and recorded by type, with five identified type descriptors. The types found include glass, metal, ceramic, and organic. Additional types were identified as brick, wood, stone, and plastic.

Diagnostic Artifacts

The total for diagnostic artifacts weighed in at over 2.4kg. Diagnostic artifacts are those with trademarks, labels, other identifying marks and temporal attributes that associate the artifact with a definable or researchable time or time period. Temporal attributes include technical characteristics of bottle manufacture, glass color, ceramic manufacture or type, and surface decoration. Though there has been some independent research into the diagnostic artifacts at TESCAL, research is still in its preliminary stages. All conclusive research of diagnostic and nondiagnostic artifacts performed up to this point is included in the proceeding sections.

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



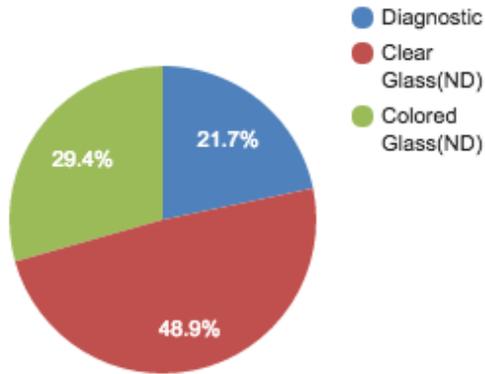


Glass

Glass is the largest category by weight and quantity among this year's finds. Approximately 8042.99 grams of glass were unearthed in 2016, a weight rivaling even that of recovered metal artifacts. In contrast to 2015's highly-fragmented glass assemblage, 2016's diagnostic artifacts exhibited a great degree archaeological integrity.

Numerous products of the Owens-Illinois company, a major glass manufacturer founded in 1929, were identified throughout the dig site. A small clear jar with an unusual screwtop was unearthed completely intact. A detailed maker's mark showed that it was produced by the Hazel-Atlas company (founded 1902) at a factory in Oakland, CA. A near-entire Vaseline jar was exhumed in large shards from Test Pit 2. Via maker's mark analysis the jar was traced to Chesebrough, New York, with an estimated manufacture date of 1872.

Relative Weights of Recovered Glass (2016)

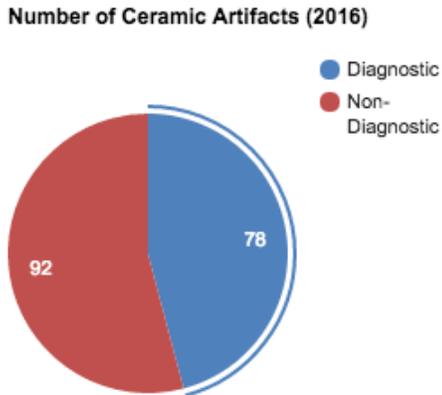


Most potential field diagnostics recategorized as nondiagnostic in lab were determined to be shards of old spirits bottles embossed with the phrase “FEDERAL LAW FORBIDS SALE OR REUSE OF THIS BOTTLE”. These artifacts, produced under a law in effect from 1935 through 1964, make up a significant portion of the clear glass non-diagnostics.

Glass finds largely revealed consumption habits of the homestead and purchasing practices on the farm. Some artifacts, such as a tractor light fragment (diagnostic #358) identified by Nisqually THPO Jackie Wall, may provide further clues to farming methods and land use practices. Glass artifacts found in 2016 speak to the economic side of the Bush homestead’s history. This generalization extends to trade beads found in two excavation squares. These beads supplement oral and written history of the Bush family’s amicable trade relationship with south Puget Sound Native peoples.

Ceramics

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



Though ceramics comprise the smallest quantity of artifacts (weight: 732.41 g), they are worthy of specific analytical attention due to their high diagnostic rate (45.88%) and richness of variety. In post-dig laboratory analysis, several non-diagnostic fragments from both field seasons were joined with pieces from the 2016 excavation to form larger, often diagnostic, artifacts from the same original object.

Diagnostic artifact #365, made of porcelain, was matched to 2015's #116 and determined to be an Edward Clarke (manufacturer) piece produced between 1880 and 1887 via maker's mark identification. A maker's mark comprised of words and a crest on diagnostic #443 revealed that the fragment came from a ceramic made by Charles Meakin Hanley between 1883 and 1889. A sherd of a later plate from J & G Meakin (post-1907 mark) shows that the Bush family continued to purchase from the Meakin company over a 20 year period. A fragment of a Theodore Roosevelt presidential commemorative plate (2016 #404) was matched to a piece found in square G2's first context during the previous field season. Plates of this design were originally issued around 1901 by the Rowland & Marcellus Company. All diagnostics discussed here originated in Staffordshire, England.

Recovered ceramics showcase the wealth of this pioneer family, as well as their degree of contact with the established Western world through costly items transported from the United Kingdom through the East Coast of the United States. Ceramics on the Bush homestead signify

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

something between commodities and keepsakes, which offer an outstanding amount of valuable, specific information.

Hearth (feature 1)

Weighted at 17.41 grams before dissection, the “hearth” was determined to be an aggregate of burned wooden boards and their residual nails encased in hard-packed soil. All components evidenced exposure to high temperatures, notably through the presence of charcoal and melted, disfigured nails. It appeared that portions of wood which remained after burning and did not become charcoal then degraded into the surrounding soil. This was surmised from the placement of nails within blocks of soil, the placement of charcoal bits throughout the aggregate, and both the shape and appearance of soil fragments witnessed during the feature’s dissection in the lab.

Metal

In the main area of excavation, like in the previous season, the most numerous finds were nails. Most of the nails were in a poor state of preservation, but like last year we were able to identify three types, including machine-made modern nails, early partially machine-made nails, and hand-wrought nails (Nelson 1968). TP2 still contains a vast amount of metal interred in their contexts, but students managed to unearth springs, coils, and a second axe-head. Other artifacts of interest discovered in the main area of excavation was BUSH201600455, a copper jacketed slug still filled with lead, estimated to be from the 1920s or later, BUSH201600427, a metal bottle cap that was still attached to the lid of a partially-recovered bottleneck with the word “MELLOW” on the top, and BUSH201600426, a Dr. Scholls Footeazer dated as early as 1918.

Organics - Paper

While excavating Test Pit 2, students unearthed a sizeable stack of charred paper, which originally resembled a burnt book. Upon analysis in the lab, it was discovered that this chunk of paper was a stack of magazines, dating between 1891 and 1906. Students discovered thirty seven diagnostic shreds of paper, with several bags of nondiagnostic paper, with the largest diagnostic piece measuring no more than seven centimeters in width.

Students were able to identify a couple of specific publications, specifically *The Century Illustrated Monthly Magazine*, volumes 44 (published in 1892) and 45 (published in 1893), and *The American Magazine*, volume 33 (published 1892). Most of the other scraps students were able to identify came from a variety of advertisements, including advertisements for cod liver oil,

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

typewriters, tooth powder, toffee, garters, and tobacco. Some of the brands students were able to identify were *Ypsilanti Equestrienne Tights*, *Mackintosh's Toffee*, *Harderfold Hygienic Underwear*, and *King's Windsor Asbestos Cement*.

Paper artifacts found during the 2016 dig help to reveal more about the occupants of the Bush Homestead, and their reading habits, at the turn of the nineteenth century. This discovery also helps to identify what sorts of publications were making their way to the Pacific Northwest area.

CONCLUSION

The 2016 season at the Bush Homestead uncovered over 150 new diagnostic artifacts, including a new area of investigation. Appendix C includes the database of finds. Only some historic artifacts have been analyzed or researched. The body of material will provide research opportunities for future students of historical and material archaeology. So far, diagnostic artifacts that have been found and dated are from the late 19th or early 20th century CE. Due to the turbidity and cohesivity of the soil across all of the areas of investigation so far, it is impossible to date artifacts using stratigraphic analysis at the depths to which we have so far excavated, with the exception of TP2, the site of a trash pit which shows no turbidity of the soil.

The majority of diagnostic artifacts were shards of glass, which appear to primarily come from glass bottles. The process of reconstructing ceramic and glass artifacts began in 2016 and awaits further study and attention. Metal artifacts were almost entirely made up of nails, although the discovery of a second axe head and other heavy machinery metal artifacts attests to this site's historic agricultural use.

Public outreach was very successful. We hosted tours for two hours every day for seven days. Updates and further public outreach projects can be found here: <http://blogs.evergreen.edu/bushhomestead/>

In 2016, we were able to excavate almost all of the units in Section 1. We intend to submit a third application for a field school in the summer of 2016 in order to continue to train more students in the methods of archaeology. Further areas of excavation are strongly suggested to begin with the trash pit site in the hopes of finding more historical artifacts.

