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Obsidian Utilization in the Snake River Plain, Southern Idaho: The Dean Site and the Importance for Understanding Lithic Procurement Strategies in the Northern Great Basin

By

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To the Graduate Faculty:

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Thesis Abstract—Idaho State University (2020)

Obsidian is a volcanic glass that was used by people in the past to make stone tools. Most of the obsidian from the Snake River Plain in southern Idaho is geochemically distinct which means that it can be sourced. Obsidian sourcing analysis is one method for studying mobility patterns of people in the past. 392 lithic artifacts from the Dean Site (10TF01) in southern Idaho were analyzed by portable x-ray florescence spectrometry and compared to samples taken from the known sources on the Snake River Plain. LA-ICP-MS analysis of known source samples is also used for studying how different the Snake River Plain obsidians are from each other. Obsidian performance and predictability is important as it will influence the choice of raw materials used. Performance and predictability can be studied by examining the roughness of obsidian. Obsidians that are smooth tend to be higher quality than those that are rough.

Key Words: Obsidian, Snake River Plain, Performance, Predictability, pXRF, LA-ICPMS

Chapter 1: Introduction

Obsidian

Obsidian is a rhyolitic volcanic rock that has a high silica content. It forms when magma cools rapidly, or from magma that is viscous enough that crystals are unable to form (Shackley 2005). The rate of cooling is important to the formation, as is the viscosity of the magma (Shackley 2005). Obsidian forms under specific conditions which influence the obsidian after cooling. If the magma cools very rapidly, the obsidian will be more glassy. If the magma cools more slowly, then the obsidian will likely be more grainy than glassy. The geochemistry of the magma as well as any inclusions also affect the obsidian after it has formed. Obsidians have different chemical signatures (generally) between the lava flows from which they are formed. The presence of silicon oxide and aluminum oxide in the lava flow increases the likelihood of obsidian formation as the lava cools rapidly (Shackley 2005). When the conditions of formation are not exactly right to produce obsidian, pumice and perlite will form. Pumice and perlite are not lithic materials, meaning that a stone tool cannot be made from these materials. When the magma cools slowly versus rapidly, results in the formation of pumice and perlite. (Shackley 2005). The presence of water within the magma flow increases that likelihood of perlite formation as opposed to obsidian (Shackley 2005). Since obsidian is a volcanic glass, it only forms in places where volcanic activity has occurred. This means that people in the past had to obtain the obsidian initially from a geologic outcropping or source.

The use of different obsidian sources in the past is influenced by two main factors. Those are fracture predictability of the obsidian and location of the source. Fracture predictability is dependent upon the condition of the material. Obsidians that are more homogenous tend to

fracture more predictably than those that are not (Krauel 2017). Good quality obsidians tend to be more glassy and less grainy. Many obsidian sources are located a great distance from locations where humans lived in the past (Holmer 1997; Krauel 2017). This would require people to travel to the source to obtain obsidian. Significant effort would therefore be required to obtain obsidian from distant sources. These two factors likely influenced which source were utilized.

Obsidian is considered by archaeologists to be a lithic material (i.e. can be made into a stone tool). Obsidian is a volcanic glass that generally fractures predictably and reliably which makes it ideal for creating tools. Obsidian can be found naturally around the world where volcanic activity has taken place. Humans in the past discovered that obsidian can be worked or knapped into tools or simply sharp flakes. As a result, humans have transported obsidian throughout the world, and to places where it does not occur naturally. For example, obsidian from the Malad and Bear Gulch sources on the Snake River Plain has been found at archaeological sites in Kansas and Iowa (Logan et al 2001). Snake River Plain obsidians have also been found in the Mid-Atlantic region of the United States (Dillian et al 2007).

The Snake River Plain in Idaho is a prime location in the western United States from which to obtain obsidian. The volcanic hotspot that currently resides under Yellowstone National Park deposited obsidian throughout the Snake River Plain over millions of years. The movement of the earth's tectonic plates over long periods of time is why the hotspot deposited obsidian across the Snake River Plain.

Obsidian has a geochemical signature, as a result of the formation processes, which can be analyzed by several methods that collect and measure, or quantify, the distinctive elemental chemistry present in the material. Geochemical analysis can produce an elemental 'fingerprint'

that can be traced back to the obsidian outcrops, or sources, exploited by past peoples. Although many different analysis methods are available to measure geochemical variation in obsidian, archaeologists have concentrated on a few methods that offer fast and economical elemental analysis for collections of elements that provide acceptable discrimination of individual obsidian sources, or exposures, within a region and into which obsidian artifacts can be sorted. Those methods include x-ray florescence spectrometry (XRF) and laser ablation inductively-coupled plasma mass spectrometry (LA-ICP-MS). These techniques allow archaeologists to conduct sourcing analysis of obsidian. When conducting obsidian sourcing analysis, samples of obsidian from the geologic source must be collected and analyzed in order to characterize the geochemistry of each source. Once the source data has been collected, then obsidian artifacts can be analyzed, and elemental concentrations compared to the data from known sources to see if the geochemical signatures match up with the known sources. This allows archaeologists to interpret where people in the past obtained the raw materials (obsidian) from which they created tools, such as projectile points.

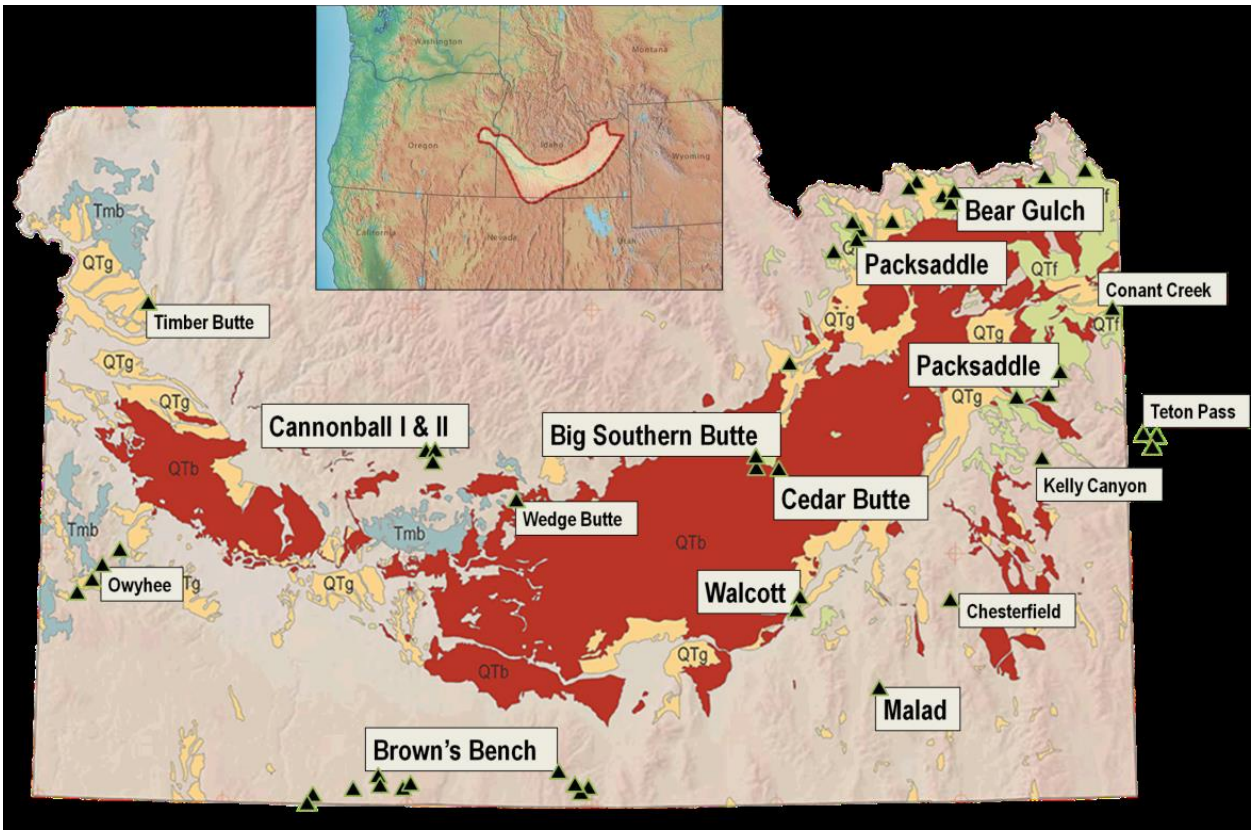

Figure 1. Map of Snake River Plain obsidian sources.

Research Questions

The main research questions for this thesis is to analyze the performance characteristics of the Snake River Plain obsidian sources and to compare this to frequency of use by stone tool makes through prehistory. Do the characteristics of the Snake River Plain obsidians have any effect on the use frequency and stone tool production? Performance in this case means the predictability of the material selected by prehistoric tool makers, measured through material granularity, annealing and fracture patterns. Profilometry, or surface roughness data are utilized in conjunction with the geochemical data in an attempt to assess performance. The Profilometer analyzes the roughness of a sample, in this case obsidian, and can be used to assess the regularity, or predictability of the material used in tool making. I will be looking for any

correlation between obsidian quality and other factors including distance to source from archaeological sites in terms of miles or kilometers and the cost of obtaining the raw material and transporting it back to habitation areas. The rates of usage of the different Snake River Plain obsidians will also be analyzed to see if there is any correlation between resource quality (performance) and the rate of usage in the past. The profilometer data will be used to analyze performance, and the geochemical data is used to 'source' artifacts and examine the differences between the chemistry of the different obsidian sources.

The Dean Site (10TF01), located at the headwaters of Cedar Creek, has been described as a tool manufacture site, where previous authors have suggested that "the site, located at the headwaters of Cedar Creek, is classic, for it represents perhaps one of the first places in the state where man began extensive exploitation of Idaho's nonmetallic mineral resources" (Bowers and Savage 1962:1). However, it is likely that the site was used for hunting as well as the manufacture of stone tools. Evidence to support this conclusion lies in the landscape surrounding the site. The spring source would likely draw wildlife since the area would have been relatively dry in the past. The site sits in a valley surrounding the spring source. The valley would likely have been a pathway that animals followed as they moved around the landscape. The spring would also attract animals that were moving through the valley. Also, the presence of numerous lithic sources near the site, and the number of intact tools, broken tools, flakes, and other categories of artifacts indicate that the site was used for more than just tool manufacture. Many types of artifacts were found at the Dean Site including projectile points of many types, manos, pestles, and many flakes, both utilized and waste flakes.

Figure 2. Picture of the Dean Site present day.

This research will contribute to the knowledge base of Snake River Plain archaeology in a couple of ways. The Dean Site has not been extensively studied. Only two studies were done on the Dean Site. The first one is a report on the site, excavation, and artifacts found (Bowers and Savage 1962) and the second is a master's thesis describing the archaeology at the Dean Site, including artifacts, and the surrounding landscape (Barnes 1964). The artifacts from the Dean Site will expand our understanding of obsidian usage and preference on the Snake River Plain. It is known to archaeologists that some of the obsidian sources on the SNP are more useful than others for making tools. This study will attempt to quantify this by analyzing the geochemical composition of obsidians from the known sources in the region by pXRF and LA-ICP-MS. Profilometer analysis will also be used to measure the roughness of the different obsidians. By examining the results of these analysis, the goal is to be able to quantify the characteristics of the SNP obsidians that are considered "high quality" or "high use" obsidians.

This research is an attempt to measure obsidian quality, source the artifacts from the Dean Site, and address the question of mobility patterns of people in prehistory. Mobility in this case, is examining how people moved about the landscape and which lithic sources were exploited at different locations.

Chapter 2 Literature Review & Culture History

Introduction

This chapter addresses the known history of the Great Basin and Snake River Plain. Information is drawn from archaeological research as well as cultural anthropology research. The culture history of a region is important for understanding the past, even the distant past. This chapter will outline what is known about the culture history of the Great Basin and Snake River Plain.

The Great Basin in the western United States is a fascinating place from an anthropological perspective. Julian Steward conducted extensive ethnographical fieldwork in the region in the early part of the 20th century (Steward 1938).. Extensive archaeological work has also been conducted in many areas of the Great Basin since Julian Steward, Morgan 2010) Jones et al 2003). There are several different Native American groups that consider the Great Basin to be part of their home range currently. Those include the Shoshone, Blackfoot, Ute, and Paiute. This group of Native American tribes are referred to in the anthropological and archeological literature as Numic (Morgan 2010) This is in reference to their languages, which all seem to be related. There are ten different languages spoken by Native American tribes that are classified as "Numic" due to their similarities (Morgan 2010). Archaeologists and anthropologists have been interested in the migrations of groups of people (Native American tribes) in and around the Great Basin. This is referred to in the anthropological and archaeological literature as "The Numic Spread" (Morgan 2010).

The Archaeology of the Snake River Plain and Great Basin

The Great Basin has been inhabited by Native American groups for many thousands of years (Morgan 2010, Plew 2016) Some archaeologists argue that some areas of the Great Basin have been inhabited for as long as ten-thousand years, which is not unique (Bowers and Savage 1962). Two such researchers are Bowers and Savage who conducted an archaeological investigation of the Dean Site in Twin Falls County, Idaho, which lies on the Snake River Plain (Bowers and Savage 1962). Since this excavation took place, dating techniques have become more sophisticated, thus Bowers and Savage's claim that the Dean Site contains cultural materials that are ten-thousand years old is questionable. This site, according to Bowers and Savage, yielded artifacts that date from approximately ten-thousand years ago through the late pre-historic to the early historic period (1962). The Dean Site (10TF01) exhibits consistent and sustained usage through time.

The Great Basin is home to many archaeological sites of varying size and type which span this earliest period of human occupation (Plew 2016) Two major periods of culture history that are represented in the material record for the early Great Basin and for Idaho are; (1) the Paleo-Indian tradition of hunting big game which dates to between 12,000 and 7,000 years ago; and (2) the Archaic tradition of more diversified resource use which spanned the period from 10,000 years ago to the first contact with Europeans (Smith 2000).

The Snake River Plain: Setting and Environment

The Snake River Plain is an area in southern Idaho that exhibits multiple landscape types. The Snake River Plain formed approximately 12 million years ago. (Plew 2016). The area exhibits significant amounts of volcanism, primarily rhyolite and basalt flows. Large lakes were

also present in the Snake River Plain, this is evident because of the presence of sediments and fossils (Plew 2016) The aquifer feeds the Snake River as well as the Henry's Fork. The draining of Lake Bonneville, which occurred approximately 15,000 years ago, altered the landscape significantly in various locations, which affected how people obtained critical resources. This created the Snake River Canyon and Shoshone Falls near the present-day town of Twin Falls. Shoshone Falls, at 212 feet, is a natural barrier which impedes the runs of anadromous fish species (Plew 2016). Shoshone Falls is significant since it prevents salmon from venturing farther up the Snake River, thus people would have to fish below Shoshone Falls in order to obtain salmon.

The environment of the Snake River Plain is dry overall. The main sources of water are the Snake River as well as springs which can be found throughout the landscape. There is seasonal variation in temperature and precipitation levels in this area. The summer months tend to be warm and dry, whereas the winter months are cold, and have increased levels of precipitation (Plew 2016).

The Snake River Plain contains many different species of flora and fauna. Some of the flora include the following. Sagebrush is common throughout the area, as well as many species of perennial grasses such as blue bunch wheatgrass (Plew 2016). Near water sources, cottonwood trees and chokecherries can be found. The Camas Prairie yields both camas roots and balsamroot, both of which are edible for humans.

Many species of fauna can be found in this area. They encompass mammals, insects, reptiles, fish, and birds. Numerous mammals are present, many of which are useful for humans. These include mule deer, elk, pronghorn, big horn sheep, yellow-bellied marmot, and black tailed jackrabbit (Plew 2016). Bird species include the sage grouse, sharp-tail grouse, and

migratory birds such as mallard ducks, and Canada geese. Fish species in the area include trout, sturgeon, squawfish, and whitefish. Also present seasonally in the area are some species of anadromous fish which include steelhead and Chinook salmon (Plew 2016).

Figure 3. Map of the Snake River Plain.

The Snake River Plain: Browns Bench

Browns Bench is an area located around the city of Twin Falls. The area has rolling hills and many valleys, some of which contain water. This area is rich in raw materials namely obsidian. Chert can also be found in the area as well, chert is another lithic material that people used to make stone tools. Chert is important since some of the artifacts at the Dean Site are made from chert. Numerous springs are present on Browns Bench, which attracts animals and thus, would attract people as well. The Dean Site is located around one such spring (the headwaters of Cedar Creek). The spring is large today and was likely larger in the past, as the landscape was

wetter overall several thousand years ago. The combination of abundant raw material for stone tool production and other landscape features such as springs, canyons, and vegetation suitable to support wildlife makes the Browns Bench area a great location for humans. The reasons why this area is a great location for people is that there are many resources present that humans in the past would have needed in order to survive. These include water from springs, and streams, food resources, and lithic materials.

The weather patterns in the area consist of hot dry summers and cold slightly wetter winters. This may indicate that the Browns Bench area was inhabited primarily in the spring, summer and fall months. The majority of the moisture that the area receives comes in the form of snow. In some areas on Browns Bench, snowbanks can persist into the summer months, until the temperatures rise enough to malt them. Precipitation does occur in the summer months but is infrequent and usually consists of thunderstorms that have been known to cause flash flooding.

The Browns Bench area consists of highland environments that drain to the north (toward the Snake River Plain). Browns Bench is located on the southern edge of the Snake River Plain. The geology of the region has been directly affected by the hotspot that moved across the Snake River Plain. Basalt and obsidian are commonly found in the area which is a direct result of volcanic activity. Most of the obsidian on Browns Bench is chemically similar, likely as a result of formation processes, thus it is difficult to distinguish between the different sources at Browns Bench, this is called the Browns Bench problem by archaeologists. The Browns Bench problem has an effect on the is project because it is not possible to determine which exact source on Browns Bench are being utilized, all that can be said is the Browns Bench sources as a whole are being used.

Numerous animal and plant species can be found in the Browns Bench area. Many of these are useful to humans. Mule deer, ground squirrels, and Sage Grouse would have provided essential nutrients to people in the past.

The Snake River Plain: People and Culture

The Snake River Plain of southern Idaho is an important locale for studying human adaptation in the Northern Great Basin and the arid West. People have lived in what is now the state of Idaho and around the Snake River Plain for perhaps ten thousand years (Bowers and Savage 1962) Holmer (1997) . Many other locations throughout the Great Basin were also inhabited by humans from the distant past through the present. The states of California, Nevada, and Utah all contain archaeological evidence of human habitation beginning thousands of years ago. In Idaho, a human burial was found in Twin Falls county near the town of Buhl. This burial contained the remains of one female aged approximately 17-21 years old at the time of death (Green et al 1998). A radio-carbon analysis was run on a sample of the skeleton and determined that the burial is 10,675 +/- 95 B.P. (Green et al 1998). This burial provides additional evidence that humans have inhabited the Snake River Plain for ten thousand or more years.

The environment plays a substantial role in the shaping and refining of cultures. Culture assists humans in adapting to the environment in which they live. For example, if a group of humans live in an area where large and small fauna are the primary food sources, then people will (most likely) develop techniques and tools to harvest the large and small game. These tools and methods are key components of culture, specifically the material aspect of culture, which is represented at archaeological sites (e.g. lithic projectile points). Since many parts of the Great Basin are arid and groups of people living in the Great Basin have adapted, mostly via culture, to survive and thrive in this environment.

Determining cultural affiliation of archaeological sites with extant Native American tribes is often a difficult task, especially with prehistoric sites. Cultures are constantly changing in response to environmental factors, which is one of the many reasons why it is difficult to affiliate archaeological sites with extant cultures. The material remains of cultures of the distant past often do not resemble any known material culture from the present or the historic period, for which we have ethnographic accounts of material culture.

Mobility patterns are of interest to researchers for a couple of different reasons (Jones et al 2003). The first reason is directly related to the environment of the Great Basin. It is well known that the Great Basin is relatively dry and has been for a considerable amount of time. This means that resources (mainly food and water in this case) are present in specific locations (i.e. rivers and springs). The adaptations (i.e. mobility across the landscape) would have been a necessity for prehistoric groups of Native Americans. The ethnographic evidence confirms that Native American groups in the Great Basin during the historic period were highly mobile. It is also likely that Native American groups during the prehistoric period.

The second reason why prehistoric mobility patterns are of interest to researchers is that it is one of the primary avenues of study for archaeological collections that are poorly-provenanced. The Dean Site collection is considered to be poorly-provenanced, which means that the site and excavated artifacts are not very well documented. This can occur for a number of reasons, including when the site was excavated (how long ago) and time constraints. Many of the archaeological collections from the Snake River Plain are well-provenanced, these collections are more useful for a wider variety of analysis. Even with some of the poorly-provenanced collections, certain information can be gleaned from them. Obsidian sourcing analysis, which will be discussed in detail later, is an excellent way of interpreting mobility patterns of people in

the distant past, and is one of the primary avenues of research which can be conducted on both the well-provenanced and the poorly-provenanced collections. Obsidian sourcing analysis is a valuable analysis method since it is non-destructive, which allows for the preservation of artifacts for future analysis. The Dean Site collection and many others are curated at the Earl Swanson Archaeological Repository at the Idaho Museum of Natural History. These collections are federally owned and come from public lands owned by federal agencies like the U.S. Forest Service, Bureau of Land Management (BLM), National Park Service (NPS), and Bureau of Reclamation (BR).

The Snake River Plain is inhabited both currently and in the past by the Shoshone and the Bannock (Steward 1938). Steward notes that there were several different groups of Shoshone people living in several different locations on the Snake River Plain (1938). The differences between these groups (during the historic period) seemed to be food sources and horses. Food sources also varied to some degree although the area surrounding Fort Hall appeared to be an ideal location for the Shoshone.

The Seasonal Round

The seasonal round is a term applied to the practice of Native American tribes' movements around the landscape exploiting different resources. These resources are usually food but can also include lithic materials (in the Great Basin, this is mostly obsidian and chert) (Heaton 2005). The seasonal round was initially described by Julian Steward in the early twentieth century and is a useful tool for archaeologists; in addition to lithic sourcing analysis to study prehistoric mobility (Steward 1938). Steward was examining mobility patterns, which he called the seasonal round, from the perspective of human ecology. Steward described human ecology as "a method for humans to adapt themselves to their environment" (Steward 1938:2).

Human ecology indicates that there are multiple methods that humans can utilize in order to survive and thrive in different environments. These can vary by location, season, and group. Human ecology is different from the concept of environmental determinism, which is defined as "the automatic and inevitable effect of the environment upon culture" (Steward 1938:2). Environmental determinism excludes the concept of cultural variability and that there often is more than one successful cultural adaptation to a single environment. Steward thought that examining the seasonal round from the perspective of human ecology was important since cultures vary not just as a result of the environment.

The Shoshone Tribe have been known (from historical and ethnographic accounts) to engage in the seasonal round, thus utilizing many different food sources as they became available at different times of the year (Heaton 2005). Since many Shoshone groups lived, at least part of the year, in the Snake River Plain in southern Idaho they utilized anadromous fish (Salmon and Steelhead) that run up the Snake River, and other rivers to spawn. Since anadromous fish runs occur at specific times of the year, the Shoshone groups tended to congregate around the Snake River while the anadromous fish run was taking place below Shoshone Falls (Heaton 2005).

Julian Steward studied groups of people throughout the Great Basin, including the Shoshone, in the 1930s. He examined the subsistence strategies of the Native American groups in the Great Basin and how the different groups adapted to the environments in which they lived (Steward 1938). An example of these adaptations, which Steward calls "cultural devices" are stone tools such as projectile points (1938). Steward, during his fieldwork, observed the subsistence strategies of the Shoshone tribe who were living on the Snake River Plain (Steward

1938). The Shoshone used the Snake River extensively for fishing, taking advantage of the salmon runs that occurred during the year (Steward 1938).

Mobility was a necessity for the Shoshone in order to exploit the different food resources that occurred in different locations throughout the year. They used the Snake River for fishing and water, but they also exploited seeds, roots and both large and small fauna that were in the area (Steward 1938). Some of the locations that the Shoshone traveled to throughout the year included the Snake River near Salmon Falls and Shoshone Falls, and the Camas Prairie, which is located north of the Snake River Plain.

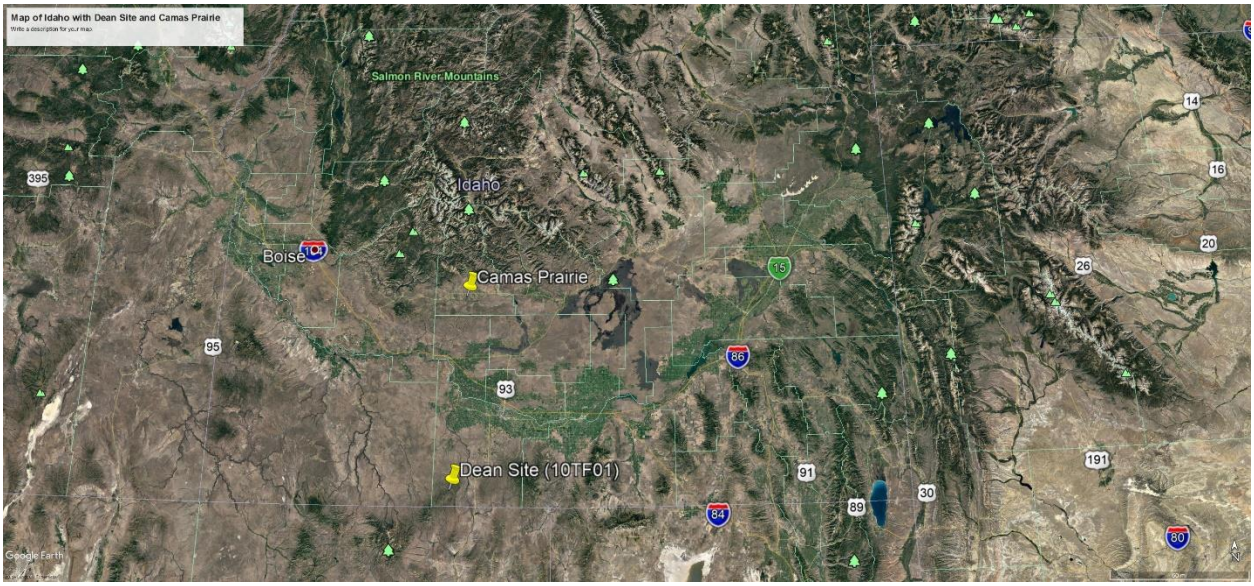

Figure 4. Snake River Plain Map with Dean Site and Camas Prairie locations.

The Camas Prairie yielded edible Camas roots *(Camassia spp,)* which are nutritious and were a major staple in the diet of the Shoshone (Steward 1938). Other edible plants that were used by the Shoshone include chokecherries, sunflowers and yampa (Steward 1938). This mobility across the landscape is a prime example of the seasonal round since the Shoshone

moved to these places at certain times of year in order to exploit the seasonal availability of the different edible resources that were available at each location.

In addition to consuming anadromous fish and edible plants, the Shoshone and other Native American groups in the Great Basin often traveled east, towards the edge of the Great Plains in order to hunt bison. This occurred mostly during the historic period since many Native American groups possessed horses at this time (Heaton 2005).

After contact with Euro-Americans (the beginning of the historic period) the lifestyles and culture of the Shoshone and other Native American groups began to change with Euro-American westward expansion. The grazing of livestock had a negative impact upon the food sources that Native Americans relied upon (Steward 1938). In addition to this, violent encounters between Euro-American settlers and Native American groups became more common (Steward 1938). In the late 1800s Native Americans were being forced from their lands and moved to reservations. Fort Hall in Idaho is one such reservation (Heaton 2005).

Culture History and the Dean Site

The Dean Site represents one of many types of archaeological sites that are common throughout the Great Basin. The Dean Site is considered to be a tool manufacture site primarily (Bowers and Savage 1962). This is evident from the numerous stone tools found there. Also present are a considerable amount of debitage, exhausted cores and waste flakes, this is indicative of a tool manufacture site. The stone tools represent several stages, everything from complete tools, broken tools, and repurposed or reworked tools (Bowers and Savage 1962).

For this project I analyzed the projectile points from this collection many of which are broken, but not all. A total of 392 projectile points was analyzed by pXRF to determine chemical

composition as well as a typological analysis. Richard Holmer's (2009) projectile point guide was used for the typological analysis of the points in this project.

Projectile point typology shows how point styles have varied through time. Some of this variation is due to changing technology (spears, atatal and dart, bow and arrow). These different technologies utilized different types of projectile points. Typology is also a way to measure time in the past.

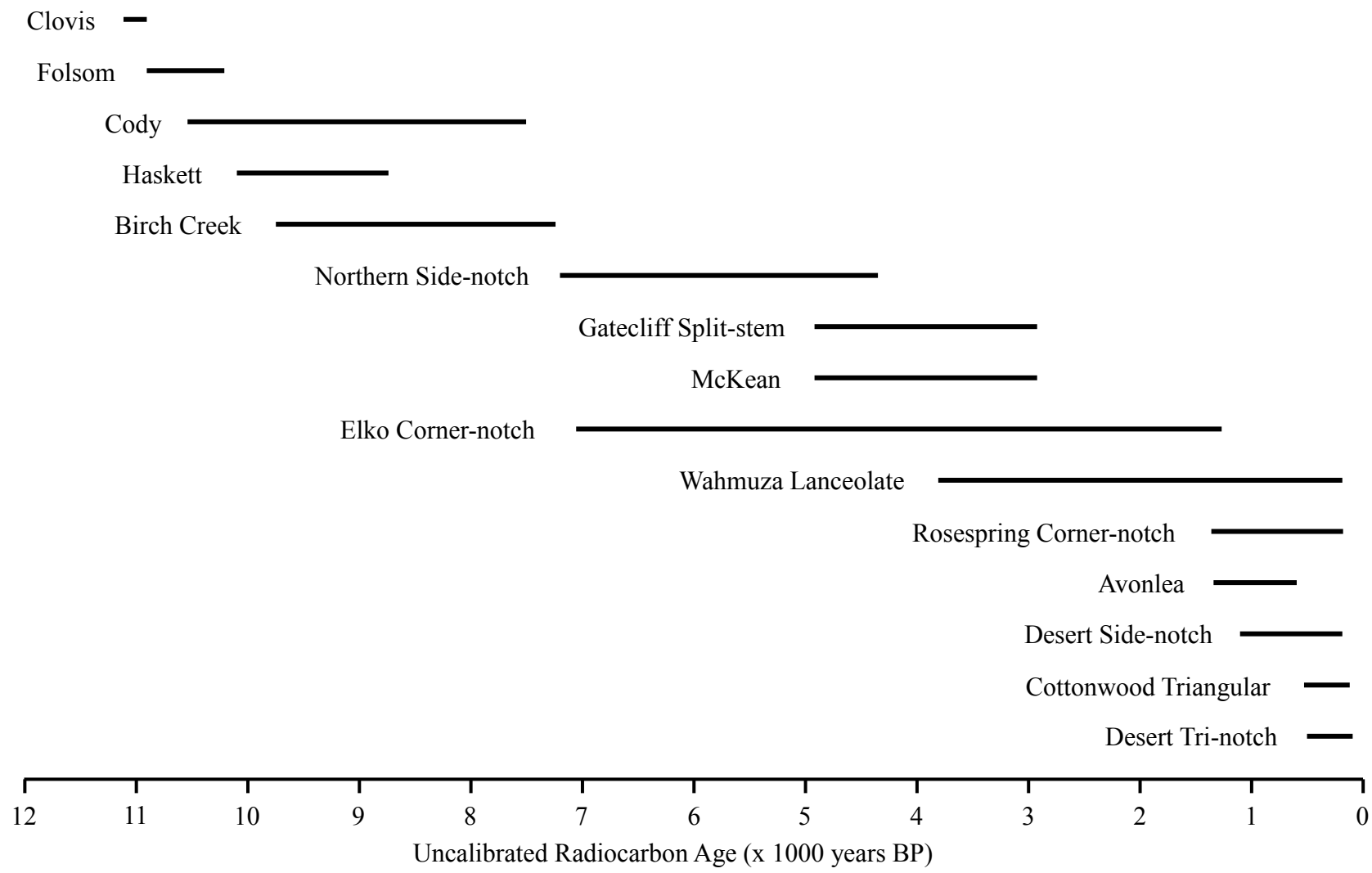

Figure 5. Projectile Point Chronology for Idaho (Modified from Holmer 2009).

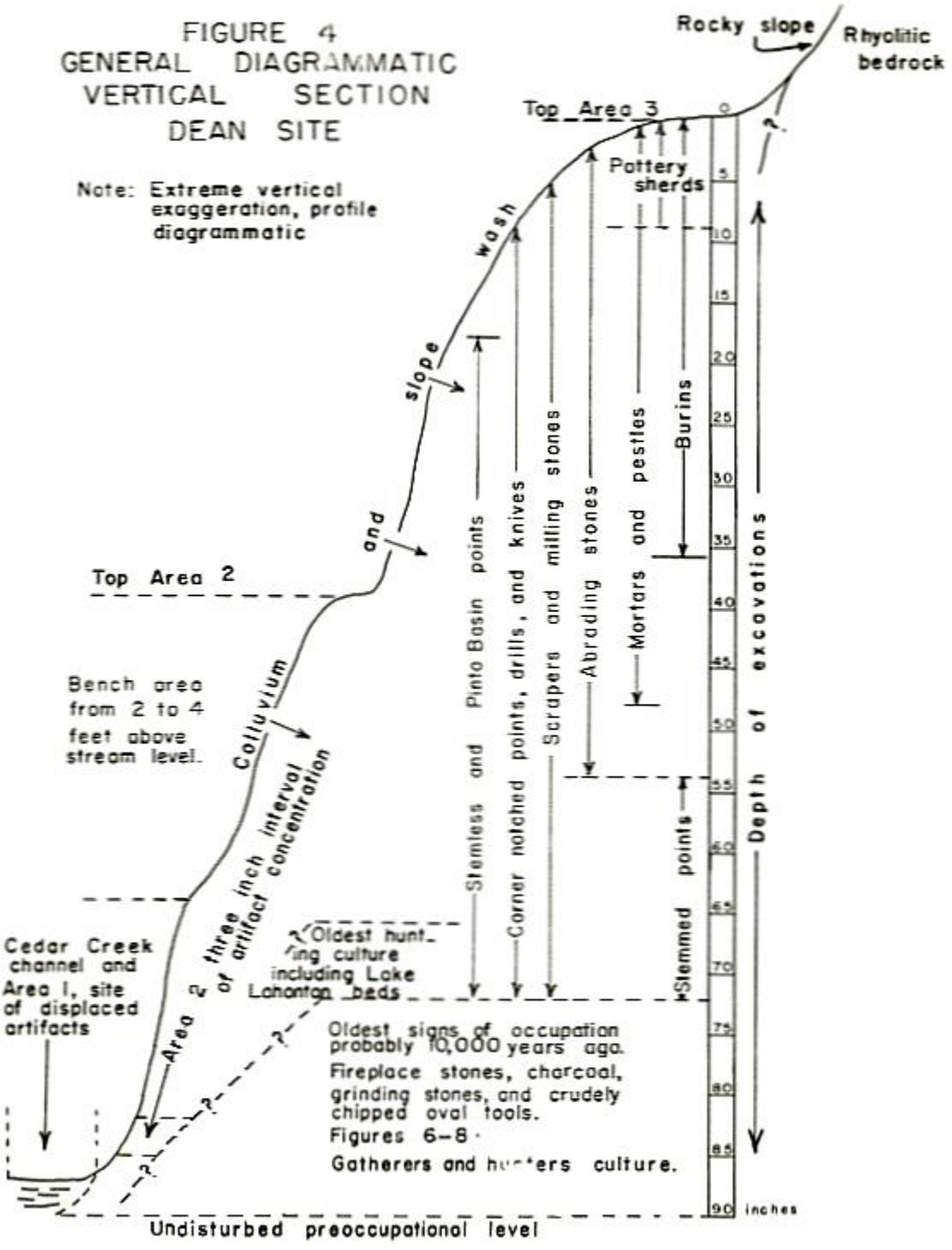

Figure 6. Artifact horizons by stratigraphy at the Dean Site, from Bowers and Savage (1962).

Projectile point typology can yield information about time frames when a site was used and potentially for how long (Thomas 1981). Some point types enjoy a "short chronology" meaning that they were used during a specific short period of time. Other point types enjoyed a "long chronology" meaning that they were utilized over a long period of time. When using projectile point typology as a dating technique for an archaeological site, those points with a short chronology yield a smaller date range than those with a long chronology.

Projectile point typology is a relative dating technique, meaning that this method gives a relatively wide range of dates versus a narrow range of dates. Typological analysis is common within the Great Basin and especially for the Dean Site. The Dean Site is an open-air site, as a result there is little material present for which radiocarbon (C14) dating can be conducted. Thus, projectile point typology is a key avenue of inquiry at this site. Many of the projectile points at from the Dean Site are the Elko corner notched type. This projectile point type does not provide a narrow age range as Elko corner notch points enjoyed a long chronology from approximately 1000 A.C.E to 1350 A.C.E in the Monitor Valley in Nevada (Thomas 1981). However, many other point types are present in the Dean Site collection. These vary from large spear points to smaller arrow points (Bowers and Savage 1962). Many of these point types indicate that the Dean Site has been used extensively through time (Bowers and Savage 1962, Holmer 2009). Projectile point typology, especially in terms of usage through time varies throughout the Great Basin. In the northern portion of the Great Basin which includes the Snake River Plain, the Elko corner notched type does not work well as a time marker, since it overlaps with other types and has a long chronology (Bettinger and Eerkens 1997).

Thus, the Dean Site appears to be consistent with the cultural history of the Snake River Plain and the northern Great Basin. The presence of numerous lithics of varying types is

consistent with other archaeological sites in the region. The location of the site, near water and raw material sources (in this case obsidian) is a common location for archaeological sites in the region.

The Dean Site is located around the headwaters of Cedar Creek, which is a significant spring that feeds Cedar Creek. It is likely that the spring and resulting creek were larger in the past, as the climate in the region several thousand years ago was considerably wetter. The area would likely have attracted animals of all kinds due to the presence of water. At the Dean Site today, numerous flakes and pieces of obsidian can be found on the ground surface.

The size of the obsidian pieces and lack of obvious exposures of obsidian in the immediate area indicates that the Dean Site is not a quarry site (i.e. source). At a quarry site, large pieces of obsidian are commonly found. These would be large enough to be considered cores which flakes can be removed from in order to manufacture stone tools such as projectile points, scrapers, and bifaces. At the Dean Site today, only a small number of cores were observed on the surface. This indicates to me that the Dean Site is not a quarry site. Rather the Dean Site is more likely a temporary hunting and tool manufacture site. The elevation of the landscape around the spring would have allowed people to have a view of portions of the surrounding landscape, and thus would be able to observe game animals in route to the spring for water. There are many large rocks above the spring where people could sit and observe the landscape and construct stone tools while they waited for game. The evidence for this is the presence of obsidian pieces, flakes, and some cores near these rock outcroppings.

