

CRITICAL AREAS SITE RECONNAISSANCE STUDY

SNR COMPANY (FEBRUARY 2, 2017)



ENVIRONMENTAL, ECOLOGICAL, HYDROGEOLOGY, AND ENGINEERING GEOLOGY CONSULTANTS

June 6, 2016

Project Number: 05-016-010

BRC, Inc.

Attention: Ron and Ronda Shear

PO BOX 1373

Enumclaw, WA 98022

RE:

Preliminary Critical Areas site reconnaissance studies for the proposed BRC Enumclaw site, located in unincorporated King County, WA

Three undeveloped parcels, approximately 102.86 combined acres in size

38XXX Enumclaw Franklin Road SE, Enumclaw, WA 98022

King County Parcel Numbers: 3621069014, 3621069013, and 3621069004

Dear Ron and Ronda:

Thank you for asking SNR to conduct preliminary critical areas studies on three parcels BRC is considering purchasing in unincorporated King County, Enumclaw, Washington (subject property). The site is located on the eastern plateau of the Snoqualmie River Valley, Washington area as referenced above (Figure 1 – Site Location Map). To conduct the studies and prepare this report summarizing the studies and findings, SNR has conducted research, a site visit, and an interview of Ron Shear.

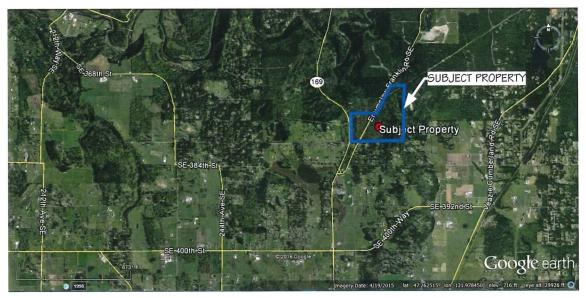


Figure 1 - Site Location Map

BRC, Incorporated is currently operating a recycling facility on a property located in unincorporated King County, at 28225 West Valley Hwy N, Auburn, WA 98001. The subject property is farmland owned by Jeffery Spenser, a local farmer and has been farmed since the late 19th century.

However, it is apparent that King County does not want the BRC operation to be located on the Spenser property or anywhere else in the Auburn area. This and other legal interference has led to BRC looking for vacant land to move the recycling/mulching operations to a more remote location in a rural area.

BRC is considering purchasing three parcels in the Enumclaw area to move the facility operations to (Figure 2 – Site Map). These parcels (subject property) are undeveloped and are located in an area zone RA-5 with a potential zoning classification of "M" (mineral). This classification is compatible with the proposed materials recycling and the production of mulch and soils/soil augmentation products from vegetation and other clean recyclable materials (such as stumps, logs, and other land clearing materials).

Page | 2 As can be seen on Figure 2, the subject property is comprised of three parcels that are bounded and bisected by roads which creates a somewhat irregular trapezoidal shape. It is bounded to the north by RA-5 parcels, to the west by RA – 10 parcels (and to the north and west by the Bass Lake Complex natural area), to the south by RA – 2.5 zone parcels and to the East by RA – 10 parcels (Figure 3 – Zoning Map).



Figure 2 - Site Map

The only known easements on the subject property are in the southwestern parcel for the King County Road, Enumclaw Franklin Road SE, which crosses this parcel diagonally. The subject property is located in the southeastern portion of the NEQ of Section 36 in Township 21N, Range 6E. The GIS coordinates for the southwestern corner of the subject property are LAT 47.259894° and LON -121.985645°, at an approximate elevation of 702 feet above mean sea level (Figure 4 – Site Air Photograph, April 2015).

The subject property is almost completely forested with what is generally interpreted as third growth forest with a remarkably well established understory of diverse dominantly upland vegetation and has a moderately dense tree canopy that is moderately diverse, and most dense in the southwestern portion of the subject property, most likely due to recovery after much earlier clear cut tree harvesting activities, which, based on historic air photographs were last conducted sometime before July 1998 (relatively near this time, because the area had not recovered at all in the July 1998 air photograph and was just beginning to recover by July 2003 as shown in Figure 5).

The area to the east was clear cut tree harvested sometime between April 2002 and July 2003, which is why there are no significant numbers of large trees in this area. However, this is a relatively dense understory already established in this eastern portion of the subject property.





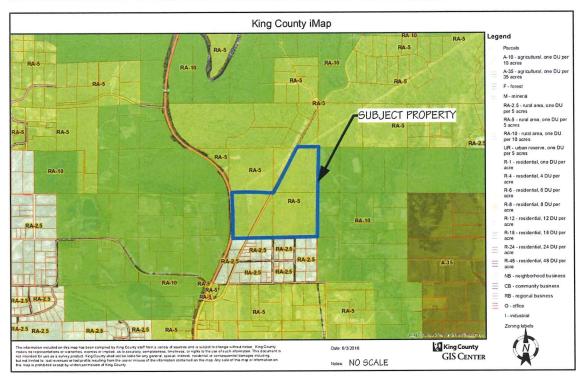


Figure 3 - Zoning Map from King County iMAP, 2016

The subject property is located in the south quarter of Section 2, Township 21 North, and Range 5 East; the northwest property corner is located at latitude 47.343518° and longitude -122.144743°, at an approximate elevation of 455 feet above mean sea level (ASL).



Figure 4 - Site on April 2015 Google Earth Air Photograph, 2016





Figure 5 - July 1998 Air Photograph from Google Earth, 2016

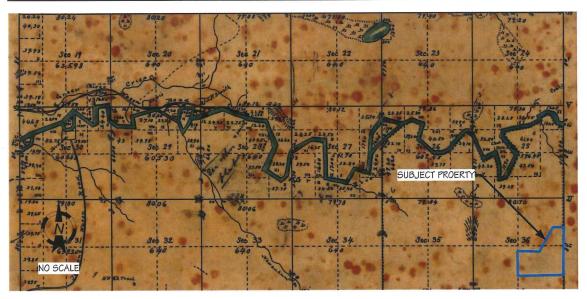
It should be noted that NO historic map (including King County iMAP) or current USGS topographic map suggests that wetland areas are present on the subject property, including the 1874 Land Office Map (Figure 6) and the 1913 USGS topographic map of the Cedar Lake Quadrangle (Figure 7) Even the United States Fish and Wildlife Service (USFWS) Wetland Inventory Map does not suggest any wetland areas or streams are present on the subject property (Figure 8).

As previously stated, even the King County Sensitive Areas map does not suggest that wetlands (or streams) are present on the subject property (Figure 9). The King County iMAP does suggest that potential erosion and coal mine hazards may exist on the eastern sloped areas of the subject property (Figure 10).

It should be noted that none of the historic air photographs (Figures 11 - 18) or maps (Figures 19 - 22) suggest any mines, wetlands, streams or other critical areas are located on the subject property as of 2016 now that the site has been completely revegetated after historic clear cut tree harvesting activities. The geologic map (Figure 23) of the area does show historic coal mine locations in the area, but does not suggest any mines are located on the subject property. It should also be noted that LiDAR imagery (Figure 24) from the King County LiDAR "Swipe Viewer" does not suggest any mining tailings or potential open pit or mine shafts are located on the subject property and field reconnaissance activities did not reveal the presence of any mines, although there was at least one small potential exploratory hole excavated in the eastern portion of the subject property (Figure 25).

None of SNR's research or observations made during the May 22, 2016 (including test pit observations excavated with a mini-trackhoe) site reconnaissance suggested that any critical areas are present on the subject property. There is no evidence that the subject property has been used for anything other than forest land based on the historic maps and air photographs and there was no evidence of any significant site disturbances other than those associated with clear cut tree harvesting activities.