BIBLIOGRAPHY

- Bence, Erna. 1960. "Bush Homestead Empty And Falling Into Ruin." *The Tacoma News Tribune*, September 25.
- Fullmer, Joshua, Theresa M. Henderson, and Joanne Woodard. 2009. "George Bush Homestead Cultural Survey." Cultural Resources Report, Washington State Department of Archaeological and Historical Preservation, South Puget Sound Community College.
- Hawkins, Jay W., 2009, *Glasshouses and Glass Manufacturers of the Pittsburgh Region: 1795-1910*.
- Jewwit, Llewellynn. 1883. *The Ceramic Art of Great Britain*. London: J. S. Virtue and Co., Limited. Print.
- Kaehler, Gretchen A., Dennis E. Lewarch, and Lynn L. Larson. 2005. *National Register Eligibility Evaluations at Five Historic Period Archaeological Sites, Fort Lewis, Pierce, and Thurston Counties, Washington*. Rep. Gig Harbor, WA: Larson Anthropological Services, Print.
- Nelson, Lee H. 1968. "Nail Chronology as an Aid to Dating old Buildings" in *History News* 24.11.
- Oldham, Kit. 2004. *Bush, George W. (1790?-1863) HistoryLink.org Essay 5645*. Accessed 2015. http://www.historylink.org/index.cfm?DisplayPage=output.cfm&file_id=5645.
- Olsen, Winnifred, and Shanna Stevenson. n.d. *Bush, William Owen (1832-1907)*. Accessed 2015. <http://www.blackpast.org/aaw/bush-william-owen-1832-1907>.
- Sapp, Bernice A. 1945. "Bush Family Still Lives On Original Land Claim." *The Olympia News*, September 13.
- Thomas, Paul F. 1965. "George Bush." University of Washington, June 11.
- Unknown. 1970. "Old Bush Home Tumbles. Now Another Kind of Memorial Sought." *Daily Olympian*, March 5.
- Whitten, D. (n.d.). GLASS BOTTLE MARKS - Welcome. Retrieved October 9, 2015, from <http://www.glassbottlemarks.com/>
-

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

**APPENDIX A:
LIST OF DIAGNOSTIC ARTIFACTS FROM 45TN91H, BUSH2015**

Artifact Number	Type	Description and Notes
BUSH201600300	Glass	tiny clear glass with ridges; 2cmx1.2cmx.1cm
BUSH201600301 VOID		
BUSH201600302	Glass	clear glass possibly with "OO" or "00" 3cmx2.5cmx.5cm
BUSH201600303	Glass	pinkish glass base squared 3cmx3cmx.5cm
BUSH201600304	Ceramic	white ceramic rim fragment 1.7cmx1cmx.5cm; unmarked
BUSH201600305 VOID		
BUSH201600306 VOID		
BUSH201600307 VOID		
BUSH201600308	Glass	two pieces of clear teal tinted glass. Bottle top and joined piece. 7x5x3.5 cm
BUSH201600309	Glass	milky glass; "MA" 2cmx2.2cmx.2cm
BUSH201600310	Ceramic	thick piece of white ceramic. Slightly rounded. 3.5x1.5x2 cm
BUSH201600311	Glass	clear glass fragment, possibly quart bottle. Lettering, "UAR." 2x4x0.5 cm
BUSH201600312	Glass	clear glass wall fragment with beveled pattern; curved; 5x3x.4cm
BUSH201600313	Glass	amber fragment of possibly a quart bottle. Lettering, "QUA" 4x3x1 cm
BUSH201600314	Glass	amber fragment. Lettering, "DERAL" and "ALE." 4.5x2x0.25 cm
BUSH201600315	Glass	clear glass bottle top fragment. 4.5x3x2 cm
BUSH201600316	Glass	thick clear glass fragment with raised small diamond pattern. 4x3x1 cm
BUSH201600317 VOID		
BUSH201600318	Glass	clear teal-tinted glass fragment of bottom and side of vessel. number "6" on the bottom. 6.5x2.5x6 cm

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

BUSH201600319	Glass	small clear glass shard with letters, "ER" and "ACA." 2.5x1x0.1 cm
BUSH201600320	Ceramic	two pieces of ceramic, cream colored with a flower and a scalloped edge. 5.5x5x0.5 cm
BUSH201600321 VOID		
BUSH201600322	Glass	small piece of white glass. Letters on glass, "ASON F." 3x1.5x0.2 cm
BUSH201600323	Ceramic	white ceramic sherd with purple speckled/floral pattern on one side. 2x0.5x0.25 cm
BUSH201600324	Glass	small amber glass fragment with letters, "USE." 2x1.7x0.1 cm
BUSH201600325	Glass	Small clear glass jar, intact. Lettering on bottom, "0-7354" "41" logo on bottom of glass appears to be the letter "H" with and "A" in the bottom part of the "H" 10.5x5.5x5.5 cm
BUSH201600326	Glass	possible jar fragment. Clear w/ top edge. 6.5x3x8 cm
BUSH201600327	Metal	metal machine cap, round. 4.5x3x1
BUSH201600328	Metal	square metal nut, rusted. 3x3x1.75 cm
BUSH201600329 VOID		
BUSH201600330	Glass	clear glass bottle top with attached partial metal cap 11x3x.5 cm
BUSH201600331	Glass	amber glass fragment with lettering, "BOTTLE." 5x3x1 cm
BUSH201600332	Metal	long bent metal bolt. 18x1.5x1 cm
BUSH201600333 VOID		
BUSH201600334	Glass	two clear glass pieces. One diagnostic, one non-diag. possibly from same vessel. Diagnostic shard has letters, "RBIDS SALE" and, "HIS." 4.5x6x0.2 cm
BUSH201600335	Glass	clear glass fragment. Semi-rounded. Possibly a bottom piece of vessel. 4.25x3x4.5 cm.
BUSH201600336	Glass	amber glass shard. possibly part of a bottle top. 5x3x0.75 cm

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

BUSH201600337	Glass	rounded clear glass fragment. Possibly bottom edge of vessel. Some lettering- not clear. 4.5x1x1.
BUSH201600338 VOID		
BUSH201600339 VOID		
BUSH201600340	Metal	small flat round piece of metal, bent nearly in half. Small hole in center. 3x1.5x0.5 cm.
BUSH201600341	Glass	small rounded piece of white glass. Letters, "INE." 2.5x1.75x0.25 cm
BUSH201600342 VOID		
BUSH201600343	Glass	large clear glass shard. Lettering, "E PINT." 6x4.5x0.5 cm
BUSH201600344	Glass	rounded clear top edge glass fragment. 3x1.5x1.75 cm.
BUSH201600345	Glass	clear glass fragment. Lettering, "PIN." 2.5x2.5x0.5 cm
BUSH201600346	Glass	amber bottle top fragment. 4.25x6x5 cm
BUSH201600347	Glass	amber shard of glass. Lettering, "FEDE" and "OR" or "08." 2.75x2.75x0.25 cm
BUSH201600348	Glass	clear glass fragment. lettering "UA." 2.5x1.5x1 cm
BUSH201600349	Glass	amber glass vessel bottom. 2x2x0.5 cm
BUSH201600350	Glass	amber glass shard. Possible bottom of a vessel. Lettering, "15," and "7." 2x0.75x2 cm
BUSH201600351	Ceramic	small sherd of white ceramic with one side blue. Edge piece. 1.5x1x0.1 cm
BUSH201600352	Glass	clear shard of glass with lettering, "SALE." 2.25x2x0.25 cm
BUSH201600353	Ceramic	white ceramic sherd. One side has blue floral pattern. Edge piece. 2.5x1.5x0.3 cm
BUSH201600354	Glass	circular milk glass fragment, with letters, "LAIN LINE." 4.5x3x0.1 cm
BUSH201600355	Glass	amber shard of glass, slightly rounded. Lettering, "BOU." Wavy pattern below letters. 5x4x0.5 cm
BUSH201600356	Glass	Amber shard w/ lettering, "RT." 2x0.25x1.5 cm

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

BUSH201600357	Ceramic	Ceramic sherd- white with a blue basket weave design. Top edge. 3x0.5x1 cm
BUSH201600358	Glass	small shard of clear glass with a curved line pattern. 5x2x0.1 cm
BUSH201600359	Glass	clear glass shard with letters, "ED" and "OR R." rounded. 4x3x0.5 cm
BUSH201600360	Ceramic	Ceramic rim fragment. Interior white; exterior blue fading to white with gold band and small decorative pattern. Prob cup. Max dim 3x2x0.1cm
BUSH201600361	Glass	teal glass wall fragment with cursive writing UI. Max dim 4x5.2x0.4cm
BUSH201600362	Glass	Brown bottle mouth and neck. 8x2.5x2.5 cm
BUSH201600363	Glass	clear glass frgmt rounded corner maybe base. Illegible lettering on bottom and "43". Max dim 2x2x1cm
BUSH201600364	Glass	Clear glass shard with raised ornate triangle bevelling pattern; 2.1x2.4x0.5 cm
BUSH201600365	Ceramic	Small sherd of ceramic- cream or white color with faded black lettering, "RKE" "LAND." Sherd is from Edward Clarke ceramics. 2x0.25x1 cm
BUSH201600366	Glass	Clean, Rounded, Teal Tinted Glass with undistinguishable writing. 5x.25x4cm
BUSH201600367 VOID		
BUSH201600368	Glass	Clear teal glass shard from the base of a jar; height 2.4x width 0.5 cm
BUSH201600369 VOID		
BUSH201600370 VOID		
BUSH201600371	Ceramic	White ceramic sherd of mason jar liner along intact rim with letters "RCE"; 2x1.6x0.4 cm
BUSH201600372	Glass	Clear glass shard with an "M"; 3.6x2.4x0.4 cm
BUSH201600373	Glass	clear rounded wall glass fragment with lettering "QUA". Max dim 3.5x4x0.5cm
BUSH201600374 VOID		