The Dean Site collection, which is housed in the Earl Swanson Archaeological Repository at the Idaho Museum of Natural History at Idaho State University in Pocatello Idaho contains 22,159 artifacts, many of which are bifaces. This led the original researchers and

excavators of the site to conclude that the Dean Site is a lithic material quarry site. This initially seems like a reasonable conclusion, however the lack of large pieces of obsidian at the site leads me to believe that it is not a quarry site. Many of the Browns Bench obsidian sources (or quarries) are located near the Dean Site, so people would not have had to travel far in order to find large pieces of obsidian suitable for cores. The area surrounding the headwaters of Cedar Creek would have been an ideal location for humans to exploit.

Obsidian Studies

Obsidian studies are common within archaeology, especially in the Great Basin and southwestern United States. Shackley (1995) conducted research in order to determine the locations of obsidian sources within the Great Basin, as well as analyze the chemical signature of the different obsidian sources. Obsidian studies have been conducted on the Snake River Plain in Idaho in the past. These studies have addressed a number of different questions including the locations of the different exposures of obsidian, or sources (Black 2014, Krauel 2017). While others examine the morphology of tools manufactured from obsidian (Keene 2018).

Archaeological research in Twin Falls county Idaho, and specifically at the Dean Site is limited (Bowers and Savage 1962, Barnes 1964). This may be due to that fact that the Dean Site was excavated in the late 1950s and the documentation of the site is limited. Also, the excavation was carried out as a salvage operation, which may account for the limited documentation. However, some previous analysis has been conducted at the Dean Site, primarily by Paul L. Barnes for a master's thesis project. He described the site in detail and examined the different types of artifacts that were found.

The Direct Historical Approach & Other Theoretical Concepts

The direct historical approach compares the archaeological record to historic and ethnographic accounts in order to interpret the findings at archaeological sites as well as attempt to determine cultural affiliation. The seasonal round has been described in historical documents; and since anthropologists and archaeologists know that the seasonal round occurred during the historic period, it would seem logical that it also occurred during the late prehistoric period as well; this method is known as the direct historical approach. The direct historical approach enjoyed extensive use during the early part of the 20th century in Americanist archaeology. The definition and or the method of the direct historical approach is to start from ethnographically known cultures, and work backward in time from these with the assumption that older, undocumented sites or artifacts will be similar to those that are documented (Dixon 1913, Wedel 1938, Lyman and O'Brien 2006). Direct evidence used in the direct historical approach comes in three varieties (Sapir 1916). Briefly, they are: 1) information gleaned from historical documents, 2) testimony from members of Native American tribes, and 3) and the sites and artifacts that are found in stratigraphic layers (Sapir 1916, Lyman and O'Brien 2001).

The direct historical approach can also be used as a chronometer; in other words, to track cultures through time and space. It seems to be just as effective, in my opinion, as a chronometer as it is at identifying ethnic affiliation through space and time. It does this by examining similarities and differences between older and newer artifacts in order to track both similarity and/or change through time. Since the direct historical approach can be used to tell time in a sense, this means that it follows a materialist ontology. When an archaeologist is using the direct historical approach as a chronometer, artifact types, or cultural traits must be identified in the historic period through documentation (Lyman and O'Brien 2001). The archaeologist would then

work backward from the historic to the pre-historic, looking for suites of artifacts that are the same, or similar, to those in the historic period (Lyman and O'Brien 2001).

One application for the direct historical approach is as an "Ethnic Identifier", the archaeologist attempts to group two cultures together as one (Lyman and O'Brien 2001:310). The archaeologist can attempt to link cultures of prehistoric times to both historical and modern cultures. This relies on the theory of "cultural transmission" or the spreading of ideas from one generation of people to the next, as well as communication between different groups of people (Lyman and O'Brien 2001). The application that comes into play here is that of "cultural continuity" which states that cultures and ideas tend to remain very similar through time and any change is generally slow (Lyman and O'Brien 2001). When the archaeologist encounters artifacts in an area that are similar to those produced by either a living or historically documented ethnic group that occupy or occupied the very same area, then the archaeologist can employ the direct historical approach to demonstrate that the two groups of people, the archaeologically represented and the historical and or living, belong to the same ethnic group.

Cultural ecology is an important theoretical concept for studying Native American cultures in the Great Basin (in my opinion). This theoretical concept was first described by Julian Steward who often conducted fieldwork in the Great Basin (Steward 1938, Steward 1955). The basic idea behind cultural ecology is that environmental pressures have a direct effect upon the changes and adaptations of cultural materials (Steward 1955). An example of this theory at work would be the variety of projectile points that are found at archaeological sites throughout the Great Basin. These projectile points are tools used for hunting animals for food. This cultural adaptation (the projectile points) would not have developed if the primary food source were not animals that needed to be obtained by hunting.

The environment tends to influence culture in many ways. Culture is one of the primary adaptations employed by humans (Steward 1955). Meaning that cultural items such as clothing and tools have allowed humans successfully thrive in many different environments. The type of environment has a direct influence upon the cultural materials that will be developed and utilized by humans. The types of artifacts present at archaeological sites can provide clues to the environment of the past. This can be challenging since only a fraction of the possible cultural material preserves within the archaeological record. The types of materials that preserve well are typically stone tools made form obsidian, chert, fine grained basalt or another lithic material, bone also preserves under the right conditions.

Chapter 3: Methods

The analytical methods utilized here are: 1) Portable X-Ray Florescence Spectrometry (pXRF), 2) Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS), and 3) Surface Profilometry. The data collected using these methods was analyzed using Microsoft Excel for organizing data as well as performing basic elemental comparisons between the source data and the archaeological data, and JMP Statistical Package. JMP is used to conduct statistical analysis on both the source data and the archaeological data. Discriminant function analysis and bivariate comparisons are easily conducted using JMP, which are useful for examining the variation between the known obsidian sources on the Snake River Plain. These methods can also be used to assign the artifacts to the source from which the raw material was obtained.

These methods were chosen for this project for several reasons. Both the pXRF and LA-ICP-MS yield geochemical data for the obsidian samples, which is useful for the sourcing of artifacts as well as looking at concentrations of different elements to see if a correlation exists between geochemistry and obsidian performance. The surface profilometer measures the roughness of the obsidian samples to see if variability of surface roughness correlates with performance.

The analysis of the geochemical data provides averages for the concentrations of the elements measured. The averages can then be utilized in Discriminant function analysis as well as bivariate plots, both of which highlight the variation between the samples. Looking for the variation between the obsidian samples (both artifacts and source samples) aids in the sourcing analysis of the artifacts. Examining the variation between the source samples, can indicate exactly how different (geochemically) each source is from the others. This is beneficial both for sourcing analysis and for determining how geochemistry affects the performance of obsidian.

Portable X-Ray Florescence Spectrometry Analysis

Portable XRF (pXRF) analysis of obsidian was one of the methods used in this project, to trace the materials that were used locally by the people of the Dean Site and also to assess to some degree the quality of the obsidian for stone tool manufacturing. The pXRF sourcing routine is carried out in the following way: The instrument is calibrated for glass analysis. A test tile of obsidian from a known source, in this case the Bear Gulch obsidian source, is scanned three times, for sixty seconds per scan. The test tile is then rotated 90 degrees after each scan to average topographic and geometric effects of x-ray detection. The test tile is scanned at the start of each session in order to trace instrument performance. It is also scanned at the end of each session for the same reason.

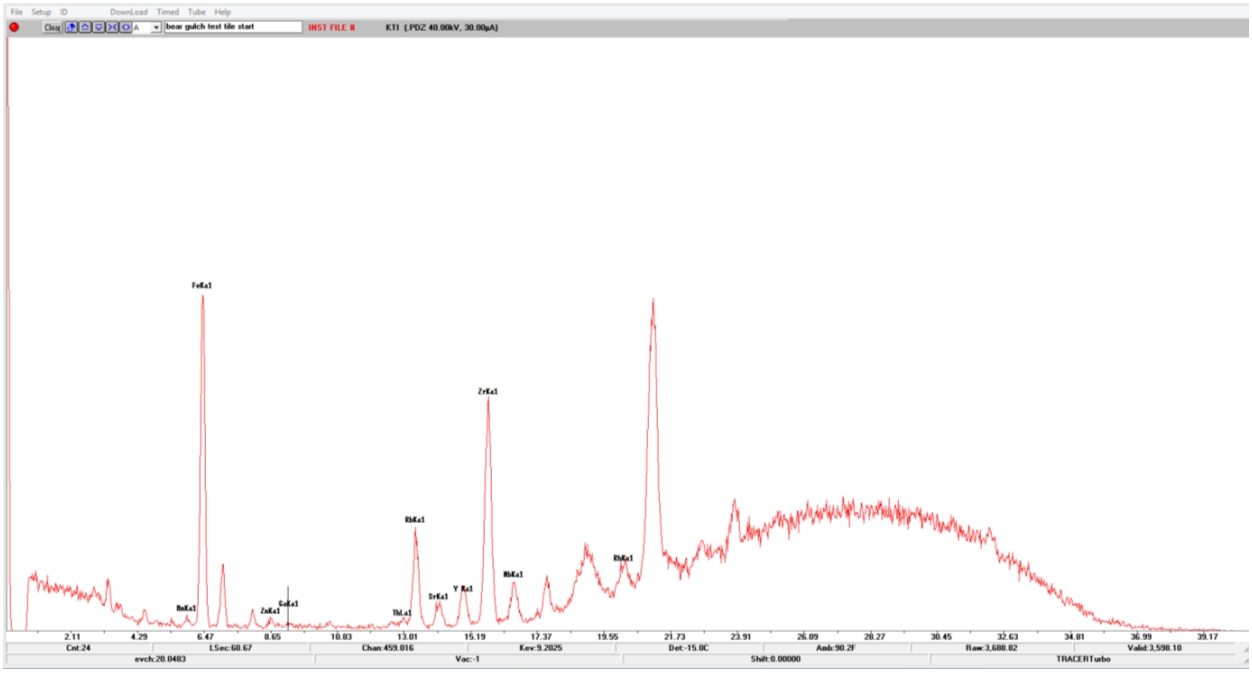

Figure 7. X-ray spectrum collected by the pXRF.

The obsidian projectile points (the artifacts) are scanned with a Bruker Tracer III-SD pXRF for sixty seconds. This is repeated three times per artifact, similar to the test standard. The

artifact is either rotated 90 degrees after each scan, or turned over after each scan. Many of the artifacts from the Dean Site have painted labels on them with the site number 10TF1 and an identification number. These labels, if scanned with the pXRF will reveal the elements in the paint (such as titanium) as well as the elements of the obsidian. For this reason, it is important to not scan the surface near the label if at all possible.

X-ray spectra were collected from the pXRF instrument, and the data was calibrated in the pXRF software using an empirical calibration, specifically a glass calibration routine. The resulting chemical concentration data was transferred into Microsoft Excel spreadsheets for analysis. JMP was also used in addition to Microsoft Excel since it can perform additional statistical analyses and render the results graphically. Once the data had been transferred into Excel, a bivariate plot comparison between element pairs was conducted using the chart feature in Excel. Several element combinations showed discrete patterning and were used for comparison in this project. Notable element pairs producing good source separations included: 1) niobium and strontium, 2) zirconium and strontium, and 3) zirconium and niobium.

Obsidian source material that was also collected directly from Browns Bench and the other known sources of obsidian on the Snake River Plain was also analyzed with the pXRF instrument, and the data were then compared to those from the artifacts from the Dean Site. By plotting the source data into a chart, comparing the concentrations of the two elements, the clusters of data points which are scans of obsidian collected for the known sources in and around the Snake River Plain were created. These clusters of data are the representations of the obsidian sources. Then, the scans of the Dean Site artifacts are plotted on the same chart. By comparing the Dean Site artifacts using the same elements as were analyzed in the source data, a

considerable number of the artifacts were found to lie in the same cluster as the known sources of obsidian located in and around the Snake River Plain.

LA-ICPMS Analysis

Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICPMS) analysis was conducted at the Center for Archaeology Materials and Applied Spectroscopy (CAMAS) lab at Idaho State University. The devices used for this analysis include a Thermo Scientific X-series 2 ICP-MS and a New Wave 213nm laser ablation system, which introduced the sample into the ICP-MS for analysis. During the analysis, the sensitivity of the ICP-MS was monitored via liquid aspiration of a solution containing 20 ppb ruthenium, which is the internal standard for this project.

The sample preparation for this analysis was done in the following way. First the obsidian samples were taken from the source material (i.e. all of the known sources on the Snake River Plain for which Idaho State University has a sample). These samples consisted of small flakes removed from larger pieces of obsidian. These samples were then mounted in a petri dish and were bound in an epoxy to create a disk with multiple sampled embedded within. After the epoxy had dried, then the petri dish (which is made of plastic) was sanded off, exposing each part of each sample for analysis. The disks were then inserted into the sample chamber of the laser ablation system for analysis.

The obsidian samples were ablated and pre-ablated in an atmosphere of helium. Both the standards and the samples were pre-ablated in the following way with one pre-ablation pass with a 200 µm spot size. The power of the laser was set to 40% and the raster speed was set at 150 µm/s. The ablation run was carried out in the following way with a 15 µm spot size, power of the

laser set to 80%, raster speed set to 30 µm/s. Before all the standards and samples were run, a 120 second washout was done. This was done to minimize the background signal (noise) and any carryover signal from preceding analysis. Each of the signal intensities for the standards and samples were measured by the ICP-MS three times for all relevant analytes.

The data collected was calibrated to parts per million using the following USGS Glass standards: GSC-1G, GSD-1G, GSE-1G, BHVO-2G, BCR-2G, BIR-1G. The method for data calibration is to fit the standardized concentrations (in this case, ratios to silicon) in the standards to standardized counts (which are the rations of the raw counts to the raw silicon counts within the standard). This method is similar to the one outlined by Gratuze (1999).

Profilometer Analysis

The samples of obsidian from the known sources on the Snake River Plain were prepared and analyzed with a profilometer. The samples utilized for the profilometer were prepared in the following way. A flake was removed from a larger piece of obsidian, then the smooth, un-weathered surface was analyzed. A Mahr com Profilometer was used for this project. The profilometer measures the roughness of the sample and creates a spectra based upon the roughness of the sample. The stylus of the instrument scratches the surface of the sample and generates values for R_a, R_z, R_q. Each sample was analyzed three times in different locations on the sample in order to calculate and average, standard deviation, and ratio standard deviation for each of the samples. Some of the samples were analyzed more than three times. This was to account for variation within the samples. A standard was analyzed before each session to determine that the instrument was functioning properly and collecting reliable data.

The R_a values represent the mathematical average of the values of the heights for each peak over the entire evaluation length. The R_q values represent the root mean square average of the heights of each profile over the entire evaluation length. The R_z values represent the average of the successive values which are calculated over the entire evaluation length. All of these values indicate how rough the obsidian samples are.

Chapter 4: Data Analysis and Results

Typological Analysis

I conducted typological analysis of the projectile points from the Dean Site collection, following Holmer's (2009) point guide. Many of the common point types for the region are represented within this collection. Some of the most common types include (1) Elko corner notch (2) Northern Side Notch and (3) Rose Spring corner notch. These were the most common point types in the Dean Site collection. Other types were present as well, but these three were the most common.

The typological analysis was done by taking several measurements of the projectile points. Those measurements are blade width, blade length, base width, and neck width (for notched points). All of these measurements were taken in millimeters using digital calipers.

One of the main reasons for conducting the typological analysis is to glean information about the time frame when the Dean Site was occupied. Bowers and Savage state that the Dean Site was occupied as early as 10,000 years up through historic times (1962). Many of the projectile points that are found on the Snake River Plain represent a limited time period or chronology. Elko type points however have a long chronology, meaning that this type of projectile point was used for an extensive period of time (Holmer 2009). This means that Elko points are not very useful as time markers. Many of the other types are more restricted in time, which gives a more specific time frames for occupations at the site. No radiocarbon dating samples were collected during the salvage excavation at the Dean Site, so projectile point typology is the only reliable option for estimating the dates of occupation.

Figure 8. Indented base point from the Dean Site

Figure 9. Corner Notched Point form the Dean Site.

Figure 10. Side Notched Point from the Dean Site.

pXRF Data for the Dean Site

Different combinations of trace element pairs were examined in order to determine which showed the most variation between the different obsidian sources of the Snake River Plain. The comparison of niobium and strontium concentration appeared to separate out or distinguish many sources fairly well, including the local sources of Browns Bench. The artifacts from the Dean Site were also plotted on the same chart using the same two elements, Niobium and Strontium, and most of the artifacts contain levels of the two elements that fall within the range of variation in the source data. There are several outliers, however, in the Dean Site artifacts. Possible explanations for this include, 1) variation in instrument reading 2) operator error with the instrument, and 3) the fact that some artifacts were made from obsidian that came from outside the region and therefore are not represented in the source data.

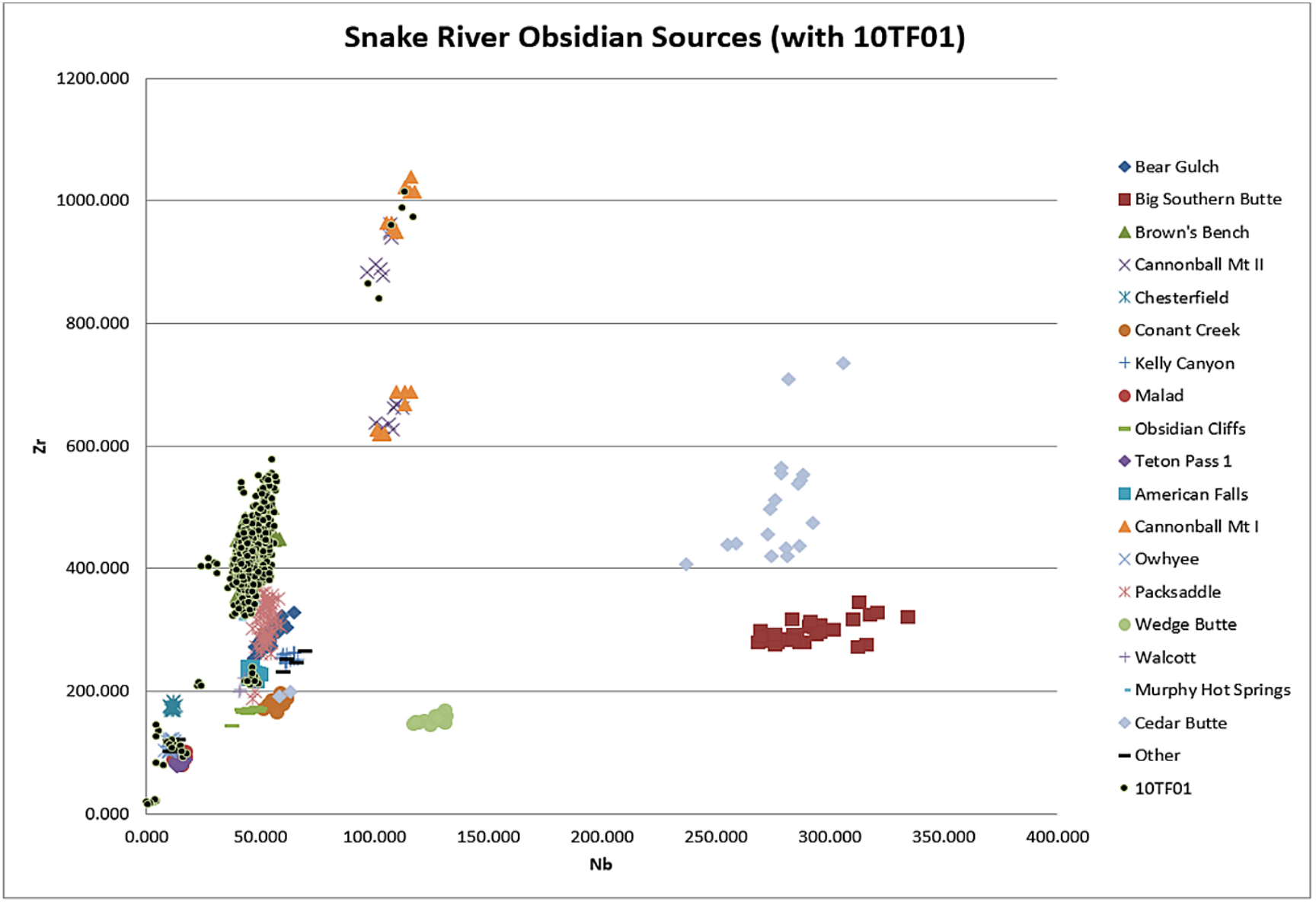

Figure 11. Snake River Plain sources with artifacts from the Dean Site.

Obsidian from outside the region of the Snake River Plain is a likely possibility, since there are many sources for obsidian in the northern part of Nevada, and the Great Basin that may not have been analyzed for the source database in my study. The Dean Site is located relatively close to the border between Nevada and Idaho; thus the likelihood of Nevada obsidian having been transported to the Dean Site is fairly high. Some of the sources in Idaho that are represented at the Dean Site are located even further away than the Dean Site is from the Idaho and Nevada border. One example of this would be the Malad obsidian source, which is the material from which three of the artifacts from the Dean Site were made.

The analysis yielded interesting results, as well as confirming the original hypothesis. Most of the Dean Site artifacts did originate from the Browns Bench sub-sources; however, there are a significant number that did not come from there. This is interesting, since it shows that people were moving widely about the landscape or were possibly trading obsidian from the different sources found within the region. Trade or exchange is difficult to identify archaeologically, especially when there is no framework to assess it empirically, so the conclusion taken here is more focused upon the hypothesis that these people from the distant past were highly mobile. This is what one would expect since resources were often located in different places across the landscape at different times during the year.

Obsidian quality also plays a significant role in people's choice of material and consequently in their mobility patterns. The definition of quality for this thesis is the predictability, or repeatability with which a raw material (obsidian) can be knapped, or worked into a formal tool. The term knapped is defined as the process of transforming a lithic material into a usable tool by removing flakes, notching, sharpening until the desired final product is reached. If an obsidian source is of good quality, and is also readily available within a fairly

short distance, then people will strongly prefer and be more likely to use that source. The examples in my study were the Browns Bench sources, which are located close to the Dean Site and of variable quality. The Malad source, another widely used obsidian, is a considerable distance from the Dean Site, but the obsidian from Malad is of higher quality than Browns Bench. A small number of artifacts, (n = 3), from the Dean Site turned out to have been made from Malad material.

Obsidian from the Cannonball I and II sources – which are also in the same region – also had a small but significant representation in the artifacts from the Dean Site. These two sources are found quite a distance away from the Dean Site, but not as far away as the Malad source. This is interesting since the Dean Site is located near the Browns Bench sources, and that people would travel long distances to obtain obsidian when they had copious amounts of it close at hand. This may be indicative of obsidian quality, since obsidian from the Malad source is considered high quality.

LA-ICP-MS Results

The results of the LA-ICP-MS analysis of the source material indicates that the different obsidians do exhibit chemical differences between the sources (Figure 11). Many of the different sources do separate out when a bivariate plot (comparison of two elements and their concentrations) is run on the samples. Discriminant function analysis also separates the sources. The discriminant function analysis also indicates how well each of the source samples correlates to the others from the same source sample (see figure at the end of the document).

Profilometer Data Results

The results from the surface profilometer analysis shows that the different obsidians of the Snake River Plain vary in roughness between sources, but also in regularity of roughness within particular samples, indicated by scratch test results. Some are smoother than others. Also some are more predictable than others, meaning that the roughness doesn't vary across the sample. Some of the samples are not very predictable, since the roughness does vary across the sample.

Chapter 5: Discussion and Conclusion

Obsidian Sourcing and Geochemistry

By examining previous research and conducting the research for this project, it is apparent that humans living on the Snake River Plain in the past were mobile. This can be seen in the ethnographic data as well as the archaeological data. The sourcing analysis of the Dean Site artifacts indicates that the people who utilized the site were indeed moving around the landscape. This can be inferred from the representation of multiple obsidian sources at the site. Some of the sources represented are located many miles away from the site, indicating movement across the Snake River Plain.

Both the pXRF data and the LA-ICP-MS data reveal the geochemical composition of the Snake River Plain obsidians. This is useful for sourcing analysis as well as a possible method for addressing the question of obsidian performance. Experimental archaeology can give some insights into performance of obsidians; however, this method is difficult to quantify. The purpose behind examining the geochemistry of the different obsidians is to look for elements that are present or absent in the high quality/performance obsidians versus the lower quality/performance obsidians.

Performance Model

There are not many studies that analyze the performance of obsidian. Krauel (2017) analyzed the predictability and fracture patterns of obsidian from the Rock Creek site in southern Idaho. Krauel (2017) determined that obsidian choice was not heavily influenced by its quality or performance. Similar results were found to be true for the Dean Site, the vast majority of the obsidian from the Dean Site is from the Browns Bench sources which are considered mid to

lower quality materials. More researchers have studied the performance characteristics of chert (Domanski and Webb 1992, Speer 2014). Chert is often heat treated prior to making tools. This increases the workability of the material allowing it to fracture more predictably.

The performance model used for this thesis requires more testing in order to determine its accuracy. The hypothesis for the performance model, obsidians that perform well (i.e. very glassy instead of grainy) will be more desirable than those that do not (i.e. grainy obsidians). At the Dean Site, this model of performance and desirability of different obsidians does not appear to strongly influence material choice. The availability of obsidians in the immediate area of the Dean Site overrides this model. Most of the obsidian artifacts from the Dean Site are made from Browns Bench obsidians which are found close to the site.

Most of the Browns Bench obsidians are of decent quality, so they work just fine for making stone tools. This along with the close proximity of the Dean Site to the Browns Bench sources seems to disprove the model that higher quality obsidians are strongly preferred. In this case, the ready availability of Browns Bench obsidian in the vicinity of the Dean Site may outweigh any interest in higher quality materials. While there may be some truth in the hypothesis that higher quality obsidians are preferred, more studies need to be conducted to see what mechanisms other mechanisms influence the use of some obsidians over others. Distance to source seems to be a major factor impacting the use frequency.

Profilometer Analysis

The profilometer analysis indicated that the different obsidians from the Snake River Plain are indeed different in terms of roughness. The obsidians that are rougher tend to be of lower quality, whereas the smoother obsidians tend to be smoother. Thus, grainy obsidians are

rougher and more glassy obsidians are smoother. Predictability of obsidians is also important for understanding performance. Predictability seems to be just as important a factor for understanding performance as roughness. Even if obsidians are rougher, but they fracture predictably, they would be useful for creating stone tools. The predictability can be seen in the profile data (Figures 5-12).

Eight obsidian sources were selected for analysis. These are Bear Gulch, Malad, Ceder Butte, Packsaddle, Old Man #2 [Browns Bench], Old Man #9 [Browns Bench], Kelly Canyon, and Young Man [Browns Bench]. These different sources represent the varying quality of the different obsidian occurring in the Snake River Plain and its environs. Several samples from the different Browns Bench sources were selected for this analysis since many of the obsidian artifacts form the Dean Site are made of Browns Bench obsidian. The profile data indicates that while the Browns Bench samples are not very predictable or smooth, they are still adequate for making stone tools, especially since they are readily available near the Dean Site.

The two sources that turned out to be the most predictable, which influences performance were Malad and Bear Gulch. These obsidians are quite smooth, and homogenous throughout. The obsidian from the other six sources is much rougher and less predictable (Figures 5-12). Bear Gulch is the smoothest sample in this data set and thus, is the highest quality material in the data set. Bear Gulch is also predictable (Figure 6).

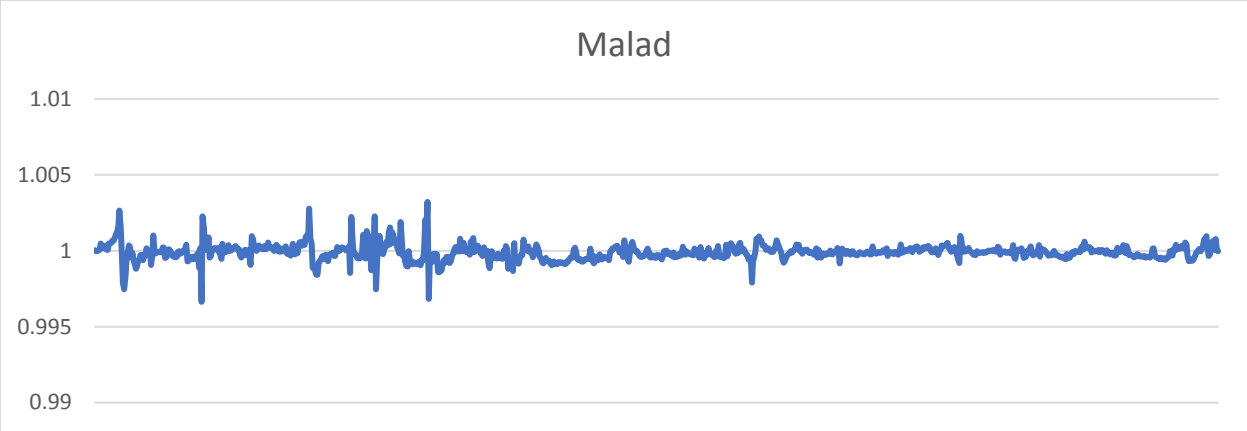

Figure 12. Profile for Malad Source.

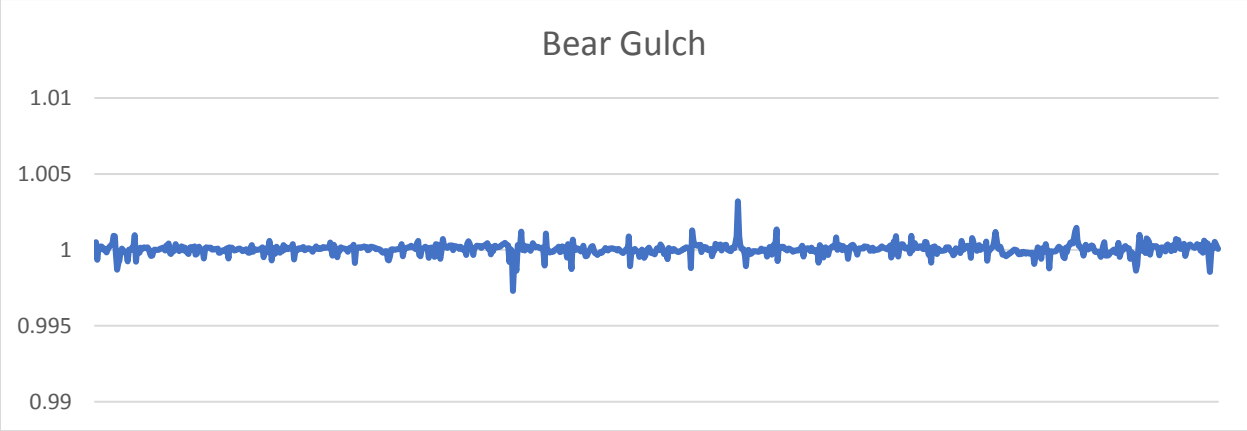

Figure 13. Profile for Bear Gulch Source.

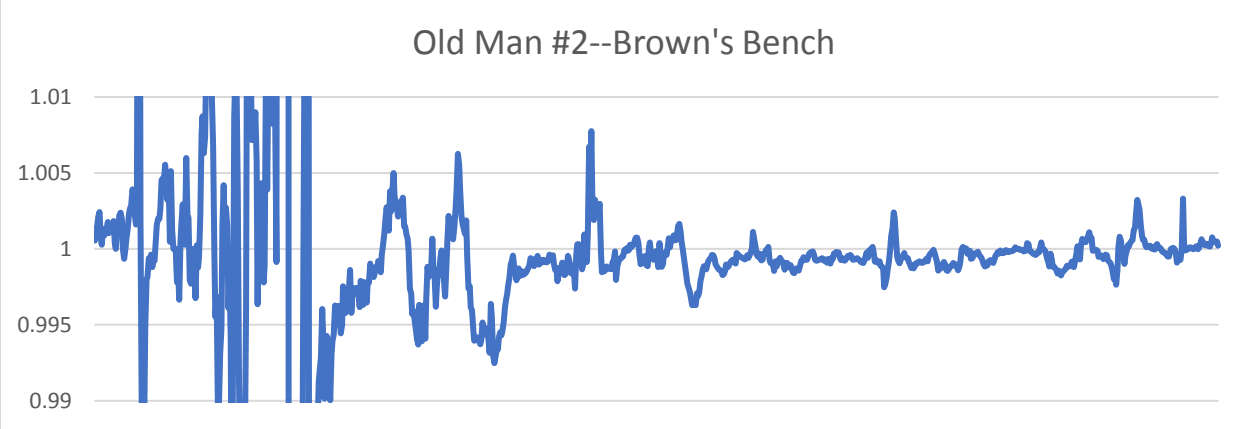

Figure 14. Profile for Old Man #2 Browns Bench.

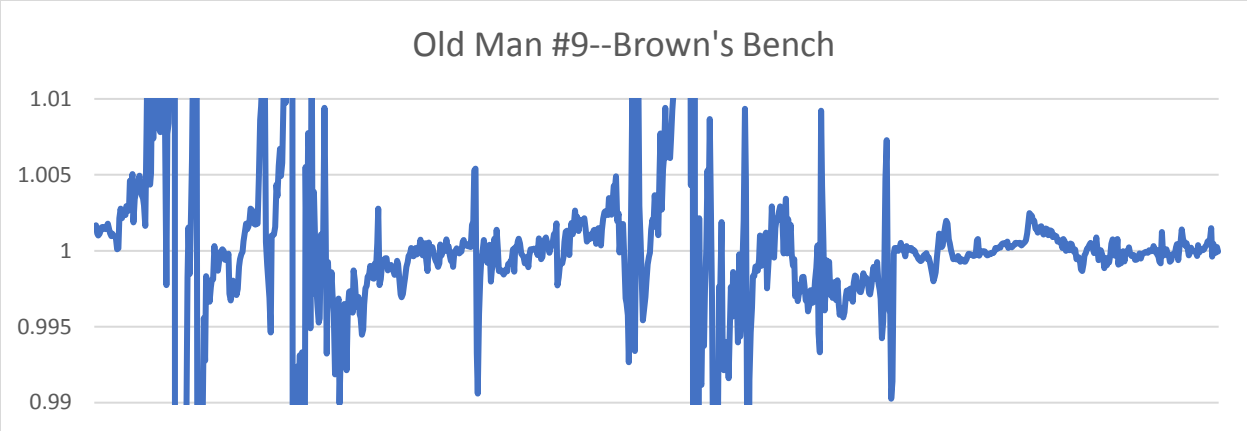

Figure 15. Profile for Old Man #9 Browns Bench.

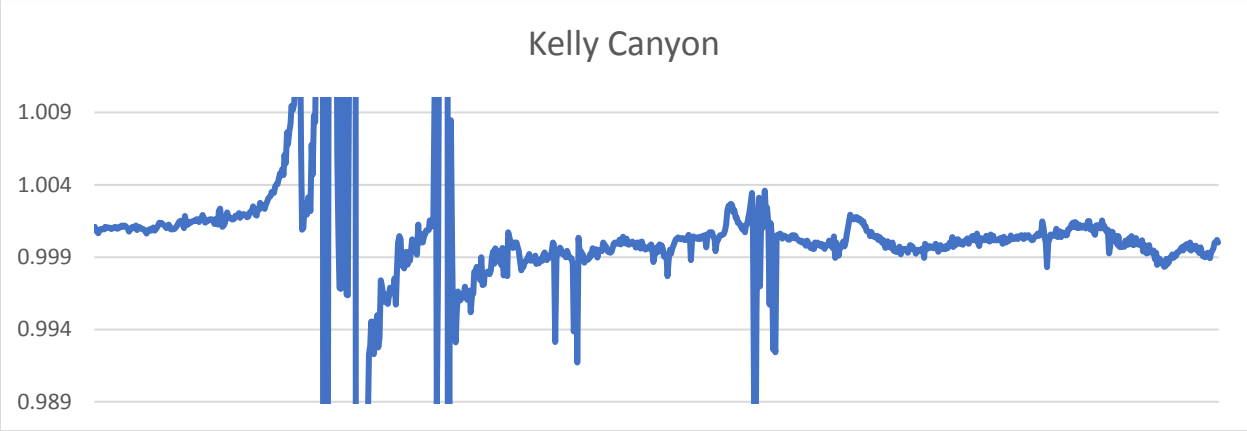

Figure 16. Profile for Kelly Canyon.

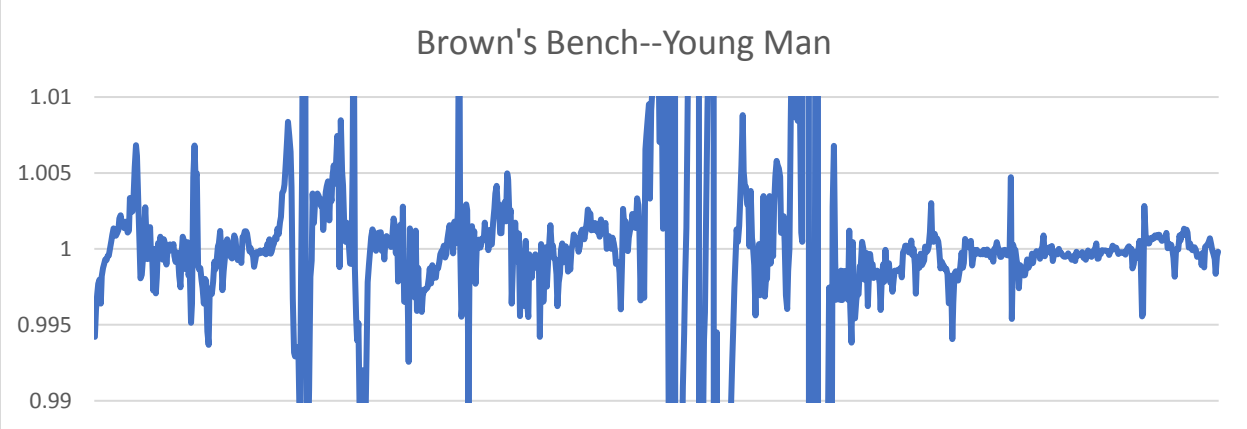

Figure 17. Profile for Browns Bench Young Man.