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Figure 6 - From the 1874 Land Office Map T21N R6E (Sec 36)

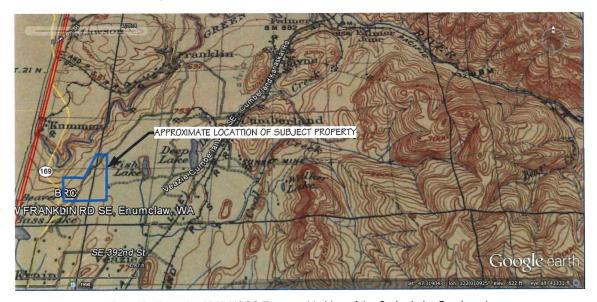


Figure 7 - From the 1913 USGS Topographic Map of the Cedar Lake Quadrangle

None of the historic maps, including the USGS topographic maps that will typically show known mines suggest that wetlands, streams, or mines are located on the subject property. There is no suggestion of alluvial fans being created due to slope erosion, nor is there any suggestion of landslide activity. There are small, possibly kettle, ponds and lakes present in the vicinity of the subject property but none are close enough to the subject property to influence the subject property with potential aquatic areas buffers.

The USFWS Wetland Inventory map (Figure 8) does not suggest any wetlands are present on the subject property, nor does it suggest that any wetlands are located in the immediate vicinity of the subject property.



The map does suggest that there is a small manmade pond located to the east of the northeastern portion of the subject property. This pond may be associated with the Kummer No 0 Mine (suggested to be an open pit mine) that the geologic map suggests is located to the east of the northeastern portion of the subject property.



Figure 8 - From the USFWS Wetlands Mapper, Wetland Inventory Map

Regardless, there are no wetland areas shown to be present on the subject property for a reason, because wetland hydrology is not present. Although King County suggests that the manmade pond to the east of the subject property is a wetland, it is clear that this is a manmade feature that did not exist in the historic maps and is not shown to be a wetland on the Wetland Inventory Map (most likely because it is manmade). It is also clear that there were no natural ponds or wetlands located in this area since 1874 (the Land Office Map – Figure 6).

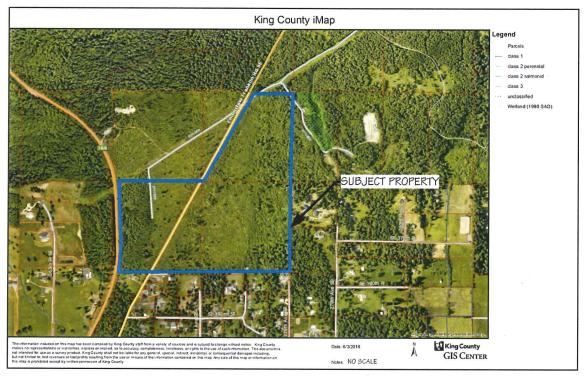


Figure 9 - King County Sensitive Areas Map with Wetland and Stream Layers turned on, from King County iMAP, 2016



Figure 10 – King County Sensitive Areas Map with Coal Mine Hazards and Erosion Hazards Layers turned on, King County iMAP, 2016

The King County Sensitive Areas map with coal mine and erosion hazards layers turned on suggest potential coal mine hazards are present in the northeastern corner of the subject property and that potential erosion hazards exist in the southeastern portion of the subject property.

None of the USGS topographic maps suggest a coal mine is present anywhere on the subject property, but the geologic map, presented later in this section suggests that there is a potential open pit mine located to the east of the northeastern portion of the subject property (Kummer No 0 Mine). The geologic map also suggests that a tunnel mine may pass through the subject property (Kummer No 4?) which is questionable and is based on insufficient information and is purposely dashed and includes question marks because there is no supporting information that this mine extends into this area.

Slope erosion hazards are actually based on agricultural land studies where the land has been disturbed by plowing. In reality, erosion hazards, especially on bedrock materials that are heavily vegetated with understory shrubs and herbs and a moderate, recovering tree canopy rarely present erosion hazards unless these areas have been heavily disturbed by human activities.

There is no evidence on any map, air photograph, LiDAR imagery, or in the field that any slope erosion potential exists anywhere on the subject property and the deposits in the areas with the steeper slopes are well indurated bedrock deposits that are very old and have been uplifted into this area due to the unique structural geology of the area. These materials are not subject to rapid erosion and stand out geomorphologically because they are resistant to erosion.



Even if development activities were conducted in these areas, and the vegetation were cleared, it is very unlikely that these relatively minor slopes would be subject to much erosion. However, any disturbance of the ground surface that is an acre or more in size (combined for the entire project) requires a general construction NPDES permit which requires erosion and sediment controls be used and that runoff from these areas be monitored until the site is completely stabilized as it is now.

Page | 8 There are no current erosion hazards present on the subject property and the only known mine that exists in this are (Kummer No 0), which is believed to be an open pit mine is shown to be located east of the northeastern portion of the subject property and is NOT located anywhere on or in the immediate vicinity of the subject property.



Figure 11 - June 2002 Air Photograph from Google Earth, 2016



Figure 12 - July 2003 Air Photograph from Google Earth, 2016





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Figure 13 - July 2005 Air Photograph from Google Earth, 2016

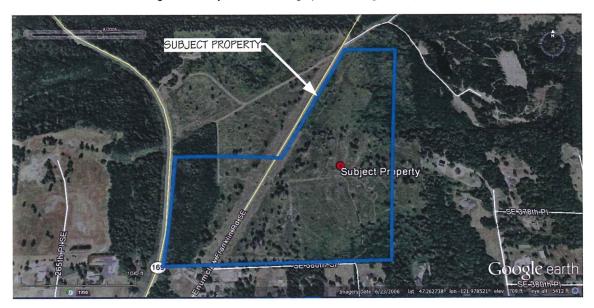


Figure 14 - August 2006 Air Photograph from Google Earth, 2016

As can be seen in the historic air photographs the subject property and vicinity was subject to clear cut tree harvesting activities at different times in different areas, with the western portion of the subject property being clear cut before the eastern portion of the subject property was clear cut.

This is why the western portion of the subject property appears to have a much more developed forest than the eastern portion and has nothing to do with hydrology or soils. However, the clear cut tree harvesting activities did include the removal of all understory, which made the ground surface visible between the different tree harvesting events. This makes it easier to observe the actual ground surface and to see any potential significant ground disturbances (including logging roads) and any potential wetland areas.



It is clear that there are no critical areas observable in any air photograph and none of the historic maps, or other maps, including LiDAR imagery suggests that any critical areas are present on the subject property, which was field verified during the site reconnaissance activities.



Figure 15 - May 2009 Air Photograph from Google Earth, 2016



Figure 16 - August 2011 Air Photograph from Google Earth, 2016

It should be noted that the air photographs can be deceiving regarding the vegetation. The most recently harvested area appears to be less vegetated than it really is on the ground. The site reconnaissance activities clearly indicate that the majority of the subject property is well vegetated, although the tree canopy in the eastern portion of the subject property is still relatively sparse and the trees are obviously relatively young.



As would be expected the dominant trees in the eastern portion of the subject property are deciduous, although there are quite a few young conifers present in this area, with the Douglas fir being one of the most common, although Western Hemlock and even some Western red cedar "saplings" were observed in the eastern portion of the subject property as were some larger "nurse" trees.



Figure 17 - May 2013 Air Photograph from Google Earth, 2016



Figure 18 - April 2015 Air Photograph from Google Earth, 2016

There are not many 1:24.000 USGS topographic maps for this area of Washington, however, the few that exist are all presented in this report. It is more difficult to locate the subject property accurately on the older maps because some of the modern day landmarks are not present and the maps had to be located relative to what landmarks exist and per the property's location on the PLSS maps.