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

BUSH201600375	Glass	Clear glass base fragment by Owens Illinios Glass Co with mark and 64 D-1 45 in center. Max preserved 6.2x3x .7cm
BUSH201600376	Glass	Clear glass ornate raised patterned including triangle bevels and large ovals; 3.1x2.2x0.6 cm
BUSH201600377	Glass	Brown neck and mouth of bottle. 11x5.5x4.5 cm
BUSH201600378 VOID		
BUSH201600379	Glass	Clear glass fragment wall with lettering "RAL L". Max dim 2x2x.75cm
BUSH201600380	Glass	Flat shard of clear glass with lettering, "DONALD" 4x0.75x4 cm
BUSH201600381	Glass	Clear glass bottom of jar with Owens Illinois mark. Lettering, "D9" "45" 6x0.5x7 cm
BUSH201600382	Glass	Clear glass with writing "[]AL []"; 1.9x1.5x0.3 cm
BUSH201600383 VOID		
BUSH201600384 VOID		
BUSH201600385	Metal	metal end of small piece of silverware - spoon or fork - max dim 5.5x1.5x0.5cm
BUSH201600386	Glass	Clear glass shard with stripe pattern and lettering, "D1" 5x1x4 cm
BUSH201600387	Glass	Side and partial bottom of clear teal-tinted glass. Lettering, "ERL." "f." "ART" 5x2x4 cm.
BUSH201600388	Glass	Clear glass rim and threading partly preserved; maybe canning jar. Max dim 4x4x0.2 cm
BUSH201600389	Metal	Metal L shaped fragment with two protruding nails. 8.5x3.5x5 cm.
BUSH201600390	Glass	Clear glass round base fragment with lettering "AVIS". MaX dim 3x2x.25cm
BUSH201600391 VOID		
BUSH201600392	Glass	brown glass shoulder fragment with lettering "FORBIDS" . Max dimen 3x5x0.3cm
BUSH201600393	Glass	Rounded edge piece of old mason jar lid. White glass. 6x0.5x3 cm.

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

BUSH201600394	Glass	teal/clear glass wall fragment with letters "A KO []". Max dim 3x2.2x.3cm
BUSH201600395 VOID		
BUSH201600396	Glass	clear glass beveled fragment flat. Max dim 3x2x.5cm
BUSH201600397	Ceramic	white porcelain decorative horizontal handle fragment. Max dim 3x2.5x.75cm
BUSH201600398 VOID		
BUSH201600399	Glass	Brown glass shard lettering, "R8" "6" Possibly from the bottom of a jar. 6x0.5x3.5 cm.
BUSH201600400	Glass	Clear glass spool? broken short on both both ends; end diameter 1.1x length 2.5 cm
BUSH201600401	Ceramic	Two pieces of ceramic, white with orange pattern. Pieces join together. Partial edge pieces. 5x3x1.5 cm
BUSH201600402	Metal	Metal back of shotgun shell with wadding; not shot; 20 gauge
BUSH201600403	Glass	Milk glass shard with partial top rim intact; 2.4x1.4x0.4 cm
BUSH201600404	Ceramic	Sherd of ceramic. White with blue design. Letting, "THEODO 26TH PRES." Possibly from a commemorative plate for Theodore Roosevelt. 5.5x0.5x4.75 cm.
BUSH201600405	Glass	Clear glass fragment rounded wall or shoulder. Lettering "EDRAL LAW" and "RE-USE". Max dim 4x3.5x.6cm
BUSH201600406	Glass	Clear glass wall fragment with lettering "RAL L". Max dim 3x2x.5cm
BUSH201600407	Metal	Metal screw-on bottle cap. Yellow with beer barrel design and lettering, "MELLOW" 2.5x1x2.5 cm
BUSH201600408	Glass	Clear glass shard with raised writing "OS, TON"; 3.7x1.6x0.3 cm
BUSH201600409	Glass	Clear glass bottle top fragment. 6x2.75x3 cm

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

BUSH201600410	Glass	Green glass near the neck of a bottle with writing "D[]"; 2.6x2.4x0.4 cm
BUSH201600411	Glass	clear glass base fragment with letters "25 D" by Owens Illinois glass co. Max dim 4x4x.5cm
BUSH201600412	Glass	Brown glass curved shard with raised writing "OR"; 3.7x 2.8x0.3 cm
BUSH201600413	Metal	Metal shotgun end; diameter 2.2x1 cm
BUSH201600414	Glass	two brown glass fragments prob same object but no join. Embossed decorative patterns on exterior. Max dim 2x1x0.3cm
BUSH201600415	Glass	Clear glass with raised checkerboard pattern, square. Max dim 2.6x2.5x.2cm
BUSH201600416	Glass	Clear glass bottle top with preserved rim. Diam rim 2.25cm. Max preserved height 2.5cm
BUSH201600417	Metal	Oval-ish metal object. Slot through middle of piece. Flat backing with protruding piece of metal at one end. 8x2.5x3 cm.
BUSH201600418	Glass	Larger clear shard of glass with pattern of diagonal lines in a stripe. 5x0.25x5 cm.
BUSH201600419	Glass	clear glass fragment with lettering "FEDE". Max dim 4x2x0.3c,
BUSH201600420	Glass	Clear glass base of rectang or square bottle. Lettering "LIO[]" and "ENEE". Corner piece. Max preserved dim 2x3x2cm
BUSH201600421	Glass	clear glass rim fragment with molded decoration. Max dim 4x2x1cm
BUSH201600422	Glass	BEAD
BUSH201600423	Glass	Brown glass shard with lettering, "ONE." 3.5x0.5x1 cm.
BUSH201600424	Glass	Brown glass shard with lettering, "ERAL." 2.5x0.25x1.75 cm.
BUSH201600425	Ceramic	White ceramic with edge piece. Two joined pieces. Ceramic has a green and pink floral pattern. Faded

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

		stripe of gold leaf around edge of artifact. 3.75x0.5x3 cm
BUSH201600426	Metal	Dr. Scholls Footeazer with partial metal attached. Lettering present identifying as Footeazer from Dr. Scholls. Identified date as 1918 possibly. 12x2x6 cm
BUSH201600427	Metal	Bottle cap metal with part of clear glass bottle neck attached. Lettering on yellow cap: "MELLOW" with a tap on bottom half of cap. Cap dia: 3xm cap height 1cm. Max neck frgmt height 3.5cm thickness .5cm
BUSH201600428	Glass	Browm glass shard with raised image of a boat over water/fish; 2.7x2.3x0.3 cm
BUSH201600429	Glass	Brown glass base fragment by Owens Illinois glass co and "4". Max dim 2.3x.9cm
BUSH201600430	Glass	clear fragment flat glass; stipples embossed, Owens Illinois glass so and lettering "23 [symbol] 3"
BUSH201600431	Glass	Brown glass fragment of bottle top. 2.5x2x3 cm
BUSH201600432	Glass	Clear glass small bottle neck; lip preserved. Diam rim 2.3cm; max preserved height 3.2cm; neck width 1.8cm
BUSH201600433	Glass	clear glass flat with face in profile. Max 3.5x2x.5cm
BUSH201600434	Glass	Clear glass jar side connecting to bottom with writing "LL PIN". 2x3.5x0.3 cm.
BUSH201600435	Metal	Flattened metal tube covered with paper reading "STARRETT", "Mechanics Tools", "Hack Saws", "Steel Tapes"; circle logo featuring a combination square and maybe calipers; probably dates back to between 1880 and 1909; length 5.1x diameter 1.4 cm
BUSH201600436	Glass	Small shard of clear glass with lettering, "USE" 2x0.5x3 cm
BUSH201600437	Glass	clear glass bottle top; most of lip preserved with mold mark. Diam rim 2.4cm. Max pres height 4.