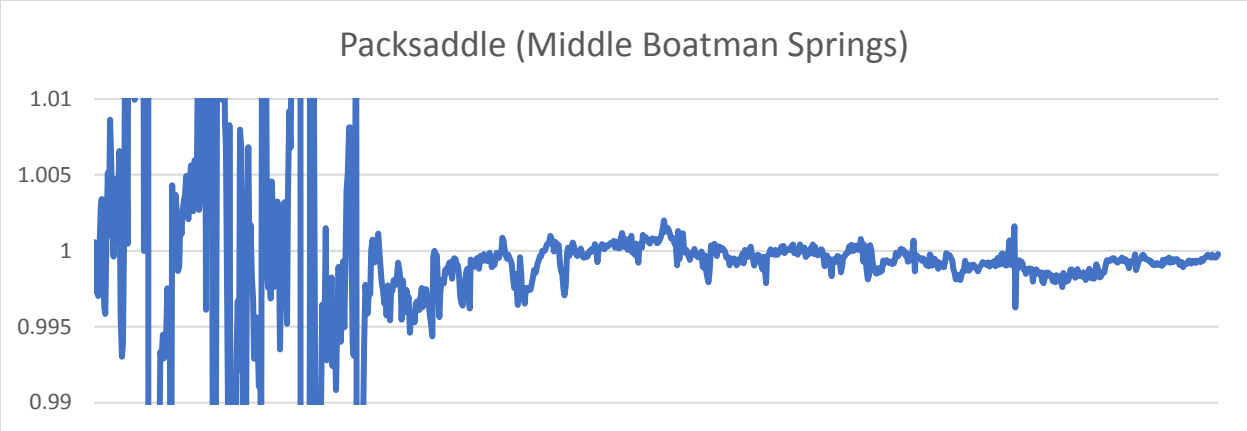

Figure 18. Profile for Packsaddle (Middle Boatman Springs).

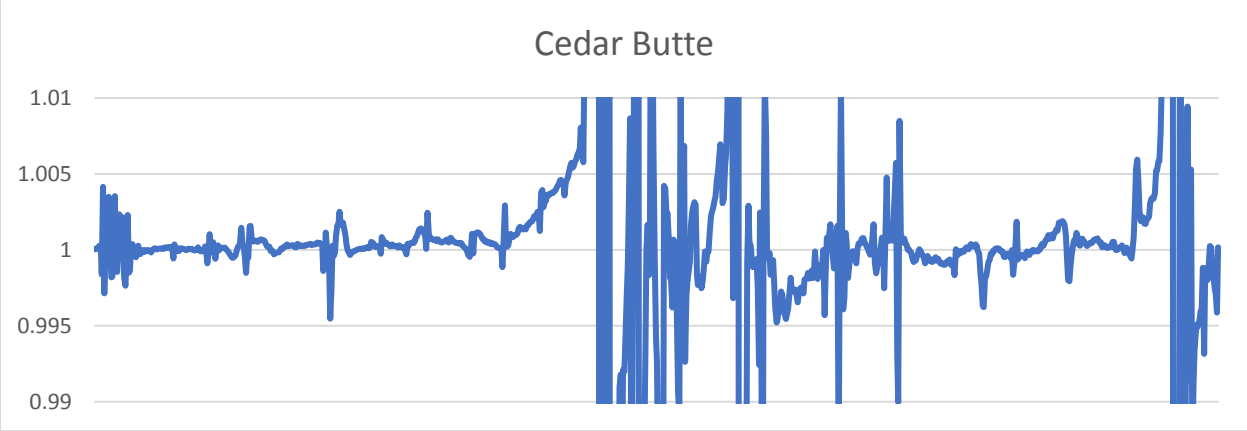

Figure 19. Profile for Cedar Butte.

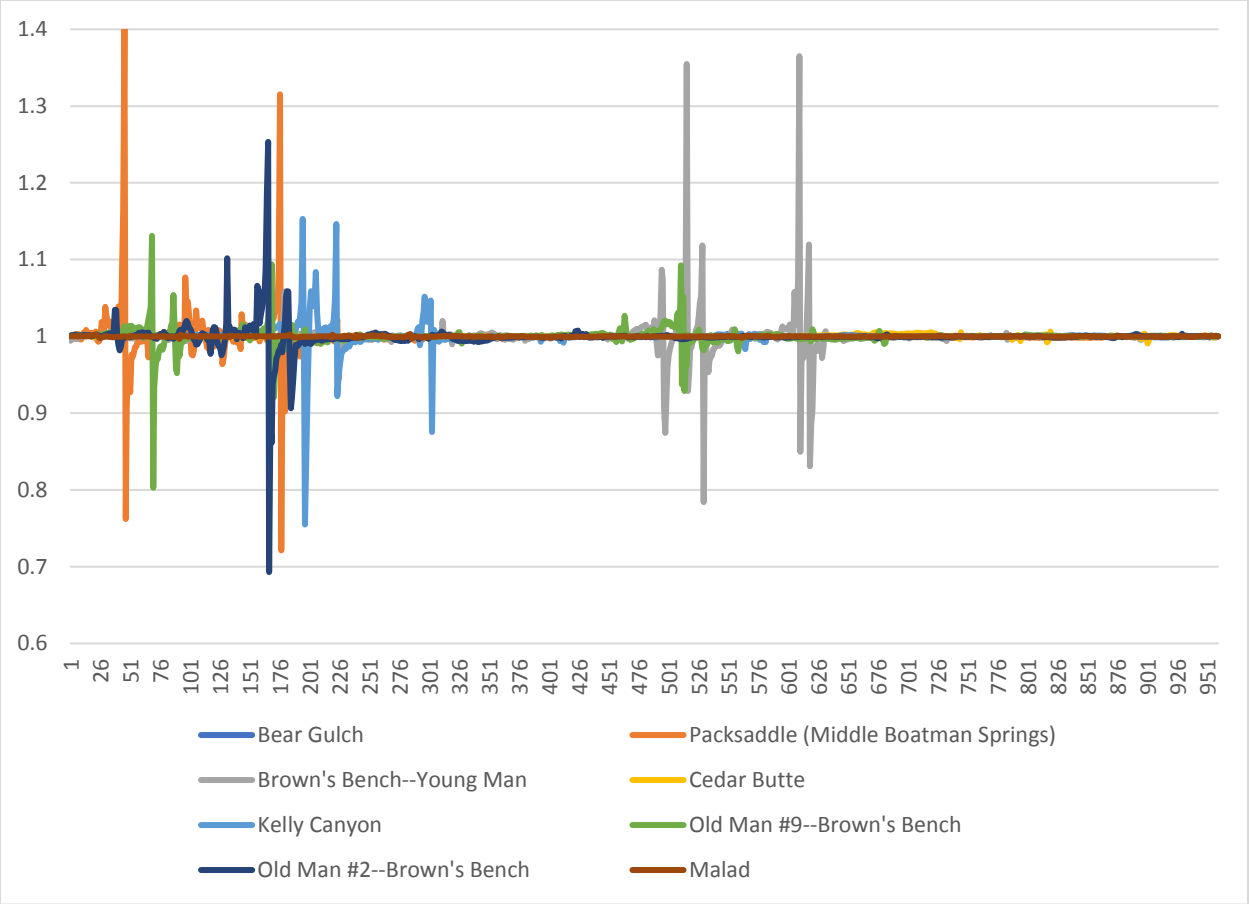

Figure 20. All profile data for each source.

Table 1. Discriminant scores and posterior classification for Snake River Plain obsidian sources.

Row	Actual	SqDist(Actual)	Prob(Actual)	-Log(Prob)		Predicted	Prob(Pred)	Others
1	Bear Gulch	5.67462	1.0000	0.000		Bear Gulch	1.0000	
2	Bear Gulch	1.70518	1.0000	0.000		Bear Gulch	1.0000	
3	Bear Gulch	4.95784	1.0000	0.000		Bear Gulch	1.0000	
4	Big Southern Butte 1	20.36603	1.0000	0.000		Big Southern Butte 1	1.0000	
5	Big Southern Butte 2	0.00000	1.0000	0.000		Big Southern Butte 2	1.0000	
6	Big Southern Butte 1	7.89377	1.0000	0.000		Big Southern Butte 1	1.0000	
7		.	.	.	~ -	Big Southern Butte 1	1.0000	
8	Big Southern Butte 1	12.81032	1.0000	0.000		Big Southern Butte 1	1.0000	
9	BB - Blue Hill	0.00000	0.9427	0.059		BB - Blue Hill	0.9427	
10	BB - Coal Banks	18.34049	1.0000	0.000		BB - Coal Banks	1.0000	
11	BB - Coal Banks	14.67227	1.0000	0.000		BB - Coal Banks	1.0000	
12	BB - Coal Banks	16.09184	1.0000	0.000		BB - Coal Banks	1.0000	
13	BB- House Creek	4.02940	0.7694	0.262		BB- House Creek	0.7694	BB - Old Man 0.23
14	BB- House Creek	2.67170	0.8915	0.115		BB- House Creek	0.8915	
15	BB- House Creek	3.01844	0.4303	0.843		BB- House Creek	0.4303	BB - Blue Hill 0.20 BB - Old Man 0.30
16		.	.	.	~ -	Packsaddle - AR	0.9993	
17	BB - Ibex Hollow	5.33183	0.9873	0.013		BB - Ibex Hollow	0.9873	
18	BB - Ibex Hollow	3.13893	0.6054	0.502		BB - Ibex Hollow	0.6054	BB - Old Man 0.29
19	BB - Ibex Hollow	3.47189	0.9175	0.086		BB - Ibex Hollow	0.9175	
20	BB - Old Man	3.79338	0.7236	0.323		BB - Old Man	0.7236	BB- House Creek 0.22
21	BB - Old Man	2.60311	0.5890	0.529		BB - Old Man	0.5890	BB- House Creek 0.39
22	BB - Old Man	20.56485	0.0056	5.185	*	BB - Ibex Hollow	0.9896	
23	BB - Old Man	4.68599	0.9042	0.101		BB - Old Man	0.9042	
24	BB - Old Man	14.51071	0.7197	0.329		BB - Old Man	0.7197	BB- House Creek 0.26
25	BB - Old Man	3.39532	0.4217	0.863	*	BB- House Creek	0.5723	
26	BB - Old Man	4.43030	0.8752	0.133		BB - Old Man	0.8752	BB- House Creek 0.11
27	BB - Old Man	4.60116	0.4078	0.897		BB - Old Man	0.4078	BB - Blue Hill 0.34 BB- House Creek 0.20
28	BB - Murphy Hot Springs	0.00000	1.0000	0.000		BB - Murphy Hot Springs	1.0000	
29	BB - Young Man	6.68762	0.4888	0.716		BB - Young Man	0.4888	BB - Old Man 0.36
30	BB - Young Man	10.48821	1.0000	0.000		BB - Young Man	1.0000	

Row	Actual	SqDist(Actual)	Prob(Actual)	-Log(Prob)		Predicted	Prob(Pred)	Others
31	BB - Young Man	6.79507	0.2449	1.407	*	BB- House Creek	0.5180	BB - Old Man 0.18
32	Cannon Ball I	7.88827	1.0000	0.000		Cannon Ball I	1.0000	
33	Cannon Ball I	1.41075	0.9975	0.002		Cannon Ball I	0.9975	
34	Cannon Ball I	4.51573	0.9280	0.075		Cannon Ball I	0.9280	
35	Cannon Ball II	6.45573	0.9999	0.000		Cannon Ball II	0.9999	
36	Cannon Ball II	6.45573	0.9976	0.002		Cannon Ball II	0.9976	
37	Cedar Butte	3.44996	0.9941	0.006		Cedar Butte	0.9941	
38	Cedar Butte	9.00695	0.3034	1.193	*	Packsaddle - AR	0.6966	
39	Cedar Butte	14.10506	1.0000	0.000		Cedar Butte	1.0000	
40	Chesterfield	2.37568	1.0000	0.000		Chesterfield	1.0000	
41	Chesterfield	6.66833	1.0000	0.000		Chesterfield	1.0000	
42	Chesterfield	3.25956	1.0000	0.000		Chesterfield	1.0000	
43	Conant Creek	11.99322	1.0000	0.000		Conant Creek	1.0000	
44	Conant Creek	11.76250	1.0000	0.000		Conant Creek	1.0000	
45	Conant Creek	11.59806	1.0000	0.000		Conant Creek	1.0000	
46	Kelly Canyon	2.80406	1.0000	0.000		Kelly Canyon	1.0000	
47	Kelly Canyon	2.94755	1.0000	0.000		Kelly Canyon	1.0000	
48	Kelly Canyon	1.11799	1.0000	0.000		Kelly Canyon	1.0000	
49	Malad	6.23985	1.0000	0.000		Malad	1.0000	
50	Malad	4.81810	1.0000	0.000		Malad	1.0000	
51	Malad	10.66871	1.0000	0.000		Malad	1.0000	
52	Packsaddle - MBS	4.18901	0.8033	0.219		Packsaddle - MBS	0.8033	Packsaddle - WC 0.20
53	Packsaddle - MBS	4.18901	0.8559	0.156		Packsaddle - MBS	0.8559	Packsaddle - WC 0.14
54	Packsaddle - AR	0.00000	0.9928	0.007		Packsaddle - AR	0.9928	
55	Packsaddle - WC	4.98111	0.5967	0.516		Packsaddle - WC	0.5967	Packsaddle - MBS 0.40
56	Packsaddle - WC	4.98111	0.9425	0.059		Packsaddle - WC	0.9425	
57		.	.	.	~	- Walcott	1.0000	
58	Walcott	4.21388	1.0000	0.000		Walcott	1.0000	
59	Walcott	2.98052	1.0000	0.000		Walcott	1.0000	
60	Walcott	2.35822	1.0000	0.000		Walcott	1.0000	
61	Walcott	5.45887	1.0000	0.000		Walcott	1.0000	
62		.	.	.	~	- BB- House Creek	0.6129	BB - Old Man 0.34
63	Wedge Butte	4.547e-13	1.0000	0.000		Wedge Butte	1.0000	

Row	Actual	SqDist(Actual)	Prob(Actual)	-Log(Prob)	Predicted	Prob(Pred)	Others
64	Wedge Butte	5.18810	1.0000	0.000	Wedge Butte	1.0000	
65	Wedge Butte	5.18810	1.0000	0.000	Wedge Butte	1.0000	

'*' indicates misclassified
"~" indicates excluded row

Score Summaries

Source	Count	Number Misclassified	Percent Misclassified	Entropy RSquare	-2LogLikelihood
Training	61	4	6.55738	0.92043	29.1988

Groups

Subsource	Count
BB - Blue Hill	1
BB - Coal Banks	3
BB - Ibex Hollow	3
BB - Murphy Hot Springs	1
BB - Old Man	8
BB - Young Man	3
BB- House Creek	3
Bear Gulch	3
Big Southern Butte 1	3
Big Southern Butte 2	1
Cannon Ball I	3
Cannon Ball II	2
Cedar Butte	3
Chesterfield	3
Conant Creek	3
Kelly Canyon	3
Malad	3
Packsaddle - AR	1
Packsaddle - MBS	2
Packsaddle - WC	2
Walcott	4
Wedge Butte	2
Wedge Butte	1

Correlation of Archaeological Sites and Water

Archaeological sites on the Snake River Plain are often found in close proximity to water sources such as springs, rivers, lakes, and streams. This is not surprising to archaeologists since humans require water in order to survive. Animals also congregate near water sources; thus humans would be able to hunt them for food. The Dean Site is located around a spring that feeds Cedar Creek, which given the surrounding landscape, would have been an ideal location for humans to inhabit.

Bowers and Savage stated that the Dean Site was a quarry site (1962). Based upon the research for this thesis, the Dean Site appears to be more than a quarry site. It seems more likely that it is a tool manufacture and hunting site as well. The geography of the site indicates this, the spring, its location in a draw that would have acted as a funnel for animals moving through the area, and the number and types of artifacts found at the site. Many different types of artifacts were found at the site which indicates that the site had multiple uses. Evidence for this can also be found by looking at the collection of artifacts. Many of the artifacts are in various stages of completion. Many of the artifacts are either broken, or partially completed. This suggests that the Dean Site was a tool manufacture site.

The landscape around the Dean Site would have allowed people to sit above the spring and wait for animals to arrive which could then be harvested. While waiting, humans could have been making stone tools. This seems likely due to the large number of flakes surrounding the spring.

Many other archaeological sites on the Snake River Plain are located near water sources. Most Clovis sites and findspots, which are locations where a single artifact is found, are near

water (Shallatt et al 2000). Since the climate in the past was generally more moist and cooler, water was likely present in places where it is not today (Shallatt et al 2000). Thus, many sites are found where water once was.

Conclusion

The Snake River Plain in southern Idaho has been inhabited by humans for thousands of years. The area contains many elements that humans need in order to survive. These include water, food resources, and lithic materials. The area has numerous water sources which are key for understanding how humans utilized the landscape. Many archaeological sites on the Snake River Plain and surrounding areas are located near sources of water.

The geochemical data collected from the source samples indicates that the obsidians of the Snake River Plain are chemically different from one and other and thus, sourcing analysis can be done for Snake River Plain archaeological sites. The artifacts sourced from the Dean Site mostly source to the Browns Bench sources, this is likely due to proximity, since the Dean Site is located near many of the Browns Bench sources. Many of the Browns Bench obsidians are of decent quality which makes them an okay raw material from which to create stone tools.

Both the pXRF data and the LA-ICP-MS data for the source materials indicate that many sources are chemically distinct from each other. However, many of the Browns Bench sources are very similar chemically and thus it is difficult to determine which of the Browns Bench sources an unknown artifact came from. More work is needed on the Browns Bench obsidians looking for elements that can be used to separate them out. The pXRF does not measure enough elements to sort many of the Browns Bench obsidians. The LA-ICP-MS measures considerably

more elements and continued study of this data is needed to determine if it is possible to separate out each of the Browns Bench sources.

The Profilometer data indicates that the obsidians of the Snake River Plain are different from one and other in terms of roughness. Some sources are quite smooth and predictable whereas others are quite rough and unpredictable. Some still are rough but predictable. Roughness does appear to correlate with performance of the material. It also appears that predictability also correlates with performance as well. If a material is predictable then it would be much easier to create tools from the material.

The reclassification of the Dean Site is an important finding in this study. This was made based upon large number of different artifacts that were found at the Dean Site (intact points, broken points of many types, manos and pestles). Waste flakes and utilized flakes were also found at the site. The large number and varying types of artifacts indicate that the Dean Site was being used for multiple purposes, not just a quarry or tool manufacture site.

Finally, more study is needed for both the geochemical sourcing of Browns Bench obsidians, and the roughness and predictability model. The initial results of roughness and predictability are compelling and seem to both influence the performance of obsidian. The LA-ICP-MS data shows that the Browns Bench sources cannot all be separated out using discriminant function analysis. More work is needed to see if other statistical functions and element comparisons will be able to separate the Browns Bench sources.

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Appendix 1. Portable X-ray Fluorescence (pXRF) concentration data for some Snake River Plain obsidian sources. All in parts per million (ppm).

Source	Inventory Number	MnKa1	FeKa1	ZnKa1	GaKa1	ThLa1	RbKa1	SrKa1	Y Ka1	ZrKa1	NbKa1
Bear Gulch	BearGulch1_3-3-2015	280.47	11321.22	43.31	19.71	24.66	169.64	41.41	43.88	280.93	53.88
	BearGulch1_3-3-2015_02	260.81	11218.44	52.79	17.62	17.44	167.14	40.13	41.51	279.23	52.66
	BearGulch1_3-3-2015_03	314.67	11503.94	51.32	16.88	21.79	165.15	38.69	46.98	288.88	52.50
	BearGulch1_3-3-2015_04	384.42	10843.61	46.60	18.15	22.81	163.00	36.74	43.70	279.39	54.24
	BearGulch1_3-4-2015_01	309.78	11670.99	47.66	21.77	20.01	170.06	40.77	47.55	290.05	54.55
	BearGulch1_3-4-2015_02	382.21	11636.14	52.77	21.98	23.58	170.27	39.67	43.45	285.94	52.94
	BearGulch2_3-3-2015_01	366.16	11981.71	55.56	21.49	20.69	174.24	40.17	44.73	286.21	51.34
	BearGulch2_3-3-2015_02	312.02	11000.81	50.44	19.19	24.40	165.91	41.10	39.46	279.50	51.66
	BearGulch2_3-3-2015_03	221.93	10872.13	49.36	18.67	25.03	164.02	37.33	44.99	273.67	54.74
	BearGulch2_3-3-2015_04	403.05	11220.35	66.36	17.49	20.84	169.05	40.14	45.74	294.79	52.01
	BearGulch3_3-3-2015_01	264.25	12004.97	53.33	19.22	22.22	171.92	44.91	44.64	295.27	57.78
	BearGulch3_3-3-2015_02	364.57	13402.08	76.20	20.80	23.56	191.54	44.75	48.22	311.72	55.91
	BearGulch3_3-3-2015_03	315.53	14019.04	60.05	25.94	22.03	199.48	42.15	47.37	322.92	59.21
	BearGulch3_3-3-2015_04	269.34	12925.53	50.26	18.05	24.79	174.97	42.75	46.98	304.04	61.31
	BearGulch4_3-3-2015_01	370.71	12497.70	47.91	22.80	22.46	188.36	42.97	47.54	311.71	59.69
	BearGulch4_3-3-2015_02	315.71	13709.39	57.27	25.00	25.46	203.78	47.32	49.92	327.85	64.60
	BearGulch4_3-3-2015_03	382.96	11793.07	59.97	18.67	22.66	173.56	40.47	46.17	305.49	55.95
	BearGulch4_3-3-2015_04	334.90	12440.42	55.18	21.82	23.35	178.89	42.42	47.11	302.75	57.52
	BearGulch2_02-13-15	345.66	11585.33	49.80	19.15	23.19	174.56	42.59	44.75	284.04	52.67
	BearGulch1_02-13-15	346.96	11309.43	51.94	21.13	19.03	163.74	39.21	41.24	272.91	53.23
	BearGulch1 (2-12-2015)	291.36	12400.00	50.83	21.17	24.27	181.37	41.43	49.07	304.08	58.91
	BearGulch2 (2-12-2015)	306.66	11301.07	57.36	20.33	19.54	172.28	41.69	38.27	286.18	54.61
	beargulch_test_2 (1-29-2015)	397.72	11040.75	50.09	17.06	22.00	164.02	38.37	41.04	287.39	54.28
	beargulch_test_1 (1-29-2015)	312.92	11207.12	51.85	22.22	19.97	172.05	39.57	44.70	282.80	50.37
	Bear Gulch01C_01	396.32	11997.73	58.89	21.24	23.89	169.34	40.87	39.02	283.20	53.33
	Bear Gulch01C_02	240.21	11570.58	53.39	20.61	17.70	168.77	40.01	39.52	278.18	49.54
	BearGulch1_01	283.50	10764.14	53.59	20.94	22.12	162.82	38.43	42.29	272.08	47.49
	BearGulch1_02	344.45	10480.18	49.48	19.51	18.98	157.56	37.59	41.26	273.95	50.16

	BearGulch2_01	273.11	10874.89	57.75	15.56	20.24	159.48	41.36	45.48	280.83	54.35
	BearGulch2_02	225.70	10310.92	56.88	15.70	24.07	153.29	38.30	37.68	259.66	48.50
	BearGulchEast01_01	403.29	10382.88	50.43	16.38	18.25	160.84	34.75	43.45	253.94	47.08
	BearGulchEast01_02	272.69	10603.24	132.59	15.19	22.45	164.42	34.49	42.40	265.21	50.65
	BearGulchWest1_01	272.93	11441.97	49.41	22.95	22.94	175.30	41.07	42.84	293.51	54.90
	BearGulchWest1_02	363.13	10845.86	54.31	21.35	19.39	162.74	38.81	39.52	274.34	49.46
Big Southern Butte	BigSouthern01_03-04-15_01	359.04	12306.10	256.92	28.25	23.02	276.31	0.01	209.11	299.50	294.03
	BigSouthern01_03-04-15_02	318.33	12376.42	245.81	29.15	26.37	267.30	0.01	214.01	304.87	301.89
	BigSouthern01_03-04-15_03	297.34	12264.53	242.54	29.76	24.14	271.84	0.01	210.90	305.44	294.44
	BigSouthern01_03-04-15_04	346.56	12239.20	242.12	30.45	21.35	268.03	0.01	211.77	303.65	290.87
	BigSouthern01_03-04-15_05	351.69	12347.57	249.51	28.14	20.37	275.54	0.01	221.62	307.63	293.13
	BigSouthern01_03-04-15_06	314.47	12327.93	228.38	29.80	23.53	268.31	0.01	207.58	291.40	295.35
	BigSouthern01_03-04-15_07	289.39	12391.61	238.74	28.48	23.52	262.32	0.01	216.07	297.16	294.19
	BigSouthern01_03-04-15_08	255.55	12333.20	261.76	28.65	28.76	268.76	0.01	212.95	298.57	295.52
	BigSouthern02_03-04-15_01	282.48	11463.69	246.78	28.94	23.45	249.98	0.01	195.93	284.37	269.45
	BigSouthern02_03-04-15_02	255.60	11470.77	235.70	28.58	21.44	256.16	0.01	197.38	280.87	279.20
	BigSouthern02_03-04-15_03	342.53	11315.40	241.15	29.42	22.27	248.67	0.01	197.16	280.49	271.06
	BigSouthern02_03-04-15_04	310.13	11571.74	228.04	26.08	21.10	255.49	0.01	195.39	283.89	276.96
	BigSouthern02_03-04-15_05	345.03	11441.34	242.72	29.22	25.88	256.21	0.01	196.49	278.57	272.72
	BigSouthern02_03-04-15_06	366.77	11418.72	222.89	29.30	23.38	241.66	0.01	200.53	283.57	268.30
	BigSouthern02_03-04-15_07	274.26	11520.20	223.87	28.64	23.32	258.15	0.01	197.81	285.92	281.43
	BigSouthern02_03-04-15_08	316.32	11091.16	230.47	28.81	21.62	254.24	0.01	201.99	274.98	279.42
	BSB-01-02_01	393.64	13330.50	279.93	31.56	28.27	289.91	0.01	227.00	318.35	316.01
	BSB-01-02_02	292.39	12505.75	255.39	30.08	24.80	272.12	0.01	205.00	292.32	283.54
	BSB-01-03_01	314.95	11168.64	259.24	30.12	18.85	256.21	0.01	198.81	288.95	273.88
	BSB-01-03_02	240.98	11470.52	249.32	28.96	18.99	246.30	0.01	185.54	272.59	269.50
	BSB-01-SouthA_01	391.41	12954.52	258.65	30.72	26.30	283.95	0.01	228.90	320.25	312.32
	BSB-01-SouthA_02	508.73	15707.23	310.81	32.76	25.49	325.22	0.01	249.61	345.36	334.42
	BSB-01-SouthB_01	351.56	13577.07	281.57	29.86	28.82	294.28	0.01	228.00	324.06	312.96
	BSB-01-SouthB_02	295.25	14049.32	340.46	31.19	26.00	288.82	0.01	232.59	328.44	317.66
	BSB-01-SouthC_01	326.38	13277.23	274.21	29.11	24.07	282.70	0.01	228.82	317.48	320.88

	BSB-01-SouthC_02	361.36	13561.75	373.17	29.37	23.71	291.18	0.01	227.81	312.78	309.94
	BSB-01-SouthD_01	338.89	11848.81	250.69	29.32	23.72	268.34	0.01	217.00	292.09	291.48
	BSB-01-SouthD_02	399.36	11482.14	253.61	27.00	18.80	257.94	0.01	209.41	291.86	283.80
	BSB-5 (north)_01	250.37	12118.47	248.71	28.32	24.33	275.67	0.01	203.69	274.76	285.37
	BSB-5 (north)_02	249.61	13138.62	261.83	27.67	21.77	264.31	0.01	198.96	278.49	276.11
	BSB-N-01C_01	404.01	13255.24	247.19	30.82	20.82	283.21	0.01	209.97	292.49	288.91
	BSB-N-01C_02	291.26	11355.10	263.79	28.11	24.34	265.85	0.01	199.72	280.39	276.18
	BSB-N-02C_01	264.99	13100.41	248.44	28.21	17.19	268.26	0.01	203.57	282.08	286.46
	BSB-N-02C_02	194.78	11742.13	231.53	28.40	31.24	274.92	0.01	201.63	283.33	284.06
Brown's Bench	COB-01-03.1_03-04-15_01	209.69	16808.61	113.05	25.50	30.03	210.39	33.84	84.18	458.31	53.27
	COB-01-03.1_03-04-15_02	365.96	16455.78	120.29	21.13	32.96	211.60	29.30	80.88	448.30	58.30
	COB-01-03.1_03-04-15_03	265.60	16264.44	133.53	21.26	30.05	202.77	32.87	81.00	446.27	55.97
	COB-01-03.1_03-04-15_04	216.82	16662.66	102.06	22.63	32.74	209.83	31.21	80.34	449.46	56.90
	OLD-02-03.1_03-04-15_01	286.36	17177.95	68.46	20.74	32.77	203.40	46.06	63.58	440.79	44.90
	OLD-02-03.1_03-04-15_02	232.89	17377.41	70.47	20.92	29.54	205.57	47.50	63.98	449.10	43.64
	OLD-02-03.1_03-04-15_03	288.56	17311.56	46.89	18.35	34.65	208.01	46.41	63.19	450.03	46.71
	OLD-02-03.1_03-04-15_04	247.75	17491.34	58.09	16.66	32.37	200.66	47.88	62.06	451.43	48.60
	OLD-02-03_01	391.76	17101.16	63.99	19.86	29.81	208.89	45.62	64.89	455.60	43.94
	OLD-02-03_02	266.69	18037.90	54.56	20.57	27.49	224.01	47.14	67.81	474.87	45.87
	YNG-01-01.1_03-04-15_01	214.81	15930.86	60.19	19.86	31.54	215.65	40.11	63.24	411.33	46.33
	YNG-01-01.1_03-04-15_02	238.72	16419.70	54.75	19.37	33.30	218.73	43.09	63.22	424.27	48.73
	YNG-01-01.1_03-04-15_03	175.74	16649.42	51.87	20.85	33.15	214.90	39.72	67.05	423.90	46.43
	YNG-01-01.1_03-04-15_04	196.40	15979.18	58.31	23.45	31.93	212.16	40.02	61.10	422.13	43.32
	CoalBanks#1_01_03-11-15_01	264.61	13994.59	71.85	21.49	31.33	213.24	29.72	76.40	371.28	45.05
	CoalBanks#1_01_03-11-15_02	233.95	14387.84	83.12	20.23	29.21	222.82	28.18	76.58	372.01	45.77
	CoalBanks#1_01_03-11-15_03	276.67	14262.71	86.31	22.06	31.03	224.06	29.15	73.31	379.39	46.65
	CoalBanks#1_01_03-11-15_04	311.88	14602.60	81.40	25.07	33.60	223.51	31.39	74.41	372.61	47.27
	CoalBanks#1_02_03-11-15_01	315.65	15242.53	91.35	22.29	34.02	250.26	29.52	79.41	392.79	46.61
	CoalBanks#1_02_03-11-15_02	249.56	15236.26	91.91	24.71	32.06	242.09	31.26	80.43	390.13	51.41
	CoalBanks#1_02_03-11-15_03	264.14	15323.33	87.43	22.12	32.53	250.17	27.06	82.19	386.04	49.73
	CoalBanks#1_02_03-11-15_04	286.02	15213.32	77.47	24.00	33.42	243.10	31.33	84.88	387.39	46.22

CoalBanks#4_01_03-11-15_01	231.74	14771.94	92.08	21.12	32.64	224.74	33.48	78.13	390.82	49.28
CoalBanks#4_01_03-11-15_02	265.69	14850.93	89.64	21.06	27.79	228.29	30.86	79.89	400.93	49.17
CoalBanks#4_01_03-11-15_03	302.46	15049.46	102.29	22.37	30.40	231.85	31.85	76.65	401.84	51.85
CoalBanks#4_01_03-11-15_04	362.44	14765.34	98.00	21.53	29.78	226.09	30.25	80.16	391.93	49.88
IbexHollow#2_01_03-11-15_01	227.31	15302.51	62.16	21.03	26.46	190.85	40.30	58.97	411.91	43.67
IbexHollow#2_01_03-11-15_02	299.15	15219.15	60.32	20.01	27.72	189.15	43.13	60.67	410.27	41.23
IbexHollow#2_01_03-11-15_03	211.30	15682.45	59.79	19.38	26.51	186.99	42.66	59.33	417.91	40.87
IbexHollow#2_01_03-11-15_04	295.77	15174.48	46.98	17.08	27.81	180.96	40.75	61.05	419.02	43.75
BHC-00-01_01	225.59	17877.17	69.15	17.04	29.66	208.12	45.88	67.23	464.44	44.14
BHC-00-01_02	276.16	16630.33	60.33	19.63	29.74	195.41	45.04	62.26	446.55	39.35
BHC-00-02_01	306.00	16624.74	56.27	16.47	30.21	195.77	38.99	58.81	461.99	43.96
BHC-00-02_02	216.56	16437.43	54.17	18.29	29.90	193.45	46.33	57.57	424.74	44.09
BHC-00-03_01	340.14	16903.28	60.52	21.91	31.90	201.85	47.12	61.24	438.37	45.25
BHC-00-03_02	220.54	16671.09	58.89	21.23	24.04	195.52	43.44	64.24	431.48	43.96
BHC-00-04_01	210.65	16285.22	68.85	21.43	32.55	201.30	42.05	59.47	450.03	47.71
BHC-00-04_02	274.09	16750.53	53.98	21.84	31.37	199.68	44.71	62.12	454.19	45.77
BHC-00-05_01	252.82	15862.61	64.05	19.36	28.21	187.30	45.19	57.80	409.44	43.23
BHC-00-05_02	248.47	17805.53	70.02	20.48	30.33	206.24	50.42	64.99	447.59	45.37
BHC-00-06_01	286.96	13879.86	75.62	23.16	27.90	182.81	40.75	61.29	353.84	39.53
BHC-00-06_02	249.86	15459.10	79.39	16.26	33.46	197.14	43.45	68.11	382.04	42.06
HOU-02-01_01	268.54	14888.02	59.13	18.89	26.96	198.40	38.63	62.97	393.86	45.34
HOU-02-01_02	265.83	15176.95	52.17	20.22	29.79	191.53	40.92	64.04	392.94	45.40
HOU-02-02_01	244.18	15470.54	69.13	18.50	32.71	198.48	45.03	59.41	393.18	42.95
HOU-02-02_02	226.21	15646.61	58.59	23.20	28.91	200.30	43.04	64.84	410.16	47.53
HOU-03-03_01	338.47	16889.15	66.46	19.72	32.70	193.10	46.95	61.53	481.93	43.60
HOU-03-03_02	268.53	16846.57	60.21	18.57	32.08	195.97	45.36	60.02	430.80	43.38
HOU-04-01_01	411.36	19224.30	79.48	20.57	21.66	173.01	56.52	66.02	498.18	55.45
HOU-04-01_02	283.69	19779.17	61.94	20.90	24.32	172.82	57.00	69.29	515.56	53.41
HOU-04-03_01	311.36	16431.52	65.76	22.12	29.36	190.28	48.75	62.70	433.35	41.57
HOU-04-03_02	200.08	16186.38	57.63	17.60	30.82	186.46	45.60	59.26	431.15	43.35
IBX-03-01_01	228.49	15567.65	49.66	18.74	25.52	192.62	39.00	54.54	409.34	45.99

	IBX-03-01_02	190.11	14955.81	62.01	19.17	27.64	191.80	41.33	58.51	402.34	40.85
	IBX-03-02_01	281.20	16853.18	72.80	17.28	31.75	205.29	47.35	59.55	443.22	41.65
	IBX-03-02_02	306.96	17160.61	53.27	18.88	28.55	200.24	43.39	65.29	443.21	43.96
Cannonball Mt II	WDC-00-06_03-03-15_01	466.92	21266.62	187.53	22.98	40.29	298.73	1.63	98.97	889.78	102.37
	WDC-00-06_03-03-15_02	410.26	21365.06	176.83	21.49	39.19	306.44	0.58	100.37	883.38	96.81
	WDC-00-06_03-03-15_03	345.02	21085.57	182.12	22.77	34.48	306.02	0.97	91.16	877.84	103.73
	WDC-00-06_03-03-15_04	387.72	21298.89	178.73	24.83	37.40	297.96	0.13	100.22	896.30	100.60
	WDC-00-10_03-03-15_01	381.61	22257.02	209.62	24.13	38.20	320.67	0.57	104.49	951.98	106.92
	WDC-00-10_03-03-15_02	426.44	22337.50	201.38	24.56	38.79	315.46	2.42	107.53	947.12	106.97
	WDC-00-10_03-03-15_03	371.12	22510.76	186.24	25.16	34.89	312.52	0.19	108.49	961.71	106.94
	WDC-00-10_03-03-15_04	514.78	21771.68	192.61	22.92	37.94	314.90	0.01	100.88	938.33	107.13
	WDC-00-11_03-03-15_01	711.34	34040.52	234.94	26.49	38.36	320.52	1.24	110.86	663.40	111.93
	WDC-00-11_03-03-15_02	813.93	33973.98	231.59	26.85	39.87	304.99	0.60	111.72	667.85	109.96
	WDC-00-11_03-03-15_03	776.79	34533.61	235.08	24.16	37.26	307.91	1.08	115.56	668.18	109.58
	WDC-00-11_03-03-15_04	561.68	34191.16	247.49	25.58	38.76	318.12	0.64	109.14	663.20	108.27
	WDC-00-12_03-03-15_01	539.74	33209.23	221.19	25.48	40.89	300.87	0.01	98.53	626.87	102.80
	WDC-00-12_03-03-15_02	672.56	33105.58	249.18	23.82	36.08	294.87	0.58	109.36	635.72	106.68
	WDC-00-12_03-03-15_03	534.87	32931.51	214.53	24.53	39.42	292.46	2.10	102.96	626.69	107.88
	WDC-00-12_03-03-15_04	576.09	32659.28	231.31	24.28	35.43	290.78	2.13	105.82	636.35	100.51
	WDC-00-11_45s_01	520.32	32513.55	226.75	23.41	31.85	302.62	0.01	107.02	630.39	103.88
Chesterfield	CF01_03-04-15_01	380.13	12668.78	52.29	18.19	9.37	81.86	198.05	23.27	177.30	12.70
	CF01_03-04-15_02	386.13	12742.38	44.33	18.83	11.48	81.07	201.35	26.13	175.64	10.44
	CF01_03-04-15_03	377.03	12762.65	49.69	20.54	13.70	82.60	201.72	24.23	180.95	11.77
	CF01_03-04-15_04	339.74	12912.73	53.81	19.90	11.64	80.22	201.93	26.30	173.62	11.45
	CF01_03-04-15_05	233.79	12746.89	49.87	17.18	13.66	76.84	206.75	26.35	172.21	11.19
	CF01_03-04-15_06	330.24	12849.86	39.01	16.02	16.11	78.56	208.23	26.56	183.26	11.59
	CF01_03-04-15_07	358.12	12740.20	45.53	20.07	13.50	82.12	200.70	25.18	175.14	10.81
	CF01_03-04-15_08	366.69	12728.65	35.54	16.70	13.64	85.30	209.48	21.83	171.68	11.09
	CF02_03-04-15_01	344.02	12361.85	55.69	16.89	10.10	79.29	193.69	25.25	174.72	11.50
	CF02_03-04-15_02	385.56	12569.00	47.84	18.35	13.51	81.12	198.90	24.53	168.51	11.52
	CF02_03-04-15_03	290.41	12205.48	44.83	18.86	9.99	79.22	194.89	20.87	173.68	10.79