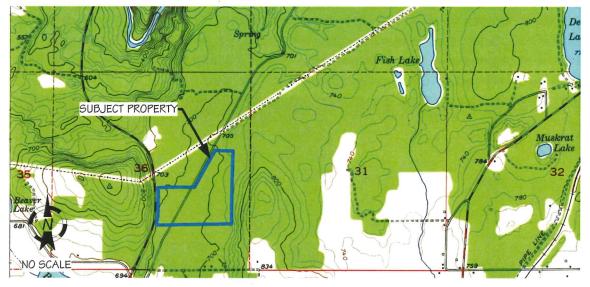


Figure 19 - From the 1953 USGS Topographic Map of the Cumberland Quadrangle

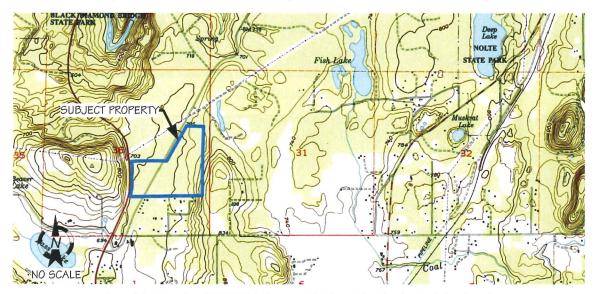


Figure 20 - From the 1993 USGS Topographic Map of the Cumberland Quadrangle

Interestingly, the USGS topographic maps do not show the actual mines (or suspected mine) in this area that are shown on the USGS geologic map, however, the geologic map that SNR used for this report was specifically prepared to show actual and suspected locations of coal mines in the Cumberland, Hobart, and Maple Valley quadrangles.

This geologic map also includes much more details on the structural geology of the area, which is essential since virtually all coal deposits are found in much older "Tertiary" deposits that have undergone some form of low grade metamorphism. These deposits are typically only found in areas where there are significant structural controls from faulting and folding and almost always suggest that there is en echelon faulting in the area.



However, the subject property is located in a relict glacial meltwater drainageway, which may be associated with normal faulting resulting in the creation of Horst and Graben geomorphology. Oddly, the geologic map suggests that the deposits on the subject property are glacial till deposits, however, the test pit observations made during the site reconnaissance suggest that the deposits are recessional outwash deposits or are associated with the Osceola mudflow deposits.

The Osceola mudflow deposits were historically misinterpreted to be glacial till deposits until the early 1990s when it was discovered that the Mount Rainier edifice was missing a large segment and studies were conducted to determine if there was an associated lahar event. This led to the discovery of one of the world's largest lahar flows, the Osceola mudflow, which blanketed much of the Enumclaw area.

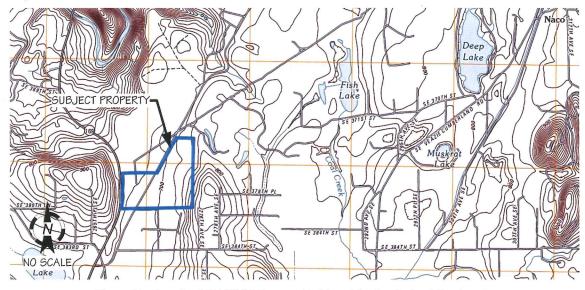


Figure 21 - From the 2011 USGS Topographic Map of the Cumberland Quadrangle

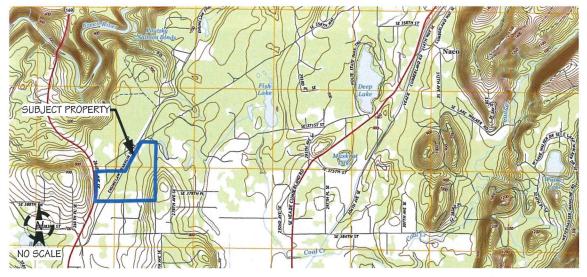


Figure 22 - From the 2014 USGS Topographic Map of the Cumberland Quadrangle



The geologic map of the area (Figure 23) was prepared before the discovery of the Osceola mudflow and this is most likely why it suggests the glacial till (Qt) blankets the area where the subject property is located. However, this is inconsistent with the geomorphology of the area, especially when this area is located very close to the Green River which was one of the more significant "pathways" followed by this enormous lahar event.

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There is evidence of the lahar deposits in the well logs for this area and it is very likely that more recent, smaller Mount Rainier lahar flows blanket the Osceola mudflow deposits in many areas located in the proximity of the rivers that originate in the Cascade Range. These more recent lahar flows are often seen as relatively clean, well sorted fine sands and in many cases these materials were deposited by outburst flooding when dammed rivers finally caused the lahar flow created dams to fail.

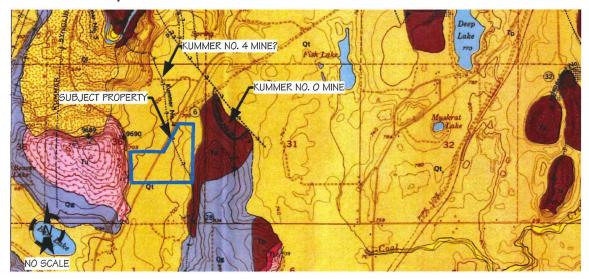


Figure 23 – From Geology and coal resources of the Cumberland, Hobart, and Maple Valley quadrangles, King County, Washington, 1969, Vine, J.D., US Geological Survey

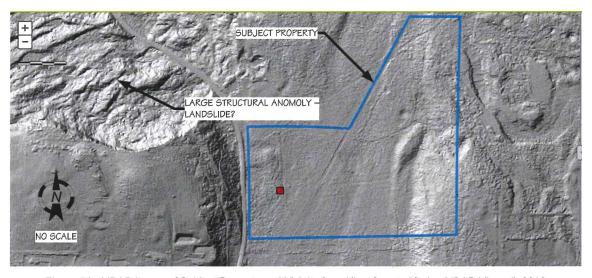


Figure 24 - LiDAR image of Subject Property and Vicinity from King County "Swipe LiDAR Viewer", 2016



Although the site reconnaissance activities were not exhaustive and due to the relatively dense vegetation on the subject property and it's relatively large size. This is why topographic and other maps as well as LiDAR imagery were used in the field to focus on areas of interest, including some minor geomorphological anomalies suggested to be present in the LiDAR imagery (Figure 25).

This led to an area where some minor exploratory test pit excavations had been made and a somewhat unusual mound around a historic tree stump (Figure 26) associated with a relatively small anomaly (which appeared to be a small, round depressional area), located north of a much larger structural anomaly, that appears to be fault induced.





Figure 25 - Exploratory Excavation into Bedrock Material

It is unclear why the small exploratory test pits observed during the site reconnaissance were conducted for, but the materials observed in the test pit were interpreted to be older, "bedrock" deposits that were moderately metamorphosed. These were covered with very gravelly, poorly sorted materials that could be associated with historic lahar deposits based on the elevation of these test pits, however, it is also possible that this is a thin veneer of recessional outwash deposits.

The round anomaly could not be interpreted because there was insufficient time and lack of equipment to conduct some exploratory test pits. It is clear that a moderately sized tree was located in the center of this anomaly, but what is somewhat puzzling is the presence of what appears to be bedrock materials that had been crushed and placed around this anomaly and on an access road to this area. It is possible that this area was used as a landing area during the more recent clear cut tree harvesting activities in the eastern portion of the subject property. The larger anomaly located south of this round anomaly was not studied due to lack of time and equipment, however, it appears that part of the hillslope has been separated due to possible folding and faulting in this structurally complex area.







Figure 26 - Photograph of small, round anomaly observed on LiDAR imagery

There was no evidence of mining tailings or of coal anywhere where the site reconnaissance activities were conducted. There was also, obviously no evidence of mine shaft openings, ventilation shafts or other evidence of subsurface (or surface) mining on the subject property. All of the slopes were well vegetated and there were no rills or other features that suggested any erosion was occurring on this well vegetated site. Additionally, the materials that are on these slopes are not conducive to erosion, especially with the amount of vegetative cover on the entire property.