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

		Neck width 2cm.
BUSH201600438	Glass	brown glass fragment with lettering "IDS S BOTT". Max dim 2x2x.2cm
BUSH201600439	Glass	From sieve: small top of kerosene lamp rim; clear. Max dim 1x1.5x.25
BUSH201600440	Glass	2 clear glass fragments with letters: FORB and SE space and one more UI letter; max preserved dimension of both: 4.3x2.6x0.3cm
BUSH201600441	Glass	Clear glass base fragment with writing: "4/5 G". Max preserved height 2.2cm. Width .4cm
BUSH201600442	Ceramic	Maker's mark; "New" with some design above. Max 3x2x.5cm
BUSH201600443	Ceramic	Small sherd of cream ceramic with light green lettering, "MEAKIN." Closest comparanda numbers 2601 and 2584 in Encyclopaedia of British Pottery and Porcelain Marks. Ca. 1890+ 2x1.5x0.75 cm
BUSH201600444 VOID		
BUSH201600445	Ceramic	Sherd of pottery. Browns, blacks, and reds in a gradient. 4.01x0.5x2.01 cm
BUSH201600446		BEAD
BUSH201600447	Glass	Shard of clear glass with lettering, "UAR." 2.5x0.25x2 cm
BUSH201600448	Glass	small bottle neck with ridges at each end, made of clear glass. Diameter 2.1cm height 4.2cm
BUSH201600449	Glass	Clear thick glass shard, possible shard of a jar bottom 5.5x3.2x.7cm
BUSH201600450	Ceramic	Sherd of a J & G Meakin Hanley, England (post 1907) piece. Cream colored, light green writing, "J &" "HA" "ENG." 2x0.5x2 cm.
BUSH201600451	Organic	FEATURE
BUSH201600452		BEAD
BUSH201600453	Glass	Shard of brown glass with partial lettering, "QUA." Beveled pattern. 3.5x3x0.5 cm

TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

BUSH201600454	Glass	Clear shard of glass. Possibly bottom edge. Lettering, "GB" "IAB" "UH" 2x2x2 cm
BUSH201600455	Metal	Copper jacketed slug, filled with lead. Full metal jacket, Most likely 1920s or later. 1.75x1x1 cm
BUSH201600456	Ceramic	Large sherd of white ceramic, with a crack down the middle, part of rim. 6x5.4x0.4cm
BUSH201600457	Ceramic	sherd of white ceramic with gold floral pattern. 2.9x2.3x.3cm
BUSH201600458	Metal	metal axe-head. 25x10.9x2.8cm
BUSH201600459	Metal	large metal gear 26x9.4x4.5cm
BUSH201600460	Brick	large brick. 19.4x8.1x4.9cm
BUSH201600461	Glass	brown glass bottle top, with rim intact. height 3.8cm diameter 2.7cm
BUSH201600462	Glass	clear glass shard with letters "E PIN" 3x3.1x0.3cm
BUSH201600463	Glass	clear glass shard of a jar? base, with numbers "14 8[]" "83". 4.6x3.9x0.7cm
BUSH201600464	Glass	Brown bottle top with rim intact. height 5.5cm diameter 2.5cm
BUSH201600465 VOID		
BUSH201600466	Ceramic	Small white sherd or ceramic, with a ornate floral pattern, was originally two separate pieces. 2.8x1.6x0.2cm
BUSH201600467 VOID		
BUSH201600468 VOID		
BUSH201600469	Glass	Mouth and neck of brown bottle. Old style-thick glass. Bottle fragment has been burned and warped in a fire at some point. 7x4.5x0.5 cm
BUSH201600470 VOID		
BUSH201600471	Ceramic	Two pieces of joined ceramic. Sherd is white and a part of a rim. 3x2.4x0.4 cm
BUSH201600472	Glass	Bottom rim of Mason jar lid. White glass. Lettering, "FOR MASON." 4.5x1.5x0.4 cm
BUSH201600473	Glass	Two joined pieces of a Hero Fruit jar lid. White

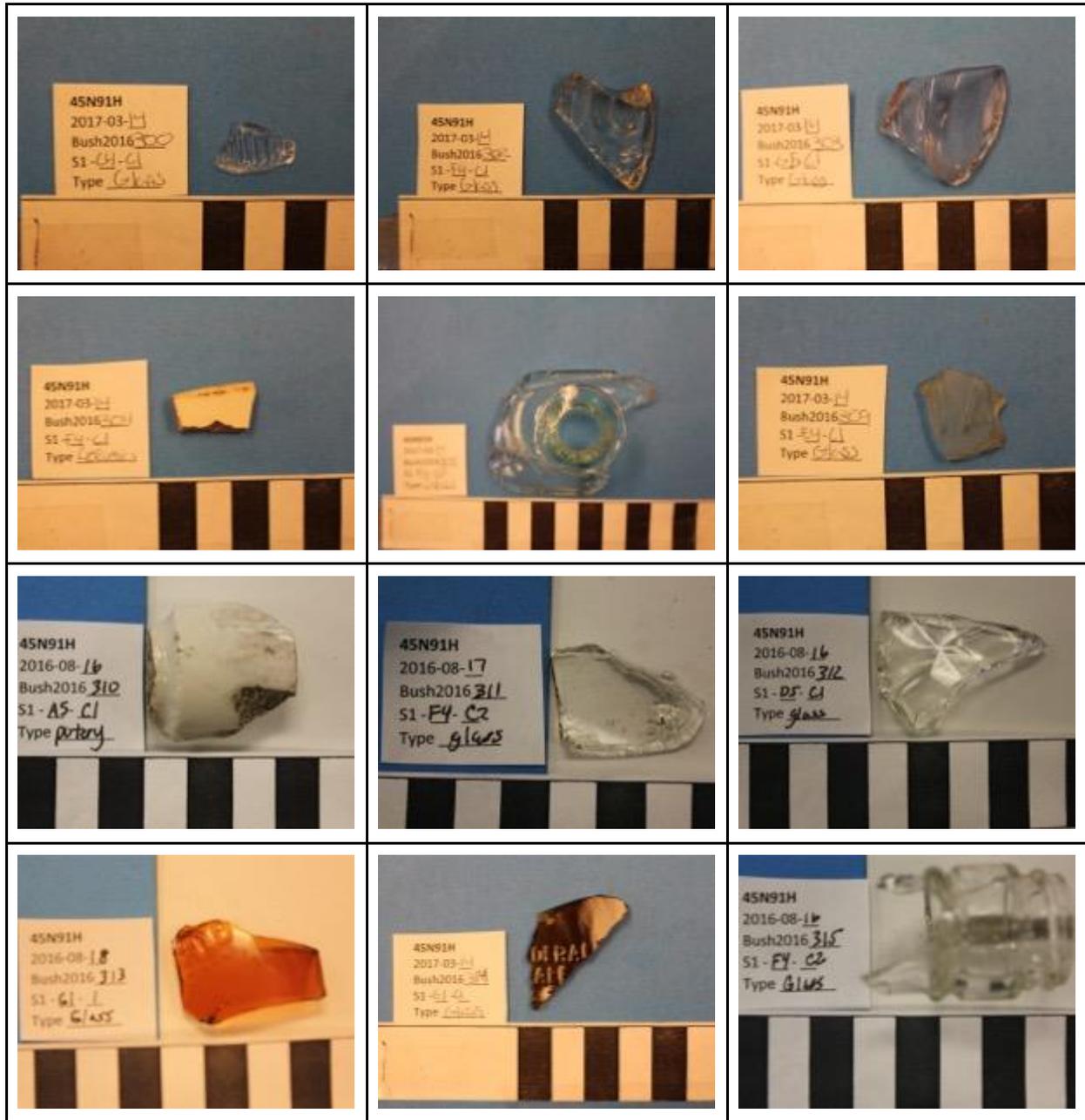
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

		glass. One fragment is warped by fire. Lettering, "THE HERO FRUIT" "COM" "HILA" 6.5X6.5X0.3 cm
BUSH201600474	Glass	Small brown shard of bottle mouth. 2.5x3.5x0.3 cm
BUSH201600475	Glass	Clear glass fragment. Appearing to be the bottom of some container. Sides with leaf design, bottom with a square pattern with circles inside each small square. 4.5x2x0.3 cm
BUSH201600476	Glass	Small teal glass fragment. Fragment is the mouth of a bottle. 2x2.5x0.4 cm
BUSH201600477	Glass	Clear glass fragment of a small bottle mouth. 2.4x2.8x0.5 cm
BUSH201600478	Glass	Long brown warped bottle neck and mouth fragment. 4.5x11x0.4 cm
BUSH201600479	Ceramic	Sherd of white ceramic with partial makers mark. Makers mark is black with picture of a lion and lettering, " ROYAL." Makers mark identified to be Johnson Bros. 3x3x0.4 cm
BUSH201600480	Ceramic	Fragment of what appears to be the body of a white porcelain doll with a black bow around waist and fragment of porcelain that is the doll's hand- also white in color. Doll: 3.5x1.5x1.2 cm Hand: 2.1x0.8x0.9 cm
BUSH201600481	Glass	The majority of a small green bottle. Just over half of the bottle has been pieced together. Height 7cm Diameter 4.9cm
BUSH201600482	Glass	A pieced together part of a bottle with the writing "[]ASELINE" "CHESEBROUGH" "NEW YORK" Dates back to the Vaseline Company in Chesebrough, New York. Circa 1872-early 20th century. Handblown. 6x4.6x0.3cm
BUSH201600483	Glass	White glass rim shard, mason jar liner