	CF02_03-04-15_04	371.97	12241.45	40.44	18.12	11.63	80.50	190.06	21.83	169.32	11.87
	CF02_03-04-15_05	487.55	11891.48	34.94	19.68	11.73	78.54	190.42	22.12	169.37	10.91
	CF02_03-04-15_06	317.27	12289.62	48.47	16.90	9.65	81.98	192.28	24.07	174.04	9.86
	CF02_03-04-15_07	293.96	12211.20	46.06	14.25	7.65	83.20	197.32	20.25	174.26	12.21
	CF02_03-04-15_08	261.71	12175.31	40.10	18.81	9.28	81.69	200.64	23.69	169.96	11.08
Conant Creek	COC-01-01A_03-03-15_01	204.27	9807.41	84.50	20.32	21.61	161.21	19.24	68.22	181.40	59.25
	COC-01-01A_03-03-15_02	265.33	9895.49	85.83	24.26	24.99	163.83	19.46	75.09	181.23	59.32
	COC-01-01A_03-03-15_03	246.73	9549.05	83.34	18.98	20.40	163.30	19.90	71.24	184.69	58.41
	COC-01-01A_03-03-15_04	363.30	9633.22	82.29	20.87	27.46	173.25	18.02	73.40	185.22	55.98
	COC-01-01B_03-03-15_01	304.41	9262.55	79.08	21.63	22.58	160.76	16.46	66.15	176.13	53.31
	COC-01-01B_03-03-15_02	289.10	9619.26	83.69	22.07	23.34	168.23	22.36	72.37	185.43	60.54
	COC-01-01B_03-03-15_03	266.40	9787.38	74.99	19.23	21.65	167.11	20.30	73.94	182.94	59.98
	COC-01-01B_03-03-15_04	265.82	9884.96	80.72	20.46	22.13	170.01	25.85	73.22	185.40	56.82
	COC-01-01C_03-03-15_01	170.68	9102.24	79.21	20.40	21.89	164.12	16.69	68.65	182.69	55.84
	COC-01-01C_03-03-15_02	274.15	9181.50	78.48	20.68	21.62	158.37	15.63	72.00	185.11	54.79
	COC-01-01C_03-03-15_03	234.88	9110.23	69.29	21.77	22.63	158.67	19.02	72.76	187.66	59.07
	COC-01-01C_03-03-15_04	199.23	9187.95	64.19	18.79	22.68	167.88	17.96	69.29	183.29	56.29
	COC-01-01D_03-03-15_01	206.60	8942.91	80.68	21.51	23.68	164.68	16.54	69.60	181.18	56.78
	COC-01-01D_03-03-15_02	276.45	9352.16	81.00	23.21	23.10	167.11	18.09	70.36	183.04	56.82
	COC-01-01D_03-03-15_03	310.12	9216.75	69.92	20.64	19.76	169.72	17.42	69.10	177.62	57.38
	COC-01-01D_03-03-15_04	170.54	9108.20	78.58	19.50	27.29	164.36	17.53	67.86	185.70	59.57
	COC-01-01A_01.1	303.22	9864.28	97.82	19.47	24.14	163.61	21.47	70.88	184.59	57.29
	COC-01-01A_01.2	229.61	9090.38	78.47	18.53	18.70	161.82	16.58	68.68	181.87	55.40
	COC-01-01B_01.1	274.53	9724.30	73.76	19.95	23.39	174.29	19.21	71.19	183.90	55.63
	COC-01-01B_01.2	285.48	9519.05	80.66	22.52	21.65	168.80	19.14	71.04	187.71	58.71
	COC-01-01B_01.3	221.19	9518.22	78.55	19.86	21.74	170.05	16.76	73.09	186.24	57.69
	COC-01-01C_01.1	236.53	9291.70	86.55	20.27	23.09	170.85	16.71	65.44	180.31	56.39
	COC-01-01C_01.2	289.92	8755.43	74.05	20.49	19.13	166.19	18.48	70.47	178.15	53.38
	COC-01-01D_01.1	340.81	9382.70	80.10	22.42	24.02	169.26	18.41	70.99	187.59	57.12
	COC-01-01D_01.2	294.24	9646.15	76.25	20.46	22.19	169.93	19.60	69.47	187.92	61.77
	COC-01-01D_01.3	276.76	10084.98	87.57	23.05	18.64	168.37	19.61	68.23	183.77	58.03

	COC-01-02A_01	304.74	9476.43	78.15	22.32	19.89	160.49	12.93	60.65	171.40	56.10
	COC-01-02A_02	288.50	8855.80	77.20	19.74	20.55	164.60	17.34	71.28	182.64	57.67
	COC-01-04A_01	337.97	9505.88	83.25	19.78	26.34	178.10	17.70	71.44	189.22	61.65
	COC-01-04A_02	370.29	9651.14	72.51	22.37	26.32	168.36	14.96	73.10	185.07	58.96
	COC-01-04B_01	348.56	10965.32	98.78	19.80	25.67	170.25	17.25	76.27	197.08	58.89
	COC-01-04B_02	301.37	9639.78	88.81	18.53	23.58	174.18	17.20	70.24	191.63	60.43
	COC-01-05A_01	199.44	9672.90	88.16	22.35	22.41	173.25	22.26	70.60	185.15	57.59
	COC-01-05A_02	331.92	11458.54	80.39	18.56	23.33	157.42	19.73	69.07	178.77	59.82
	COC-01-05B_01	249.13	9014.98	85.21	22.66	22.07	151.44	16.59	63.81	170.82	51.34
	COC-01-05B_02	252.59	8404.43	73.28	17.28	22.14	152.47	17.65	62.06	165.59	57.08
	COC-01-06_01	243.38	9634.05	75.54	22.14	21.81	167.03	18.09	73.96	190.24	59.61
	COC-01-06_02	352.87	9765.53	82.72	21.60	21.17	176.50	18.24	72.30	185.27	59.73
Grassy Lake	GL-01-01_01	274.94	10974.54	75.74	23.36	23.28	181.02	5.88	73.43	231.09	59.84
	GL-01-01_02	255.73	11291.23	90.63	21.28	26.03	190.73	5.67	72.94	251.88	61.64
	GL-01-02_01	225.73	13412.51	91.38	24.55	29.90	226.44	6.05	90.23	264.41	69.96
	GL-01-02_02	230.03	12044.83	113.74	28.69	30.09	213.25	7.93	82.80	244.70	65.55
Meadow Creek	MED-01_01	52.96	8079.38	46.41	18.35	18.74	212.12	26.95	29.18	113.14	12.87
	MED-01_02	197.81	9078.99	46.52	19.95	21.27	231.22	33.24	34.17	120.18	13.65
	MED-01-01_01	110.74	7622.58	36.58	18.55	21.85	209.15	25.73	24.84	115.47	11.65
	MED-01-01_02	154.79	8328.54	38.76	18.20	20.74	208.12	24.07	24.97	119.31	10.31
	MED-01-03_01	130.29	7160.22	41.37	16.81	21.44	201.24	21.78	29.93	103.12	12.21
	MED-01-03_02	208.77	7345.14	41.86	19.99	22.85	205.29	22.10	31.51	101.81	10.08
	MED-01-04C_01	101.17	7734.99	38.18	17.73	16.40	202.65	23.14	28.32	103.81	13.40
	MED-01-04C_02	170.63	7924.26	41.79	18.19	22.30	198.48	20.38	26.86	101.83	11.50
Kelly Canyon	KC-1.1_03-04-15_01	290.34	10881.67	92.50	19.77	26.36	164.00	15.32	76.48	245.62	60.84
	KC-1.1_03-04-15_02	223.94	10969.63	87.93	21.13	25.28	164.62	15.37	71.79	246.55	61.37
	KC-1.1_03-04-15_03	358.38	11169.50	83.95	22.27	24.86	169.73	16.57	75.26	251.21	64.83
	KC-1.1_03-04-15_04	338.04	11074.76	96.93	20.94	22.22	163.78	15.67	76.98	253.90	59.11
	KC-1.1_03-04-15_05	326.90	11193.98	96.86	22.05	21.10	167.25	14.71	76.54	248.95	63.12
	KC-1.1_03-04-15_06	283.94	11084.01	91.99	21.70	22.67	165.53	15.36	70.25	245.13	60.91
	KC-1.1_03-04-15_07	360.82	11042.49	90.18	22.80	23.27	158.78	16.37	74.13	248.31	61.06

	KC-1.1_03-04-15_08	298.92	11000.50	98.04	16.80	25.73	170.38	16.93	74.49	260.27	61.22
	KC-1.2_03-04-15_01	324.96	11865.71	93.31	20.41	26.30	177.83	17.95	80.41	260.95	59.95
	KC-1.2_03-04-15_02	334.17	11726.45	104.96	20.60	24.73	173.81	16.19	80.82	261.90	64.95
	KC-1.2_03-04-15_03	282.96	11892.35	96.29	23.37	25.41	175.74	15.76	78.57	262.00	64.76
	KC-1.2_03-04-15_04	358.91	11936.13	98.64	23.18	22.41	174.92	16.90	79.57	254.16	60.91
	KC-1.2_03-04-15_05	294.48	11601.04	92.05	21.68	24.64	170.71	17.34	77.79	258.20	60.03
	KC-1.2_03-04-15_06	402.50	11916.60	108.46	22.88	26.65	182.83	17.60	79.18	252.09	66.21
	KC-1.2_03-04-15_07	248.87	11888.49	86.47	26.32	21.24	175.71	14.32	80.17	255.88	59.54
	KC-1.2_03-04-15_08	210.05	11914.21	112.05	19.56	21.43	178.21	16.44	80.51	262.49	64.61
Malad	MAL-01-08.1_03-04-15_01	234.80	6657.59	32.71	16.81	19.69	113.03	63.37	33.46	88.79	12.03
	MAL-01-08.1_03-04-15_02	192.11	6587.96	39.78	18.47	19.35	114.47	63.53	28.85	89.10	13.57
	MAL-01-08.1_03-04-15_03	203.26	6768.01	33.10	16.80	20.63	117.54	65.69	28.88	89.31	13.51
	MAL-01-08.1_03-04-15_04	264.81	6744.96	45.60	17.31	16.48	114.11	63.52	32.37	90.87	14.23
	MAL-01-08.1_03-04-15_05	191.01	6635.01	34.58	16.74	19.89	114.51	63.28	31.25	89.69	16.38
	MAL-01-08.1_03-04-15_06	236.71	6641.06	32.41	16.99	15.59	114.26	67.01	31.73	85.88	14.75
	MAL-01-08.1_03-04-15_07	215.23	6609.87	35.99	16.55	19.14	121.99	67.40	30.77	91.65	13.19
	MAL-01-08.1_03-04-15_08	176.25	6686.03	28.67	15.59	21.12	114.26	64.19	31.63	93.31	13.22
	MAL-01-08.2_03-04-15_01	264.04	6597.45	28.05	17.18	16.80	110.54	66.10	31.12	88.16	14.49
	MAL-01-08.2_03-04-15_02	291.85	6630.55	38.04	17.07	20.02	111.48	60.98	31.83	91.82	13.07
	MAL-01-08.2_03-04-15_03	218.88	6463.18	34.10	17.11	21.53	118.42	61.74	30.56	91.22	12.80
	MAL-01-08.2_03-04-15_04	181.36	6529.24	30.83	17.91	19.37	112.70	63.63	30.44	89.74	14.13
	MAL-01-08.2_03-04-15_05	164.81	6628.47	37.31	22.13	18.85	109.97	61.47	31.29	89.46	13.25
	MAL-01-08.2_03-04-15_06	238.92	6789.69	29.15	18.75	20.64	116.09	63.35	30.07	87.79	15.79
	MAL-01-08.2_03-04-15_07	240.90	6556.17	31.20	17.07	19.52	111.31	57.36	31.30	88.46	13.31
	MAL-01-08.2_03-04-15_08	243.88	6670.82	32.32	17.94	19.84	111.17	62.67	30.70	95.59	12.46
	MAL-01-03_01.1	194.44	6518.81	39.06	16.51	19.62	115.34	64.80	32.85	87.78	14.32
	MAL-01-03_01.2	229.80	6519.92	35.98	14.03	19.83	108.12	61.46	31.81	90.12	13.49
	MAL-01-05_01.1	242.40	6993.61	25.28	18.61	19.56	122.45	68.24	31.29	88.44	16.39
	MAL-01-05_01.2	153.80	6199.29	31.27	19.75	20.59	107.62	57.38	30.09	85.63	15.18
	MAL-01-05_02.1	178.58	7446.32	35.84	15.08	18.90	133.26	66.87	32.75	98.17	15.80
	MAL-01-05_02.2	286.09	7700.19	38.77	19.56	22.09	139.06	74.38	30.93	100.94	16.91

	MAL-01-06_01.1	274.74	7035.93	25.95	18.90	18.85	131.05	67.27	35.76	96.90	15.74
	MAL-01-06_01.2	241.68	7318.90	36.75	16.39	18.70	121.51	71.66	34.19	92.90	15.63
	MAL-01-07_01.1	135.22	5729.52	33.07	18.72	16.68	106.06	57.57	30.16	79.44	15.77
	MAL-01-07_01.2	336.56	6630.00	29.74	18.64	15.99	120.53	66.01	29.41	92.88	14.04
	MAL-01-07_02.1	187.54	6855.95	28.58	20.15	17.13	114.75	61.63	32.77	103.79	14.52
	MAL-01-07_02.2	275.66	6870.44	30.40	19.41	23.77	125.94	63.57	30.31	91.92	13.83
	MAL-01-08_01.1	117.37	6269.87	35.87	21.19	17.92	113.25	63.90	29.37	85.66	14.38
	MAL-01-08_01.2	273.90	7173.11	29.74	22.56	17.51	119.15	66.19	31.77	91.07	14.48
	MAL-01-08_02.1	260.00	6839.97	24.99	17.56	18.64	118.42	63.32	32.95	92.49	13.13
	MAL-01-08_02.2	241.31	6685.49	34.61	19.62	17.72	118.23	62.92	28.81	83.26	13.05
	MAL-01-08_03.1	198.72	6918.43	29.75	15.65	20.27	119.79	68.37	34.11	91.03	12.48
	MAL-01-08_03.2	245.24	6852.75	40.31	18.50	22.38	124.85	68.79	31.49	94.40	13.48
	MAL-01-08_04.1	186.61	5904.09	25.55	14.53	19.27	113.01	56.79	27.22	82.39	14.12
	MAL-01-08_04.2	282.37	6934.25	30.51	16.06	14.53	123.45	64.36	31.03	91.94	13.18
	Malad2_01	219.67	6428.95	30.65	17.44	15.40	113.92	64.81	32.36	89.14	15.50
	Malad2_02	194.04	6633.06	32.87	14.61	17.77	111.70	67.71	30.27	91.26	14.23
	Malad3_01	284.02	6942.66	36.69	20.14	16.54	114.86	65.57	30.51	92.29	13.99
	Malad3_02	300.22	6870.28	40.30	16.44	16.42	123.87	70.64	33.10	93.23	16.97
Obsidian Cliffs (Wy)	ObsidianCliffs2_03-04-15_01	197.17	8890.88	74.69	21.62	31.68	241.08	0.22	75.74	167.48	46.22
	ObsidianCliffs2_03-04-15_02	180.81	8931.68	74.67	20.71	26.94	243.64	1.71	74.42	165.40	44.91
	ObsidianCliffs2_03-04-15_03	256.71	8815.34	74.03	21.98	31.20	237.28	0.52	74.28	167.49	46.53
	ObsidianCliffs2_03-04-15_04	237.89	8693.13	83.59	21.11	30.61	239.28	0.74	72.92	170.64	49.63
	ObsidianCliffs2_03-04-15_05	307.33	8918.82	72.63	21.32	30.33	245.36	0.79	73.08	167.35	45.20
	ObsidianCliffs2_03-04-15_06	305.57	8776.36	79.45	20.71	26.78	238.93	0.28	74.41	166.30	48.87
	ObsidianCliffs2_03-04-15_07	201.74	8884.83	62.25	23.56	28.03	229.21	1.50	80.26	169.94	42.03
	ObsidianCliffs2_03-04-15_08	219.18	8943.98	77.32	24.64	25.02	236.11	0.89	78.37	173.25	48.19
	OBS-01-02_03-04-15_01	208.90	8580.95	77.78	22.17	27.46	238.29	0.00	72.90	166.80	43.47
	OBS-01-02_03-04-15_02	143.10	8355.29	76.67	21.71	28.15	232.51	1.48	70.95	165.39	42.30
	OBS-01-02_03-04-15_03	205.61	8595.58	76.11	23.03	30.24	216.94	0.01	74.44	167.96	42.09
	OBS-01-02_03-04-15_04	165.04	8281.56	67.13	17.15	22.37	230.77	2.26	71.26	166.32	45.42
	OBS-01-04_03-11-15_01	247.07	8719.74	75.85	19.80	26.34	231.79	1.16	77.09	170.67	44.81

	OBS-01-04_03-11-15_02	241.11	8529.64	88.60	23.64	30.64	233.49	0.32	73.52	167.02	47.16
	OBS-01-04_03-11-15_03	189.56	8751.47	93.06	22.70	27.10	237.60	1.42	73.31	162.29	44.29
	OBS-01-04_03-11-15_04	224.31	8651.34	63.46	24.40	28.63	238.35	2.28	75.55	163.63	43.94
	OBSCLIFFS2_01	220.72	8677.05	78.00	22.57	25.53	235.59	2.36	75.22	166.90	46.67
	OBSCLIFFS2_02	173.12	6962.67	63.12	17.29	21.92	192.03	1.51	64.12	141.72	37.61
Teton Pass 1	TP1-7.1_03-04-15_01	410.95	8453.48	46.36	17.74	15.50	122.50	119.42	27.31	81.88	14.32
	TP1-7.1_03-04-15_02	381.28	8378.55	43.92	19.98	14.09	118.66	117.33	28.20	84.88	14.36
	TP1-7.1_03-04-15_03	397.89	8284.14	55.01	19.36	14.43	117.82	116.21	25.24	83.27	13.21
	TP1-7.1_03-04-15_04	453.84	8358.90	52.97	19.42	14.30	121.23	119.70	25.89	84.83	14.27
	TP1-7.1_03-04-15_05	379.37	8174.49	36.72	21.30	12.49	122.54	118.25	27.22	80.81	14.19
	TP1-7.1_03-04-15_06	443.59	8492.85	43.79	21.65	11.32	120.20	118.10	27.66	83.94	14.19
	TP1-7.1_03-04-15_07	412.70	873.92	50.57	20.40	10.61	123.44	126.84	26.94	85.59	15.48
	TP1-7.1_03-04-15_08	293.50	8453.60	51.46	19.59	11.52	116.97	117.57	27.55	82.45	14.95
	TP1-7.2_03-04-15_01	427.83	7906.45	45.22	18.98	12.29	112.49	117.06	26.89	82.98	13.99
	TP1-7.2_03-04-15_02	395.99	8030.38	41.57	19.63	13.26	116.72	114.87	27.76	79.63	13.38
	TP1-7.2_03-04-15_03	354.25	8135.17	55.17	17.07	14.03	117.98	113.38	26.12	82.35	13.43
	TP1-7.2_03-04-15_04	409.05	8376.95	48.61	18.67	15.27	118.22	112.79	25.92	82.34	12.96
	TP1-7.2_03-04-15_05	446.36	8109.84	46.06	18.10	8.66	115.62	114.95	24.77	83.41	13.40
	TP1-7.2_03-04-15_06	440.37	8282.14	54.64	20.23	12.02	109.72	119.59	29.35	78.62	15.46
	TP1-7.2_03-04-15_07	349.50	8296.07	52.63	23.02	13.13	123.37	114.67	30.03	80.27	13.00
	TP1-7.2_03-04-15_08	437.03	8092.76	51.47	17.51	8.96	116.64	115.12	26.63	80.03	13.40
Teton Pass 2	TP1-1_01	473.40	7487.70	50.04	16.43	11.23	104.64	102.23	23.78	76.52	13.53
Teton Pass 3	TP1-1_02	308.76	8248.56	47.35	17.96	14.60	119.76	114.02	31.08	85.63	13.11
Teton Pass 4	TP1-3_01	477.94	8305.53	48.22	15.53	13.86	118.84	116.87	26.34	82.84	14.51
Teton Pass 5	TP1-3_02	395.19	7681.38	36.95	13.25	10.77	108.57	108.12	22.59	84.78	14.46
Teton Pass 6	TP1-4_01	327.00	7874.42	41.12	19.62	11.04	117.18	111.62	25.74	82.36	14.40
Teton Pass 7	TP1-4_02	395.05	9206.29	60.82	21.83	16.22	130.08	117.80	28.15	88.85	16.94
Teton Pass 8	TP1-6_01	491.85	8027.32	46.79	17.86	13.71	107.78	115.18	26.45	78.75	12.92
Teton Pass 9	TP1-6_02	519.32	8858.21	42.58	20.84	14.31	119.12	118.53	26.92	88.49	15.83
Teton Pass 10	TP1-11_01	336.67	8320.58	54.48	18.35	13.73	116.91	110.43	25.37	82.73	12.75
Teton Pass 11	TP1-11_02	355.74	7518.23	49.04	19.24	11.28	106.97	106.55	25.97	79.78	14.98

American Falls	AF-01-A_03-11-15_01	326.07	9061.53	61.33	22.18	22.97	187.96	20.44	60.23	230.73	47.52
	AF-01-A_03-11-15_02	299.90	8980.68	72.28	20.29	25.27	185.10	21.13	58.62	222.51	46.56
	AF-01-A_03-11-15_03	329.24	8966.20	74.44	22.01	21.72	184.81	20.96	58.86	227.39	49.03
	AF-01-A_03-11-15_04	256.57	9172.95	58.70	18.67	21.99	185.33	19.64	56.42	226.43	50.03
	AF-01-C_03-11-15_01	283.63	8865.09	56.27	18.90	25.65	175.34	18.22	58.12	240.44	46.15
	AF-01-C_03-11-15_02	303.67	8860.82	60.40	19.49	26.42	174.91	19.88	55.39	240.89	44.58
	AF-01-C_03-11-15_03	333.64	8614.59	50.34	22.93	25.26	178.76	20.18	57.39	235.07	45.28
	AF-01-C_03-11-15_04	311.11	8949.17	53.10	18.94	19.61	171.58	20.07	56.14	239.21	46.40
	AF-01-D_03-11-15_01	330.62	8802.38	58.88	22.40	22.80	175.53	24.35	58.44	223.44	44.55
	AF-01-D_03-11-15_02	314.16	8832.74	62.16	20.12	23.60	179.62	23.26	58.86	231.82	44.90
	AF-01-D_03-11-15_03	286.40	8912.16	66.66	21.74	23.33	177.29	22.26	55.05	219.46	45.48
	AF-01-D_03-11-15_04	310.36	8970.77	56.05	19.68	25.94	176.74	25.36	55.31	223.27	44.11
	AF-01-G_03-11-15_01	292.79	8603.35	51.30	17.36	24.68	180.47	20.23	60.57	219.38	44.97
	AF-01-G_03-11-15_02	271.60	8605.85	69.85	19.01	23.65	178.88	21.94	57.96	224.83	47.27
	AF-01-G_03-11-15_03	311.06	8610.95	66.21	19.22	25.50	180.41	22.23	63.22	224.06	47.77
	AF-01-G_03-11-15_04	338.46	8644.87	57.69	15.78	24.36	181.52	20.89	57.71	216.66	48.50
Cannonball Mt I	POL-04-01_03-09-15_01	661.82	35347.10	250.74	25.02	38.66	321.35	0.01	113.48	668.23	113.45
	POL-04-01_03-09-15_02	718.44	35738.91	255.71	26.37	43.34	332.07	1.40	112.87	687.77	116.23
	POL-04-01_03-09-15_03	706.58	35182.36	251.27	26.21	39.74	319.66	1.37	110.33	687.15	113.06
	POL-04-01_03-09-15_04	693.77	35738.80	249.32	25.72	43.89	317.99	0.58	121.70	688.66	110.00
	POL-05-03_03-09-15_01	678.09	32557.11	237.80	23.56	32.07	295.66	0.44	108.31	618.44	101.95
	POL-05-03_03-09-15_02	733.25	32776.73	219.91	24.32	34.66	296.84	0.01	105.71	619.93	104.16
	POL-05-03_03-09-15_03	766.60	32617.32	235.41	27.28	31.49	288.81	1.23	103.20	625.75	101.28
	POL-05-03_03-09-15_04	584.06	32815.76	240.32	24.97	34.49	288.70	0.01	99.09	621.75	104.44
	POL-06-02_03-09-15_01	395.42	22484.60	199.89	21.04	38.07	316.25	2.28	112.28	949.74	109.61
	POL-06-02_03-09-15_02	464.63	22591.22	215.83	23.04	41.43	320.51	1.37	105.09	956.60	108.35
	POL-06-02_03-09-15_03	465.39	22428.34	175.03	23.62	39.89	336.36	1.05	105.38	965.43	107.81
	POL-06-02_03-09-15_04	419.47	22750.62	208.25	24.89	39.59	323.89	1.33	111.22	963.02	105.52
	POL-07-B_03-09-15_01	499.52	23616.75	215.12	23.23	44.98	346.57	0.51	108.61	1013.74	115.63
	POL-07-B_03-09-15_02	484.35	23627.51	214.41	23.40	44.28	336.11	0.01	113.16	1014.57	117.54
	POL-07-B_03-09-15_03	412.36	23978.02	241.32	24.67	37.18	342.64	0.62	112.29	1021.72	113.33

	POL-07-B_03-09-15_04	515.58	24217.43	226.44	22.48	41.49	351.60	0.01	118.99	1038.87	116.05
Cedar Butte	CED-01-02_01	346.51	14025.03	225.78	26.14	28.89	237.36	0.01	206.33	438.56	255.06
	CED-01-02_02	385.07	15648.49	222.76	28.01	30.44	256.96	0.01	228.51	512.18	276.16
	CED-01-03_01	197.72	10255.09	86.35	24.69	22.91	181.23	18.82	78.89	198.75	63.16
	CED-01-03_02	251.87	9700.48	76.91	20.61	17.75	158.02	20.01	77.37	191.55	58.14
	CED-02-03_01	622.48	23148.27	268.81	28.60	29.79	254.45	0.01	242.37	735.35	305.98
	CED-02-03_02	755.03	23606.34	251.66	28.17	31.29	243.48	0.51	232.79	709.64	281.85
	CED-02-13_01	306.38	14433.27	226.68	27.70	30.53	264.75	0.01	221.68	418.95	281.36
	CED-02-13_02	378.91	15548.06	237.56	29.35	34.73	277.05	0.01	233.77	434.06	281.11
	CED-03-01_01	525.21	19572.27	260.92	29.92	28.86	265.36	0.01	239.15	553.21	287.87
	CED-03-01_02	543.84	19113.07	243.58	29.22	33.88	261.20	0.01	236.80	545.01	287.22
	CED-03-02_01	401.06	17348.91	234.84	29.33	26.40	251.30	0.01	230.68	555.45	278.25
	CED-03-02_02	515.35	18796.23	300.75	28.32	36.26	256.68	0.01	231.52	563.33	278.69
	CED-03-13_01	553.73	19322.37	259.50	28.48	33.86	262.20	0.01	236.56	538.43	286.19
	CED-03-13_02	388.96	16877.50	234.01	26.31	33.61	264.49	0.01	226.72	495.70	273.66
	CED-04-01_01	368.27	13869.08	243.53	29.25	29.60	270.91	0.01	221.51	419.30	274.15
	CED-04-01_02	365.21	15074.23	249.51	30.95	30.90	263.53	0.01	221.03	436.91	286.58
	CED-04-02_01	589.34	15193.10	235.30	29.42	22.33	248.40	0.01	213.42	442.16	259.07
	CED-04-02_02	400.97	16427.32	259.40	29.05	34.93	265.12	0.01	239.78	475.86	292.68
	CED-04-03_01	370.61	14450.20	237.29	28.47	25.20	246.87	0.01	200.25	407.51	236.92
	CED-04-03_02	483.40	17041.79	233.10	29.20	28.34	263.15	0.01	231.70	455.87	272.83
Owhyee	BRN-01-03_03-11-15_01	87.33	7117.99	35.80	19.19	20.52	196.65	25.85	25.63	111.55	10.98
	BRN-01-03_03-11-15_02	88.62	7058.12	34.34	13.63	21.67	193.47	25.81	25.80	112.16	11.83
	BRN-01-03_03-11-15_03	113.90	6901.64	51.23	16.77	30.20	192.41	25.78	25.36	111.64	12.72
	BRN-01-03_03-11-15_04	198.27	7306.65	37.57	20.41	19.38	194.59	27.27	22.23	118.65	11.77
	BRN-01-08_03-11-15_01	160.28	7452.00	41.12	19.28	21.23	190.36	31.22	25.41	117.02	12.17
	BRN-01-08_03-11-15_02	154.48	7197.68	37.64	18.42	21.21	193.41	32.10	24.87	117.18	10.14
	BRN-01-08_03-11-15_03	236.61	7138.58	36.13	19.27	19.43	192.22	32.31	25.53	117.56	9.40
	BRN-01-08_03-11-15_04	180.12	7233.64	34.10	17.81	21.74	194.67	31.35	23.32	119.03	11.71
	CAS-01_02_03-11-15_01	216.61	6814.62	34.16	19.62	21.42	189.84	22.96	27.84	102.31	10.32
	CAS-01_02_03-11-15_02	167.10	6982.61	40.88	17.68	19.07	187.65	25.16	27.11	102.90	10.23

	CAS-01_02_03-11-15_03	146.62	6727.60	42.04	19.71	22.76	193.63	22.78	25.51	108.95	10.73
	CAS-01_02_03-11-15_04	170.69	6591.71	37.58	18.28	17.52	184.83	22.93	26.83	101.31	9.53
	ONA-01_03-11-15_01	136.06	7248.94	37.53	18.07	19.20	185.87	40.17	23.60	121.30	10.98
	ONA-01_03-11-15_02	184.32	7556.10	39.16	16.89	18.15	188.45	39.17	25.46	119.05	10.54
	ONA-01_03-11-15_03	200.38	7334.48	32.33	17.18	17.56	195.29	33.92	22.06	121.10	10.39
	ONA-01_03-11-15_04	139.69	7436.31	36.50	19.24	21.99	185.26	40.23	24.37	121.70	11.00
	ONA-01-03_03-11-15_01	132.27	7068.21	38.42	18.69	21.76	205.35	23.13	24.32	103.46	11.93
	ONA-01-03_03-11-15_02	232.85	6923.71	37.11	20.27	19.53	196.07	24.56	26.92	104.02	11.61
	ONA-01-03_03-11-15_03	214.55	7080.76	45.19	16.18	22.45	205.91	22.63	25.74	105.89	10.37
	ONA-01-03_03-11-15_04	218.12	7147.07	34.55	20.23	19.26	208.76	23.86	26.90	102.10	10.26
	brn-01-03_01	173.92	7139.87	48.40	22.48	18.95	185.09	27.62	27.28	113.72	11.33
	brn-01-03_02	285.86	7304.93	28.63	19.50	19.31	190.83	26.46	25.92	111.66	12.26
	cas-01-03_01	168.22	6764.76	37.71	20.55	18.15	189.39	24.47	22.31	103.25	7.86
	cas-01-03_02	120.33	7109.43	37.64	16.84	20.34	203.24	25.70	28.65	111.12	13.28
Packsaddle	GibsonCreek_01_03-11-15_01	391.67	13241.56	79.47	19.21	25.36	160.48	18.08	62.50	348.35	52.76
	GibsonCreek_01_03-11-15_02	363.32	13143.32	73.89	18.35	20.45	171.52	17.63	65.42	349.57	53.35
	GibsonCreek_01_03-11-15_03	301.99	13387.59	73.21	18.18	20.43	164.00	18.68	62.94	346.38	52.42
	GibsonCreek_01_03-11-15_04	323.36	13313.63	71.75	21.15	24.33	163.50	21.11	66.03	351.05	51.63
	GibsonCreek_01_03-11-15_05	362.11	13444.23	73.33	22.98	24.67	169.82	19.91	68.00	345.43	53.99
	GibsonCreek_01_03-11-15_06	377.20	13000.03	68.78	20.52	23.78	163.96	17.24	68.85	340.28	52.71
	GibsonCreek_01_03-11-15_07	232.85	13212.25	64.25	21.91	22.43	161.21	18.77	66.52	360.51	51.00
	GibsonCreek_01_03-11-15_08	265.05	13162.20	76.41	20.00	24.32	167.95	19.38	67.73	349.76	51.73
	Rattlesnake Creek-1_01	328.98	10911.38	54.60	20.15	23.03	167.11	19.35	64.76	260.90	54.64
	Rattlesnake Creek-1_02	256.18	11243.71	60.92	20.66	20.46	167.24	20.64	58.25	287.51	51.19
	Rattlesnake Creek-2_01	232.29	11085.15	66.95	20.88	22.84	177.50	22.92	67.27	274.17	51.47
	Rattlesnake Creek-2_02	261.67	10950.66	61.72	19.33	20.26	167.86	17.89	60.59	271.78	48.17
	ARM-01-01_01	489.78	13088.93	78.06	21.79	29.54	181.26	19.19	66.64	306.06	58.88
	ARM-01-01_02	380.43	12569.24	78.61	20.76	25.58	178.65	27.12	68.16	320.91	53.50
	ARM-01-02_01	276.30	12530.43	67.87	15.72	25.12	172.25	18.55	65.54	308.88	53.14
	ARM-01-02_02	216.38	12684.37	68.37	18.19	19.48	168.23	14.22	62.10	311.65	55.24
	ARM-01-03_01	399.77	13461.55	64.65	20.15	22.79	190.22	15.53	67.65	327.04	54.33

ARM-01-03_02	260.94	13779.54	84.23	21.13	29.23	186.43	17.82	63.40	323.18	56.65
BoatmanSpringsWest_01	359.17	11264.21	74.65	21.67	27.43	162.75	17.78	66.56	292.82	52.41
BoatmanSpringsWest_02	259.70	12833.87	83.15	22.75	21.83	163.87	18.25	66.30	304.10	50.61
BSE-01-01_01	330.52	12744.22	79.55	19.85	23.05	164.61	21.39	61.00	330.20	49.08
BSE-01-01_02	342.37	12979.50	62.38	21.03	20.31	168.55	18.66	63.76	336.20	54.19
BSM-01-02_01	285.34	13978.27	83.22	22.10	24.01	176.24	17.28	69.60	348.27	55.77
BSM-01-02_02	337.91	12908.74	69.02	20.93	22.85	172.49	19.14	62.63	331.49	54.66
BSM-01-03_01	193.85	12914.76	99.71	23.37	31.09	174.70	25.67	70.63	350.94	57.44
BSM-01-03_02	279.99	13055.45	84.84	22.53	24.17	173.26	15.78	66.28	360.86	51.85
BSW-01-01_01	309.58	12003.84	74.29	18.11	21.96	173.09	20.85	64.35	319.53	56.96
BSW-01-01_02	294.38	12312.47	63.31	19.48	21.41	165.10	18.95	64.85	301.47	54.84
BSW-01-04_01	297.85	11602.42	77.84	14.42	18.72	160.48	17.73	60.45	285.32	51.72
BSW-01-04_02	206.87	11616.05	75.96	24.37	21.48	168.57	17.54	59.29	297.46	50.45
MRC-29-04_01	331.77	10915.65	39.07	18.85	19.79	147.50	12.12	55.98	284.26	50.49
MRC-29-04_02	216.97	13493.75	72.66	22.12	22.77	179.51	19.70	63.36	343.98	54.52
MRC-29-06_01	313.32	13194.94	70.42	17.25	23.81	170.25	15.32	65.95	338.80	51.37
MRC-29-06_02	342.74	14221.46	81.67	21.04	26.22	174.80	14.51	69.07	355.46	55.44
MRC-29-07_01	270.67	12408.51	76.63	20.72	20.34	171.34	15.37	66.45	322.13	51.04
MRC-29-07_02	374.40	12834.98	63.76	20.07	23.84	167.16	16.83	62.43	341.64	53.51
RES-01-01_01	385.01	10723.12	69.57	19.39	23.03	166.15	14.46	63.95	275.31	51.28
RES-01-01_02	272.25	11614.08	67.41	22.22	23.26	179.61	18.16	63.69	290.16	53.65
RES-01-09_01	197.55	10965.31	74.65	23.46	22.37	165.46	27.42	50.23	198.83	47.69
RES-01-09_02	150.87	10494.68	60.79	19.69	21.71	150.15	24.29	46.98	188.31	46.80
RES-01-10_01	312.97	10594.60	56.79	18.19	20.25	166.70	15.02	64.02	260.47	50.12
RES-01-10_02	251.94	12492.59	73.50	22.07	29.03	180.84	23.40	59.98	278.65	54.67
SAW-01-05_01	312.08	12197.74	59.45	19.16	25.23	165.07	20.92	62.40	300.60	51.47
SAW-01-05_02	266.22	12815.21	64.04	20.57	24.98	186.51	17.46	66.80	295.53	55.05
UMC-00-04_01	381.07	12286.79	67.46	19.56	23.53	148.00	17.52	60.67	365.58	49.47
UMC-00-04_02	342.85	12426.66	68.09	16.55	23.57	155.12	15.38	57.62	339.10	51.81
UMC-00-05_01	291.11	12353.84	84.70	20.00	20.30	154.22	18.43	58.63	318.48	48.33
UMC-00-05_02	285.66	11414.45	62.26	21.92	17.36	150.78	20.86	57.32	302.54	46.60