SNR's site reconnaissance studies covered as much of the property as possible in one day and SNR did observe one test pit in the oldest forested portion of the subject property in an area that was well vegetated with third growth forest vegetation. This included the area located west of Enumclaw Franklin Road Southeast, in an area where a stand of young cottonwood were observed to be present, however, the dominant ground cover was forest upland plants, with significant coverage by trailing blackberry (*Rubus ursinus*) – FACU. The transects and test pit(s) locations are shown on Figure 27 and a photograph of the test pit excavated as Test Pit 1 is shown as Figure 28.

The soils in this area are formed in gravelly, cobbly, silty, moderately sorted medium to coarse sands that were well drained. This is located at one of the lowest elevations on the subject property.



Field observations along transects selected in the field indicated that this recovering forest has moderate to high plate diversity, especially in the understory (shrubs and herbs). The tree canopy is less diverse at this time with most trees being less than 15 years old and is mostly dominated by deciduous trees, although there is a significant amount of young conifers present. There were no wetland areas observed in this area or anywhere else on the site, nor were any other critical areas observed, including potential geologic hazards.

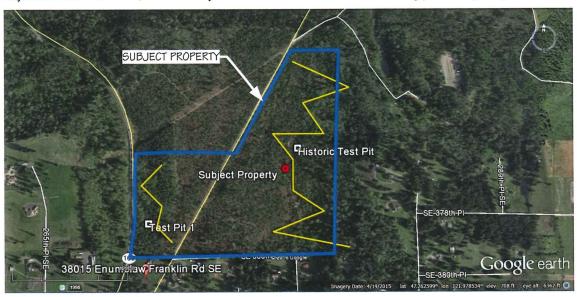


Figure 27 - Air Photograph showing Test Pit locations and transects



Figure 28 - Test Pit 1



As previously discussed, the western portion of the subject property is maturing into a relatively well diverse forest as shown in the photographs taken in this area shown as Figures 29 - 31.



Figure 29 - Photo of shrubs and trees in southwestern portion of the Subject Property



Figure 30 - Photo taken in southern portion of the subject property showing shrub and herbs





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Figure 31 - Photo taken in western portion of the subject property showing canopy and understory

The site reconnaissance studies did not allow time for any significant hydrogeologic studies, however, well logs were obtained from the Washington State Department of Ecology (Ecology) well log database for this area. None of the well logs for this area suggest that any at or near surface ground water aquifers are present and that a significant number of the aquifers used as drinking water aquifers in this area are in confined aquifers and these aquifers and any unconfined aquifers were encountered at depths greater than 50 feet below the ground surface. None of over 120 wells in this area intercepted any near or at surface perched ground water aquifers nor would any be expected to be present based on the subsurface geology suggested to be present by SNR's interpretation of the well logs. This indicates that there is no potential source for wetland hydrology in this area.

Fourteen of the well logs for water wells located closest to the subject property are included in Appendix A of this letter report.

FINDINGS

The subject property is undeveloped forest land located in a rural area of the Enumclaw area of unincorporated King County. It consists of three somewhat irregular parcels forming a trapezoidal shape partly due to the County and state roads that bound and pass through portions of the property.

It is located in what would geomorphologically be called a graben bounded by uplifted older bedrock horsts to the west and east. The older, uplifted bedrock is associated with coal deposits which are found throughout this structurally complex area, especially in area such as Black Diamond and even Newcastle (where Coal Creek is located).



The subject property is located in an area where historic relict glacial meltwater once flowed as rivers and streams which is why the deposits at the lower elevations appear to be recessional outwash deposits that may include historic Mount Rainier lahar deposits, including lahar deposits from one of the largest lahar flows in the world, the Osceola mudflow, which occurred approximately 5,600 years ago.

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Being forest land, the subject property has been clear cut at least three times, with the most recent clear cut three harvesting activities having occurred in the western portion sometime around 1998 and in the eastern portion sometime around 2003.

This "offset" tree harvesting creates two distinct forested areas today, with the western portion of the subject property being much more densely forested than the eastern portion, although the entire property is well vegetated and has already become populated with a relatively diverse plant community, especially in the understory (shrubs and herbs) a developing tree canopy, that is dominated by deciduous trees, although conifers are plentiful, but none are more than 20 years old (with the oldest conifers being present in the western portion of the subject property (west of Enumclaw Franklin Road Southeast).

The lowest topographic elevations are located in the southwestern portion of the subject property and the highest are located near the eastern property line, where the up thrust older "bedrock" deposits are located, which is associated with coal deposits, with at least one relict coal mine being located east of the northeastern portion of the subject property.

SNR's research also suggests that in addition to "open pit" mining, subsurface "mine shaft" coal mining has been conducted in the area, however, the locations of most of the mine tunnels in this area are unknown, although the geologic map suggests that there is a possibility that a mine shaft passes through the eastern portion of the subject property, there is no definitive evidence that this shaft actually exists nor is there any indications of mine openings on the subject property or mine shaft vents being present.

There is no evidence of mine tailings or of the surface features that would be associated with mining activities, including processing areas, stockpile areas, or transport area for moving coal from the site to the product distribution areas. There is no evidence in historic maps, air photographs (including air photographs taken after clear cut tree harvesting had been conducted), or in the LiDAR imagery that any coal mines are present on the subject property and based on the inaccuracies of historic mining maps and the changes in datums since the 19th century, it is often unclear where the historic mine shafts were actually located, but it is anticipated that these mines would be located near the base of the old, up thrust, "bedrock" deposits, especially to the west, where the coal deposits tended to be thicker and more well defined.

Considering the subject property has been completely clear cut at least three times it is unlikely that relict coal mines are present on the subject property, especially since there are no areas on the site that were avoided when the most recent clear cut tree harvesting activities were conducted (around 1998 and 2003).

The areas King County suggests may be prone to erosion hazards are in areas where the surface deposits are derived from the bedrock deposits, which are comprised of low grade metamorphic materials that are rarely considered to have any significant erosion potential. Additionally, these slopes are not significantly steep (with an average general slope of 12% to the west) and are well vegetated which makes these slopes particularly resistant to erosion and Horton overland flow and storage.



There were no rills or gullies observed in the eastern sloped area of the subject property and the length of the slope (distance from the toe of the slope to the drainage divide at the top of the slope) generally averages only 600 feet, which limits the amount of runoff that can be generated on the slope even after clear cut tree harvesting activities have been conducted which would increase runoff by up to 75%.

There was no evidence of alluvial fans or mass wasting on or at the base of the eastern slope area, nor was there any evidence of sloughing, or any other evidence of erosion occurring on these now, moderately to well vegetated slopes.

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This suggest that even if clearing and grading were conducted on these slopes, the risk of erosion would be low, however, as is the case with all land disturbances of greater than one acre (combined), any clearing and grading activities would require a general construction stormwater NPDES permit which would require the implementation of erosion and sediment controls until the site is completely stabilized. This means that the potential for erosion being created on the site or the presence of any erosion hazards on the undisturbed slopes is extremely low to non-existent.

SNR also conducted relatively extensive research and a site reconnaissance that was detailed enough to identify potential wetland areas, with the site reconnaissance studies focusing on the areas that would have the highest probability of having wetland features present (although none of these features were identified in any maps, air photographs, or LiDAR imagery and the well logs for this area do not indicate that any near or at surface unconfined aquifers are present.

In general the site was observed to have the characteristics of uplands that included dominant upland vegetation in the areas where the site reconnaissance transects were conducted. This site is somewhat because of the relatively recent clear cut tree harvesting activities, the historic air photographs provided imagery of what was practically bare earth images which could be observed over time and none of this imagery nor the bare earth LiDAR imagery suggested that any potential depressional wetland areas are present (or any other types of wetlands).