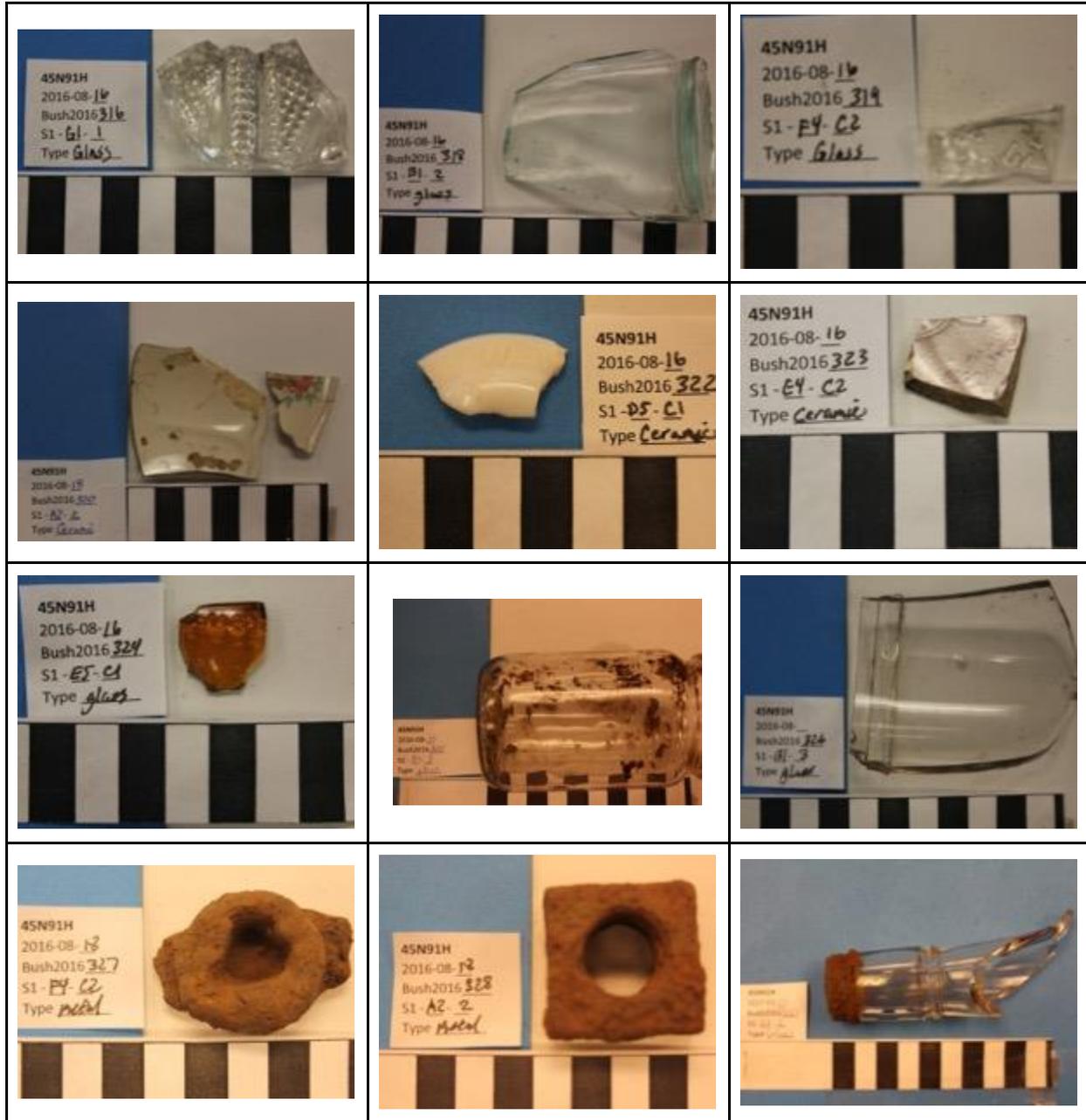
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

Plates 3-20: Diagnostic Artifact Photos

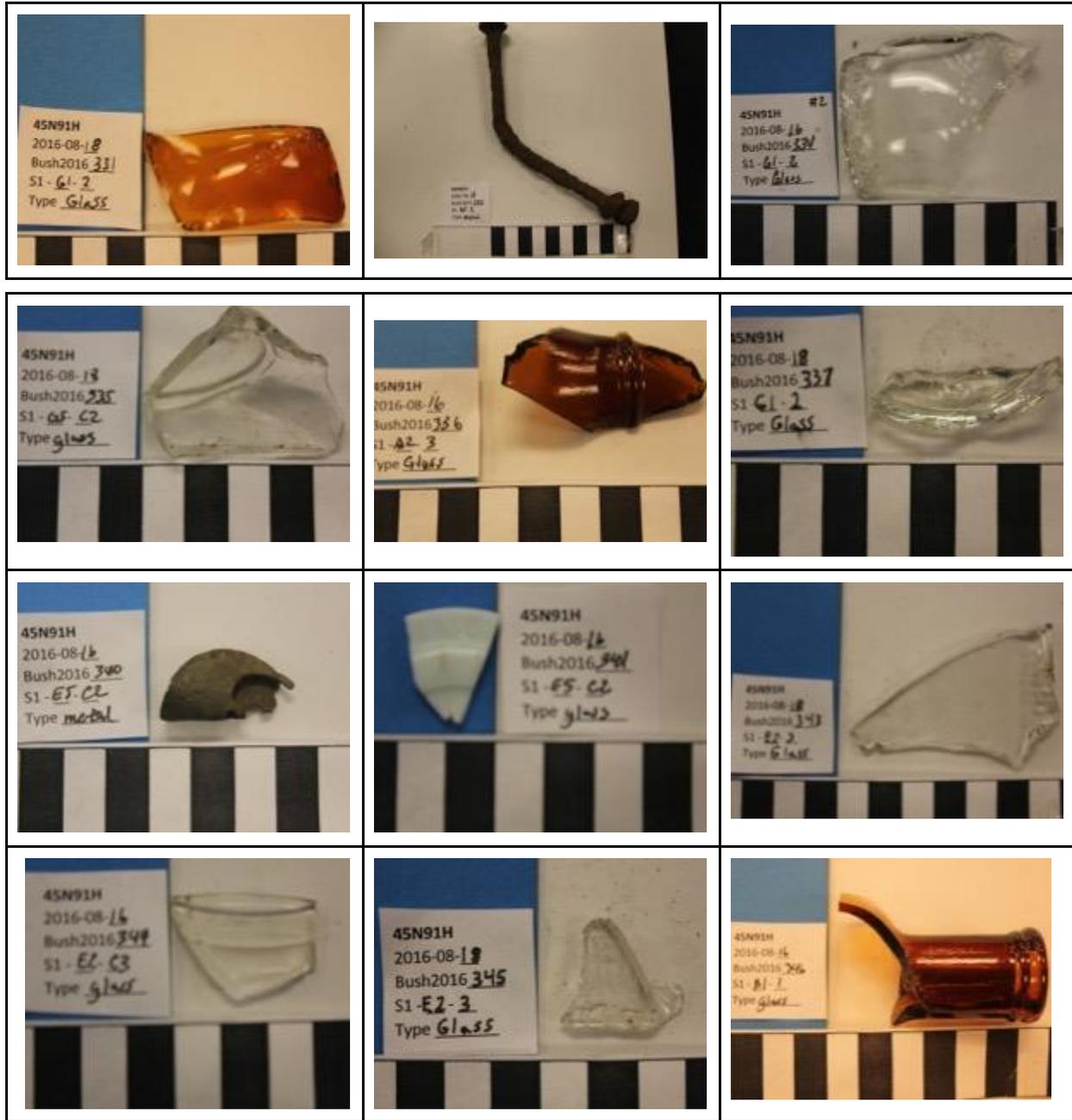
Diagnostic Artifacts 300-483, 45TN91H, BUSH2016