	UMC-00-07_01	345.47	12721.61	87.38	17.39	18.25	154.42	22.10	62.20	318.89	53.65
	UMC-00-07_02	233.00	12373.41	68.79	20.92	20.71	153.05	18.09	59.57	319.70	49.67
	UMC-00-12_01	317.19	12529.84	72.34	21.90	18.36	151.94	16.72	62.93	333.02	50.24
	UMC-00-12_02	426.09	13343.98	67.35	20.75	22.24	159.39	17.55	62.96	331.43	49.78
	WRM-01-02_01	300.27	11352.59	69.57	22.49	21.30	172.50	16.10	63.58	279.21	51.99
	WRM-01-02_02	271.86	12705.96	72.60	22.99	23.48	186.48	17.96	63.74	309.31	57.00
	WRM-01-03_01	263.27	10576.19	57.86	21.40	21.63	167.09	15.91	63.58	265.68	50.11
	WRM-01-03_02	280.86	11146.78	83.34	18.88	22.87	177.06	16.04	61.06	286.75	49.61
	saw-01-01_01	299.13	12082.52	65.36	22.50	25.22	173.27	20.85	66.97	288.78	53.75
	saw-01-01_02	357.71	11818.02	67.09	21.53	20.60	180.92	22.39	64.43	293.18	51.29
	saw-01-01_03	231.27	11821.41	68.33	20.98	24.07	184.45	20.22	66.57	281.78	53.10
	saw-01-01_04	285.17	11877.46	68.14	20.15	21.78	177.40	23.50	68.01	292.85	51.72
Wedge Butte	sno-00-11_01	297.20	8612.19	144.33	28.31	51.65	496.97	0.01	177.84	150.62	121.98
	sno-00-11_02	267.43	8548.87	142.65	28.24	48.98	481.15	0.63	170.96	148.77	119.29
	sno-00-11_03	363.53	8513.35	118.70	28.42	49.13	504.01	0.01	179.23	145.88	116.89
	sno-00-11_04	307.61	8610.59	128.76	29.55	48.40	499.59	0.01	176.39	149.90	118.15
	sno-00-12_02	317.49	9497.53	132.05	26.54	48.56	498.84	0.01	177.30	151.35	128.98
	sno-00-12_03	281.85	9617.10	123.01	30.46	51.78	487.26	0.01	175.97	144.97	124.22
	sno-00-12_04	363.59	9615.42	130.32	27.53	52.00	503.05	0.01	170.02	149.10	131.20
	sno-00-13_01	425.22	9770.47	133.38	29.84	55.20	530.47	0.01	182.93	158.67	130.38
	sno-00-13_02	339.21	9633.12	153.91	29.32	52.48	537.35	0.01	186.08	159.26	131.61
	sno-00-13_03	440.81	9123.21	140.37	27.82	54.50	522.97	0.01	177.91	153.24	129.39
	sno-00-13_04	258.93	9418.80	147.70	30.52	52.45	529.37	0.01	181.02	168.00	130.94
	sno-00-14_01	458.08	9220.64	151.61	29.41	51.81	507.67	0.01	187.16	158.32	129.03
	sno-00-14_02	337.88	9095.25	138.32	30.79	53.88	519.50	0.01	183.45	161.53	128.93
	sno-00-14_03	347.57	9174.96	146.45	28.35	52.59	516.75	0.01	179.58	159.18	127.08
	sno-00-14_04	356.02	9058.77	146.16	30.41	52.91	505.20	0.01	179.34	155.84	127.89
Walcott	walcott_tributary-01_01	296.75	8547.70	62.67	19.49	22.75	182.11	18.80	58.62	220.95	45.51
	walcott_tributary-01_02	328.65	8667.45	69.45	21.08	22.72	176.14	20.24	57.90	216.18	48.39
	walcott_tributary-01_03	364.85	8809.57	51.03	20.43	24.11	168.63	23.26	62.94	221.15	42.70
	walcott_tributary-01_04	366.86	8484.86	51.47	21.05	24.06	182.54	22.28	59.73	223.15	46.29

	TDC-00-01_01	211.15	7701.75	66.27	18.85	25.38	159.54	18.08	54.14	198.18	40.50
	TDC-00-01_02	365.66	8864.15	62.46	18.71	18.61	178.87	20.86	60.20	215.46	45.17
	TDC-00-02_01	215.99	8802.59	65.65	21.88	24.60	176.94	19.59	54.73	219.73	44.04
	TDC-00-02_02	339.66	8683.75	70.40	18.67	21.44	171.69	17.39	56.63	214.37	47.63
	TDC-00-08_01	252.90	8027.89	56.23	17.90	22.41	163.68	19.06	54.35	203.11	41.08
	TDC-00-08_02	240.94	8632.55	61.44	18.81	26.14	176.26	21.59	52.11	218.74	45.48
Murphy Hot Springs	MHS.01_01.1	377.61	20129.34	59.13	22.60	27.93	208.01	47.50	62.43	461.40	43.70
	MHS-01-1_01.1	342.18	14141.12	57.55	22.61	34.17	217.91	18.72	65.15	377.83	43.20
	MHS-01-1_01.2	271.28	14350.01	49.68	22.72	32.13	225.24	16.39	59.60	362.83	44.42
	MHS-01-3_01.1	213.55	16528.49	51.53	17.15	31.33	210.03	47.56	66.66	455.31	43.09
	MHS-01-3_01.2	363.32	15622.48	60.50	20.15	25.75	206.84	47.14	57.04	430.32	47.43
	MHS-01-A_01.1	266.83	15379.00	61.87	18.94	37.57	219.03	20.12	64.55	343.92	44.41
	MHS-01-A_01.2	284.03	13951.04	51.50	21.51	34.93	222.54	17.15	64.69	335.17	42.91
	MHS-01-C_01.1	238.89	16267.72	48.07	17.72	29.74	206.50	41.64	57.60	429.24	41.87
	MHS-01-D_01.1	315.05	13624.67	64.57	23.08	28.82	218.04	18.24	62.98	343.16	46.47
	MHS-01-D_01.2	259.23	13321.55	45.88	22.15	31.34	212.33	21.17	61.88	329.93	41.40
	MHS-01-02_02	296.23	14683.88	72.52	19.27	37.82	213.54	16.73	67.32	371.18	43.08
	MHS-01-04_01	258.77	12884.72	69.39	18.20	26.38	194.57	14.67	55.11	316.73	40.67
	MHS-01-04_02	169.89	13494.45	57.40	17.39	28.77	204.92	16.14	62.47	342.30	40.45
	MHS-01-C_01	349.05	16622.61	65.03	20.15	29.30	207.44	47.68	58.16	417.60	42.57
	MHS-01-C_02	312.16	15710.07	47.16	20.00	29.70	211.54	40.62	62.01	427.27	42.85
	TRE-01-A_01	208.00	15890.80	52.57	19.42	38.42	214.68	44.72	56.84	410.20	44.80
	TRE-01-A_02	152.84	16436.80	74.63	19.39	30.54	210.17	39.19	67.78	416.42	47.70
	TRE-01-B_01	250.85	17825.91	57.05	21.50	37.45	226.67	44.73	68.90	449.59	46.03
	TRE-01-B_02	265.93	16712.59	63.26	22.61	31.20	219.69	46.55	71.70	430.13	46.52

Appendix 2. Portable X-ray Fluorescence (pXRF) concentration data for Dean Site (10TF01) artifacts. All in parts per million (ppm).

Inventory Number	MnKa1	FeKa1	ZnKa1	GaKa1	ThLa1	RbKa1	SrKa1	Y Ka1	ZrKa1	NbKa1
10TF01.271.1-1	241.40	15103.76	52.49	21.86	27.05	190.78	38.23	58.93	399.05	46.10
10TF01.271.1-2	251.75	14668.70	58.83	20.28	31.67	190.56	44.36	58.19	384.84	43.01
10TF01.271.2-1	139.17	14861.82	73.75	16.39	27.58	196.74	44.16	59.16	391.07	44.02
10TF01.271.2-2	269.22	14609.76	86.94	20.88	29.25	194.06	42.62	59.95	396.38	41.46
10TF01.271.2-3	197.97	15615.08	78.09	19.69	33.84	212.26	44.06	69.73	420.05	43.46
10TF01.271.3-1	183.36	13324.10	54.15	20.89	23.27	202.17	37.89	59.51	393.76	42.48
10TF01.271.3-2	223.62	15486.69	51.05	23.18	32.93	222.63	44.71	59.90	421.38	47.56
10TF01.271.3-3	276.24	14248.36	61.56	21.20	25.10	208.17	41.62	61.20	411.17	47.39
10TF01.271.4-1	305.04	15530.72	72.00	20.35	32.52	199.87	37.01	60.91	396.60	42.84
10TF01.271.4-2	260.28	15095.70	63.88	21.82	25.88	201.73	40.33	63.55	398.15	42.28
10TF01.271.4-3	245.06	15829.71	83.61	25.03	26.45	205.09	43.01	64.78	401.15	46.05
10TF01.271.5-1	380.95	15870.23	62.48	24.61	27.83	210.68	42.56	63.98	402.25	42.94
10TF01.271.5-2	358.26	17017.86	75.46	19.25	27.20	195.93	51.13	64.71	446.01	43.89
10TF01.271.5-3	258.81	16452.32	61.36	21.38	30.06	200.90	47.94	65.97	421.41	47.40
10TF01.271.6-1	415.83	15542.71	59.16	20.49	25.22	199.64	43.26	64.05	430.46	42.27
10TF01.271.6-2	294.31	16160.95	52.24	22.12	33.37	206.76	46.11	63.11	439.21	46.25
10TF01.271.6-3	266.67	15976.21	65.79	18.20	34.25	190.92	46.76	61.96	412.80	42.52
10TF01.271.7-1	220.29	15485.83	67.52	21.70	24.67	205.45	40.85	60.86	414.95	44.89
10TF01.271.7-2	194.53	14460.56	55.52	20.49	26.49	186.88	42.30	62.79	415.12	41.73
10TF01.271.7-3	276.09	14795.02	54.13	17.09	30.13	191.62	41.15	62.03	419.53	40.83
10TF01.271.8-1	218.84	14788.78	45.21	20.28	33.59	201.52	40.63	55.86	384.15	47.99
10TF01.271.8-2	250.79	14662.44	49.89	21.94	32.41	198.55	39.38	64.77	395.65	42.84
10TF01.271.8-3	278.23	14553.00	63.68	19.37	27.46	216.11	40.58	64.65	393.36	47.37
10TF01.271.9-1	240.64	16007.79	70.46	20.94	29.79	197.06	47.78	61.08	436.09	45.28
10TF01.271.9-2	478.88	15856.96	63.30	24.34	22.05	196.01	43.93	60.08	427.57	41.88
10TF01.271.9-3	305.29	16329.57	61.28	21.79	29.62	200.12	47.35	65.33	442.36	43.84
10TF01.272.1-1	321.21	14367.83	67.86	21.08	28.71	203.31	39.17	58.44	381.32	43.90
10TF01.272.1-2	261.92	14930.79	86.10	25.27	33.55	208.14	43.19	62.85	402.85	46.93

10TF01.272.1-3	150.67	14371.99	47.10	23.57	29.14	187.65	35.12	60.51	378.79	44.24
10TF01.272.2-1	330.07	16039.72	61.03	17.73	28.09	186.54	44.48	66.26	409.02	44.06
10TF01.272.2-2	261.51	17376.60	56.90	20.88	31.49	209.66	47.10	63.90	452.85	47.37
10TF01.272.2-3	380.25	15375.50	156.73	21.79	32.93	209.10	54.38	60.08	412.67	42.92
10TF01.272.3-1	251.05	15080.34	101.53	20.19	26.31	195.53	43.71	62.03	399.15	43.19
10TF01.272.3-2	221.87	14804.02	82.17	18.22	23.21	195.58	42.84	63.62	394.01	42.59
10TF01.272.3-3	144.71	15338.30	162.21	18.52	29.22	201.07	42.60	60.37	400.01	46.25
10TF01.272.4-1	232.51	15414.58	75.05	20.01	28.54	196.14	39.56	63.71	380.72	43.23
10TF01.272.4-2	215.77	14802.02	75.20	22.95	30.69	194.25	39.88	57.48	376.22	44.55
10TF01.272.4-3	323.42	15158.40	70.66	17.72	31.03	196.00	40.48	59.20	377.47	44.67
10TF01.272.5-1	397.49	15141.61	60.77	19.56	29.09	192.85	42.57	59.13	409.20	42.26
10TF01.272.5-2	217.49	15549.98	80.90	14.65	30.11	195.80	42.45	62.06	412.15	45.40
10TF01.272.5-3	329.86	16106.88	63.08	20.66	31.63	197.74	42.84	64.76	421.99	40.67
10TF01.272.6-1	284.68	16747.23	60.89	21.08	31.08	193.39	47.73	61.30	458.82	44.78
10TF01.272.6-2	325.60	17244.82	66.13	19.91	34.59	203.49	44.18	60.34	441.08	47.19
10TF01.272.6-3	262.81	17027.59	72.27	19.91	32.00	194.49	44.47	59.43	459.04	46.46
10TF01.272.7-1	379.32	14175.59	62.11	17.92	25.77	182.89	37.13	69.29	388.21	49.03
10TF01.272.7-2	240.32	15480.08	72.75	20.28	25.79	189.19	38.54	59.75	380.36	50.00
10TF01.272.7-3	267.89	14849.94	63.98	17.27	26.27	174.09	36.79	65.98	377.78	50.69
10TF01.278.1-1	310.32	16770.79	68.24	22.63	28.85	192.66	53.10	64.82	445.10	44.65
10TF01.278.1-2	301.09	16698.38	64.07	19.96	28.53	204.81	50.55	64.23	436.83	45.74
10TF01.278.1-3	249.59	14991.03	77.21	21.17	27.01	173.70	40.68	58.70	413.69	41.25
10TF01.278.2-1	229.89	14413.65	75.81	20.17	28.85	194.50	40.94	61.66	371.85	41.19
10TF01.278.2-2	304.14	15840.77	85.01	21.36	35.22	202.23	38.86	59.57	411.96	45.68
10TF01.278.2-3	275.04	14519.53	91.26	20.61	30.05	185.98	39.11	60.42	385.57	44.52
10TF01.278.3-1	321.66	16003.43	106.69	21.57	28.58	191.88	46.08	62.20	409.48	43.40
10TF01.278.3-2	311.19	16066.86	88.21	19.53	29.96	197.16	43.23	59.66	410.88	42.91
10TF01.278.3-3	213.30	16401.80	78.51	20.10	35.62	194.02	41.83	59.16	424.81	45.00
10TF01.278.4-1	274.19	17249.98	66.26	19.93	31.46	187.17	45.48	62.46	465.36	50.10
10TF01.278.4-2	356.02	18310.13	60.69	22.06	38.96	208.01	55.42	64.47	504.55	52.04
10TF01.278.4-3	332.23	17521.92	75.65	20.01	28.61	193.98	51.16	59.97	485.96	46.55

10TF01.279.1-1	229.63	13827.04	78.39	20.45	28.47	188.90	39.52	59.41	380.27	44.52
10TF01.279.1-2	285.90	15549.51	76.45	20.17	30.63	208.86	43.80	62.69	406.70	43.43
10TF01.279.1-3	221.33	14664.61	81.36	19.67	28.84	194.48	39.64	54.92	387.95	41.22
10TF01.279.2-1	311.92	15515.52	82.21	21.51	31.88	190.94	41.65	66.82	391.10	43.03
10TF01.279.2-2	236.08	15389.15	82.44	19.55	36.06	205.60	38.94	61.13	388.92	45.06
10TF01.279.2-3	270.56	15655.25	86.78	18.98	33.82	208.84	38.91	70.28	397.50	43.35
10TF01.279.3-1	220.96	15160.17	68.29	18.70	30.44	200.12	38.82	54.16	401.13	40.27
10TF01.279.3-2	194.99	17013.19	93.63	21.15	32.31	212.08	42.67	65.38	430.07	43.42
10TF01.279.3-3	272.82	15641.46	73.64	22.37	33.68	198.74	45.51	63.01	406.58	43.54
10TF01.279.4-1	314.08	13756.70	135.57	19.24	24.25	218.33	16.23	67.78	346.13	46.00
10TF01.279.4-2	296.43	15078.68	107.31	21.84	30.49	234.51	20.91	71.32	380.34	50.40
10TF01.279.4-3	248.35	14681.75	177.86	20.69	36.98	225.38	20.34	66.07	355.12	41.28
10TF01.279.5-1	350.93	16522.52	76.69	20.53	31.43	186.63	48.11	65.54	429.03	46.35
10TF01.279.5-2	319.02	18505.32	90.01	19.92	34.29	209.92	46.64	70.93	472.15	45.56
10TF01.279.5-3	237.85	16653.82	83.84	20.28	26.34	192.49	45.82	61.97	451.13	44.86
10TF01.279.6-1	231.04	14827.09	83.73	13.61	24.66	189.28	35.97	67.89	396.36	50.98
10TF01.279.6-2	330.41	14109.21	78.39	20.43	26.27	186.75	36.53	63.30	395.43	52.54
10TF01.279.6-3	231.65	14334.48	84.70	23.32	28.70	180.67	39.86	61.07	384.81	48.40
10TF01.280.1-1	232.53	15227.04	57.37	21.37	30.66	199.35	43.33	61.25	417.50	41.62
10TF01.280.1-2	308.87	15327.38	53.23	21.45	27.16	193.92	46.59	60.60	437.28	45.88
10TF01.280.1-3	319.17	15068.83	50.55	22.11	28.22	193.51	48.09	58.18	436.36	44.36
10TF01.280.2-1	476.56	23621.93	240.02	22.99	41.17	319.79	1.35	112.61	987.68	112.60
10TF01.280.2-2	363.63	22830.30	213.31	23.55	38.98	326.64	0.75	111.66	959.04	107.64
10TF01.280.2-3	451.91	22807.36	222.15	24.58	35.88	329.68	1.96	106.74	973.91	116.93
10TF01.281.1-1	210.22	13431.90	82.09	17.58	27.33	202.58	23.48	65.92	353.30	42.06
10TF01.281.1-2	246.87	13349.95	72.59	21.99	29.27	206.95	20.88	64.04	338.88	38.50
10TF01.281.1-3	320.38	13550.48	78.13	17.13	32.30	203.91	22.23	60.83	351.73	43.28
10TF01.281.2-1	344.83	15975.43	94.01	17.60	26.21	192.35	48.52	60.40	416.89	42.49
10TF01.281.2-2	249.44	15518.49	72.52	20.06	26.53	187.20	41.37	58.48	393.62	45.29
10TF01.281.2-3	242.45	15283.87	87.88	21.35	30.83	195.37	42.43	56.10	399.60	43.75
10TF01.281.3-1	264.98	13607.69	118.69	21.75	30.61	228.87	23.12	55.98	377.38	43.77

10TF01.281.3-2	292.49	13463.94	78.48	19.12	30.52	223.69	24.39	59.92	343.13	43.32
10TF01.281.3-3	162.59	13729.79	94.21	17.09	29.11	219.78	24.75	56.05	368.81	41.78
10TF01.281.4-1	278.22	15397.61	100.45	19.39	29.38	180.08	48.01	57.43	422.23	40.96
10TF01.281.4-2	257.22	16101.92	165.12	23.42	29.30	199.28	49.26	62.14	429.44	42.80
10TF01.281.4-3	293.84	15840.39	177.40	19.07	27.85	191.13	43.78	64.64	422.50	45.93
10TF01.281.5-1	460.58	16552.69	94.69	18.64	29.32	172.61	55.95	65.67	461.84	53.76
10TF01.281.5-2	414.13	17794.00	77.44	22.21	27.44	176.77	48.42	75.81	465.22	54.97
10TF01.281.5-3	271.97	17623.40	58.25	20.98	28.12	190.17	52.23	65.02	464.76	52.96
10TF01.281.6-1	0.00	2042.93	36.59	10.31	0.00	7.14	12.98	2.80	18.96	2.93
10TF01.281.6-2	75.90	2840.02	26.66	10.15	0.00	8.18	52.56	6.03	20.92	4.43
10TF01.281.6-3	0.00	3148.17	32.09	12.33	0.00	8.20	28.46	2.70	21.80	3.73
10TF01.282.1-1	263.24	15271.68	66.64	19.94	28.69	201.06	40.24	60.72	404.26	44.77
10TF01.282.1-2	246.81	15795.39	74.19	22.23	26.76	213.57	39.00	64.58	399.86	42.98
10TF01.282.1-3	308.02	16163.56	67.58	21.97	28.32	201.39	43.06	63.74	423.47	46.96
10TF01.282.2-1	360.74	16296.76	104.77	21.85	23.97	195.14	43.84	67.50	441.20	49.24
10TF01.282.2-2	319.54	17124.49	130.14	21.57	28.34	200.60	49.98	70.15	449.49	49.67
10TF01.282.2-3	322.73	16756.15	93.84	19.84	28.30	191.02	44.75	67.54	427.21	45.07
10TF01.293.1-1	236.96	15477.51	75.43	17.55	32.65	194.61	42.88	60.67	423.17	42.08
10TF01.293.1-2	238.18	15545.68	47.37	19.19	28.99	202.23	42.62	53.45	413.73	40.45
10TF01.293.1-3	359.81	15384.04	63.46	21.75	26.84	196.18	44.54	66.09	407.79	42.75
10TF01.293.2-1	268.62	15856.52	60.71	19.84	32.64	193.79	44.05	61.23	400.92	44.37
10TF01.293.2-2	278.93	16122.58	54.39	18.79	29.73	203.37	44.62	65.02	428.30	45.72
10TF01.293.2-3	263.53	15547.69	53.73	20.64	30.63	202.32	40.81	59.72	411.49	44.67
10TF01.293.3-1	229.63	13580.13	60.38	15.85	33.61	218.85	17.61	61.95	361.39	47.62
10TF01.293.3-2	260.15	13387.43	71.46	23.05	35.15	218.86	18.99	60.57	338.65	41.26
10TF01.293.3-3	260.21	14067.25	69.68	20.70	35.08	230.56	20.89	60.78	350.90	45.06
10TF01.293.4-1	289.97	14333.08	74.39	22.55	26.59	194.49	39.36	57.66	387.78	41.10
10TF01.293.4-2	271.75	15340.67	60.21	18.57	31.55	202.04	47.82	63.79	416.78	43.58
10TF01.293.4-3	228.98	14681.34	55.25	19.13	29.14	196.57	44.59	60.78	393.38	43.42
10TF01.294.1-1	478.92	18537.86	74.57	19.08	24.73	174.66	55.34	66.62	505.30	54.89
10TF01.294.1-2	263.59	17835.54	67.10	21.74	26.02	155.56	54.21	68.50	486.24	48.74

10TF01.294.1-3	404.64	18556.93	82.43	21.18	25.06	166.91	58.65	71.49	501.05	54.03
10TF01.294.2-1	256.94	14544.99	61.22	20.29	26.80	202.72	42.65	63.27	392.24	43.24
10TF01.294.2-2	291.37	14442.46	63.90	21.00	25.39	195.73	37.78	63.84	401.25	44.23
10TF01.294.2-3	158.83	14442.32	43.05	22.07	32.54	196.60	40.63	61.93	398.15	42.06
10TF01.294.3-1	389.00	19075.76	73.44	22.79	27.45	168.08	54.83	66.00	479.56	52.27
10TF01.294.3-2	447.87	19210.35	71.46	22.42	25.58	168.71	55.28	66.85	492.74	55.89
10TF01.294.3-3	464.18	20133.07	75.26	18.88	26.05	168.27	55.84	73.05	502.01	51.03
10TF01.294.4-1	201.06	12756.87	55.62	21.01	26.71	188.55	36.90	59.47	377.43	41.88
10TF01.294.4-2	275.28	15261.71	300.45	17.35	28.51	200.50	41.35	70.26	402.95	41.67
10TF01.294.4-3	295.73	13171.33	48.67	22.40	31.80	186.34	39.33	60.55	391.01	39.87
10TF01.294.5-1	299.43	15509.74	67.37	15.08	28.38	211.29	41.99	61.55	415.85	46.22
10TF01.294.5-2	222.86	15573.28	67.79	20.91	32.75	203.01	41.01	58.64	417.15	43.48
10TF01.294.5-3	311.72	14444.69	56.30	20.85	26.34	201.35	41.35	56.53	392.07	44.59
10TF01.297.1-1	285.31	16511.28	39.79	21.65	31.48	200.05	46.94	58.31	450.54	41.01
10TF01.297.1-2	276.99	16668.00	70.95	19.94	23.53	193.07	44.82	59.27	427.60	42.92
10TF01.297.1-3	265.38	16873.19	64.88	18.32	29.09	201.29	46.93	58.63	450.35	45.25
10TF01.297.2-1	348.66	16639.29	54.91	18.35	28.88	191.09	45.19	60.05	414.13	42.80
10TF01.297.2-2	341.53	16588.91	58.83	16.80	29.87	200.92	46.54	64.05	430.08	43.28
10TF01.297.2-3	282.64	16099.99	53.96	18.44	31.52	192.28	47.29	60.90	425.55	45.22
10TF01.298.10-1	367.80	15446.59	83.96	17.72	24.47	194.52	41.35	65.84	392.07	47.74
10TF01.298.10-2	414.91	15799.84	73.91	24.62	34.88	203.61	42.36	64.02	396.88	52.44
10TF01.298.10-3	229.21	15302.23	73.98	18.90	26.30	195.38	43.73	68.96	402.79	49.57
10TF01.298.1-1	287.82	16960.64	73.44	20.17	32.34	204.73	47.61	58.08	424.82	45.73
10TF01.298.1-2	286.04	16576.22	77.18	18.88	22.76	193.07	47.07	61.41	423.41	40.70
10TF01.298.1-3	398.39	16827.79	58.98	19.39	29.61	199.35	48.74	63.54	430.93	42.98
10TF01.298.2-1	386.34	14973.47	53.54	21.14	25.51	176.11	37.83	66.28	413.18	49.28
10TF01.298.2-2	342.87	14999.89	66.42	19.99	26.38	170.66	40.86	72.81	411.22	49.12
10TF01.298.2-3	232.06	15358.18	71.20	19.47	23.23	175.39	40.20	69.80	406.73	50.44
10TF01.298.3-1	146.21	16110.30	65.57	20.27	30.91	198.69	44.15	63.11	419.73	45.00
10TF01.298.3-2	220.72	17370.34	80.06	22.86	31.09	202.87	48.70	69.83	499.73	47.28
10TF01.298.3-3	373.75	15839.11	70.47	19.20	29.68	194.45	45.38	63.47	422.15	44.17

10TF01.298.4-1	301.07	14566.09	59.32	16.33	31.70	193.87	37.49	67.33	385.65	47.91
10TF01.298.4-2	265.46	13745.90	62.67	19.60	29.47	187.68	37.41	59.11	384.04	50.71
10TF01.298.4-3	342.68	15241.51	58.37	19.13	31.11	193.49	39.64	62.63	381.53	49.09
10TF01.298.5-1	378.80	15693.81	63.69	20.15	24.33	198.56	42.24	60.36	410.73	41.14
10TF01.298.5-2	220.82	15522.44	71.29	21.86	28.68	200.21	44.36	56.63	400.73	45.13
10TF01.298.5-3	345.97	15699.77	58.42	23.76	28.41	191.25	41.83	62.24	396.38	43.88
10TF01.298.6-1	247.83	15708.56	45.64	20.93	31.78	204.00	41.77	61.91	411.42	44.69
10TF01.298.6-2	358.06	14724.54	65.66	20.62	28.48	198.70	41.81	60.51	405.05	44.74
10TF01.298.6-3	324.17	14998.12	67.34	19.14	26.66	204.67	42.28	61.04	403.24	46.35
10TF01.298.7-1	438.15	8471.28	68.05	17.74	23.86	166.68	19.86	60.51	214.48	43.11
10TF01.298.7-2	356.35	8610.74	74.56	22.05	25.24	178.13	20.02	56.55	219.70	48.26
10TF01.298.7-3	238.05	8552.98	49.55	18.02	23.96	180.38	22.61	57.14	210.10	45.47
10TF01.298.8-1	78.27	7838.24	17.46	9.46	0.00	5.36	1.94	2.94	17.34	1.87
10TF01.298.8-2	116.81	7429.10	10.09	7.52	0.00	4.69	2.08	1.41	18.03	0.19
10TF01.298.8-3	74.13	8078.21	10.91	6.60	0.00	4.63	2.39	3.88	16.45	0.88
10TF01.298.9-1	250.25	16191.65	56.74	20.55	31.94	204.41	50.33	61.90	415.53	43.59
10TF01.298.9-2	241.30	15669.86	70.18	19.41	26.26	197.09	46.31	62.14	409.21	44.62
10TF01.298.9-3	312.84	15975.14	78.95	15.57	24.98	193.77	50.18	65.79	414.23	40.59
10TF01.300.1-1	305.54	14996.24	51.02	21.95	27.28	180.70	37.72	60.19	392.19	46.92
10TF01.300.1-2	254.32	14195.20	71.16	20.31	26.71	180.68	38.29	66.53	371.33	43.06
10TF01.300.1-3	341.91	16049.90	64.40	21.63	31.47	198.94	44.64	69.68	422.37	53.34
10TF01.300.2-1	231.72	13492.14	70.61	17.91	30.22	216.81	15.93	62.33	331.94	42.94
10TF01.300.2-2	232.96	14037.12	73.54	20.42	35.46	219.36	19.07	64.87	336.23	44.92
10TF01.300.2-3	279.69	13920.37	77.88	24.15	38.45	222.32	20.13	67.77	344.76	45.36
10TF01.300.3-1	298.99	16707.06	58.01	21.21	27.62	210.07	46.97	62.61	443.68	42.67
10TF01.300.3-2	284.40	15962.21	59.51	20.53	30.70	193.26	41.04	61.65	418.96	41.82
10TF01.300.3-3	284.87	17474.07	72.71	21.01	31.97	206.04	48.42	63.71	456.46	43.21
10TF01.302.1-1	203.58	14376.45	81.22	18.85	28.16	196.02	40.57	59.73	401.49	46.09
10TF01.302.1-2	188.81	14489.92	83.12	19.48	28.35	190.16	41.67	62.97	410.13	47.86
10TF01.302.1-3	269.42	15526.94	87.89	20.29	28.56	205.45	41.46	63.25	420.07	44.25
10TF01.302.2-1	330.48	15089.03	53.46	19.93	31.82	203.03	44.78	62.49	391.11	43.94

10TF01.302.2-2	250.87	14756.89	68.28	21.72	31.52	197.46	40.10	61.19	387.30	41.01
10TF01.302.2-3	213.75	15524.75	51.14	21.37	34.47	218.94	40.49	64.24	406.33	47.41
10TF01.331.1-1	314.46	8663.18	40.98	19.48	10.45	129.81	31.40	36.52	207.99	22.48
10TF01.331.1-2	240.90	9014.08	49.01	21.72	13.71	142.64	32.01	35.74	213.07	23.10
10TF01.331.1-3	356.33	8998.63	61.37	18.22	9.38	133.79	29.78	42.96	208.30	24.20
10TF01.331.2-1	278.31	15762.35	52.68	22.53	28.83	198.97	43.61	63.50	442.26	43.88
10TF01.331.2-2	237.00	15114.69	64.59	20.16	30.18	193.62	44.92	65.61	433.72	45.14
10TF01.331.2-3	298.00	15133.50	73.56	19.01	30.73	184.81	41.08	60.75	427.59	44.71
10TF01.333.1-1	246.01	13671.24	51.74	21.03	29.42	200.31	43.78	59.53	398.96	42.57
10TF01.333.1-2	242.91	12934.76	57.92	22.26	22.50	187.91	37.77	52.36	382.99	43.65
10TF01.333.1-3	159.42	13870.70	64.10	21.54	32.16	204.02	43.12	61.43	402.57	43.92
10TF01.333.2-1	325.75	17784.97	60.50	20.45	26.83	173.21	50.88	70.95	477.40	54.58
10TF01.333.2-2	422.78	16708.84	61.33	17.52	25.41	164.33	45.76	69.35	453.92	52.35
10TF01.333.2-3	406.51	19115.38	86.93	18.75	24.18	174.19	57.14	71.34	499.79	52.59
10TF01.333.3-1	246.92	15022.34	68.34	22.04	29.19	195.49	41.85	56.13	398.38	44.67
10TF01.333.3-2	245.95	15007.79	80.11	19.98	28.37	202.17	39.78	64.22	395.42	41.33
10TF01.333.3-3	240.12	15736.46	72.10	20.67	27.56	201.89	44.45	61.40	403.93	43.33
10TF01.333.4-1	247.82	14228.81	62.00	19.35	26.01	187.26	39.68	63.62	375.44	41.82
10TF01.333.4-2	295.74	15968.14	57.83	19.34	36.24	216.52	41.33	65.48	401.90	45.26
10TF01.333.4-3	266.08	14932.30	63.31	19.22	28.74	205.36	44.39	61.40	409.87	45.79
10TF01.333.5-1	181.59	15470.74	55.79	19.87	30.84	203.29	40.97	60.30	401.66	40.93
10TF01.333.5-2	289.29	15606.83	61.82	21.12	28.69	203.98	46.61	61.61	409.25	42.39
10TF01.333.5-3	174.84	16574.48	72.24	23.75	30.81	202.15	45.18	63.27	418.85	44.24
10TF01.333.6-1	249.53	14244.37	65.15	21.49	33.04	208.97	33.27	58.58	370.06	43.39
10TF01.333.6-2	229.76	13815.63	57.81	23.30	34.86	204.38	35.11	56.08	384.19	46.86
10TF01.333.6-3	313.84	14807.32	65.33	14.12	36.49	202.51	35.71	70.91	382.35	44.64
10TF01.338.1-1	269.13	16607.97	76.60	23.39	25.64	198.88	46.59	61.38	427.86	42.70
10TF01.338.1-2	261.69	16640.26	66.52	17.33	29.64	192.25	49.50	66.36	439.86	45.13
10TF01.338.1-3	252.34	17176.88	61.45	19.73	30.97	189.07	55.14	68.85	457.14	48.32
10TF01.338.2-1	81.39	14689.77	70.69	16.66	26.80	200.27	43.71	63.12	409.86	45.17
10TF01.338.2-2	345.61	15887.67	60.48	18.40	30.47	215.34	40.99	65.86	435.99	46.85

10TF01.338.2-3	196.02	14776.73	107.79	23.13	26.54	206.46	41.15	60.16	394.15	47.23
10TF01.339.1-1	291.88	14818.18	68.59	17.64	27.21	187.50	38.85	62.24	389.32	41.58
10TF01.339.1-2	251.38	14371.00	61.44	16.74	27.95	189.19	42.74	63.55	393.08	42.04
10TF01.339.1-3	213.22	16698.92	153.77	25.83	39.47	215.21	43.11	66.16	434.14	45.34
10TF01.339.2-1	253.84	16421.61	54.25	21.19	31.74	199.28	47.51	64.60	443.94	40.00
10TF01.339.2-2	244.95	15377.75	61.61	19.39	27.17	194.93	38.85	55.46	445.70	45.95
10TF01.339.2-3	276.84	16060.47	78.12	20.82	32.39	193.18	44.39	61.24	425.46	43.32
10TF01.339.3-1	199.78	13783.74	56.13	19.87	31.31	195.78	42.24	65.47	409.79	47.74
10TF01.339.3-2	277.67	14111.80	66.78	18.85	28.91	208.62	42.62	63.73	417.02	44.85
10TF01.339.3-3	252.93	13729.23	56.79	14.57	29.07	206.22	43.02	57.76	400.14	41.35
10TF01.345.1-1	266.62	16857.98	67.84	17.00	25.58	201.34	44.21	62.44	451.59	45.82
10TF01.345.1-2	216.97	15554.92	56.62	16.48	28.13	186.00	41.25	60.26	427.26	45.20
10TF01.345.1-3	320.52	16452.54	84.46	22.03	28.84	197.37	46.21	59.37	440.42	43.25
10TF01.346.1-1	322.03	16653.69	57.59	16.63	34.67	196.85	45.48	62.22	432.81	41.50
10TF01.346.1-2	264.98	15662.20	60.91	15.28	26.56	196.07	45.90	65.05	425.09	43.95
10TF01.346.1-3	255.69	16204.57	77.39	20.36	27.14	208.87	48.34	56.52	421.73	46.79
10TF01.346.2-1	271.14	15652.45	65.81	21.58	26.21	210.87	44.93	63.10	443.12	47.31
10TF01.346.2-2	173.14	15108.83	53.60	22.75	31.82	208.51	43.44	60.18	411.56	42.63
10TF01.346.2-3	234.35	15901.18	79.23	24.62	31.81	214.43	46.00	63.71	439.66	41.39
10TF01.347.1-1	272.47	15194.74	65.48	19.61	31.46	204.42	38.52	54.50	403.69	47.10
10TF01.347.1-2	241.96	13997.41	62.68	20.49	29.77	187.67	41.54	58.85	390.25	42.09
10TF01.347.1-3	188.39	15800.22	61.02	22.40	33.02	202.37	43.49	61.47	423.08	40.66
10TF01.351.1-1	328.85	15129.93	51.39	20.11	28.13	198.84	40.84	66.24	393.31	44.18
10TF01.351.1-2	213.79	15026.91	57.82	22.38	27.83	208.39	43.03	59.40	401.29	42.73
10TF01.351.1-3	173.12	14674.58	71.07	21.25	28.14	210.17	37.37	57.79	397.76	42.42
10TF01.351.2-1	167.60	15213.64	50.81	25.84	32.96	193.41	41.05	58.90	396.79	41.85
10TF01.351.2-2	325.69	15235.49	62.36	19.70	29.98	204.66	39.06	63.26	394.17	41.54
10TF01.351.2-3	220.19	15952.50	197.22	22.57	33.16	206.03	42.61	66.18	419.43	48.83
10TF01.351.3-1	245.17	16323.12	70.01	23.61	30.59	196.46	43.31	66.80	447.31	43.88
10TF01.351.3-2	425.01	16172.33	68.24	21.89	30.23	192.77	42.79	64.49	458.91	42.72
10TF01.351.3-3	235.50	16350.59	216.92	20.10	32.89	215.22	49.08	64.69	450.34	45.66