The topographically lower areas with gravelly, cobbly, sands did have relatively small stands of young cottonwoods, which would be expected in this area because it is where there is the highest probability of subsurface unsaturated preferential flow on much deeper less permeable materials. Cottonwoods extend long roots through easily penetrable deposits to intercept these deeper unsaturated zone flow zones, especially in excessively drained surface deposits.

The dominant understory vegetation was upland vegetation with much of the ground surface being covered with trailing blackberry, sword fern, and other upland plants. The trees on the site were all young (less than 20 years old) with extensive regrowth of both conifers and the more rapidly growing deciduous trees, all of which were distributed in a manner consistent with a recovering forest that has been used for tree harvesting activities for at least 120 years.

The subject property is located in a rural, relatively sparsely developed area with the highest density residential use being rural 2.5 (one house per 2.5 acres), however, most of the area is zoned rural 5 (one house per 5 acres) and rural 10 (one house per 10 acres).



The western portion of the subject property has a county road (Enumclaw Franklin Road Southeast) passing through the property and this road bounds the western boundary of the eastern portion of the subject property. Additionally, the subject property has relatively easy access to SR 169 where Enumclaw Franklin Road Southeast intersects this highway approximately ¼ mile southwest of the subject property and the western boundary of the subject property bounds this highway for approximately 1,200 feet.

Page | 22 This suggests that there are several points of road access to the subject property, with most of this access being high visibility (no obstructions or sharp curves). This suggests that the subject property is a viable option for BRC to use as a future recycling/mulching facility, especially since there is no indication that there are any critical areas located on the subject property based on the research and site reconnaissance activities conducted to prepare this report and to make these findings.

Thank you for requesting this study and report from SNR, if you have any questions, or require more information, please contact me at your convenience at 425-788-3015 or on my cell at 206-291-5556.

Sincerely, SNR COMPANY

Steven F. Neugebauer Principal Hydrogeologist

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Hydrogeologist 347

Steven F. Neugebauer

Engineering Geologist 347

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References

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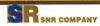
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APPENDIX A – WELL LOGS FOR WATER WELLS LOCATED IN THE VICINITY OF THE SUBJECT PROPERTY



C. C. C. C. ATER NEL	Gnique Well I.D. ∦
STATE OF W (1) OWNER: Name COLE, BARRY Address 27046	ASHINGTON Water Right Permit No.
(2) LOCATION OF WELL: County KING (2a) STREET ADDRESS OF WELL (or nearest address) 27046 SE 384 ST.	- SN 1/4 SE 1/4 Sec 36 T 21 N., R 6 WM
(3) PROPOSED USE: DOMESTIC	(10) WELL LOG 21 - 6 - 36 Q
(4) TYPE OF WORK: Owner's Number of well (If more than one) MEW WELL Method: MOTARY	Formation; Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with
(5) DIMENSIONS: Diameter of well 6 inches Drilled 100 ft. Depth of completed well 100 ft.	HAMPPOTAL FROM ! TO
(6) CONSTRUCTION DETAILS: Casing installed: 6 " Dia. from 0 ft. to 100 ft. " Dia. from ft. to ft. " Dia. from ft. to ft.	TOPSOIL BOOM CHOSTED SAID & GRAVEL BOUG CHOSTED SAID & GRAVEL BLUE CHASTED SAID & GRAVEL BATER BARRIES SAID & GRAVEL 80 100
Perforations: NO Type of perforations SIZE of perforations perforations from ft. to ft.	
Screens: NO Manufacturer's Name Type Djam. slot size from ft. to ft. Dlam. slot size from ft. to ft.	RECEIVED OCT 02 1996
Gravel packed: NO Size of gravel Gravel placed from ft. to ft. Surface seal: YES To what depth? 10 ft. Material used in seal BEFFCHITE CLAY Did any strata contain unusable water? NO Type of water? Hethod of sealing strata off NA	DEPT. OF EUULUGY
(7) PUNP: Manufacturer's Hame Type N/A H.P.	
(8) WATER LEVELS: Land-surface elevation above mean sea level ft. Static level 12 ft. below top of well Date 06/26/96 Artesian Pressure lbs. per square inch Date Artesian water controlled by M/A	Nork started 06/25/96 Completed 06/26/96
(9) WELL TESTS: Drawdown is amount water level is lowered below static level. Was a pump test made? IN If yes, by whom? Yield: gal./min with ft. drawdown after brs.	WELL CONSTRUCTOR CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Mashington well construction standards. Naterials used and the information reported above are true to my best knowledge and belief.
Recovery data Time Water Level Time Water Level Time Water Level	NAME WORTHWAST POWP & DRILLING (Person, firm, or corporation) (Type or print) ADDRESS 3246 THROUGH WAY STOTE
Date of test // Bailer test gal/min. ft. drawdown after hrs. Air test 100 gal/min. w/ stem set at 100 ft. for 1 hrs. Artesian flow g.p.m. Gate Temperature of water Was a chemical analysis made? MO	[SIGNED] La License No. 0097



Driller/Engineer/Trainee Signature

If TRAINEE, Driller's Licensed No Driller's Signature

		21.6	E-3	
WATER WELL DEPORT	CURRENT		. –	
WATER WELL REPORT Original & 1" copy – Ecology, 2" copy – owner, 3" copy – driller	Notice of Intent No. 4244660			
TOTAL STATE OF THE	Unique Ecology Well ID Tag NoAPR			
Construction/Decommission ("x" in circle) 260685				
Construction	Water Right Permit No.			
O Decommission ORIGINAL INSTALLATION Notice of Intent Number	- 1	ren		
•	Well Street Address 27054 5E		51_	
PROPOSED USE: Dornestic	City Evunciaw County k			
FYPE OF WORK: Owner's number of well (if more than one)	Location SW/4-1/4 SE/4 Sec 36 Twn 21		circle	
New well □ Reconditioned Method: □ Dug □ Borod □ Driven	WWW one			
□ Deepened □ Cable □ Rotary □ Jetted	Lat/Long (s, t, r Lat Deg Lat Min/Sec			
DIMENSIONS: Diameter of well	Still REQUIRED) Long Deg Long	ng Min/Sec		
CONSTRUCTION DETAILS	Tax Parcel No. 7215500190			
Casing Welded C "Diam from O ft. to 54 ft.				
Installed: Installed (Diam. from _ 1	CONSTRUCTION OR DECOMMISSION			
Perforations: Pres No	Formation: Describe by color, character, size of material and nature of the material in each stratum penetrated, with at least			
ype of perforutor used Saw	information. (USE ADDITIONAL SHEETS IF NECES			
SIZE of perfs 1/8 in. by 3 in. and no. of perfs 100 from 250 ft. to 340a.	MATERIAL	FROM	то	
icreens:	Sunface	6	_3_	
Vanufacturer's Name Model No.	Sand- gravel - brown	3	9	
Diarm. Slot size from ft. to ft.	Hardpan-brown	-9	29_	
Diarri. Slot size from ft. to ft.	Saech-gravel-brown	29	35	
Fravel/Filter packed: ☐ Yes ❷ No ☐ Size of gravel/sand	Hardpan-grax	3.5	170	
	Rasult- black	170	210	
Surface Seal: 2 Yes No To what depth? 8 ft. Material used in seal heptonile	Sandstone-aray	210	290	
Did any strate contain unusable water?	Shale-cray-water	290	310	
Type of water? Depth of strata	Shala-aray-soft	310	370	
Method of sealing strata off	<u> </u>			
PUMP: Manufacturer's Name	Shale cave in	365	370	
Гуре:Н.Р				
WATER LEVELS: Land-surface elevation above mean sea level ft.				
Static level 30 ft. below top of well Date 41-6-07				
Artesian pressure lbs. per square inch Date Artesian water is controlled by				
(cap, valve, etc.)		/ ·		
WELL TESTS: Drawdown is amount water level is lowered below static level	RECEI	ED		
Was a pump test made? ☐ Yes PNo 1f yes, by whom?	APR 233	007		
Yield: gal/min. with ft drawdown after hrs. Yield: gal/min. with ft drawdown after hrs.	AFR 2.3 2007			
Yield: gal./min. with fl. drawdown after hrs.	DEPT OF EC	DLOGY		
Recovery data (time taken as zero when pump turned off) (water level measured from well op to water level)				
Time Water Level Time Water Level Time Water Level				
Date of test				
Bailer test gal./min. with ft. drawdown after hrs. Arriest gal./min. with stem set at 320 ft. for 2 hrs.				
Artesian flow g.p.m. Date				
Temperature of water Was a chemical analysis made?				
110	Start Date 3-29-07 Complet	ed Date 4 -	4-07	

ECY 050-1-20 (Rev 3/05) The Department of Ecology does NOT warranty the Data and/or Information on this Well Report.