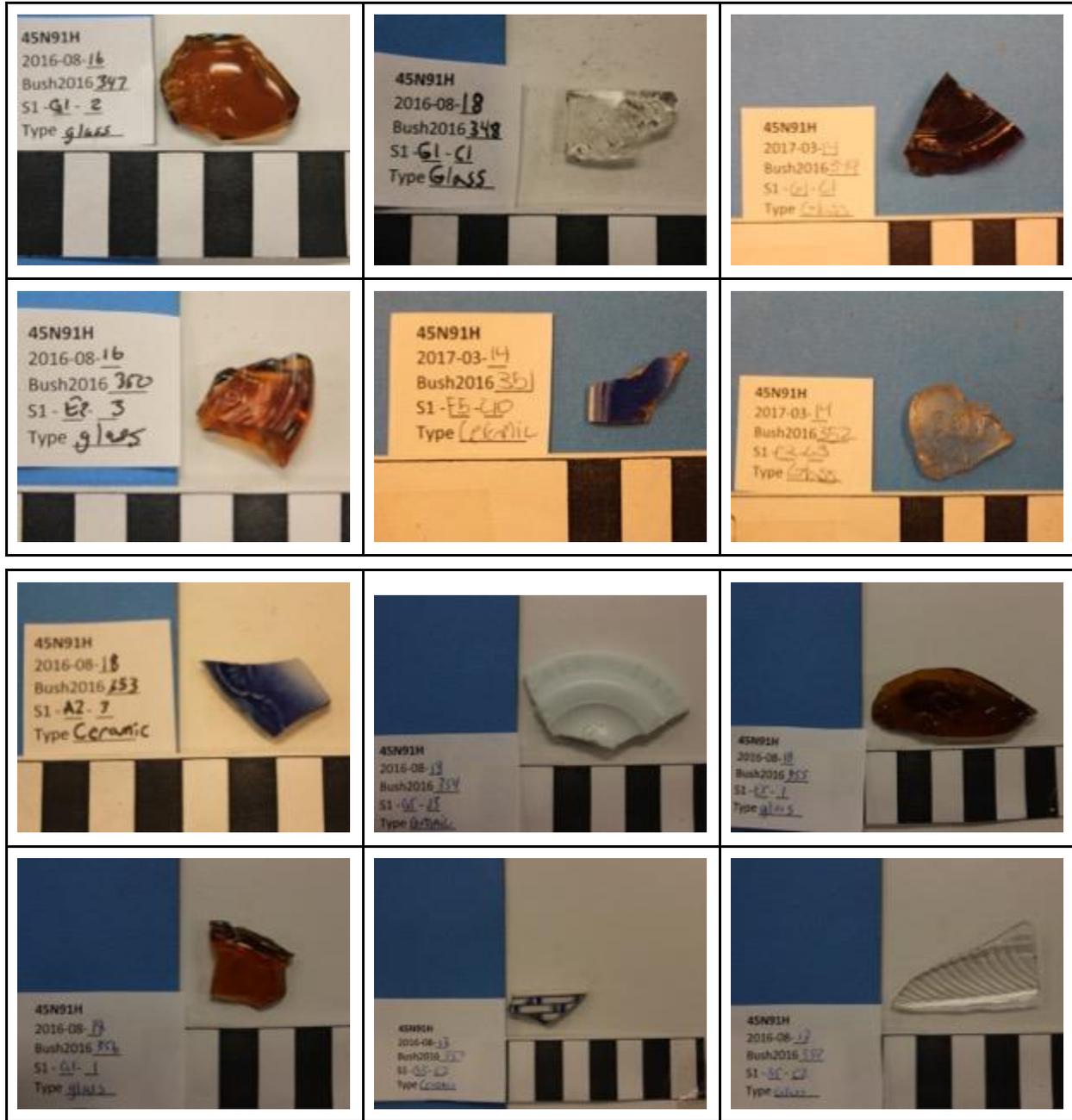
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



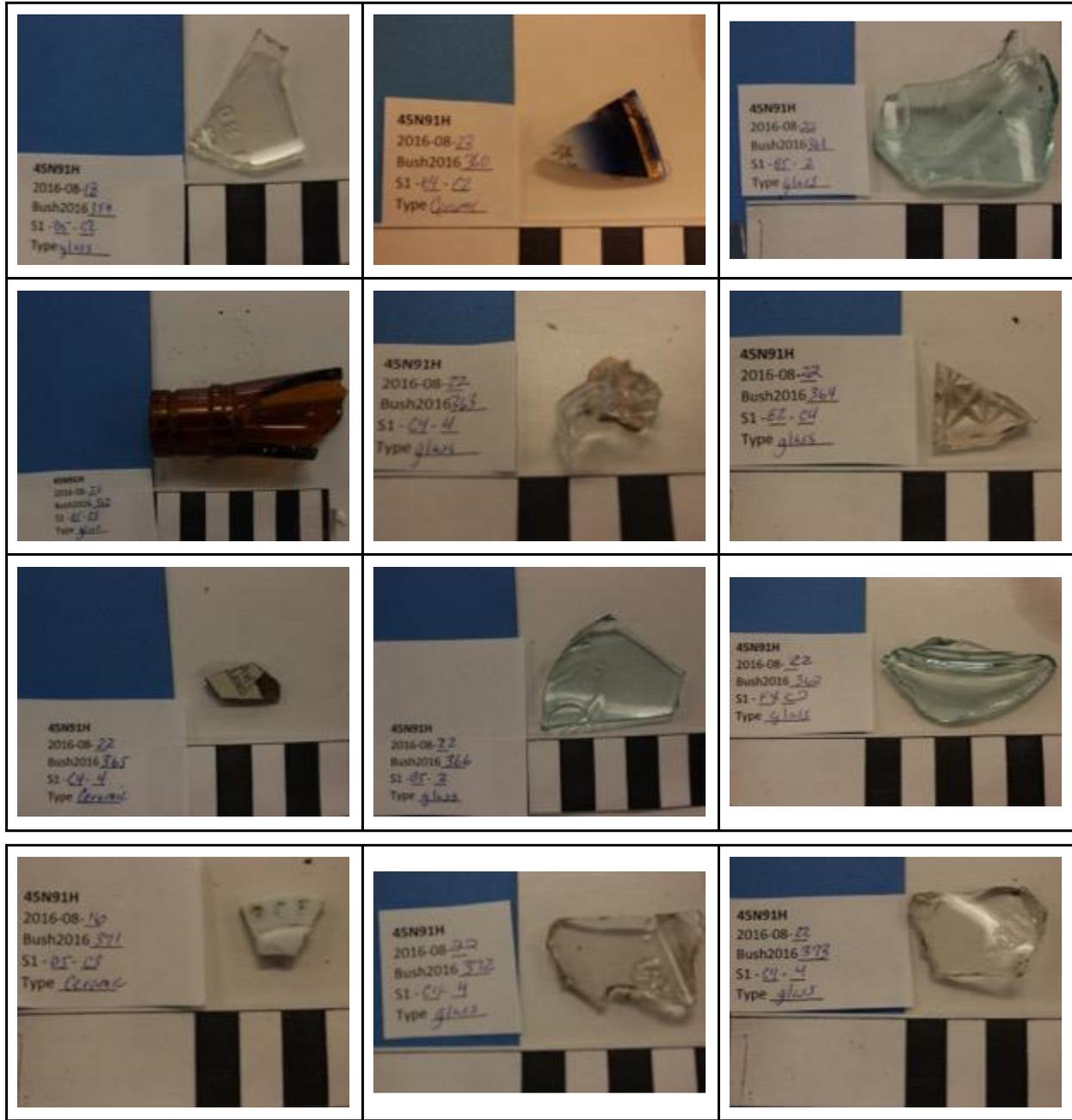
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