10TF01.352.1-1	338.16	15149.92	65.38	21.56	27.11	187.94	37.54	65.30	397.64	47.02
10TF01.352.1-2	290.09	14672.60	74.21	21.42	24.22	186.41	34.89	64.64	390.56	48.96
10TF01.352.1-3	319.07	15899.73	68.90	19.33	30.82	205.07	42.30	72.07	417.67	52.50
10TF01.355.1-1	348.50	15943.48	73.09	21.16	27.65	194.29	46.28	63.05	458.62	45.88
10TF01.355.1-2	262.31	16858.42	76.48	21.44	32.87	198.21	45.32	64.84	442.43	43.55
10TF01.355.1-3	345.79	16674.25	72.46	22.71	28.23	194.99	44.24	58.77	432.13	46.08
10TF01.356.1-1	313.25	14881.26	78.95	20.19	24.13	184.56	46.30	60.75	367.13	35.45
10TF01.356.1-2	266.41	13887.16	55.44	18.50	30.40	195.47	41.98	56.63	420.38	41.35
10TF01.356.1-3	226.75	14057.88	218.12	27.18	28.70	216.33	41.99	58.60	425.68	46.07
10TF01.356.2-1	241.50	15752.55	53.76	21.23	21.73	193.63	46.08	55.01	417.73	42.93
10TF01.356.2-2	322.54	16516.84	69.40	15.21	34.25	198.75	48.98	61.86	436.84	45.72
10TF01.356.2-3	220.31	17230.83	71.33	18.39	30.64	204.14	48.68	56.75	437.99	41.96
10TF01.356.3-1	352.78	15561.20	62.55	17.05	31.40	206.32	35.79	63.55	381.39	42.08
10TF01.356.3-2	258.15	15534.42	53.66	19.02	30.62	209.24	44.20	63.55	408.25	43.17
10TF01.356.3-3	331.81	15685.68	61.16	17.22	28.63	210.72	40.68	67.46	391.77	41.58
10TF01.361.1-1	288.59	16058.16	65.90	21.02	32.40	200.39	52.24	61.85	450.56	47.23
10TF01.361.1-2	148.89	15044.73	57.36	19.71	25.92	185.86	45.66	58.73	435.71	44.07
10TF01.361.1-3	239.11	13993.63	371.01	21.05	30.73	177.99	49.79	65.12	423.72	46.22
10TF01.361.2-1	279.12	14573.78	62.09	20.56	25.98	213.94	35.16	60.27	393.83	45.23
10TF01.361.2-2	262.78	14236.40	57.76	21.46	36.51	200.46	39.16	64.25	425.86	46.93
10TF01.361.2-3	193.52	13095.83	155.35	20.96	30.52	193.77	34.13	59.96	383.21	45.21
10TF01.362.1-1	428.10	19677.77	82.48	22.65	27.29	173.94	58.52	72.70	507.52	51.28
10TF01.362.1-2	391.33	19330.01	66.91	21.86	25.73	170.94	64.75	69.14	512.93	55.49
10TF01.362.1-3	402.13	20778.11	78.73	19.59	26.81	177.43	60.27	72.15	526.29	56.79
10TF01.363.1-1	297.21	20113.54	173.05	19.72	36.96	293.19	0.00	92.72	865.15	97.35
10TF01.363.1-2	344.42	24958.00	237.69	24.74	41.64	349.66	0.77	117.03	1015.78	113.34
10TF01.363.1-3	272.44	16103.77	477.93	25.16	35.48	269.91	0.43	95.93	841.03	101.93
10TF01.379.1-1	336.32	16849.79	68.94	19.10	30.35	202.20	48.76	60.73	441.19	43.23
10TF01.379.1-2	300.56	18104.40	67.38	19.55	33.98	215.00	51.44	67.16	457.23	47.08
10TF01.379.1-3	277.35	17339.30	68.44	18.87	31.14	214.14	46.51	63.22	439.94	47.38
10TF01.379.2-1	225.08	15762.67	72.64	22.70	28.22	197.37	40.47	65.07	404.08	43.08

10TF01.379.2-2	260.40	17306.80	65.18	20.93	24.62	207.25	44.73	61.29	428.05	47.61
10TF01.379.2-3	177.50	16630.31	74.34	19.58	28.86	215.46	46.94	63.56	418.55	47.29
10TF01.379.3-1	265.86	14706.88	57.91	17.70	30.25	191.30	43.24	57.50	405.11	43.19
10TF01.379.3-2	240.27	15231.87	52.20	19.65	33.07	196.33	43.89	59.17	417.48	44.74
10TF01.379.3-3	156.24	16025.30	64.26	19.46	29.08	208.69	44.37	62.76	420.85	43.43
10TF01.381.1-1	321.00	16597.82	64.61	20.36	27.89	201.43	47.57	61.06	451.25	43.62
10TF01.381.1-2	330.37	17265.64	53.88	20.64	26.01	195.85	46.05	64.19	443.00	44.25
10TF01.381.1-3	169.38	16605.18	81.75	18.46	29.63	211.94	47.17	64.76	422.60	43.06
10TF01.381.2-1	143.51	15637.66	51.95	16.74	25.79	203.74	46.28	62.24	413.41	46.04
10TF01.381.2-2	227.38	14404.65	49.61	17.14	28.77	189.47	43.74	51.86	407.83	43.25
10TF01.381.2-3	307.55	16526.34	72.17	18.64	31.29	216.18	46.41	65.18	436.56	46.26
10TF01.381.3-1	279.42	14387.20	49.20	20.69	28.49	207.44	39.26	59.16	388.86	45.26
10TF01.381.3-2	310.31	15048.09	61.39	20.81	32.55	209.81	43.30	59.03	396.01	46.36
10TF01.381.3-3	189.83	15326.02	57.10	18.42	38.63	213.66	44.14	66.79	408.14	45.06
10TF01.381.4-1	268.28	15533.85	56.33	21.68	35.74	197.12	40.89	60.05	404.33	43.80
10TF01.381.4-2	190.44	14522.30	60.25	16.74	28.52	189.27	41.92	59.85	388.47	40.35
10TF01.381.4-3	326.91	14916.30	83.12	25.21	26.70	190.49	43.68	56.33	395.62	42.95
10TF01.381.5-1	82.06	7409.81	50.19	19.37	18.06	210.11	25.68	27.68	115.55	11.65
10TF01.381.5-2	95.46	7827.06	37.71	19.55	21.30	212.71	25.48	23.78	119.72	10.98
10TF01.381.5-3	126.29	7642.64	48.09	23.49	17.49	210.13	27.57	30.20	116.59	8.81
10TF01.382.1-1	246.94	8188.80	61.07	15.23	25.85	182.21	20.55	57.50	219.30	48.09
10TF01.382.1-2	314.85	8230.07	56.25	22.44	24.66	185.00	21.35	65.05	223.24	47.64
10TF01.382.1-3	297.73	9275.68	61.14	23.33	28.62	189.42	28.03	63.11	238.74	46.67
10TF01.382.2-1	421.76	19861.10	75.89	21.40	25.49	161.93	68.25	65.03	556.34	54.82
10TF01.382.2-2	374.20	19882.43	82.24	17.70	25.26	156.14	70.09	73.09	551.90	54.04
10TF01.382.2-3	344.46	20903.74	86.61	19.44	22.58	173.40	72.98	77.40	578.71	54.86
10TF01.382.3-1	314.06	13889.50	73.29	17.52	25.98	195.19	43.36	63.81	393.01	44.16
10TF01.382.3-2	180.19	14264.77	164.40	21.20	31.25	204.38	47.30	65.36	409.56	44.38
10TF01.382.3-3	194.52	13675.98	171.80	21.93	26.92	204.02	44.48	65.09	416.63	45.67
10TF01.390.1-1	286.94	14842.50	56.06	16.65	33.92	242.12	24.59	61.07	390.60	46.22
10TF01.390.1-2	197.88	14227.18	49.32	14.06	25.74	218.48	22.66	62.49	368.16	43.59

10TF01.390.1-3	99.37	15654.43	71.52	22.03	35.05	241.08	28.96	61.35	395.46	52.35
10TF01.392.1-1	247.98	13657.76	57.42	25.77	27.42	192.57	37.94	65.59	391.01	41.93
10TF01.392.1-2	333.10	13477.05	54.08	20.28	28.74	191.94	38.61	62.89	387.28	39.75
10TF01.392.1-3	189.55	13257.82	108.79	18.72	30.54	200.91	40.52	60.52	391.76	45.18
10TF01.394.1-1	301.92	15416.08	75.02	21.66	26.59	199.55	48.18	63.56	402.42	43.17
10TF01.394.1-2	336.15	17900.48	71.95	22.06	28.97	220.73	46.41	67.89	422.98	45.55
10TF01.394.1-3	177.44	15982.11	227.59	22.25	35.37	208.33	43.68	66.06	413.63	41.77
10TF01.400.1-1	284.72	15155.59	68.22	16.72	24.02	187.34	39.69	65.02	400.02	51.55
10TF01.400.1-2	263.88	16118.66	72.64	24.18	30.25	190.75	39.88	71.63	422.59	55.20
10TF01.400.1-3	315.52	15898.23	54.36	19.27	28.77	197.41	38.40	64.53	410.01	52.83
10TF01.401.1-1	235.04	15059.54	52.33	20.35	30.56	205.99	41.64	60.27	408.34	45.78
10TF01.401.1-2	130.50	14767.69	55.37	18.50	30.07	195.11	41.02	62.45	392.91	42.17
10TF01.401.1-3	252.84	13875.21	66.11	17.80	31.85	188.26	40.88	63.89	392.38	43.54
10TF01.401.2-1	184.88	13119.39	63.66	23.72	33.75	211.24	18.45	60.90	344.29	41.00
10TF01.401.2-2	243.97	13120.33	63.39	21.46	34.20	217.75	19.21	64.07	360.12	43.56
10TF01.401.2-3	239.67	14240.70	88.82	24.78	33.07	226.45	20.60	66.39	346.17	45.81
10TF01.404.1-1	126.33	15015.01	63.12	18.73	27.75	185.03	44.70	56.34	404.86	40.33
10TF01.404.1-2	226.22	15779.23	57.44	19.77	27.31	195.74	43.50	62.59	429.27	47.02
10TF01.404.1-3	223.16	14662.92	57.96	18.78	29.22	185.46	38.62	59.46	396.26	40.57
10TF01.406.1-1	389.09	15301.65	59.69	21.45	30.37	186.75	46.13	66.54	397.84	45.60
10TF01.406.1-2	221.47	16247.03	81.00	16.58	27.79	204.60	45.81	67.17	405.81	41.49
10TF01.406.1-3	232.77	15443.86	110.15	21.47	26.38	188.47	44.08	60.81	402.53	44.18
10TF01.406.2-1	277.35	14852.14	57.68	21.10	26.33	199.49	39.23	65.66	405.89	44.61
10TF01.406.2-2	160.85	14205.79	62.30	19.91	27.71	192.62	40.05	56.28	385.79	45.21
10TF01.406.2-3	264.78	18176.06	84.16	20.62	33.22	207.39	43.95	62.34	466.16	45.80
10TF01.408.1-1	265.93	15731.22	65.01	19.31	28.64	193.97	41.32	57.56	406.60	42.13
10TF01.408.1-2	205.62	15957.21	58.62	18.42	27.02	198.32	41.24	60.10	425.78	42.81
10TF01.408.1-3	292.33	17103.38	60.00	19.86	25.71	201.74	46.83	66.03	452.55	45.53
10TF01.410.1-1	298.61	15978.95	80.30	16.92	30.61	196.55	41.51	60.64	408.53	42.24
10TF01.410.1-2	143.41	15300.00	72.85	21.89	30.33	190.55	41.53	61.67	400.11	44.78
10TF01.410.1-3	132.57	14173.76	126.57	18.25	26.62	181.09	41.68	66.04	395.98	43.12

10TF01.413.1-1	334.31	14860.04	63.86	18.54	30.55	186.71	40.28	61.82	387.96	49.98
10TF01.413.1-2	264.37	16049.25	63.30	20.15	32.84	212.67	37.95	66.87	426.14	53.85
10TF01.413.1-3	237.35	16446.85	68.17	24.31	24.96	199.65	41.86	68.50	442.70	55.85
10TF01.413.2-1	285.50	15783.70	77.59	17.16	29.77	208.75	43.47	62.92	411.28	43.49
10TF01.413.2-2	164.32	15901.38	66.46	21.10	29.77	206.47	42.11	70.28	418.46	46.16
10TF01.413.2-3	244.89	16013.15	57.92	20.16	29.64	208.26	43.80	64.12	421.43	43.95
10TF01.414.1-1	194.40	12658.81	62.12	18.28	30.39	215.84	19.90	62.93	338.56	43.11
10TF01.414.1-2	341.73	12347.36	54.26	16.48	30.33	206.52	16.22	57.22	321.29	38.39
10TF01.414.1-3	264.34	12816.61	78.23	21.98	32.12	215.27	17.43	61.69	365.67	42.95
10TF01.415.2-1	275.78	15556.05	69.54	21.40	29.09	205.08	40.07	65.61	402.99	45.57
10TF01.415.2-2	213.05	14526.97	51.90	22.61	26.04	193.54	40.53	58.73	389.38	40.24
10TF01.415.2-3	221.80	14061.35	52.14	19.25	26.17	188.04	38.91	56.92	371.48	39.02
10TF01.418.1-1	279.19	16523.82	63.49	19.99	26.07	201.45	45.17	60.03	436.81	43.98
10TF01.418.1-2	225.24	17266.24	59.54	21.86	29.22	211.02	45.68	61.82	455.18	46.26
10TF01.418.1-3	330.35	17027.40	53.73	18.68	29.71	195.52	44.90	61.52	443.19	42.77
10TF01.419.1-1	379.00	16820.67	75.60	19.39	27.94	174.38	46.52	74.28	440.36	56.02
10TF01.419.1-2	350.08	15520.28	60.69	20.02	23.27	167.70	43.02	62.36	429.07	48.89
10TF01.419.1-3	289.94	16751.68	62.99	22.96	24.68	175.80	48.36	61.64	433.50	53.91
10TF01.428.1-1	212.80	16576.89	67.63	19.12	26.50	202.64	46.45	67.30	428.27	42.45
10TF01.428.1-2	298.04	16548.06	72.73	22.26	31.60	192.76	43.73	63.52	414.89	43.76
10TF01.428.1-3	350.25	16616.41	69.21	18.49	28.39	194.77	45.30	62.02	428.05	45.16
10TF01.430.1-1	0.00	1063.65	3.83	6.55	1.93	8.00	8.24	3.15	135.93	5.39
10TF01.430.1-2	0.00	1092.20	24.50	5.62	0.00	7.07	8.51	4.07	126.40	4.47
10TF01.430.1-3	26.00	1046.90	17.47	8.85	0.00	7.13	8.12	4.21	144.46	4.36
10TF01.431.1-1	344.26	16487.98	62.83	22.24	27.29	206.63	47.59	60.25	433.76	46.83
10TF01.431.1-2	229.11	16104.05	45.86	22.65	28.30	202.04	46.02	58.75	420.83	42.45
10TF01.431.1-3	198.09	16428.49	65.30	19.74	27.95	193.66	48.86	59.57	421.51	41.22
10TF01.432.1-1	314.59	15508.68	88.91	19.52	29.29	194.08	39.33	61.83	403.17	38.98
10TF01.432.1-2	300.26	15083.62	78.66	16.79	29.71	193.39	40.70	61.10	390.94	43.75
10TF01.432.1-3	236.02	16051.62	70.34	21.52	31.22	213.06	44.08	58.06	394.68	43.33
10TF01.433.1-1	271.14	14945.42	45.60	19.17	29.46	191.55	41.46	61.24	393.50	43.69

10TF01.433.1-2	192.30	14306.78	58.30	15.04	29.08	201.82	39.38	62.98	385.12	39.98
10TF01.433.1-3	321.01	15303.45	55.34	22.54	31.91	205.96	40.80	61.10	396.98	41.69
10TF01.437.1-1	243.29	14893.53	61.67	20.31	27.39	193.56	40.63	61.94	392.12	42.82
10TF01.437.1-2	270.92	14751.75	60.10	17.78	31.41	195.60	42.19	53.00	382.84	41.20
10TF01.437.1-3	289.51	15518.78	68.06	22.57	26.40	205.76	39.90	63.92	401.66	43.14
10TF01.439.1-1	317.28	15959.48	55.86	16.37	31.67	215.96	44.86	64.48	427.76	43.30
10TF01.439.1-2	272.00	16468.50	66.87	22.85	29.97	205.95	38.29	66.72	419.84	45.69
10TF01.439.1-3	281.94	15910.52	59.23	19.63	28.14	208.94	42.09	61.85	430.07	47.02
10TF01.442.1-1	339.93	15532.03	61.87	19.25	25.31	175.81	40.98	60.72	420.41	51.78
10TF01.442.1-2	342.76	15930.78	57.99	19.26	26.58	175.84	44.60	69.57	430.32	50.79
10TF01.442.1-3	349.29	16255.54	69.96	18.64	24.81	175.83	43.87	68.28	429.66	53.69
10TF01.442.2-1	227.42	16337.40	48.76	18.92	28.48	185.81	44.82	59.10	427.26	42.87
10TF01.442.2-2	294.92	16037.42	65.87	21.02	23.21	195.42	42.88	67.23	422.89	44.67
10TF01.442.2-3	204.17	16387.59	62.31	17.11	33.02	194.11	45.09	64.06	427.86	42.49
10TF01.444.1-1	247.03	16684.17	72.34	18.23	32.56	198.64	41.00	66.57	436.03	43.43
10TF01.444.1-2	206.65	15818.96	61.21	15.67	26.10	198.79	43.83	62.97	418.71	43.26
10TF01.444.1-3	344.15	16164.77	76.27	18.53	31.10	194.51	44.68	66.46	440.14	43.84
10TF01.444.2-1	254.43	14952.18	62.82	19.56	27.89	187.27	36.36	62.27	404.92	50.69
10TF01.444.2-2	317.20	15523.78	80.03	20.23	28.08	200.51	41.33	69.03	421.96	50.05
10TF01.444.2-3	366.39	15050.16	44.49	17.05	29.47	187.67	39.88	63.71	405.23	55.42
10TF01.449.1-1	260.72	14996.23	61.38	18.46	24.81	194.55	38.91	61.05	400.87	40.56
10TF01.449.1-2	236.38	14648.90	55.53	16.12	30.23	187.27	41.23	60.05	394.91	38.37
10TF01.449.1-3	208.56	15637.05	49.04	21.23	30.39	205.81	41.26	63.06	404.33	46.04
10TF01.450.1-1	208.16	15994.94	69.92	20.81	34.59	208.80	40.31	60.77	425.22	43.35
10TF01.450.1-2	264.89	16325.53	69.72	16.58	28.88	209.93	44.71	67.86	428.10	46.80
10TF01.450.1-3	177.42	15964.08	54.27	18.92	30.05	201.31	45.50	61.53	407.83	42.69
10TF01.452.1-1	363.54	20517.78	74.39	19.37	24.22	162.22	61.78	72.40	526.67	50.20
10TF01.452.1-2	429.92	21198.00	76.51	18.86	24.65	171.00	61.23	68.56	549.91	53.46
10TF01.452.1-3	411.19	20164.57	73.02	19.60	20.39	165.85	64.14	66.59	532.03	53.44
10TF01.453.1-1	280.70	8430.68	55.14	20.23	24.29	176.07	22.90	57.04	214.00	44.57
10TF01.453.1-2	299.40	8426.59	62.88	21.70	25.09	180.05	21.73	53.90	224.15	46.44

10TF01.453.1-3	192.46	8628.44	52.22	22.96	23.38	182.15	25.14	57.18	212.22	48.85
10TF01.453.2-1	322.54	1634.39	51.74	20.12	22.07	190.19	46.46	61.77	447.62	43.92
10TF01.453.2-2	386.78	16516.50	68.58	20.81	31.90	203.28	47.97	59.12	453.25	44.17
10TF01.453.2-3	325.59	16093.51	57.30	18.82	28.55	190.77	44.98	57.64	442.92	44.94
10TF01.453.3-1	104.60	14863.18	54.29	20.13	27.33	188.51	43.55	62.85	378.06	40.48
10TF01.453.3-2	252.92	16614.87	78.60	19.89	30.17	220.69	43.05	65.34	409.76	44.24
10TF01.453.3-3	258.67	15322.15	50.37	22.54	34.97	212.54	37.57	66.13	399.18	46.62
10TF01.453.4-1	245.26	15070.53	79.79	18.78	31.74	198.51	41.03	59.46	395.90	43.23
10TF01.453.4-2	258.19	14795.87	59.42	19.20	25.46	198.49	43.62	62.62	373.29	41.62
10TF01.453.4-3	214.83	14959.98	71.26	17.54	33.27	194.09	42.48	62.86	389.17	43.70
10TF01.454.1-1	319.81	15371.49	52.67	19.73	29.00	197.92	41.36	62.88	407.48	52.06
10TF01.454.1-2	375.68	14815.89	76.35	22.40	29.80	181.40	38.32	65.52	399.51	49.17
10TF01.454.1-3	322.19	15416.98	64.70	22.47	24.08	197.35	40.54	65.38	411.62	53.08
10TF01.456.1-1	394.72	19522.84	76.55	18.90	24.06	167.73	54.52	67.50	502.44	48.21
10TF01.456.1-2	390.80	19393.68	84.80	20.24	26.56	166.03	65.13	71.27	512.03	51.88
10TF01.456.1-3	347.31	20577.70	91.53	20.96	29.82	173.52	58.57	70.39	542.10	57.07
10TF01.461.1-1	336.84	16780.44	68.77	19.95	32.61	203.40	46.57	60.31	448.17	46.89
10TF01.461.1-2	253.08	17644.77	74.29	20.26	32.19	209.09	46.69	65.08	470.09	46.39
10TF01.461.1-3	327.87	16288.14	54.38	15.28	28.54	196.12	44.79	61.06	433.18	43.70
10TF01.461.2-1	271.93	15023.05	64.60	15.39	33.07	195.35	41.90	63.85	422.63	44.43
10TF01.461.2-2	192.26	14928.98	58.14	19.95	27.69	198.12	38.45	61.60	412.61	42.29
10TF01.461.2-3	263.01	14522.80	52.79	20.76	25.86	189.85	40.92	61.86	403.05	44.50
10TF01.461.3-1	180.09	15819.69	70.60	20.04	28.64	198.96	41.70	62.65	438.61	43.37
10TF01.461.3-2	241.44	15611.12	59.98	18.31	30.84	204.26	45.04	59.90	428.26	48.61
10TF01.461.3-3	299.97	15530.57	58.57	19.81	25.81	194.98	43.72	56.86	419.26	43.83
10TF01.462.1-1	399.20	16011.09	64.68	23.69	29.18	188.47	46.62	63.01	426.85	39.38
10TF01.462.1-2	270.85	15739.54	62.36	17.53	29.83	207.68	45.54	61.47	434.31	42.92
10TF01.462.1-3	218.05	15534.17	55.37	20.76	27.53	196.57	40.68	61.83	427.98	44.07
10TF01.463.1-1	348.79	15999.15	64.84	21.70	35.47	202.71	44.18	61.39	449.58	44.76
10TF01.463.1-2	168.11	15749.32	52.92	18.62	28.31	201.15	42.28	63.84	447.25	46.09
10TF01.463.1-3	265.13	16472.53	57.37	16.38	25.10	202.41	41.69	61.35	483.26	42.91

10TF01.469.1-1	264.80	17259.59	61.13	21.73	32.66	209.20	48.29	62.27	453.93	48.04
10TF01.469.1-2	316.36	17321.70	56.70	22.72	29.08	202.94	47.94	64.93	460.53	47.77
10TF01.469.1-3	153.00	17221.96	61.27	20.60	29.09	210.39	44.82	65.24	457.24	42.86
10TF01.469.2-1	211.28	12213.88	50.56	19.70	37.88	218.13	17.51	61.29	329.97	46.11
10TF01.469.2-2	212.23	13363.81	56.63	18.94	33.75	241.18	22.14	60.39	351.60	46.65
10TF01.469.2-3	324.13	12846.81	57.07	21.74	36.06	227.49	25.29	65.08	348.50	45.23
10TF01.469.3-1	315.48	15630.67	75.34	18.94	32.08	205.92	44.70	65.83	406.58	45.32
10TF01.469.3-2	242.87	14354.50	49.03	20.55	27.84	194.80	38.70	60.15	383.00	41.84
10TF01.469.3-3	233.91	14966.75	58.97	19.67	30.92	205.52	42.87	55.40	397.84	40.96
10TF01.470.1-1	281.46	13283.20	48.87	19.51	28.88	210.18	38.05	59.95	404.39	42.48
10TF01.470.1-2	278.80	12863.20	56.85	20.32	24.98	206.63	36.32	62.33	399.10	44.95
10TF01.470.1-3	194.48	13713.14	74.47	19.68	30.12	198.88	41.44	63.42	400.69	44.78
10TF01.472.1-1	252.76	15636.32	58.70	21.01	26.10	196.51	43.62	60.35	529.68	41.80
10TF01.472.1-2	227.47	15004.93	46.06	17.79	27.09	185.93	45.49	57.18	522.92	42.66
10TF01.472.1-3	227.54	15790.15	49.12	22.14	31.63	193.73	45.75	63.64	541.10	41.75
10TF01.480.1-1	269.90	16563.98	69.36	15.76	29.36	189.19	49.55	60.34	429.27	41.81
10TF01.480.1-2	286.28	16791.53	67.97	18.41	31.28	192.49	42.78	63.42	431.12	45.14
10TF01.480.1-3	241.22	15830.58	55.06	19.66	27.50	193.67	44.02	59.15	440.83	43.15
10TF01.481.1-1	271.63	15205.90	81.84	22.41	28.94	188.54	36.66	65.70	388.00	48.84
10TF01.481.1-2	310.13	15101.09	83.10	21.21	25.06	176.03	38.68	63.29	381.36	51.57
10TF01.481.1-3	294.98	########	62.15	17.31	28.01	182.43	38.41	65.66	393.62	52.98
10TF01.482.1-1	307.14	14220.01	37.75	23.02	25.55	211.33	39.52	62.26	397.20	43.77
10TF01.482.1-2	153.90	14187.07	60.21	18.47	32.75	210.49	39.93	60.06	417.79	44.96
10TF01.482.1-3	233.00	14235.73	56.86	20.38	32.30	207.15	42.50	63.18	406.13	44.43
10TF01.482.2-1	291.44	15110.71	66.81	21.39	30.49	201.12	42.86	60.48	406.47	41.11
10TF01.482.2-2	242.50	15499.05	79.10	16.81	26.22	194.34	43.30	59.02	411.96	47.44
10TF01.482.2-3	244.31	14930.41	70.32	19.08	25.02	198.30	43.15	62.74	410.72	45.07
10TF01.482.3-1	444.30	16976.17	61.36	20.65	28.28	173.21	42.18	67.78	438.17	53.72
10TF01.482.3-2	422.93	16278.78	66.72	17.92	25.91	177.84	46.73	66.41	445.87	53.04
10TF01.482.3-3	399.98	16423.81	71.82	24.24	26.14	176.07	46.08	66.01	444.89	54.05
10TF01.483.1-1	288.75	18362.02	69.75	22.77	35.83	212.58	49.66	68.34	458.24	50.73

10TF01.483.1-2	368.50	18386.02	70.42	22.68	26.49	217.41	50.28	65.38	449.03	44.83
10TF01.483.1-3	293.05	18602.17	61.92	20.41	31.56	214.93	48.41	70.50	470.06	44.62
10TF01.483.2-1	206.14	16602.54	64.17	21.91	30.02	212.24	42.64	63.88	432.36	43.40
10TF01.483.2-2	289.06	17027.33	44.75	22.79	29.33	212.14	42.90	69.59	424.85	45.00
10TF01.483.2-3	312.38	16365.44	67.66	17.22	31.38	211.08	39.09	65.63	419.39	47.83
10TF01.488.1-1	208.90	14177.49	65.66	17.29	30.09	197.90	36.40	58.28	394.59	44.02
10TF01.488.1-2	375.78	14927.27	54.47	18.63	24.78	186.43	40.98	59.81	402.18	43.58
10TF01.488.1-3	261.42	15249.07	71.12	19.84	30.59	199.85	46.48	65.25	426.33	47.24
10TF01.489.1-1	183.30	14636.75	72.64	19.77	28.44	188.84	43.18	59.89	417.04	45.22
10TF01.489.1-2	235.87	14337.91	71.98	23.88	22.45	195.49	40.79	63.86	403.03	46.08
10TF01.489.1-3	204.36	15512.64	69.70	22.42	27.50	215.04	45.87	63.39	412.82	42.77
10TF01.489.2-1	490.16	19847.06	82.14	19.22	22.73	168.78	61.21	69.41	521.35	52.62
10TF01.489.2-2	464.82	19452.50	92.03	17.99	27.10	160.44	58.96	63.72	513.08	51.92
10TF01.489.2-3	458.07	19346.92	70.78	19.65	22.21	157.23	60.45	67.51	517.83	48.18
10TF01.493.1-1	274.67	16569.19	69.02	17.18	29.52	193.46	46.56	60.33	436.98	45.36
10TF01.493.1-2	309.76	16805.21	62.43	22.77	31.06	191.66	48.97	62.00	439.83	43.50
10TF01.493.1-3	336.78	16555.31	59.86	24.28	31.31	190.62	46.20	59.57	446.25	42.13
10TF01.495.1-1	120.72	15223.48	62.33	20.15	28.25	189.57	42.65	62.29	412.43	41.98
10TF01.495.1-2	283.34	14874.53	46.01	21.02	30.63	198.11	41.30	66.05	399.06	42.86
10TF01.495.1-3	259.73	14940.16	61.11	21.92	24.60	200.57	39.88	63.96	406.81	40.76
10TF01.503.1-1	227.12	16174.08	70.48	21.43	30.88	196.03	44.81	60.66	421.59	44.57
10TF01.503.1-2	336.23	15839.44	63.07	21.83	22.35	185.80	50.04	61.19	423.36	45.93
10TF01.503.1-3	226.00	15709.39	68.55	20.50	28.97	197.75	41.87	64.84	417.42	44.70
10TF01.510.1-1	266.70	20933.49	131.85	20.33	25.64	174.37	62.19	68.51	529.63	55.91
10TF01.510.1-2	451.47	19942.75	74.84	19.68	24.90	162.64	56.65	67.40	509.83	51.94
10TF01.510.1-3	363.97	19840.56	81.01	18.52	23.06	163.43	57.38	71.96	517.32	52.55
10TF01.511.1-1	363.30	15774.01	55.10	19.05	30.37	208.99	43.01	66.80	422.79	43.66
10TF01.511.1-2	219.45	15768.61	69.19	19.13	31.79	202.82	43.75	63.79	416.45	44.17
10TF01.511.1-3	207.41	16355.47	72.23	16.65	31.15	208.03	44.47	69.92	419.53	48.30
10TF01.512.1-1	329.36	17316.26	59.40	19.21	24.03	179.66	48.98	69.06	457.99	53.36
10TF01.512.1-2	409.58	16890.67	74.92	20.30	27.82	173.24	47.93	70.45	440.66	52.39

10TF01.512.1-3	459.97	16676.95	69.96	17.29	22.66	173.09	47.58	68.23	447.43	51.28
10TF01.518.1-1	224.67	13087.75	61.66	17.99	30.05	206.25	32.36	58.43	364.49	42.45
10TF01.518.1-2	266.57	13600.19	50.43	21.09	32.07	202.34	36.28	61.96	371.54	42.04
10TF01.518.1-3	287.55	13465.76	58.99	22.14	28.26	209.36	34.24	61.88	365.60	45.39
10TF01.519.1-1	387.27	15353.07	70.63	20.22	27.74	199.13	38.36	62.49	382.41	46.85
10TF01.519.1-2	280.20	15092.88	61.11	20.36	28.11	200.00	41.57	59.77	405.34	41.29
10TF01.519.1-3	228.03	15539.59	56.42	18.40	34.62	203.37	41.94	63.49	406.09	46.96
10TF01.526.1-1	359.43	15926.89	60.36	20.25	30.60	203.62	41.87	61.62	413.86	42.42
10TF01.526.1-2	220.49	17191.94	72.83	18.38	30.61	212.11	43.72	65.27	443.78	45.58
10TF01.526.1-3	234.09	15535.21	56.52	21.67	26.44	203.75	42.41	55.95	410.42	40.83
10TF01.530.1-1	393.58	16644.10	69.66	20.50	30.08	215.34	47.61	58.28	437.64	44.70
10TF01.530.1-2	262.86	16298.19	64.63	19.62	29.93	198.59	46.03	65.33	424.95	43.83
10TF01.530.1-3	303.07	16162.87	57.36	20.15	29.88	202.67	47.22	60.21	433.92	44.52
10TF01.533.1-1	153.03	15735.29	62.63	19.30	28.49	200.05	44.23	58.94	407.64	45.36
10TF01.533.1-2	201.51	15467.32	66.82	17.72	30.44	197.13	41.76	61.02	410.20	41.81
10TF01.533.1-3	205.34	15945.22	63.11	20.72	27.10	199.57	42.27	59.03	408.16	42.50
10TF01.539.1-1	226.93	18413.18	67.29	16.19	34.56	238.80	48.67	70.88	456.22	46.16
10TF01.539.1-2	427.99	18339.65	83.27	25.09	35.52	225.47	49.31	67.82	453.67	46.89
10TF01.539.1-3	413.71	19444.85	74.45	27.19	39.94	238.25	55.59	75.53	481.59	49.67
10TF01.540.1-1	202.75	15365.46	53.48	19.89	31.00	202.94	42.56	64.67	415.37	44.60
10TF01.540.1-2	433.49	15009.85	53.28	20.70	27.78	198.30	47.33	60.42	416.33	43.27
10TF01.540.1-3	316.31	14928.73	60.24	19.52	26.93	201.17	45.35	60.24	430.92	44.21
10TF01.542.1-1	223.97	16287.01	57.90	21.11	29.84	201.64	44.67	63.09	420.66	43.35
10TF01.542.1-2	326.49	16174.90	62.98	20.09	28.36	204.79	42.55	58.89	416.01	42.45
10TF01.542.1-3	324.81	15745.25	54.68	18.21	27.63	195.78	48.22	56.71	414.94	41.24
10TF01.545.1-1	194.11	14265.95	67.57	23.27	30.73	221.19	21.09	67.13	357.06	42.34
10TF01.545.1-2	91.53	14148.91	63.06	20.31	26.86	208.81	19.28	64.70	362.54	46.08
10TF01.545.1-3	264.73	13839.78	58.50	18.79	28.50	212.27	20.42	62.86	343.50	44.16
10TF01.548.1-1	302.16	16547.20	63.17	26.71	30.39	225.00	44.62	66.25	438.65	48.81
10TF01.548.1-2	244.07	17733.54	69.58	22.79	31.72	227.40	48.03	68.66	465.93	47.25
10TF01.548.1-3	283.93	16633.50	58.17	19.23	32.39	214.32	45.72	70.37	416.77	43.13

10TF01.549.1-1	259.28	15192.86	52.07	20.23	34.10	204.15	39.36	61.71	391.13	43.18
10TF01.549.1-2	115.68	15157.49	71.95	19.35	28.21	196.81	41.84	62.98	389.74	44.09
10TF01.549.1-3	256.99	15184.30	61.07	22.44	27.68	191.77	40.69	63.16	386.83	45.27
10TF01.561.10-1	211.61	14926.89	65.24	21.18	30.90	198.73	40.67	58.57	397.30	39.63
10TF01.561.10-2	387.02	17954.90	82.60	18.46	34.96	229.56	48.13	66.09	446.93	44.04
10TF01.561.10-3	265.51	15424.87	50.99	23.21	26.27	190.74	40.93	61.98	412.18	43.46
10TF01.561.1-1	302.92	16314.58	53.47	20.68	23.39	195.62	44.86	60.85	391.66	41.73
10TF01.561.11-1	252.07	15659.48	66.17	18.41	29.97	184.82	44.06	59.48	409.14	42.21
10TF01.561.11-2	251.46	14670.84	110.37	18.58	28.97	183.88	43.80	56.21	399.18	40.69
10TF01.561.11-3	203.98	16110.38	59.35	23.63	28.04	205.93	45.51	66.31	440.02	43.65
10TF01.561.1-2	258.91	15512.89	48.16	21.60	28.67	198.11	44.55	60.82	436.14	47.02
10TF01.561.12-1	195.45	18349.25	58.85	23.26	30.69	223.41	47.71	63.12	452.79	46.68
10TF01.561.12-2	253.92	13819.46	61.73	22.61	30.58	202.24	40.42	59.00	397.89	39.30
10TF01.561.12-3	231.78	13021.64	46.67	21.77	27.49	204.96	37.69	61.95	384.74	43.33
10TF01.561.1-3	233.50	15421.39	114.44	24.66	34.47	218.01	44.57	58.81	409.09	45.17
10TF01.561.13-1	298.23	15822.52	60.22	20.47	26.44	199.48	42.22	58.31	423.99	45.71
10TF01.561.13-2	213.75	14722.63	55.07	19.15	26.86	185.82	37.21	56.71	390.51	42.06
10TF01.561.13-3	136.46	15974.96	60.03	20.01	27.32	195.68	38.45	56.63	402.21	40.10
10TF01.561.14-1	225.97	17083.63	51.53	20.84	32.17	197.79	47.81	62.25	432.79	43.63
10TF01.561.14-2	283.46	16765.17	67.03	21.57	31.74	193.21	49.99	61.20	433.87	41.44
10TF01.561.14-3	302.01	16991.04	50.23	23.53	33.76	202.22	48.58	65.67	450.06	41.65
10TF01.561.15-1	227.80	15747.96	65.83	22.84	30.17	195.88	44.17	62.35	424.02	44.99
10TF01.561.15-2	335.30	15217.80	55.45	21.64	29.52	197.01	44.79	58.54	427.37	46.77
10TF01.561.15-3	215.44	17889.31	64.02	19.39	31.95	214.01	44.69	65.03	451.90	45.78
10TF01.561.2-1	245.63	14986.86	54.41	18.29	27.23	199.16	41.94	61.11	397.38	41.72
10TF01.561.2-2	270.76	14463.47	65.24	20.76	26.37	186.69	44.24	55.79	389.57	43.37
10TF01.561.2-3	350.72	17714.84	68.06	21.07	36.07	210.04	47.01	67.11	431.71	46.91
10TF01.561.3-1	365.11	16704.00	67.89	17.42	33.10	197.68	45.44	60.11	443.02	41.87
10TF01.561.3-2	224.84	16841.09	60.94	20.14	26.63	200.03	42.99	58.57	433.68	46.42
10TF01.561.3-3	143.92	13193.46	367.96	23.19	32.03	186.53	42.21	60.17	409.62	47.85
10TF01.561.4-1	295.19	16757.84	67.01	22.57	31.72	193.13	47.22	60.00	441.13	45.26