Contractor's JOHUS DC2 078M



Ecology is an Equal Opportunity Employer.

(4) TYPE OF WORK:

MEN WELL

(8) WATER LEVELS:

Start Card No. Unique Well I.D. Water Right Permit No. WATER WELL REPORT N 064774 STATE OF WASHINGTON EMDINCLAW, WA 98022-21/6/36 R 38017 274 AVE SE (1) OWNER: Name FONG, DALE (2) LOCATION OF WELL: County KING
(2a) STREET ADDRESS OF WELL (or nearest address) 38017 274 AVE SE, - SE 1/4 ENUNCLAN SE 1/4 Sec 36 T 21 N., R 6 (3) PROPOSED USE: DOMESTIC (10) WELL LOG Pormation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation. Owner's Number of well (If more than one) Nethod: ROTARY (5) DIMENSIONS:
Drilled 100 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6
WELDED Diameter of well 6 Depth of completed well 100 MATERIAL TO TATEMAL

TOPSOIL

BROWN CLASSITED SAND & GRAVEL

BROWN CLAY W/OCC GRAVEL

WATER BEARING SAND & GRAVEL 3 58 90 100 ft. to 100 ft. to ft. to ft. ft. Perforations: NO
Type of perforator used
SIZE of perforations
perforations from
perforations from
perforations from in. by ft. to ft. to ft. to in. Screens: NO
Manufacturer's Name
Type
Diam. slot si
Diam. slot si Model No. slot size Gravel packed: DO Gravel placed from Size of gravel RECEIVED Surface seal: YES,
Material used in seal PRIFOWITE CLAY
Did any strata contain unusable water? NO
Type of water?
Method of sealing strata off N/A

(7) PUMP: Manufacturer's Name
Type N/A

H.P.

(a) Compositions alegation JUN 27 1996 ft. DEPT. OF EUULUGY WATER LEVELS: Land-surface elevation above mean sea level.
Static level 28 ft. below top of well be Artesian Pressure | lbs. per square inch | De Artesian water controlled by M/A Completed 03/12/96 Work started 03/12/96 WELL COMSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief. (9) WELL TESTS: Drawdown is amount water level is lowered below static level.

Was a pump test made? NO If yes, by whom?

Yield: gal./min with ft. drawdown after hrs

Recovery data Time Water Level Time Water Level Time Water Level Date of test / f
Bailer test gal/min. ft. drawdown after
Air test 100 gal/min. w/ stem set at 100 ft. for 1
Artesian flow g.p.m. Was a chemical analysis m Was a chemical analysis made? NO

NAME MORTHWEST PORP & DRILLING (Person, firm, or corporation) (Type or print) ADDRESS 3245 LODGED MAY SOUTH [SIGNED] Bullemu = License No. 0097 Contractor's Registration No. MORTHPD137PO

Date 03/16/96

hrs.

RSNR COMPANY

ENTERED Start Card No. Unique Well I.D. / Water Right Permit No. W 065019 STATE OF WASHINGTON ENUNCIAN, WA 98022- 21-6-36R SE 1/4 Sec 36 T 21 N., R 6 WM (1) OWNER: Mame RADSCHEMBERG, DAVID Address 38010
(2) LOCATION OF WELL: County KING
(2a) STREET ADDRESS OF WELL (or nearest address) 38010 272 AVE SE, 38010 272 AVE SE (3) PROPOSED USE: DOMESTIC (10) WELL LOG (4) TYPE OF WORK: Formation: Describe by color, character, size of material and structure, and show thickness of aquirers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation. Owner's Number of well (If more than one) Method: ROTARY NEW METT (5) DIMENSIONS: Drilled 100 Diameter of well 6 Depth of completed well 100 inches ft. MATERIAL TO TOPSOIL
BROWN CERESTED SAND & CRAVEL
BLUE GLACIAL TILL
BATER BEARING SAND & GRAVEL 1 42 90 100 (6) COMSTRUCTION DETAILS: Casing installed: 6 42 90 ft. to 100 ft. to ft. to " Dia. from 0 " Dia. from " Dia. from Perforations: MO
Type of perforator used
SIZE of perforations
perforations from
perforations from
perforations from in. Screens: NO Manufacturer's Name Model No. from from Type Diam. Diam. ft. to Size of gravel Gravel packed: NO Gravel placed from Surface seal: YRS. To what depth? 18
Material used in seal BESTONITH CLAY
Did any strata contain unusable water? NO
Type of water?
Wethod of sealing strata off N/A

(7) PUMP: Manufacturer's Name
Type N/A

H.P. 27 WATER LEVELS: Land-surface elevation above mean sea level ... ft.
Static level 23 ft. below top of well Date 03/14/96
Artesian Pressure | bs. per square inch Date Artesian water controlled by 11/1 (8) WATER LEVELS: Completed 03/14/96 Work started 03/13/96 WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief. (9) WELL TESTS: Drawdown is amount water level is lowered below static level.
Was a pump test made? NO If yes, by whom?
Yield: gal./min with ft. drawdown after hrs Recovery data
Time Water Level Time Water Level Time Water Level (Person, firm, or corporation) (Type or print) ADDRESS 3245 ADDRESS WAY SOUTH Date of test / Min. ft. drawdown after hrs.
Air test 60 gal/min. w/ stem set at 100 ft. for 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? NO [SIGNED] Relemmer License No. 0097 Contractor's Registration No. MORTHPD137FO Date 03/16/96