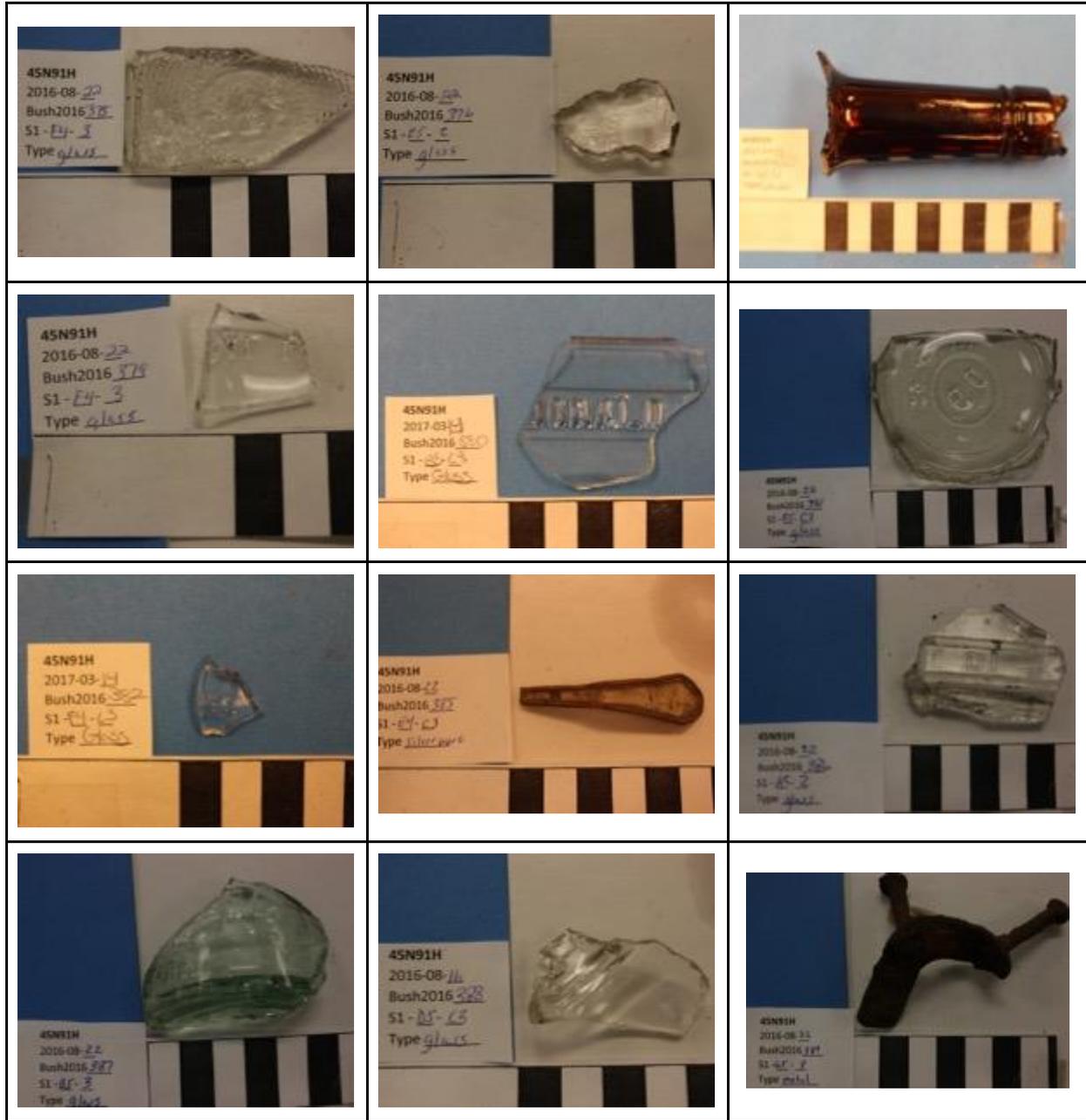
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



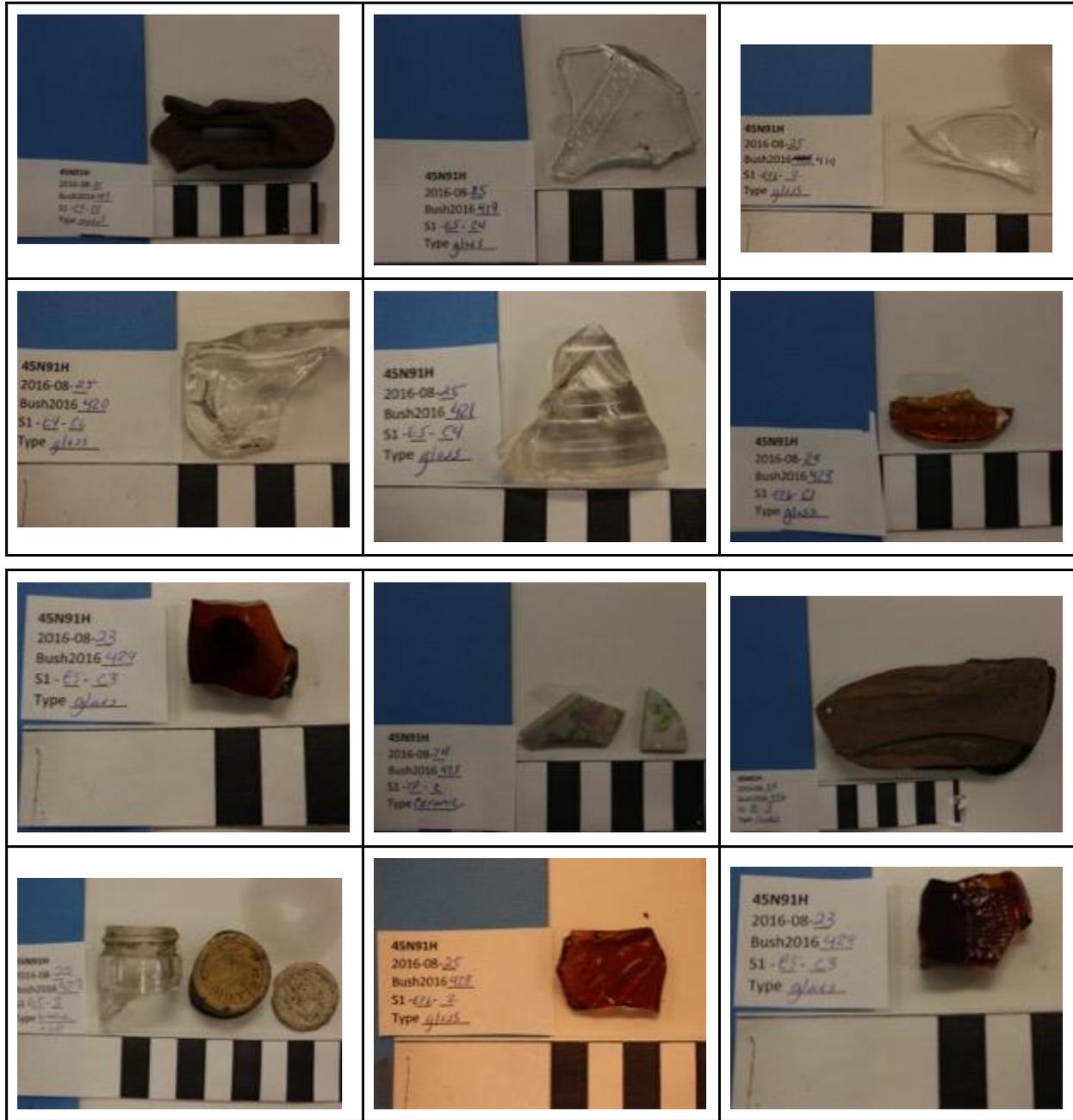
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



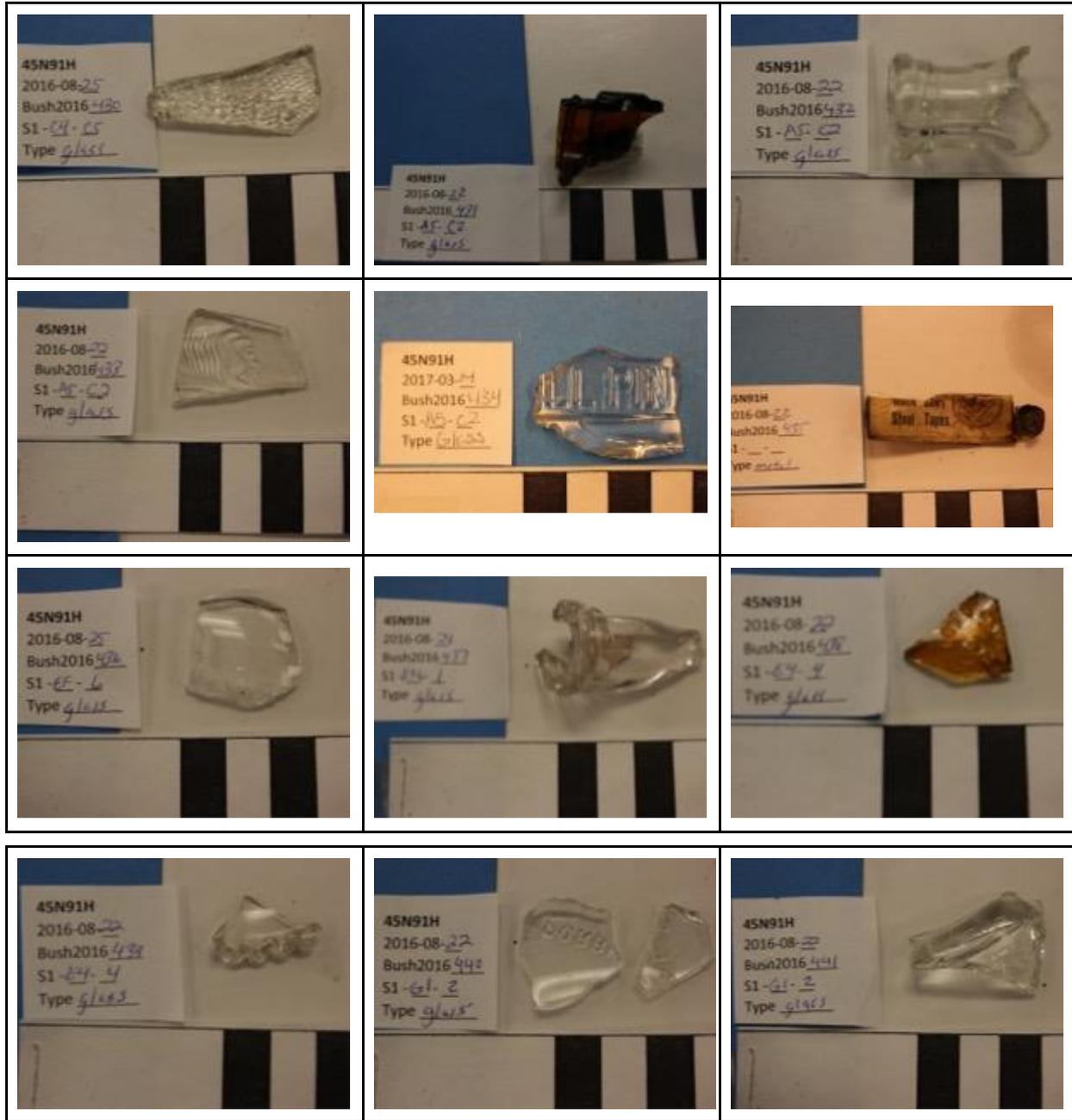
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