10TF01.561.4-2	261.54	16748.14	71.35	16.97	27.52	192.48	48.86	55.41	440.41	45.05
10TF01.561.4-3	374.09	18666.51	74.85	22.52	33.19	201.35	53.79	63.42	466.65	44.49
10TF01.561.5-1	292.85	16235.61	68.38	15.60	28.60	191.66	47.33	59.58	424.29	42.46
10TF01.561.5-2	231.88	15564.34	56.32	21.22	29.16	182.26	44.18	59.14	427.36	41.45
10TF01.561.5-3	276.04	15783.78	71.32	18.04	25.73	190.87	41.07	63.13	413.73	43.05
10TF01.561.6-1	246.51	15891.57	62.65	21.34	28.89	195.17	39.56	59.83	393.76	43.33
10TF01.561.6-2	241.86	15029.71	62.57	17.43	33.18	185.99	40.00	54.87	374.86	41.92
10TF01.561.6-3	212.04	15926.78	67.62	17.14	26.09	204.17	45.07	60.39	420.06	47.11
10TF01.561.7-1	244.25	16194.51	61.28	20.08	30.41	199.09	40.82	59.28	429.79	44.72
10TF01.561.7-2	16.40	14523.09	38.86	19.10	25.43	177.55	41.71	57.78	412.06	40.72
10TF01.561.7-3	173.28	13531.73	241.47	20.76	30.42	202.79	43.77	60.62	420.14	48.21
10TF01.561.8-1	177.46	14757.23	60.47	19.18	25.91	193.82	39.96	58.02	385.63	41.20
10TF01.561.8-2	295.45	14815.06	43.62	18.51	30.61	181.15	38.54	57.06	386.04	43.78
10TF01.561.8-3	237.85	16349.54	89.36	21.29	25.25	203.56	41.32	57.84	411.52	42.49
10TF01.561.9-1	340.70	14941.06	75.24	19.31	26.56	189.45	38.06	64.86	403.58	47.57
10TF01.561.9-2	236.88	14948.21	64.89	17.50	25.51	190.39	39.15	67.36	387.05	54.62
10TF01.561.9-3	176.74	14888.20	89.98	18.80	28.18	189.42	37.90	62.95	392.93	52.96
10TF01.562.10-1	278.84	16291.26	61.97	18.39	28.87	205.48	48.63	62.34	434.03	45.39
10TF01.562.10-2	257.63	15233.10	58.44	20.75	24.11	189.32	50.46	57.53	414.97	41.29
10TF01.562.10-3	271.55	17318.37	62.85	20.33	28.94	205.32	46.12	55.23	442.54	47.63
10TF01.562.1-1	256.91	19172.03	50.57	23.99	27.93	218.51	49.81	70.05	489.71	49.11
10TF01.562.11-1	235.62	21239.18	87.03	19.35	35.91	236.44	53.78	75.72	497.68	49.92
10TF01.562.11-2	155.21	18443.79	69.58	20.00	33.58	226.43	49.78	72.24	481.77	53.48
10TF01.562.11-3	204.86	7921.54	45.37	20.87	19.68	204.56	29.28	28.95	111.86	10.07
10TF01.562.1-2	100.85	7224.57	41.49	20.71	18.70	202.20	28.28	23.82	110.78	15.17
10TF01.562.12-1	31.57	6930.51	41.37	15.95	21.14	181.82	23.53	24.94	106.83	10.99
10TF01.562.12-2	240.28	16394.02	55.97	20.63	27.38	189.51	43.33	60.38	415.87	43.85
10TF01.562.12-3	404.71	16284.07	48.00	18.15	28.19	190.33	44.82	58.06	424.77	41.11
10TF01.562.1-3	258.45	17093.14	65.07	22.73	31.86	200.33	47.04	63.98	434.83	48.34
10TF01.562.13-1	346.17	16722.66	56.96	20.13	28.34	197.58	46.00	57.24	413.56	41.99
10TF01.562.13-2	319.27	16929.48	61.80	21.61	29.58	196.92	46.38	61.89	418.97	41.57

10TF01.562.13-3	398.60	16486.54	100.18	17.90	29.65	199.27	46.98	54.11	423.20	42.29
10TF01.562.14-1	230.18	15131.83	62.95	18.21	28.78	195.04	38.43	62.70	401.06	44.99
10TF01.562.14-2	253.97	15093.99	70.00	15.50	30.81	195.80	44.36	55.27	401.44	42.41
10TF01.562.14-3	223.21	16364.98	67.38	18.80	33.31	206.10	51.87	61.62	424.94	46.91
10TF01.562.15-1	113.19	15215.06	54.54	22.06	28.18	194.85	44.32	63.17	419.10	41.25
10TF01.562.15-2	220.52	14641.38	64.88	18.87	26.91	196.72	42.06	59.34	422.83	44.17
10TF01.562.15-3	253.84	15177.56	46.94	20.65	34.65	198.14	44.58	59.38	429.89	42.89
10TF01.562.16-1	261.52	15726.35	60.85	18.62	28.44	204.39	44.94	62.42	413.78	42.67
10TF01.562.16-2	274.84	15622.80	59.78	18.77	24.61	207.89	40.05	58.29	416.30	43.21
10TF01.562.16-3	291.50	15850.17	64.63	23.16	31.67	199.92	40.57	63.57	415.31	44.94
10TF01.562.17-1	284.77	14710.17	44.82	19.28	25.46	196.66	40.26	57.08	396.16	40.34
10TF01.562.17-2	234.92	15070.97	66.39	21.06	29.99	195.78	40.08	61.99	411.55	46.01
10TF01.562.17-3	232.05	14946.44	62.50	19.14	31.64	198.22	43.09	56.36	399.93	42.98
10TF01.562.18-1	297.52	15808.48	58.93	19.61	28.06	198.45	41.60	62.43	400.75	43.81
10TF01.562.18-2	241.74	14813.95	47.88	23.34	32.33	195.66	43.34	56.27	378.22	43.30
10TF01.562.18-3	290.83	15977.11	67.48	22.97	28.16	187.51	42.52	56.44	410.50	43.22
10TF01.562.19-1	258.87	15972.30	62.51	21.84	30.33	196.99	43.46	65.21	460.40	45.53
10TF01.562.19-2	275.21	15338.52	64.21	17.93	26.50	198.49	42.38	55.50	441.27	45.42
10TF01.562.19-3	271.93	15968.58	69.48	18.22	30.16	199.32	48.56	61.66	450.00	44.89
10TF01.562.20-1	293.19	16136.31	63.01	19.79	24.62	190.52	45.77	57.22	413.83	42.61
10TF01.562.20-2	208.66	15994.07	57.54	17.67	31.43	193.91	42.69	61.02	423.31	46.04
10TF01.562.20-3	301.31	16129.45	56.89	21.13	23.97	195.10	45.04	60.88	428.03	43.52
10TF01.562.2-1	358.82	20373.41	69.36	20.19	24.54	164.93	64.21	69.17	542.60	51.42
10TF01.562.21-1	288.11	13852.77	58.11	21.74	25.92	188.20	37.35	60.68	383.95	37.95
10TF01.562.21-2	226.93	14791.07	60.59	19.29	32.81	196.60	42.36	60.80	397.17	38.90
10TF01.562.21-3	202.47	14771.16	54.93	18.66	27.85	191.21	40.93	57.64	386.88	44.64
10TF01.562.2-2	442.04	19635.52	85.26	19.75	20.70	165.91	62.56	65.56	529.34	52.12
10TF01.562.22-1	279.81	15894.71	60.28	20.99	25.59	196.31	49.85	60.01	430.44	44.05
10TF01.562.22-2	244.96	16418.96	79.82	19.36	19.98	191.69	47.56	61.39	432.28	40.22
10TF01.562.22-3	177.38	15488.63	66.03	17.47	28.68	191.31	43.82	54.31	411.75	41.32
10TF01.562.2-3	446.89	20164.15	75.36	21.42	27.17	160.99	63.74	74.66	542.88	54.19

10TF01.562.23-1	457.00	21729.75	75.50	16.62	25.53	168.60	63.74	69.68	543.67	52.62
10TF01.562.23-2	482.29	21342.91	69.20	20.04	23.59	170.24	62.67	71.98	550.05	56.56
10TF01.562.23-3	478.44	21347.45	65.88	23.06	22.09	161.43	62.96	70.26	534.85	53.95
10TF01.562.24-1	105.66	15536.88	67.67	22.64	28.09	193.07	44.61	58.77	414.24	38.66
10TF01.562.24-2	295.64	16004.16	65.52	21.95	30.08	205.24	42.89	63.67	416.69	48.36
10TF01.562.24-3	189.12	15802.56	60.60	20.41	28.34	195.72	43.49	57.15	430.24	40.77
10TF01.562.25-1	356.03	16192.89	50.18	18.44	28.14	189.86	46.39	63.58	437.44	39.38
10TF01.562.25-2	428.60	16874.70	68.50	22.00	22.20	195.21	46.35	51.87	417.48	43.67
10TF01.562.25-3	333.91	16687.70	57.76	22.67	27.31	184.39	38.88	59.12	469.52	44.91
10TF01.562.26-1	357.29	8262.54	66.45	19.51	24.19	185.14	22.08	55.53	216.67	47.55
10TF01.562.26-2	320.50	8928.89	66.27	18.23	29.69	177.06	21.55	61.40	228.75	46.46
10TF01.562.26-3	315.08	8596.24	53.20	22.56	25.73	172.54	20.44	58.72	216.16	44.03
10TF01.562.3-1	242.27	15277.54	61.84	20.24	25.15	182.80	47.92	60.00	411.56	43.00
10TF01.562.3-2	254.23	17019.68	65.48	20.73	29.77	202.85	50.36	65.03	449.91	42.55
10TF01.562.3-3	241.90	16856.07	80.23	24.41	33.07	197.91	46.61	64.72	430.27	48.36
10TF01.562.4-1	258.57	13150.36	52.30	20.94	26.73	216.66	17.48	57.77	329.84	43.44
10TF01.562.4-2	206.14	13219.75	67.12	15.30	30.38	215.46	16.55	56.00	333.43	44.54
10TF01.562.4-3	273.00	12910.01	148.45	24.97	37.38	214.14	18.57	63.25	324.21	44.37
10TF01.562.5-1	250.95	15226.18	59.22	18.11	23.57	195.32	45.41	59.99	407.00	41.16
10TF01.562.5-2	386.17	17261.71	59.94	17.07	35.33	211.24	49.82	64.57	438.87	42.65
10TF01.562.5-3	239.79	14987.55	56.19	22.30	27.40	200.57	40.44	59.68	424.07	45.84
10TF01.562.6-1	212.43	15476.97	68.69	16.31	27.99	195.72	40.77	64.62	425.97	45.49
10TF01.562.6-2	149.12	15376.13	65.14	16.88	27.01	208.25	40.91	58.98	415.37	44.05
10TF01.562.6-3	327.70	14998.18	58.68	19.51	28.99	199.59	44.74	62.13	420.45	40.83
10TF01.562.7-1	264.79	14742.08	55.82	17.31	29.72	202.15	43.53	58.81	411.88	47.63
10TF01.562.7-2	243.55	14678.06	57.67	19.27	25.43	196.21	39.75	59.13	400.56	46.25
10TF01.562.7-3	234.19	13562.29	152.21	20.77	26.30	188.33	39.01	57.71	391.66	43.17
10TF01.562.8-1	153.75	15000.41	60.46	19.76	29.58	202.73	42.99	57.12	393.02	42.86
10TF01.562.8-2	156.82	16581.92	49.32	19.01	29.91	212.50	45.87	67.67	438.61	44.42
10TF01.562.8-3	278.08	13693.19	119.19	19.43	27.10	196.81	40.62	53.78	394.35	43.31
10TF01.562.9-1	511.77	19909.19	62.93	21.22	22.39	175.26	58.79	72.16	492.94	51.58

10TF01.562.9-2	511.39	18237.15	77.84	18.34	24.47	159.49	51.49	60.69	464.95	50.06
10TF01.562.9-3	496.82	17502.87	95.61	21.21	22.64	156.46	53.61	61.81	464.17	49.38
10TF01.563.10-1	172.67	14531.82	66.47	20.51	27.55	187.15	41.40	61.00	405.64	41.13
10TF01.563.10-2	178.75	15838.07	59.37	23.18	32.37	200.17	43.23	63.35	403.87	44.49
10TF01.563.10-3	360.38	14735.17	54.13	19.40	29.29	201.32	40.85	62.52	405.61	41.53
10TF01.563.1-1	222.94	6872.58	33.99	18.58	17.68	116.85	66.00	33.57	93.08	15.80
10TF01.563.11-1	310.64	7482.60	37.38	21.82	19.88	138.14	74.74	33.32	98.35	17.42
10TF01.563.11-2	200.72	6906.09	29.14	15.65	15.61	124.12	70.25	29.02	101.80	15.64
10TF01.563.11-3	371.90	17095.33	56.76	20.56	30.66	202.37	48.04	60.85	439.45	46.02
10TF01.563.1-2	171.86	16837.48	42.57	20.27	31.62	201.96	46.36	63.52	437.72	45.57
10TF01.563.12-1	321.50	16080.24	55.12	20.20	32.65	188.72	44.69	64.62	428.33	42.99
10TF01.563.12-2	234.33	15871.82	54.99	20.87	29.31	197.67	44.09	64.16	410.70	42.48
10TF01.563.12-3	225.61	16101.05	59.62	16.90	31.91	209.77	45.89	61.33	402.89	43.37
10TF01.563.1-3	247.03	15770.25	60.83	23.05	25.55	198.29	44.29	59.01	401.84	44.69
10TF01.563.13-1	280.99	16081.46	70.94	15.83	29.65	200.73	44.32	60.78	436.72	43.85
10TF01.563.13-2	326.34	17441.69	60.58	20.05	29.29	201.01	45.22	64.99	442.28	47.86
10TF01.563.13-3	193.24	15786.96	70.63	20.23	29.10	197.45	43.27	51.26	423.67	45.73
10TF01.563.14-1	267.07	15593.24	78.82	16.73	27.72	197.15	41.73	63.74	416.19	44.66
10TF01.563.14-2	206.82	15535.71	64.12	22.57	35.74	192.01	40.18	60.99	409.20	41.78
10TF01.563.14-3	234.69	15715.54	53.01	21.93	31.38	197.99	41.52	64.65	402.97	45.62
10TF01.563.15-1	286.85	14363.71	51.86	17.12	32.03	201.43	35.68	62.06	372.94	44.28
10TF01.563.15-2	145.55	14070.84	45.18	21.24	21.17	209.12	35.45	59.84	379.46	41.48
10TF01.563.15-3	183.26	14012.58	62.68	20.50	27.55	198.95	38.58	63.13	369.27	44.75
10TF01.563.16-1	270.37	15897.65	52.06	20.35	34.41	209.37	39.96	60.73	411.25	47.46
10TF01.563.16-2	275.10	15142.52	56.43	22.56	29.11	203.19	41.86	60.62	403.59	43.12
10TF01.563.16-3	206.00	15504.50	55.81	18.24	26.85	196.77	38.72	59.20	406.92	42.57
10TF01.563.17-1	281.34	15869.99	64.84	20.16	32.77	201.59	38.43	56.12	391.69	42.17
10TF01.563.17-2	251.02	15983.49	63.30	20.49	32.19	200.67	43.82	65.65	402.33	45.06
10TF01.563.17-3	287.60	15301.02	56.09	19.44	26.92	187.90	42.32	60.56	389.34	42.24
10TF01.563.18-1	273.86	16508.46	61.22	21.69	29.58	202.47	47.68	63.26	426.18	46.92
10TF01.563.18-2	247.38	16650.64	68.81	22.05	33.24	192.38	50.78	63.26	442.34	44.36

10TF01.563.18-3	261.40	16753.74	52.55	21.00	28.85	195.81	47.63	59.49	410.68	43.87
10TF01.563.19-1	309.85	15766.18	64.18	20.43	31.73	207.25	42.90	61.86	404.69	45.00
10TF01.563.19-2	283.37	15342.10	55.54	17.50	30.29	202.01	38.81	59.68	394.14	41.67
10TF01.563.19-3	246.48	14932.20	50.70	17.41	32.80	209.05	35.24	59.72	382.51	45.01
10TF01.563.20-1	353.54	15405.14	52.30	18.02	30.22	206.90	38.84	58.98	402.80	47.61
10TF01.563.20-2	240.99	14934.02	58.27	22.11	33.15	209.15	45.75	64.02	397.04	45.05
10TF01.563.20-3	301.45	15325.44	56.29	18.45	32.59	207.69	45.99	59.65	414.58	42.16
10TF01.563.2-1	265.01	18607.61	72.51	22.97	29.48	224.98	49.46	70.88	469.66	53.85
10TF01.563.21-1	235.49	15303.50	60.74	21.74	28.94	193.56	45.13	56.40	416.47	41.49
10TF01.563.21-2	214.88	15808.82	51.87	21.84	27.20	206.07	45.13	54.98	421.17	46.66
10TF01.563.21-3	395.86	16016.61	55.71	19.82	30.00	212.36	45.87	59.28	414.39	47.82
10TF01.563.2-2	299.07	15906.65	56.14	19.17	24.95	199.22	47.85	66.50	426.44	41.04
10TF01.563.22-1	291.67	16287.94	64.31	17.65	29.43	196.81	45.90	61.44	436.45	42.09
10TF01.563.22-2	401.80	16768.68	58.18	20.93	32.70	204.41	44.16	61.17	446.84	45.94
10TF01.563.22-3	280.39	16134.50	76.91	22.86	30.09	198.53	42.61	60.45	432.65	41.20
10TF01.563.2-3	312.73	15960.91	63.33	24.36	27.10	197.18	46.15	60.20	439.10	43.22
10TF01.563.23-1	168.05	15396.86	48.31	16.15	29.92	203.61	39.51	62.12	402.28	40.07
10TF01.563.23-2	196.56	14397.52	54.58	18.83	33.11	187.63	40.68	60.73	386.55	42.23
10TF01.563.23-3	227.44	15576.64	57.25	19.59	30.93	201.99	39.65	64.14	393.44	46.79
10TF01.563.24-1	277.18	15588.84	54.49	22.03	24.96	191.76	42.33	66.57	401.35	40.85
10TF01.563.24-2	280.14	14863.00	51.73	18.55	31.13	189.10	42.26	62.11	386.88	40.08
10TF01.563.24-3	256.29	15085.86	49.46	18.65	30.65	200.16	38.10	59.74	396.37	40.99
10TF01.563.25-1	211.56	14969.03	61.02	18.38	31.39	200.16	39.80	59.16	392.65	41.19
10TF01.563.25-2	161.54	17006.10	65.30	17.95	34.54	225.82	43.06	66.90	423.69	45.20
10TF01.563.25-3	222.42	15519.85	64.31	19.92	29.04	204.62	40.02	62.05	403.19	43.94
10TF01.563.26-1	243.16	16700.31	54.56	18.71	28.32	207.71	44.66	66.80	459.74	47.01
10TF01.563.26-2	273.25	17103.24	58.05	21.18	32.94	196.53	48.33	62.93	462.23	47.37
10TF01.563.26-3	306.96	16775.99	52.85	17.52	32.07	196.36	43.22	60.87	436.00	43.73
10TF01.563.27-1	278.49	16394.53	55.69	18.29	26.21	197.44	41.38	63.40	401.27	45.81
10TF01.563.27-2	299.15	15683.76	48.41	19.82	28.41	205.87	40.38	63.21	416.87	47.47
10TF01.563.27-3	364.44	15615.51	58.67	21.19	28.88	203.45	45.16	61.14	393.92	47.45

10TF01.563.28-1	247.04	15732.46	62.43	23.70	27.91	194.27	40.56	61.03	398.18	42.05
10TF01.563.28-2	312.19	15220.48	57.17	18.75	24.02	192.02	39.94	64.08	398.91	44.33
10TF01.563.28-3	197.22	16519.73	55.37	17.75	31.77	203.29	43.36	59.45	406.29	43.53
10TF01.563.29-1	230.87	14670.40	57.18	20.31	27.96	199.05	41.74	59.85	416.29	42.72
10TF01.563.29-2	134.92	14754.93	60.27	20.61	29.75	205.07	40.84	60.55	409.46	43.09
10TF01.563.29-3	179.70	14729.51	59.99	21.63	28.32	192.70	38.32	63.82	402.64	41.92
10TF01.563.30-1	207.42	15335.56	55.04	19.09	28.31	197.46	39.45	65.45	416.23	43.04
10TF01.563.30-2	271.10	15370.37	72.07	20.80	27.37	202.26	41.18	55.22	415.09	45.74
10TF01.563.30-3	140.88	15552.74	65.85	21.30	32.72	194.31	39.84	61.41	426.77	46.81
10TF01.563.3-1	289.53	15034.21	55.66	18.68	31.56	193.74	41.41	58.05	395.80	42.05
10TF01.563.31-1	191.20	15031.46	52.69	21.20	32.82	199.48	41.68	66.38	391.59	44.86
10TF01.563.31-2	288.16	15873.70	61.52	21.07	25.72	205.97	46.19	62.90	413.97	43.68
10TF01.563.31-3	298.91	15454.47	56.82	22.46	30.37	188.46	41.94	58.55	403.30	42.29
10TF01.563.3-2	212.98	14475.93	57.68	17.21	29.01	204.67	34.64	58.14	393.46	40.14
10TF01.563.32-1	263.17	15322.48	44.89	20.16	29.13	194.86	41.47	60.67	422.40	39.51
10TF01.563.32-2	316.65	15388.55	63.66	18.37	27.03	193.51	42.46	64.98	442.58	40.92
10TF01.563.32-3	269.08	15830.21	65.93	20.22	26.17	194.81	42.43	60.82	444.51	43.48
10TF01.563.3-3	213.14	14594.04	62.15	20.82	29.61	193.02	38.90	62.05	385.61	41.63
10TF01.563.33-1	335.93	16422.84	53.97	18.08	27.51	193.66	46.21	60.42	435.25	46.19
10TF01.563.33-2	301.18	15756.15	57.70	20.11	30.16	182.68	47.48	63.38	409.30	43.32
10TF01.563.33-3	233.84	16128.99	55.54	20.04	23.84	189.00	54.27	61.66	423.80	43.96
10TF01.563.34-1	209.65	16546.43	63.29	17.97	25.62	191.10	50.78	62.13	455.17	44.35
10TF01.563.34-2	314.59	17479.30	64.04	21.38	29.47	201.09	49.25	64.09	450.76	46.97
10TF01.563.34-3	259.89	16824.25	54.30	15.94	28.46	199.51	46.86	59.60	458.15	41.33
10TF01.563.4-1	263.34	16035.52	51.63	18.07	26.03	197.37	47.32	60.48	408.60	42.18
10TF01.563.4-2	257.10	15822.74	68.68	20.77	29.88	204.78	45.82	64.15	427.02	45.38
10TF01.563.4-3	259.46	16002.93	69.39	17.45	31.68	191.80	42.02	63.03	411.29	42.58
10TF01.563.5-1	209.97	15383.68	66.17	19.62	32.65	204.43	41.53	63.23	400.40	43.92
10TF01.563.5-2	194.27	14675.60	59.50	18.36	30.37	200.21	41.44	60.63	399.43	44.04
10TF01.563.5-3	142.22	14805.31	53.04	17.23	26.76	201.55	39.90	62.35	399.15	44.62
10TF01.563.6-1	221.79	12485.91	48.84	19.35	23.80	201.91	45.00	66.10	409.87	43.39

10TF01.563.6-2	232.74	12244.50	43.11	16.80	25.95	204.79	41.44	60.68	392.21	46.47
10TF01.563.6-3	154.33	12090.28	50.19	21.45	30.06	201.64	41.70	65.28	387.31	46.15
10TF01.563.7-1	243.89	16097.87	55.52	23.42	25.94	192.45	43.75	55.84	423.75	44.78
10TF01.563.7-2	249.15	16986.90	61.31	17.53	28.42	201.19	42.16	65.75	432.74	47.99
10TF01.563.7-3	274.77	16853.09	51.94	17.59	25.04	196.55	45.95	58.25	437.70	45.14
10TF01.563.8-1	347.72	17329.92	77.10	20.53	28.62	206.76	51.81	63.99	462.60	45.11
10TF01.563.8-2	367.41	16902.06	62.97	21.53	28.37	205.27	48.62	61.32	454.92	42.06
10TF01.563.8-3	325.19	17413.25	74.25	19.56	26.58	203.79	47.30	62.99	464.46	45.07
10TF01.563.9-1	273.15	14968.99	62.95	22.05	24.74	198.05	39.70	62.26	397.76	39.32
10TF01.563.9-2	324.50	14280.36	75.66	22.01	23.97	187.24	41.07	50.51	385.62	41.96
10TF01.563.9-3	225.07	15621.46	60.54	22.26	32.96	195.95	42.47	61.50	397.98	38.78
10TF01.564.1-1	230.58	17136.75	60.82	23.09	25.54	207.11	51.97	60.32	433.14	43.77
10TF01.564.1-2	249.72	15831.90	60.28	18.03	25.06	186.98	46.36	60.19	422.11	44.11
10TF01.564.1-3	229.29	16304.27	59.94	19.97	29.06	195.36	44.72	63.85	430.82	41.91
10TF01.564.2-1	333.17	12640.91	60.10	20.91	30.34	221.29	24.17	56.58	334.48	42.63
10TF01.564.2-2	220.95	14071.77	63.27	19.55	31.54	222.48	27.32	58.27	362.00	46.84
10TF01.564.2-3	242.60	14060.62	51.70	19.54	34.11	235.80	24.90	60.02	368.43	44.76
10TF01.564.3-1	251.31	13866.47	49.95	19.90	33.39	211.71	20.64	64.61	337.60	45.26
10TF01.564.3-2	213.11	13584.79	56.73	23.00	27.15	216.14	21.58	56.27	333.09	46.38
10TF01.564.3-3	260.84	14021.76	53.97	20.31	37.09	215.55	21.16	64.04	344.82	44.97
10TF01.564.4-1	281.85	15129.12	64.82	22.22	28.58	193.82	38.73	60.13	397.75	42.97
10TF01.564.4-2	273.38	14877.16	48.80	22.30	30.27	193.54	41.22	59.72	393.14	44.97
10TF01.564.4-3	301.57	15086.48	59.59	20.60	25.60	201.67	39.45	60.59	392.42	43.47
10TF01.564.5-1	152.65	12946.64	71.92	25.29	28.20	208.26	20.03	59.30	327.38	39.13
10TF01.564.5-2	177.50	12709.64	56.12	20.75	33.22	206.34	18.83	58.00	335.65	42.02
10TF01.564.5-3	241.08	13177.93	53.35	22.45	36.12	212.66	18.75	59.63	330.93	43.84
10TF01.565.1-1	245.62	15385.61	56.74	20.02	37.32	204.10	41.96	59.78	432.62	43.03
10TF01.565.1-1	245.62	15385.61	56.74	20.02	37.32	204.10	41.96	59.78	432.62	43.03
10TF01.565.1-3	206.87	15463.57	43.28	20.41	26.72	192.67	44.67	60.90	427.13	43.05
10TF01.565.2-1	292.25	13660.57	65.40	19.17	34.14	218.69	18.22	60.90	342.70	46.00
10TF01.565.2-2	259.46	13358.59	56.33	18.46	31.47	215.48	19.32	62.11	339.87	44.92

10TF01.565.2-3	226.45	13597.63	57.33	18.82	29.76	218.21	20.42	65.48	355.69	45.09
10TF01.565.3-1	435.10	13822.24	80.19	17.69	9.99	104.16	17.65	60.60	409.35	29.61
10TF01.565.3-2	498.83	12996.62	79.78	18.35	8.61	104.60	19.35	56.61	391.95	30.63
10TF01.565.3-3	556.62	13309.09	87.90	18.63	6.92	107.72	20.10	58.14	407.10	30.68
10TF01.566.1-1	213.13	15914.47	60.24	18.54	28.21	205.42	48.30	59.03	399.77	43.16
10TF01.566.1-2	317.98	15388.06	66.94	17.99	27.68	193.13	44.65	63.24	388.12	44.07
10TF01.566.1-3	256.80	15394.53	57.44	22.62	28.80	197.16	40.49	61.86	404.75	37.82
10TF01.566.2-1	308.27	14992.10	59.64	21.20	27.37	196.96	43.72	60.97	394.88	43.88
10TF01.566.2-2	141.91	15403.79	51.83	22.30	31.70	223.02	43.04	63.85	403.85	46.74
10TF01.566.2-3	230.05	14439.81	58.85	23.65	25.53	194.57	42.46	60.54	394.53	42.45
10TF01.566.3-1	206.96	14259.41	56.47	20.56	26.07	199.01	45.07	63.73	417.85	47.49
10TF01.566.3-2	194.02	14262.07	63.05	19.93	31.08	198.19	44.20	54.90	410.60	44.31
10TF01.566.3-3	158.32	14804.62	43.35	23.26	28.98	207.20	46.35	59.04	420.04	40.92
10TF01.566.4-1	44.96	15029.26	24.08	10.35	1.10	6.09	30.54	3.21	82.12	3.96
10TF01.566.4-2	0.00	14571.99	25.45	9.59	1.38	7.23	26.43	5.16	82.46	4.18
10TF01.566.4-3	0.00	14723.72	16.12	7.93	0.00	5.81	28.05	4.36	78.42	7.50
10TF01.566.5-1	218.33	14821.88	43.18	22.48	29.31	205.28	42.19	61.23	405.61	44.83
10TF01.566.5-2	306.71	13699.77	53.85	17.82	27.76	192.44	37.75	61.28	392.72	39.84
10TF01.566.5-3	302.19	14682.63	57.46	17.91	27.52	197.66	41.56	58.19	411.37	41.26
10TF01.567.1-1	251.04	16693.19	52.63	15.54	30.65	190.90	43.00	60.37	434.95	47.80
10TF01.567.1-2	327.01	16569.64	52.94	17.84	25.07	194.55	43.30	60.96	438.94	42.12
10TF01.567.1-2	327.01	16569.64	52.94	17.84	25.07	194.55	43.30	60.96	438.94	42.12
10TF01.567.2-1	381.06	16277.91	52.57	20.99	22.50	199.95	45.86	64.45	421.94	46.86
10TF01.567.2-2	239.46	15973.01	54.86	18.44	29.40	186.17	45.36	62.07	430.03	40.35
10TF01.567.2-3	294.42	15718.32	48.87	16.45	27.22	191.03	45.54	59.56	418.94	41.82
10TF01.567.3-1	365.75	20563.36	79.98	19.71	30.15	163.06	64.74	67.34	526.98	50.26
10TF01.567.3-2	518.07	21122.82	73.32	22.27	20.31	163.65	58.41	68.91	545.69	52.36
10TF01.567.3-2	518.07	21122.82	73.32	22.27	20.31	163.65	58.41	68.91	545.69	52.36
10TF01.568.10-1	224.33	14863.48	61.15	19.58	28.44	201.66	38.10	59.54	408.61	42.22
10TF01.568.10-2	242.31	14958.62	53.71	18.96	28.62	196.87	42.12	64.93	408.16	43.21
10TF01.568.10-3	387.02	15032.54	59.38	17.49	27.92	189.29	44.75	61.12	402.32	42.00

10TF01.568.1-1	327.20	14479.19	52.76	18.81	25.17	199.62	42.82	65.14	396.62	43.23
10TF01.568.11-1	271.01	15165.66	52.14	24.68	28.27	183.18	43.39	61.12	407.95	38.71
10TF01.568.11-2	405.37	15740.90	57.39	17.42	28.69	195.27	42.60	61.93	431.63	46.79
10TF01.568.11-3	194.76	14846.05	51.27	17.25	26.29	195.69	42.00	58.18	396.73	40.56
10TF01.568.1-2	352.63	14716.13	57.74	21.17	29.59	191.43	37.64	56.90	395.46	42.76
10TF01.568.12-1	178.54	15012.90	50.21	15.95	30.36	198.95	40.94	55.83	404.72	40.73
10TF01.568.12-2	164.71	16211.14	65.52	22.42	31.72	199.95	45.65	62.36	438.17	45.73
10TF01.568.12-3	277.00	16238.99	62.62	20.77	26.97	202.25	45.92	65.00	439.33	46.79
10TF01.568.1-3	427.30	16097.88	69.34	21.42	26.12	200.82	46.23	64.67	435.35	44.96
10TF01.568.2-1	191.01	14907.84	44.39	20.24	28.05	203.08	40.07	58.15	375.26	43.55
10TF01.568.2-2	178.98	14739.95	52.36	21.18	29.71	197.22	40.02	63.40	382.16	42.87
10TF01.568.2-3	348.33	15051.56	62.27	17.68	27.23	209.79	41.99	60.73	386.13	43.48
10TF01.568.3-1	317.76	15582.97	65.90	22.51	27.59	214.34	39.44	59.23	405.76	45.35
10TF01.568.3-2	179.17	14920.23	65.31	16.85	32.45	199.71	39.43	70.63	391.58	44.33
10TF01.568.3-3	325.33	15810.74	50.86	22.19	30.17	210.02	39.43	64.05	403.90	46.46
10TF01.568.4-1	230.28	15424.52	64.40	16.00	33.51	193.02	39.03	59.98	405.43	51.34
10TF01.568.4-2	280.01	15527.88	55.91	17.89	28.71	194.08	39.07	65.43	397.03	50.62
10TF01.568.4-3	233.94	15397.89	51.67	21.10	27.92	196.10	37.84	64.34	399.16	54.36
10TF01.568.5-1	232.48	12722.31	45.84	23.57	28.81	186.74	38.97	52.45	365.71	45.97
10TF01.568.5-2	306.14	12960.09	47.96	18.88	24.44	190.94	35.94	52.01	370.10	41.99
10TF01.568.5-3	252.04	13262.67	39.52	18.74	26.66	194.46	40.40	51.63	374.10	45.79
10TF01.568.6-1	243.97	15824.29	55.96	20.24	25.21	199.05	37.79	56.86	413.96	42.46
10TF01.568.6-2	287.62	15396.75	65.34	18.77	24.83	181.26	40.21	61.73	414.94	42.30
10TF01.568.6-3	320.34	16233.31	63.95	18.43	31.05	193.87	45.15	62.41	414.43	45.19
10TF01.568.7-1	363.46	20094.01	67.98	18.64	22.13	164.82	62.15	62.98	531.41	51.49
10TF01.568.7-2	389.65	20530.00	80.47	19.51	24.01	170.54	62.85	73.14	551.34	49.47
10TF01.568.7-3	395.29	20327.53	83.04	15.72	27.76	166.81	62.29	74.66	544.36	53.32
10TF01.568.8-1	189.91	16260.81	75.05	21.09	26.16	200.86	47.77	63.49	411.15	43.34
10TF01.568.8-2	209.85	15908.61	69.26	19.65	25.42	189.97	42.74	62.62	406.17	43.27
10TF01.568.8-3	252.18	16383.77	58.35	18.71	29.57	190.57	43.17	60.66	419.80	43.29
10TF01.568.9-1	220.12	15085.15	58.55	17.74	28.60	196.67	37.39	53.59	390.44	42.32

10TF01.568.9-2	303.98	14089.95	55.53	19.27	19.60	201.38	35.88	58.99	381.28	40.62
10TF01.568.9-3	237.61	14786.62	60.73	20.00	29.01	200.80	40.02	60.21	393.24	42.86
10TF01.569.1-1	155.74	15550.04	56.84	14.02	25.61	197.87	40.02	58.65	402.57	41.60
10TF01.569.1-2	266.24	15593.85	56.20	23.12	26.75	198.55	38.60	61.56	404.09	43.39
10TF01.569.1-3	229.12	15116.71	75.72	19.81	35.53	193.84	40.20	60.56	393.65	46.26
10TF01.569.2-1	286.54	16558.55	54.01	17.18	25.32	195.54	44.75	61.64	436.00	44.29
10TF01.569.2-2	335.90	16064.17	62.58	22.00	26.59	192.81	42.57	59.82	420.14	41.51
10TF01.569.2-3	294.51	16398.66	54.85	21.42	27.03	203.17	42.67	60.30	432.83	47.46
10TF01.569.3-1	294.86	14779.53	54.67	20.95	32.44	197.63	40.29	61.57	386.92	43.74
10TF01.569.3-2	149.11	14431.14	55.18	19.90	35.54	191.32	43.80	58.82	380.01	43.53
10TF01.569.3-3	320.97	14613.96	57.34	20.56	27.02	186.56	43.25	61.53	384.97	43.30
10TF01.569.4-1	139.34	14801.95	58.85	22.55	30.73	204.02	40.41	52.32	390.20	43.21
10TF01.569.4-2	188.13	14173.14	55.32	17.73	26.30	190.82	41.59	60.63	379.23	42.28
10TF01.569.4-3	177.36	15624.30	69.04	18.24	33.55	201.23	40.77	59.18	392.33	42.56
10TF01.569.5-1	257.07	16266.54	62.40	18.25	30.84	218.77	15.39	63.72	362.36	42.14
10TF01.569.5-2	326.18	16481.18	65.41	18.38	36.01	214.69	17.56	62.55	368.69	46.66
10TF01.569.5-3	292.12	16062.06	74.84	17.65	30.31	214.60	17.29	66.52	354.12	47.73
10TF01.569.6-1	189.19	15934.38	63.82	20.03	30.04	198.55	43.98	61.59	411.59	40.34
10TF01.569.6-2	250.01	14654.25	58.23	21.68	21.58	187.24	45.26	56.04	382.58	37.24
10TF01.569.6-3	204.89	16468.36	59.23	25.41	27.25	193.42	46.48	60.75	421.14	43.15
10TF01.569.7-1	172.90	15031.50	70.70	20.07	29.28	194.73	38.57	58.40	379.91	42.63
10TF01.569.7-2	220.41	15882.43	55.01	19.47	30.00	193.16	38.76	59.55	416.80	41.31
10TF01.569.7-3	232.83	15186.08	62.23	21.04	25.48	199.60	38.89	60.11	394.20	43.09
10TF01.571.10-1	344.23	14797.27	51.23	19.42	27.73	190.88	37.24	63.33	397.76	52.01
10TF01.571.10-2	311.51	14382.25	57.18	16.98	26.94	184.77	35.65	63.51	383.81	47.03
10TF01.571.10-3	291.56	14368.09	42.11	15.94	24.19	186.26	38.81	67.46	378.48	47.87
10TF01.571.1-1	280.53	15267.66	65.58	20.35	27.17	206.13	38.70	62.73	405.13	41.16
10TF01.571.11-1	248.53	14962.43	56.26	20.66	28.80	205.18	39.19	61.16	395.07	42.00
10TF01.571.11-2	215.34	14517.72	68.67	22.03	31.68	197.01	40.03	58.26	395.57	40.23
10TF01.571.11-3	269.01	15863.67	40.05	22.62	30.29	202.58	45.15	56.19	410.10	44.92
10TF01.571.1-2	306.75	14776.26	62.84	18.54	31.27	187.13	43.52	61.89	389.04	43.42