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File Oriennal and First Copy with - 1// a f	WATER WELL REPORT		Application No.		
Department of Ecology Second Copy — Owner's Copy Third Copy — Driller's Copy		ASHINGTON	Permit No.	21691-P	
P 1 1	emolif	/1.1b. CE			
	***************************************	Address			
(2) LOCATION OF WELL: County			CHX 36 T-21 N		
	14	ast & 800 ft, North o		ec. 36	
(3) PROPOSED USE: Domestic Indi	to the same time and the same time to the same time time to the same time time to the same time time time time time time time ti	(10) WELL LOG:	***********		
		Formation: Describe by color, character show thickness of aquifers and the kind stratum penetrated, with at least one of	i and nature of the mi entry for each change	structure, and sterial in each of formation.	
(4) TYPE OF WORK: Owner's number of (if more than one)	of well	MATERIAL	2 FRO		
New well () Method Desputed	Cable Driven	alacial Till wit	LI BINDER	2 - 40	
Reconditioned [Rotary Jetted	/			
(5) DIMENSIONS: Diameter of w	all g inches	compact 3prov	9 Car 4	0 00	
Drilled 60 ft. Depth of complete		- Walter Die	rag	1	
(6) CONSTRUCTION DETAILS:		lasse SANOC gr	2001 5	0 63	
Casing installed: 8 "Diam from	0- n to 54 m				
Threaded [] "Diato, from	ft. to ft.	compact 1111	4.	3 66	
Welded Diam. from	ft. to ft.				
Perforations: Yes No 2					
Type of perforator usedin	n. byin,				
perforations from					
perforations from					
perforations from	15 10				
Screens: Yes No No No And A	Q				
1000	todal NoSTAIN Jess		-		
	54 n 10 63 n				
Diam. Slot size from .	7_ R 10 R	-			
Gravel packed: Yes O No Z Size					
Gravel placed from	i. to ft.				
Surface seal: Ya No D To what	depthy Account				
Material used in seal 2011/11/11	er? Yes No.				
Type of water? Depth	of strata				
Method of sealing strate off					
(7) PUMP: Manufacturer's Name.	HP				
Type:					
(8) WATER LEVELS: Land-surface ele	level				
Static levelft. below top of w		-			
A window water to controlled by	(Cap, valve, etc.)				
(9) WELL TESTS: Drawdown is amo lowered below sta		Work started May , 104.	Complete	0	
	lown after hrs.	WELL DRILLER'S STATEM	ENT:		
		This well was drilled under my true to the best of my knowledge	y jurisdiction and t	his report is	
		A STATE OF THE BEST OF THE KNOWLEDGE	and bener.		
Recovery data (time taken as zero when pump measured from well top to water level) Time Water Level Time Water Level	Time Water Level	NAME CULTGEROW	Driller	or print)	
Time Water Level Time Water Level	Tune Nate 2404	(Person, firm, or corp		, ,	
		Address 25627 -56	192 14	aple la llo	
		200	I.O.		
Baller test 10 gal/min. with 0 ft. draw	vdown after Z hrs.	[Signed]	ell Driller)	·	
Arterian flowgpm. Date.	Arterian flow				
	(USE ADDITIONAL SE	This is a copy of	Im srag	, ביו עוני	
3. F. No. 7334-OS-(Rev. 4-71).		, , ,		- 1	



ENTERED

Start Card No. Unique Well I.D. # Water Right Permit No. WATER WELL REPORT ₩ 065021 Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation. Owner's Number of well (If more than one) Method: ROTARY (4) TYPE OF WORK: HEN MKILL Diameter of well 6 Depth of completed well 160 inches ft. (5) DIMENSIONS: Drilled 160 ft. TO 2 58 160 MATERIAL TOPSOIL

EROWI CHOCKIYED SAND & GRAVEL

CRAY SANDSTONE (6) CONSTRUCTION DETAILS:
Casing installed: 6
WELDED/LINER IN 4 Dia. from 0 Dia. from 15 Dia. from ft. to 60 ft. to 160 ft. to Perforations: YES
Type of perforator used SAM CUT
SIZE of perforations 1/8
40 perforations from 150 ff
perforations from ft
perforations from ft in. by 3 ft. to 160 ft. to ft. to in. Screens: NO
Hanufacturer's Name
Type
Diam. slot si
Diam. slot Si Model No. slot size Size of gravel Gravel packed: NO Gravel placed from Surface seal: YRS To what depth? 18
Material used in seal BKMYOWITE CLAY
Did any strata contain unusable water? NO
Type of water?
Wethod of sealing strata off N/A RECEIVED JUN 27 1996 (7) PUMP: Manufacturer's Mame Type W/A DEPT. OF EUULUGY WATER LEVELS: Land-surface elevation above mean sea level ... ft. Static level 15 ft. below top of well bate 03/21/96 Artesian Pressure lbs. per square inch Date Artesian water controlled by 11/1/2 (8) WATER LEVELS: Completed 03/21/96 Work started 03/15/96 WELL COMSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Mashington well construction standards. Materials used and the information reported above are true to my best knowledge and belief. (9) WELL TESTS: Drawdown is amount water level is lowered below static level.

Was a pump test made? MO If yes, by whom?
Yield: gal./min with ft. drawdown after hrs. NAME NORTHWEST PORP & DRILLING (Person, firm, or corporation) (Type or print) Recovery data
Time Water Level Time Water Level Time Water Level ADDRESS 3245 ADDRES WAY SOUTH [SIGHED] RB De Come License No. 0097 Date of test / / ft. drawdown after
Bailer test gal/min. ft. drawdown after
Air test 10 gal/min. W/ stem set at 160 ft. for 1
Artesian flow g.p.m. Was a chemical analysis mater Contractor's Registration No. MCRTHPD137PO Date 03/16/96 Was a chemical analysis made? NO



The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

Page | 36

-			21/06-368	>
ile Original and First Copy with	WATER WEI	I DEDODT	Application No	_
repartment of Ecology econd Copy — Owner's Copy hird Copy — Driller's Copy	STATE OF W.		Permit No	
		Aprili (agray) or 75 th		must of
(1) OWNER: Name JACK 1. E GITE	Inde			
2) LOCATION OF WELL: County 17			36 T.71 N. R.	W.M.
learing and distance from section or subdivision cor-	ner Lot 29 of	Remoles addition		
3) PROPOSED USE: Domestic [] Indust	trial 🗆 Municipal 📉	(10) WELL LOG:		
Irrigation [] Test V		Formation: Describs by color, character, a show thickness of aguifers and the kind a stratum penetrated, with at least one ent	rize of material and stru and nature of the materi	cture, and at in each
TALE OF HOPE. Owner's number of	well		ry for each change of	TO TO
(4) TYPE OF WORK: Owner's number of (if more than one) New well Method: 1	Dug Bored	MATERIAL	FROM	2
Deepened []	Caple Diven	Top soil	2	10
	Rotary Jetted 🗆	Brown clay	10	16
5) DIMENSIONS: Diameter of well	G inches	Brown hardpar	16	21
Dritted 180 ft. Depth of completed	well /80 n.	Grown growel	21	75
		Brown sandstone	75	100
(6) CONSTRUCTION DETAILS:		Gry sandstone	100	115
Casing installed: 6 " Diam. from	n. to .21 n.		wepage 115	mo
Casing installed: 6 Diam. from C	. l . n. toL7.2 n.	Grow carditara	No	180
Welded Diam. from	R. 10 11.			
Perforations: Years No [
Perforations: Yen't No Type of perforation used	··· · · · · · · · · · · · · · · · · ·			
SIZE of perforations	by 172 in			
perforations from	ft. to ft.			
perforations from	ft. to ft.			
Screens: Yes No To				
Manufacturer's Nemé	del No	10 .		
Diam Slot size from	ft. to ft.		- 	
Diam Slot size from	ft. to ft.	11/1		
Gravel packed: Yes No SX Sixe of	! gravel:	JUN 15 1987		
Gravel placed from ft.	to			
		ווי היצומערבום	J:::	
Surface seal: Yes No Downate	depun?		<u> </u>	
Type of water? Depth o	of strata			
Method of sealing strate off				
(7) PUMP: Manufacturer's Name				+
Type:	н.р			†
(8) WATER LEVELS: Land-surface elevabove mean sea l				
Static level 46 th below top of we	ell Date (-4-87			
Ibs per square inc	ch Date			
Artesian water is controlled by	Can valve etc.)			
				J
(9) WELL TESTS: Drawdown is amou	int water level is lic level	Work started 5-29 187	Completed G - 4	. 19.87
Was a pump test made? Yes [] No [] If yes, by	whom?	WELL DRILLER'S STATEM	ENT:	
Yield: gal/min. with ft. drawdo		This well was drilled under my		s report is
- Н - 90 -	AIRJET "	true to the best of my knowledge	and belief.	
Recovery data (time taken as zero when pump t measured from well top to water level)		NAME Sharou Drill	ing Co, LC	
Time Water Level Time Water Level	Time Mater Depar	(Person, firm, or corp		00
		Address 1945 108 Th A	e SE ROUTE	
		2 04	0	
Date of test		[Signed] Brancho	lucio	
Baller test gal /min, with ft draw	down afterhrs.	, (w	ell Driller)	
Artesion flow g.p.m. Date	vala made? Yes 🗆 No 🗆	License No. 0233	Date 6-4	1. , 19. 8.
Was a chemical snal	VAIR DIAGET YES U NO U			