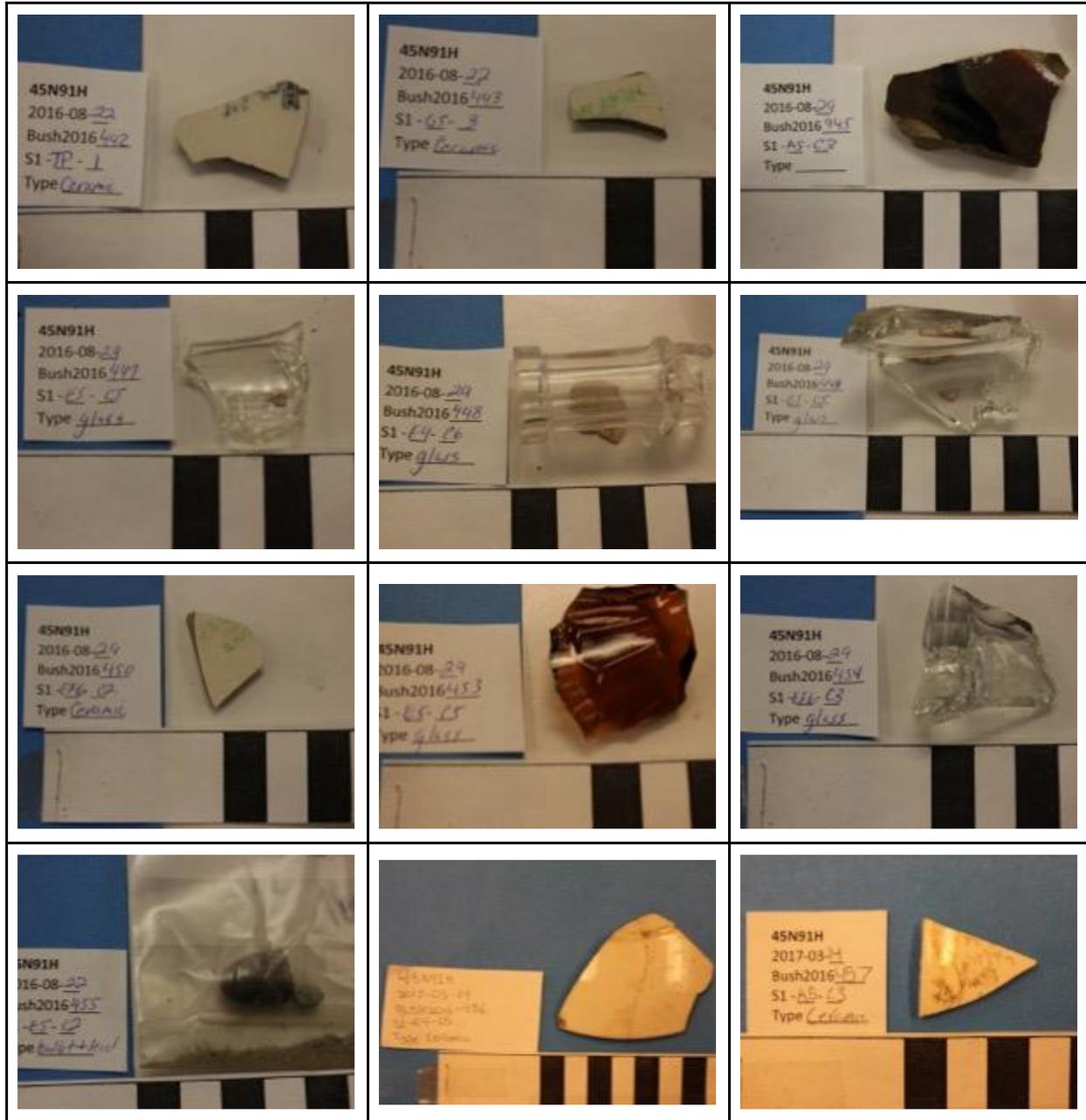
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



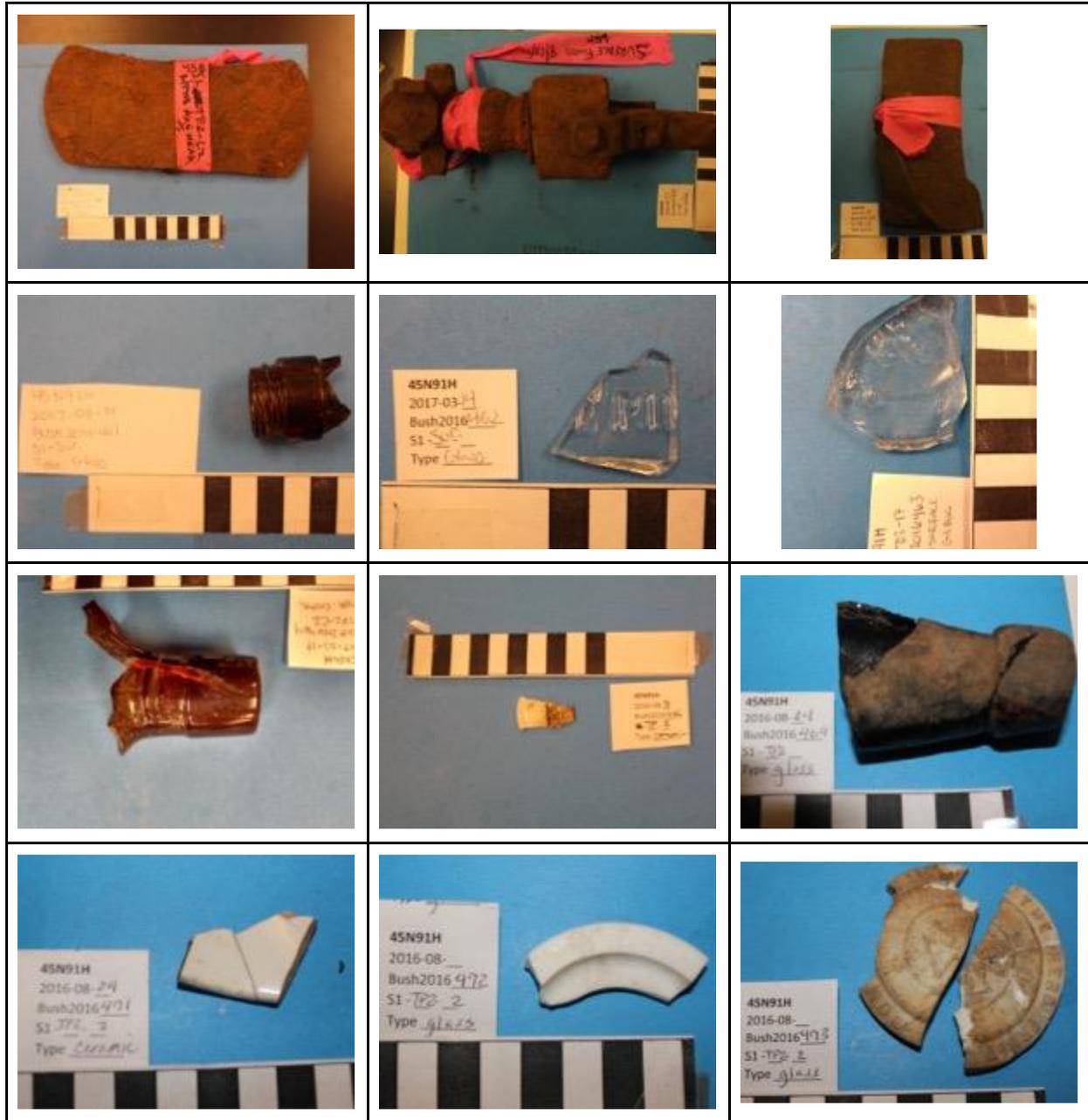
TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,



TESCAL 2016 EXCAVATION AT BUSH HOMESTEAD, TUMWATER,