10TF01.571.12-1	247.86	15149.47	60.24	18.12	26.34	193.10	44.97	61.12	399.73	41.31
10TF01.571.12-2	374.42	17578.94	52.72	22.88	27.47	191.98	47.58	60.91	470.72	44.83
10TF01.571.12-3	311.36	16395.05	73.02	18.64	25.43	187.84	47.03	61.25	448.70	40.67
10TF01.571.1-3	307.69	16780.26	66.80	19.58	28.46	190.57	45.98	61.67	466.06	42.09
10TF01.571.13-1	319.01	14506.04	44.54	23.35	31.22	200.10	43.32	61.64	400.34	43.27
10TF01.571.13-2	170.53	14242.95	59.78	20.09	28.92	196.55	38.68	58.76	387.31	42.66
10TF01.571.13-3	308.31	14135.87	46.62	21.28	27.86	192.79	41.27	56.81	390.34	43.18
10TF01.571.14-1	267.85	15885.71	61.60	18.86	24.49	195.77	44.21	61.00	416.86	45.80
10TF01.571.14-2	315.29	15684.02	61.52	21.39	25.65	195.14	48.01	63.23	421.03	42.25
10TF01.571.14-3	174.29	16031.23	61.76	22.76	29.49	193.79	45.52	60.05	417.86	42.67
10TF01.571.15-1	326.01	15197.83	69.40	21.16	29.54	197.61	39.25	58.86	376.71	41.64
10TF01.571.15-2	269.10	14698.42	74.44	19.79	28.21	195.88	37.86	60.18	376.89	44.02
10TF01.571.15-3	164.30	15560.70	39.87	19.63	30.31	198.32	41.11	53.28	388.18	45.17
10TF01.571.16-1	208.82	15940.93	73.32	19.66	28.52	200.02	45.75	62.36	413.39	42.21
10TF01.571.16-2	272.97	16161.80	52.21	22.90	29.70	206.96	47.90	64.25	432.71	46.12
10TF01.571.16-3	242.27	15229.75	64.27	18.64	29.58	196.07	41.79	59.41	420.40	41.66
10TF01.571.17-1	198.56	14283.22	64.40	21.94	28.40	195.48	36.33	57.02	364.51	41.56
10TF01.571.17-2	277.20	13587.22	50.93	19.45	28.42	195.99	33.33	56.74	365.39	41.39
10TF01.571.17-3	222.57	14342.89	60.67	19.53	31.59	197.10	35.36	57.77	371.37	43.32
10TF01.571.18-1	295.25	16769.44	52.47	19.03	28.16	192.38	45.87	59.42	435.53	45.28
10TF01.571.18-2	289.72	15586.91	66.91	23.22	25.64	181.20	47.98	57.55	418.20	41.27
10TF01.571.18-3	178.93	16887.38	64.27	21.78	27.07	197.52	45.15	60.60	433.42	46.04
10TF01.571.19-1	214.99	14070.56	65.65	16.97	28.00	199.93	39.91	65.07	399.59	45.26
10TF01.571.19-2	223.76	13738.13	44.11	16.48	28.03	195.61	39.51	62.56	392.27	41.80
10TF01.571.19-3	234.49	13806.12	59.94	20.10	30.13	192.98	39.51	61.50	388.67	43.77
10TF01.571.20-1	215.60	16359.56	51.77	19.42	27.61	195.13	45.68	61.15	453.32	45.32
10TF01.571.20-2	172.37	15114.91	61.35	18.53	22.87	181.87	41.98	55.80	415.49	40.49
10TF01.571.20-3	340.38	16187.13	67.28	20.06	29.31	198.51	48.38	61.73	444.20	44.65
10TF01.571.2-1	232.34	14810.11	51.22	14.34	24.58	205.20	43.25	57.13	404.89	43.39
10TF01.571.21-1	334.53	15046.42	53.83	23.69	29.42	191.27	43.51	61.54	404.45	43.91
10TF01.571.21-2	341.34	14767.20	61.08	21.10	27.54	191.60	41.58	60.27	385.94	43.31

10TF01.571.21-3	161.62	14872.50	59.24	21.35	26.79	215.52	41.29	59.68	401.03	44.16
10TF01.571.2-2	288.66	14382.42	50.91	17.05	28.09	199.14	38.15	62.23	399.24	40.80
10TF01.571.22-1	293.07	18148.20	67.79	19.54	27.07	182.50	54.76	67.83	469.26	56.13
10TF01.571.22-2	355.06	17098.70	59.03	20.41	29.03	158.54	53.77	64.72	451.34	51.45
10TF01.571.22-3	385.96	17780.16	59.95	18.18	25.51	166.85	56.12	65.31	458.57	52.21
10TF01.571.2-3	247.99	14678.27	52.21	21.03	28.11	200.27	35.38	59.45	397.14	44.69
10TF01.571.23-1	282.54	14552.44	53.42	16.28	27.81	185.47	34.86	56.85	387.80	48.53
10TF01.571.23-2	304.83	14950.67	62.48	15.32	28.81	190.27	35.98	64.60	388.55	48.83
10TF01.571.23-3	356.62	14920.42	57.57	22.26	27.19	183.70	38.40	66.76	382.08	51.74
10TF01.571.24-1	278.76	15454.96	47.30	14.86	28.42	196.27	44.28	60.52	399.11	44.20
10TF01.571.24-2	281.01	15062.28	60.24	20.19	27.83	192.07	44.64	56.87	389.21	39.95
10TF01.571.24-3	370.38	15361.67	48.45	20.33	29.12	199.98	43.45	59.27	411.37	40.74
10TF01.571.25-1	334.82	16254.51	52.90	16.11	33.19	193.79	42.53	58.02	411.53	42.91
10TF01.571.25-2	398.83	15553.82	55.26	16.07	26.64	195.69	45.63	56.02	406.55	45.59
10TF01.571.25-3	204.89	16020.93	69.42	19.76	31.77	192.05	44.55	63.88	404.70	42.24
10TF01.571.26-1	257.48	15413.77	67.22	19.10	30.06	211.43	39.95	61.35	409.88	45.80
10TF01.571.26-2	99.25	14855.26	62.60	17.12	28.22	190.39	41.23	61.73	383.33	39.93
10TF01.571.26-3	293.45	15032.34	59.36	18.87	26.88	187.31	39.96	60.76	401.05	41.96
10TF01.571.27-1	213.98	13091.71	45.36	18.50	27.31	195.66	39.45	61.69	380.56	41.17
10TF01.571.27-2	201.47	15072.00	67.10	17.65	28.12	194.93	40.32	57.12	392.18	41.46
10TF01.571.27-3	177.59	13590.32	47.36	17.95	28.44	195.35	36.37	62.15	375.03	43.91
10TF01.571.28-1	278.83	15741.51	57.44	18.43	25.43	191.63	46.47	62.03	430.37	42.52
10TF01.571.28-2	189.05	15636.28	63.99	21.64	28.46	189.22	46.70	57.46	422.44	44.10
10TF01.571.28-3	228.70	15553.93	60.97	20.87	25.02	194.21	45.29	61.63	422.07	44.71
10TF01.571.3-1	189.39	15227.47	73.05	20.56	26.53	197.21	46.31	63.41	420.68	44.33
10TF01.571.3-2	327.47	15066.81	58.96	19.32	30.01	193.02	49.07	56.61	405.83	41.14
10TF01.571.3-3	211.59	15423.69	68.17	18.01	32.50	193.01	48.37	65.78	402.84	41.15
10TF01.571.4-1	268.79	15273.99	63.74	22.52	28.88	190.75	42.64	59.80	384.84	43.89
10TF01.571.4-2	268.67	15727.42	57.97	20.59	27.55	196.85	37.88	60.77	396.01	46.53
10TF01.571.4-3	255.64	15536.43	61.09	19.64	29.83	192.47	40.59	56.85	385.31	42.29
10TF01.571.5-1	305.05	13479.16	58.54	19.78	27.85	215.96	17.95	62.76	327.99	42.85

10TF01.571.5-2	194.33	13777.13	64.79	19.51	30.17	212.57	15.52	60.21	321.99	42.95
10TF01.571.5-3	219.21	13584.14	66.09	16.98	36.45	208.61	19.59	57.95	326.24	46.09
10TF01.571.6-1	316.80	15999.18	80.92	21.37	28.36	193.56	42.68	56.86	426.90	42.23
10TF01.571.6-2	268.80	15029.41	64.63	17.92	31.01	187.19	44.74	61.91	420.73	40.81
10TF01.571.6-3	273.13	15912.39	61.36	18.64	30.30	193.07	46.89	59.62	425.37	43.47
10TF01.571.7-1	304.08	14887.69	55.44	18.08	29.91	201.87	38.99	62.16	397.68	40.62
10TF01.571.7-2	273.03	15454.58	51.65	22.13	33.74	205.35	39.67	62.46	397.67	41.59
10TF01.571.7-3	245.83	14789.08	72.73	24.15	30.17	187.30	40.91	62.67	403.48	47.69
10TF01.571.8-1	231.21	14593.22	51.21	20.02	28.32	199.55	41.68	59.22	381.97	41.99
10TF01.571.8-2	137.38	13927.26	50.49	16.25	27.90	196.39	39.11	58.35	377.22	42.24
10TF01.571.8-3	242.30	15058.39	53.19	19.88	28.99	198.36	36.91	59.91	382.74	41.48
10TF01.571.9-1	253.63	14624.49	51.22	22.41	33.22	188.77	36.29	65.64	379.29	49.84
10TF01.571.9-2	308.39	14743.49	64.85	20.23	30.56	181.14	35.57	64.46	384.84	51.30
10TF01.571.9-3	278.11	14340.92	66.33	13.97	26.29	185.21	33.18	61.17	373.36	49.13
10TF01.572.1-1	202.04	13320.91	38.10	21.33	30.79	204.28	37.30	62.78	372.19	44.98
10TF01.572.1-2	269.00	12881.00	52.58	19.95	28.51	207.08	32.46	59.10	363.62	43.40
10TF01.572.1-3	221.06	13750.02	48.82	22.21	33.44	213.52	35.36	53.30	381.61	42.83
10TF01.572.2-1	290.57	15007.15	60.89	19.38	23.41	191.01	35.40	60.52	384.49	40.93
10TF01.572.2-2	204.25	14936.67	57.08	17.49	26.94	188.31	41.34	54.76	372.82	38.18
10TF01.572.2-3	339.53	16218.83	60.05	22.49	33.06	204.99	40.92	63.59	403.21	43.89
10TF01.572.3-1	320.75	15325.95	52.61	21.34	24.85	189.50	42.47	59.32	401.66	42.24
10TF01.572.3-2	275.15	15753.02	59.05	21.81	31.50	196.80	41.39	63.61	409.11	39.73
10TF01.572.3-3	252.62	14689.45	48.58	21.96	28.45	188.58	39.56	57.67	380.14	42.13
10TF01.572.4-1	255.07	14989.72	57.79	19.82	27.23	197.97	43.63	61.18	414.31	41.17
10TF01.572.4-2	293.81	13848.43	50.73	23.02	28.36	193.87	38.68	56.78	390.19	43.52
10TF01.572.4-3	215.70	########	56.11	21.36	27.93	209.36	42.42	60.71	407.24	40.35
10TF01.572.5-1	290.41	16521.75	97.81	21.61	28.00	172.48	44.64	67.80	427.95	51.68
10TF01.572.5-2	344.07	16831.06	65.38	21.36	27.34	181.17	50.61	68.32	444.99	52.63
10TF01.572.5-3	446.12	16422.83	69.86	19.35	25.98	175.71	46.71	64.73	446.51	52.37
10TF01.573.10-1	178.01	########	56.67	15.80	24.80	203.22	40.81	57.65	395.91	41.74
10TF01.573.10-2	306.71	16759.80	55.75	20.11	25.12	200.83	40.17	62.05	407.43	45.46

10TF01.573.10-3	170.80	14691.86	54.42	20.15	28.48	201.83	38.31	61.91	386.62	43.29
10TF01.573.1-1	202.69	13724.80	72.10	21.88	32.99	218.09	18.62	67.12	347.19	42.84
10TF01.573.11-1	210.15	14181.57	50.60	20.23	28.96	195.88	36.17	60.67	375.57	42.31
10TF01.573.11-2	291.28	16437.73	66.73	21.46	38.11	211.08	47.46	68.05	405.58	44.82
10TF01.573.11-3	323.52	14440.76	56.14	17.15	26.64	197.89	39.76	63.78	379.62	40.23
10TF01.573.1-2	99.58	13847.75	65.41	19.23	27.33	218.41	19.67	63.77	348.12	44.53
10TF01.573.12-1	186.57	14052.28	66.20	22.06	26.35	197.64	40.00	60.18	381.98	42.93
10TF01.573.12-2	209.98	12637.77	229.63	22.71	32.28	188.47	43.56	64.52	397.57	44.99
10TF01.573.12-3	205.75	15440.38	55.63	17.13	31.12	198.34	38.27	65.32	410.73	40.32
10TF01.573.1-3	176.90	13041.86	54.60	22.58	28.87	220.28	17.38	62.60	337.23	41.98
10TF01.573.13-1	296.24	15985.47	57.35	19.40	28.19	210.29	46.80	62.86	419.79	43.95
10TF01.573.13-2	220.80	14134.50	260.95	21.46	40.80	192.64	46.14	66.38	397.99	43.16
10TF01.573.13-3	347.00	17756.87	68.57	18.70	26.09	206.71	39.27	60.81	391.19	43.67
10TF01.573.14-1	219.83	16847.35	65.21	15.55	28.35	210.15	36.56	55.20	394.17	44.43
10TF01.573.14-2	238.64	15931.36	67.93	20.18	35.81	211.88	37.22	58.99	399.51	43.84
10TF01.573.14-3	303.43	15735.15	61.31	18.25	31.32	205.58	42.51	59.51	418.60	42.99
10TF01.573.15-1	120.97	15633.18	67.12	21.21	31.25	199.83	43.73	57.87	414.26	40.60
10TF01.573.15-2	190.68	16798.94	59.82	19.29	31.02	216.17	44.37	61.78	449.85	45.30
10TF01.573.15-3	319.92	15844.08	68.46	22.10	27.05	199.79	43.09	62.01	407.05	40.75
10TF01.573.16-1	345.37	14445.77	62.52	17.90	24.66	191.05	40.39	60.46	405.67	41.46
10TF01.573.16-2	248.12	14760.84	81.47	17.95	21.04	198.56	39.93	61.82	393.83	44.93
10TF01.573.16-3	200.63	14399.58	53.57	20.43	28.75	202.47	43.88	58.40	403.73	42.37
10TF01.573.17-1	322.90	14310.21	58.01	22.59	26.07	200.18	43.09	61.07	396.51	43.01
10TF01.573.17-2	213.23	16762.47	70.11	21.20	35.69	204.68	51.39	70.36	447.39	47.23
10TF01.573.17-3	307.32	14676.05	60.71	22.44	25.57	206.29	42.94	64.01	429.10	43.99
10TF01.573.18-1	204.30	15219.55	72.39	21.16	29.99	211.11	46.58	63.80	420.86	43.22
10TF01.573.18-2	268.55	14464.42	62.43	15.89	27.71	206.42	44.50	59.05	409.56	43.67
10TF01.573.18-3	293.26	16753.65	71.71	17.87	25.68	199.34	43.45	60.18	445.32	44.30
10TF01.573.2-1	324.25	13885.49	57.95	23.24	29.64	213.00	19.04	67.42	373.95	45.46
10TF01.573.2-2	216.17	13305.13	73.18	22.41	30.98	209.67	18.09	64.63	352.57	44.63
10TF01.573.2-3	248.60	14213.59	65.87	20.49	31.06	217.89	19.63	63.18	363.32	46.28

10TF01.573.3-1	221.11	12933.08	46.20	16.05	30.65	191.70	40.90	55.90	383.73	43.18
10TF01.573.3-2	317.79	12677.17	45.97	20.76	30.16	187.85	34.56	52.13	370.10	42.27
10TF01.573.3-3	387.24	12888.70	37.43	19.92	23.39	193.09	40.14	53.13	375.37	46.49
10TF01.573.4-1	317.16	17055.44	68.67	24.08	30.65	196.58	49.83	59.55	450.58	42.72
10TF01.573.4-2	265.12	16196.74	58.01	19.65	28.56	190.78	43.89	56.79	432.73	42.79
10TF01.573.4-3	325.38	16559.66	62.64	19.52	26.01	192.35	45.78	63.33	442.49	42.13
10TF01.573.6-1	299.81	15068.33	45.07	15.66	30.73	209.44	39.96	62.27	422.13	45.57
10TF01.573.6-2	195.33	14481.69	51.65	16.42	30.32	196.38	43.29	59.87	396.32	41.69
10TF01.573.6-3	153.40	14633.63	53.76	20.14	26.68	192.33	42.04	61.39	394.19	45.59
10TF01.573.7-1	249.09	16305.39	61.51	17.94	27.86	195.36	43.47	65.33	400.19	44.52
10TF01.573.7-2	274.24	15567.37	51.26	18.09	29.73	200.28	42.79	58.37	411.81	41.09
10TF01.573.7-3	292.11	15094.51	52.73	19.11	31.60	198.61	41.36	58.31	397.10	40.99
10TF01.573.8-1	276.79	15967.22	72.13	17.30	26.76	220.17	43.91	62.14	424.51	45.40
10TF01.573.8-2	289.12	17015.13	69.36	19.91	27.28	219.46	41.72	67.20	426.78	45.47
10TF01.573.8-3	271.16	16105.11	62.73	21.69	31.15	214.34	41.04	65.15	419.02	46.59
10TF01.573.9-1	309.92	15725.62	56.22	19.80	30.54	204.72	43.15	59.87	395.81	41.90
10TF01.573.9-2	256.95	16246.86	60.63	17.38	33.86	185.29	46.50	63.55	436.66	45.53
10TF01.573.9-3	335.97	19214.77	66.63	20.65	35.00	223.73	55.23	67.21	473.56	47.16
10TF01.574.1-1	257.77	14813.67	41.63	20.40	28.80	203.08	40.01	59.90	404.68	42.15
10TF01.574.1-2	233.87	14691.10	45.17	18.93	33.33	204.86	37.14	59.99	404.93	41.46
10TF01.574.1-3	314.03	14287.99	48.44	22.46	31.02	198.78	40.39	59.54	374.16	42.77
10TF01.575.10-1	203.59	14878.92	66.34	21.47	30.73	191.79	42.76	61.18	406.68	40.72
10TF01.575.10-2	210.99	13998.76	60.66	19.63	27.27	181.99	35.79	64.91	385.07	42.88
10TF01.575.10-3	285.14	15388.33	74.93	20.66	26.29	200.73	43.83	69.04	399.56	47.37
10TF01.575.1-1	251.98	14205.55	60.43	18.63	32.25	199.83	39.06	61.34	389.17	40.18
10TF01.575.11-1	314.80	14389.86	55.81	18.62	29.86	202.26	42.87	59.49	399.38	43.72
10TF01.575.11-2	228.02	15926.92	80.02	20.62	26.01	208.33	44.24	62.35	421.70	43.56
10TF01.575.11-3	266.09	13087.47	52.65	16.35	28.49	205.36	43.25	59.19	385.46	41.74
10TF01.575.1-2	288.79	12687.72	58.54	19.95	24.85	195.01	36.71	60.01	386.34	41.96
10TF01.575.1-3	225.00	14270.87	81.32	17.26	32.61	211.09	43.13	63.98	416.43	46.72
10TF01.575.2-1	199.36	14972.52	64.03	20.33	23.05	191.72	39.80	60.90	401.45	41.87

10TF01.575.2-2	239.02	16014.64	80.41	21.72	31.33	200.87	42.93	63.08	419.84	45.31
10TF01.575.2-3	180.98	15373.09	128.21	23.39	30.42	207.33	45.31	66.85	412.60	41.85
10TF01.575.3-1	262.47	15931.39	56.09	21.23	27.39	199.04	44.08	60.65	410.04	42.03
10TF01.575.3-2	218.36	16145.70	66.50	20.85	30.68	204.34	41.34	61.63	425.86	44.93
10TF01.575.3-3	325.07	16967.10	56.67	23.29	26.04	210.52	44.77	65.27	420.02	45.58
10TF01.575.4-1	186.30	16403.62	64.68	20.76	29.18	194.84	42.19	60.87	422.40	40.08
10TF01.575.4-2	215.75	15405.14	51.28	19.18	24.89	187.52	44.04	60.86	413.92	38.83
10TF01.575.4-3	240.25	17473.87	65.28	16.53	33.44	210.46	49.21	62.09	450.86	44.47
10TF01.575.5-1	321.98	16102.06	60.39	23.60	31.83	195.90	46.79	61.22	420.92	44.25
10TF01.575.5-2	239.68	15363.32	63.80	22.42	26.44	189.09	41.93	59.65	403.85	40.22
10TF01.575.5-3	269.25	16346.48	61.44	21.32	23.80	201.04	44.85	63.55	413.56	43.66
10TF01.575.6-1	260.50	16426.85	75.52	20.05	30.03	193.51	46.32	62.60	418.49	42.09
10TF01.575.6-2	249.86	16299.35	61.77	19.98	32.10	193.69	42.30	59.80	430.00	43.74
10TF01.575.6-3	310.29	16550.81	79.51	22.24	34.34	205.17	45.55	62.28	433.70	45.35
10TF01.575.7-1	267.08	16489.21	65.49	19.59	27.75	211.51	43.43	61.42	435.19	46.07
10TF01.575.7-2	160.15	16646.04	75.59	22.17	26.49	199.26	44.88	65.61	422.73	42.33
10TF01.575.7-3	261.24	17337.44	105.35	21.27	27.31	209.80	46.60	63.15	458.15	45.40
10TF01.575.8-1	261.74	15422.12	79.76	21.11	26.17	212.59	43.62	64.99	426.63	44.24
10TF01.575.8-2	312.19	14678.34	75.83	18.86	24.73	206.34	42.38	57.35	404.05	42.99
10TF01.575.8-3	371.09	16601.15	70.88	18.31	34.63	224.01	42.61	67.70	438.50	47.06
10TF01.575.9-1	179.43	14540.50	53.35	20.66	28.52	204.24	42.58	63.77	397.76	43.58
10TF01.575.9-2	163.84	13939.04	52.73	22.92	28.40	203.48	40.98	59.37	392.65	42.54
10TF01.575.9-3	275.81	14471.84	49.51	19.74	26.80	206.11	41.61	59.20	406.12	43.87
10TF01.576.1-1	207.67	15674.90	59.54	19.31	30.43	196.02	42.56	63.33	391.47	45.67
10TF01.576.1-2	201.74	15562.42	60.37	19.08	26.75	197.81	41.69	61.39	391.94	42.11
10TF01.576.1-3	327.29	15470.81	64.90	20.82	26.07	187.07	44.49	66.64	395.11	43.59
10TF01.576.2-1	272.04	12431.95	50.62	24.54	32.60	221.38	22.02	61.48	343.26	46.46
10TF01.576.2-2	212.96	11956.69	57.43	19.54	26.98	216.43	19.89	57.92	333.31	40.49
10TF01.576.2-3	236.71	12567.86	84.06	19.92	31.88	219.59	21.59	58.56	351.16	42.24
10TF01.576.3-1	154.16	15047.39	60.74	19.07	27.40	213.07	41.90	62.96	408.72	45.98
10TF01.576.3-2	218.35	14823.68	48.84	20.34	28.45	194.53	40.86	61.93	393.96	43.20

10TF01.576.3-3	253.91	15610.11	69.75	21.88	32.62	202.50	39.80	66.13	414.17	46.33
10TF01.576.4-1	241.00	15556.41	56.11	17.45	29.29	199.06	46.32	58.53	466.15	43.16
10TF01.576.4-2	236.11	16051.76	73.14	19.00	28.77	199.30	46.95	67.54	467.04	43.90
10TF01.576.4-3	318.87	16993.88	53.87	21.71	31.92	200.82	49.60	63.48	461.70	42.59
10TF01.576.5-1	124.89	16082.51	63.08	15.63	31.53	194.59	43.96	63.58	437.58	45.29
10TF01.576.5-2	230.85	16961.80	60.96	21.22	26.06	208.21	46.70	61.07	459.12	45.22
10TF01.576.5-3	293.11	17598.22	57.30	22.77	29.55	211.84	50.08	62.57	441.96	43.81
10TF01.576.6-1	203.94	15759.66	63.00	22.07	28.13	193.18	45.76	66.43	437.27	43.14
10TF01.576.6-2	217.93	15291.71	51.23	22.44	31.10	185.68	44.71	65.59	422.25	41.57
10TF01.576.6-3	344.84	14849.77	291.72	17.25	30.62	203.01	44.18	62.62	438.87	48.88
10TF01.576.7-1	345.08	16090.23	38.68	17.19	28.06	205.15	40.56	59.57	436.64	45.23
10TF01.576.7-2	359.38	15843.48	40.53	21.35	25.08	193.30	47.40	59.91	417.89	45.46
10TF01.576.7-3	222.76	18216.05	84.14	22.59	30.27	210.32	51.02	64.39	471.35	49.04
10TF01.576.8-1	265.90	17048.24	68.15	17.39	27.94	201.50	47.93	61.06	433.50	44.42
10TF01.576.8-2	240.36	16634.81	63.02	20.28	24.02	196.85	49.46	64.39	430.22	46.33
10TF01.576.8-3	227.47	14216.30	330.74	21.20	29.64	179.86	49.48	61.51	431.35	47.89
10TF01.576.9-1	208.64	13932.40	59.84	20.98	30.45	228.68	21.40	57.56	343.76	43.24
10TF01.576.9-2	185.27	14105.21	52.15	19.60	33.03	229.38	24.98	59.03	361.77	44.99
10TF01.576.9-3	206.45	14351.14	74.63	17.19	34.47	236.62	26.55	66.70	362.50	46.47
10TF01.577.10-1	229.24	12915.07	60.37	23.02	37.78	227.38	23.74	62.54	345.34	44.94
10TF01.577.10-2	163.61	12347.23	53.86	23.08	30.06	235.09	24.24	56.51	332.28	45.79
10TF01.577.10-3	283.08	16647.76	63.83	19.22	30.75	203.40	46.53	62.47	451.76	45.22
10TF01.577.1-1	496.28	20927.02	145.62	22.12	13.11	174.63	2.51	74.99	404.09	24.05
10TF01.577.11-1	207.08	16661.96	59.86	23.26	34.53	195.69	43.10	63.49	458.71	43.21
10TF01.577.11-2	319.94	16184.09	66.69	18.60	28.16	202.75	46.74	60.79	454.22	40.67
10TF01.577.11-3	227.64	12912.67	52.09	16.97	24.61	198.44	41.22	56.99	397.52	42.92
10TF01.577.1-2	509.63	20529.94	141.98	21.81	21.38	172.10	2.99	73.68	402.11	27.15
10TF01.577.12-1	258.13	12883.04	55.54	19.90	32.08	203.35	38.17	55.41	394.62	40.88
10TF01.577.12-2	161.08	12450.02	47.59	20.87	33.27	198.37	43.21	57.39	381.75	41.17
10TF01.577.12-3	343.45	15472.97	60.42	19.50	25.72	193.65	45.46	61.30	424.73	46.07
10TF01.577.1-3	425.42	17925.51	429.58	25.96	14.16	167.88	4.21	83.02	415.67	27.39

10TF01.577.13-1	276.63	16064.20	69.06	20.98	27.06	181.71	48.30	60.37	429.14	43.28
10TF01.577.13-2	375.66	16425.14	70.42	18.23	27.72	199.93	47.49	58.71	443.38	43.67
10TF01.577.13-3	237.52	13098.86	58.49	24.39	26.77	199.04	39.33	56.26	405.83	42.37
10TF01.577.14-1	150.19	14523.48	70.32	22.62	31.75	211.05	44.56	58.49	427.66	42.93
10TF01.577.14-2	277.04	13073.54	60.13	21.66	28.83	199.87	44.98	60.30	403.90	41.71
10TF01.577.14-3	313.40	16217.79	61.01	19.98	30.62	201.10	45.78	60.11	416.62	46.78
10TF01.577.15-1	259.42	15829.32	47.43	16.06	28.57	189.08	40.39	60.37	397.36	41.33
10TF01.577.15-2	214.52	15847.29	62.15	18.55	26.29	192.77	39.84	59.33	413.15	44.71
10TF01.577.15-3	317.41	16051.28	46.17	22.20	26.65	202.33	51.13	61.86	437.79	43.85
10TF01.577.16-1	310.78	16739.91	55.60	17.02	26.90	210.15	50.09	66.61	442.22	44.79
10TF01.577.16-2	88.91	16470.07	72.02	20.80	33.52	195.25	46.18	59.23	434.23	41.60
10TF01.577.16-3	249.06	15121.52	58.34	23.31	27.34	202.13	43.85	57.29	394.84	45.00
10TF01.577.17-1	281.84	14278.15	41.81	21.59	30.08	187.86	40.50	60.10	389.03	42.11
10TF01.577.17-2	356.76	15536.83	63.43	19.16	24.26	195.50	46.62	62.51	397.31	40.43
10TF01.577.17-3	369.34	14446.84	56.15	21.44	30.46	201.06	42.26	60.55	380.76	39.73
10TF01.577.18-1	334.71	14851.31	48.04	21.12	31.95	193.69	38.67	59.20	402.88	42.19
10TF01.577.18-2	234.59	14427.30	82.29	20.42	22.52	196.85	39.53	63.01	391.78	40.83
10TF01.577.18-3	230.07	14376.09	54.14	21.37	31.45	201.99	51.10	62.52	428.83	41.25
10TF01.577.19-1	170.34	13978.20	47.77	20.02	31.67	197.47	47.50	64.03	418.37	42.49
10TF01.577.19-2	146.33	14398.21	59.37	16.36	29.63	200.59	48.09	60.53	424.95	42.73
10TF01.577.19-3	242.53	14612.05	66.45	19.39	32.05	191.59	39.22	60.55	401.39	42.17
10TF01.577.2-1	269.27	16288.00	77.75	19.39	32.85	199.15	46.87	66.82	423.51	41.25
10TF01.577.2-2	212.27	15353.83	49.95	21.05	26.66	196.12	39.47	63.07	402.39	42.53
10TF01.577.2-3	259.69	16188.80	61.01	19.39	24.24	191.45	46.78	64.24	433.79	43.36
10TF01.577.3-1	282.87	15794.26	41.28	20.03	29.67	196.13	41.39	63.66	430.42	44.18
10TF01.577.3-2	311.92	15143.53	50.77	20.68	29.06	189.77	39.98	58.50	425.64	44.50
10TF01.577.3-3	203.60	15687.66	73.45	22.91	25.94	198.86	41.99	61.30	425.63	42.98
10TF01.577.4-1	189.45	16151.32	53.45	18.19	28.60	195.95	51.23	61.97	432.70	42.74
10TF01.577.4-2	170.80	15454.37	57.90	20.08	25.48	189.82	46.54	57.20	411.33	41.13
10TF01.577.4-3	215.30	14789.32	72.46	22.46	32.00	201.98	46.61	60.75	427.39	44.00
10TF01.577.5-1	305.40	16910.77	55.02	20.23	23.12	200.72	49.06	61.67	475.24	43.54

10TF01.577.5-2	266.77	15922.76	51.62	20.42	25.52	183.01	46.19	64.63	447.59	43.00
10TF01.577.5-3	183.23	18276.90	60.84	21.52	34.89	220.95	49.68	68.42	472.39	46.69
10TF01.577.6-1	309.89	16008.02	74.80	20.51	27.04	202.05	44.27	60.48	433.93	43.06
10TF01.577.6-2	308.44	14805.13	62.65	19.31	26.08	189.44	42.98	54.69	381.89	40.78
10TF01.577.6-3	317.52	17071.73	56.69	17.49	28.62	212.55	44.42	63.06	461.96	49.46
10TF01.577.7-1	208.56	12055.13	50.39	19.97	29.54	225.52	23.90	64.13	340.85	47.66
10TF01.577.7-2	155.15	15036.98	44.71	19.36	33.97	194.81	40.88	64.41	401.54	43.53
10TF01.577.7-3	275.44	15273.17	69.90	19.39	29.80	201.85	42.90	58.32	408.83	45.27
10TF01.577.8-1	203.66	14106.77	57.54	16.77	25.18	181.24	38.09	60.72	373.28	47.17
10TF01.577.8-2	305.08	14169.23	50.50	15.41	27.78	189.53	35.82	65.98	385.66	47.66
10TF01.577.8-3	343.37	14429.16	58.75	21.40	29.24	191.29	39.96	64.68	381.81	53.77
10TF01.577.9-1	354.88	16023.78	64.09	16.86	24.45	190.51	41.47	59.70	420.80	46.64
10TF01.577.9-2	180.26	16409.55	70.54	20.72	30.60	208.35	49.47	58.82	439.25	44.20
10TF01.577.9-3	274.01	16982.81	70.39	21.31	32.22	190.72	42.67	70.12	429.91	47.09
10TF01.uncat#10-1	195.37	14828.34	55.29	20.08	29.14	198.70	39.50	56.09	387.45	42.54
10TF01.uncat#10-2	229.61	14748.69	53.60	20.48	31.22	196.67	37.12	60.46	401.36	42.60
10TF01.uncat#10-3	286.76	15271.53	58.41	20.19	29.75	205.53	41.00	61.28	400.46	43.90
10TF01.uncat#1-1	281.12	14935.63	73.46	22.73	30.67	187.04	39.99	63.04	389.67	52.12
10TF01.uncat#11-1	294.56	14496.87	54.41	20.58	30.48	190.39	37.45	64.37	394.14	48.93
10TF01.uncat#11-2	304.82	14792.97	52.53	17.02	29.26	185.90	36.96	68.38	392.23	54.07
10TF01.uncat#11-3	123.60	15389.55	56.46	23.69	29.72	205.87	36.82	61.34	400.58	42.33
10TF01.uncat#1-2	248.80	14797.24	46.15	15.47	27.81	197.12	36.75	63.41	393.01	40.76
10TF01.uncat#12-1	371.53	14919.15	53.46	17.23	28.36	201.29	38.26	62.09	403.79	41.59
10TF01.uncat#12-2	197.76	15117.01	60.60	23.87	26.59	208.29	42.52	57.80	384.61	42.32
10TF01.uncat#12-3	171.78	13928.43	48.57	17.14	27.24	186.97	38.77	60.01	373.40	42.68
10TF01.uncat#1-3	241.21	14397.99	56.05	22.57	30.30	189.41	39.02	58.79	387.48	41.82
10TF01.uncat#2-1	268.37	16181.10	59.10	21.89	28.72	196.44	41.18	66.45	440.37	44.38
10TF01.uncat#2-2	238.63	16182.26	51.83	21.05	26.77	197.93	43.96	59.36	433.13	42.11
10TF01.uncat#2-3	250.20	16347.95	64.04	22.04	29.78	205.43	47.21	65.64	459.05	42.84
10TF01.uncat#3-1	285.75	15573.67	53.01	22.32	31.30	200.57	42.78	59.58	385.83	41.42
10TF01.uncat#3-2	265.09	15271.93	63.17	23.00	26.77	196.57	41.43	57.59	389.78	44.81

10TF01.uncat#3-3	221.87	14852.95	60.08	23.38	24.17	199.63	38.53	60.24	383.48	44.23
10TF01.uncat#4-1	207.38	16030.35	80.46	18.13	27.35	207.15	46.74	64.93	422.84	43.80
10TF01.uncat#4-2	285.39	15712.32	66.65	21.46	29.96	201.38	44.03	66.16	425.79	47.26
10TF01.uncat#4-3	252.77	15710.84	54.26	15.82	32.37	205.84	47.50	57.93	424.54	43.76
10TF01.uncat#46-1	400.71	19077.16	92.61	20.11	25.94	176.11	50.92	69.98	513.64	54.94
10TF01.uncat#46-2	458.49	18988.13	119.24	19.97	24.46	171.43	52.97	70.01	521.43	51.01
10TF01.uncat#46-3	393.95	17844.73	80.43	18.30	21.74	164.42	53.46	65.65	497.79	50.54
10TF01.uncat#47-1	211.09	15553.67	93.34	21.73	26.68	202.08	38.85	62.61	397.09	43.23
10TF01.uncat#47-2	231.58	15655.52	93.92	19.21	37.09	197.60	43.66	58.72	409.12	42.47
10TF01.uncat#47-3	242.79	15396.47	84.31	21.53	25.67	208.54	45.11	59.63	399.31	44.50
10TF01.uncat#5-1	206.95	15185.35	60.97	24.71	32.20	198.46	43.18	64.76	401.89	45.34
10TF01.uncat#5-2	242.72	15280.68	54.71	17.25	28.90	195.61	39.78	59.08	397.73	44.84
10TF01.uncat#5-3	195.83	14656.95	50.82	16.74	32.02	187.62	45.26	57.14	374.45	42.03
10TF01.uncat#6-1	345.86	17363.77	83.76	20.75	26.76	221.65	56.08	70.83	476.51	43.94
10TF01.uncat#6-2	259.25	17580.71	73.90	20.07	32.83	213.53	47.01	63.84	458.60	46.63
10TF01.uncat#6-3	157.70	21175.03	139.36	19.68	34.22	232.22	53.88	73.44	478.02	51.35
10TF01.uncat#7-1	314.91	16466.54	53.62	20.27	29.85	196.68	42.44	63.73	406.28	44.65
10TF01.uncat#7-2	393.30	15916.16	54.76	19.62	27.42	191.89	41.91	59.91	398.55	41.20
10TF01.uncat#7-3	253.84	15787.86	67.67	18.84	26.56	194.27	46.16	58.06	394.61	40.57
10TF01.uncat#8-1	252.67	15981.81	64.00	20.60	29.89	207.24	44.85	58.31	426.69	46.69
10TF01.uncat#8-2	275.94	15565.22	64.38	23.25	31.51	207.28	41.81	58.70	420.79	44.13
10TF01.uncat#8-3	118.80	15019.36	51.62	19.06	26.29	191.50	42.67	58.30	402.93	42.56
10TF01.uncat#9-1	214.42	14982.64	54.19	19.24	29.62	209.23	38.00	57.25	385.98	41.03
10TF01.uncat#9-2	231.53	14621.12	54.50	18.16	25.68	195.17	35.50	57.56	380.34	42.51
10TF01.uncat#9-3	346.44	15318.71	70.25	23.47	29.59	189.85	40.10	62.83	376.41	39.78
10TF01.unsorted#48-1	301.08	14118.17	51.14	20.76	27.74	198.33	47.27	58.34	398.90	39.57
10TF01.unsorted#48-2	163.22	14531.42	55.26	21.80	23.60	199.44	41.14	64.05	385.86	42.28
10TF01.unsorted#48-3	278.46	14982.32	70.66	17.47	27.47	206.01	44.49	61.17	406.67	42.00