(USE ADDITIONAL SHRETS IF NECESSARY)



ECY 050-1 20

ENTERED	L REPORT Start Card No. W 064775 Unique Well I.D. #
CTITE OF EL	SHINGTON Water Right Permit No.
(1) CANADO HADO MERE TAMES Address 38023	272 AVE SE EMUNCLAW, WA 98022-
(2) LOCATION OF WELL: County KING (23) STORET ADDRESS OF WELL (or nearest address) 38023 272 AVE SE.	- SM 1/4 SK 1/4 Sec 36 T 21 N., R 6 WH EMUNICIAN
(3) PROPOSED USE: DOMESTIC	(10) WELL LOG 21-GE-360
(4) TYPE OF WORK: Owner's Number of well (If more than one)	Formation; Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation.
MEW WELL Rethod: ROTARY (5) DIMPNSIONS: Diameter of well 6 inches	at least one entry for each change in formation.
(5) DIMPMSIONS: Diameter of well 6 inches prilled 100 ft. Depth of completed well 100 ft.	MATERIAL PROM TO 2
(6) CONSTRUCTION DETAILS: Casing installed:	DECIMAL CRIMENTED SAIID & GRAVEL
Perforations: NO Type of perforator used SINE of perforations from ft. to ft.	BOULDER
Screens: NO Manufacturer's Name Type Djam. slot size from ft. to ft. Diam. slot size from ft. to ft.	25 VI
Gravel packed: NO Size of gravel Gravel placed from ft. to ft.	* 0 X
Surface seal: YES To what depth? 18 ft. Material used in seal BENTONITE CLAY Did any strata contain unusable water? NO Type of water? Hethod of sealing strata off N/A	UN 27
(7) PUMP: Manufacturer's Name	
Type II/A II.P. (8) WATER LEVELS: Land-surface elevation above mean sea level ft. static level 33 ft. below top of well pate 05/16/96 Artesian Pressure lbs. per square inch pate hrtesian water controlled by II/A	<u>-</u> .
	Work started 05/14/96 Completed 05/16/96
(9) WELL TESTS: Drawdown is amount water level is lowered below static level. Was a pump test made? MO If yes, by whom? Yield: gal./min with ft. drawdown after hrs.	WELL CONSTRUCTOR CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.
Recovery data Time Water Level Time Water Level Time Water Level	NAME MORTHWEST POWP & DRILLING (Person, firm, or corporation) (Type or print)
Date of test / / ft. drawdown after hrs.	ADDRESS 3245 ADBERT HAY SOUTH [SIGNED] LICENSE No. 0097
Bailer test gal/min. ft. drawdown after mrs. Air test 20 gal/min. w/ stem set at 100 ft. for 1 hrs. Artesian flow g.p.m. Temperature of water Was a chemical analysis made? MO	Contractor's Peristration No. WORTHPD137PO Date 05/16/96
Temperature of water was a chestest analysis mean as	ADJISTANCE AND ADDITIONAL PROPERTY OF THE PROP



STATE O	ELL REPORT Start Card No. W 064790 Unique Well I.D. # Water Right Permit No.
(1) OWNER: Name BUMDY, LEM Address 27	043 SK 382 ENDINCLAN, WA 98022- 2//6/36 Q
	- SW 1/4 SB 1/4 Sec 36 T 21 N., R 6 WM ENTONCLAW
(3) PROPOSED USE: DOMESTIC	(10) WELL LOG
(4) TYPE OF WORK: Owner's Number of well (If more than one) NEW WELL Method: ROTARY	Pormation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with
(5) DIMENSIONS: Drilled 100 ft. Depth of completed well 100 ft.	MATERIAL FROM TO
(6) COMSTRUCTION DETAILS: Casing installed: 6 Dia. from 0 ft. to 100 ft WKLDED Dia. from ft. to ft	H. RECORD CONCENTED SAID & GRAVEL 24 25 14 25 15 16 17 17 17 17 17 17 17
Perforations: NO Type of perforator used SIZE of perforations in. by in. perforations from ft. to ft. perforations from ft. to ft. perforations from ft. to ft.	RIUE CERETED SAID & GRAVEL 61 85 100
Screens: MO Manufacturer's Name Type Unam. slot size from ft. to ft. Diam. slot size from ft. to ft.	
Gravel packed: NO Size of gravel Gravel placed from ft. to ft.	
Surface seal: YES To what depth? 18 ft Material used in seal BESTONITE CLAY Did any strata contain unusable water? NO Type of water? Method of sealing strata off NA Method of sealing strata off NA	t. RECEIVED t. JUN 27 1996
(7) PUMP: Manuracturer's mame Type 11/A H.P.	DEPT OF ECULUGY
(8) WATER LEVELS: Land-surface elevation above mean sea level f Static level 18 ft. below top of well bate 04/17/ Artesian Pressure lbs. per square inch Date Artesian water controlled by W/A	t. 96 Work started 04/16/96 Completed 04/17/96
was a pump test made? NO If yes, by whom? Yield: gal./min with ft. drawdown after hm	I constructed and/or accept responsibility for con- struction of this well, and its compliance with all
Recovery data Time Water Level Time Water Level Time Water Lev	el MANE NORTHWEST PCAP & DRILLING (Person, firm, or corporation) (Type or print)
	ADDRESS 3245 FORM WAY SOUTH s. [SIGNED] 6 LOWIN License No. 0097 Contractor's Registration No. NORTHED137PO Date 04/17/96



E	
TER WELL	CHINGNON Water Right Permit No.
(1) OWNER: Name GATH, PAN Address 27016	SE 384 ST EMUNCLAN, WA 98022-
(2) LOCATION OF WELL: County KING (2a) STREET ADDRESS OF WELL (or nearest address) 27016 SE 384 ST,	- SW 1/4 SB 1/4 Sec 36 T ZL N., R 6 WH
(3) PROPOSED USE: DOMESTIC	(10) WELL LOG 21-6E-36 CV
(4) TYPE OF WORK: Owner's Number of well (If more than one) MEN WELL Method: ROTARY	Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation.
(5) DIMEMSIONS: Diameter of well 6 inches Drilled 100 ft. Depth of completed well 100 ft.	NATERIAL PROM TO
(6) COMSTRUCTION DETAILS: Casing installed:	TOPSOIL BEROWIN CONCENTED SAND & GRAVEL BLUE CRESSIVED SAND & GRAVEL 138 80 100
Perforations: NO Type of perforator used SIZE of perforations in. by in. perforations from ft. to ft. perforations from ft. to ft. perforations from ft. to ft.	
Screens: NO Manufacturer's Name Type Diam. slot size from ft. to ft. Diam. slot size from ft. to ft. Cravel packed: NO Size of gravel	DECEIVED 1996
Gravel packed: NO Size of gravel Gravel placed from ft. to ft. Surface seal: YES To what depth? 18 ft. Haterial used in seal DESTONITE CLAY Did any strata contain unusable water? NO Type of Mater; Wethod of sealing strata off N/A	RECEIVED OCT 02 1996 OCT 05 ECOLOGY
(7) POMP: Manufacturer's Name Type M/A H.P.	
(8) WATER LEVELS: Land-surface elevation above mean sea level ft. Static level 12 ft. below top of well Date 06/27/96 Artesian Pressure lbs. per square inch Date Artesian water controlled by W/A	Work started 06/26/96 Completed 06/27/96
(9) WELL TESTS: Drawdown is amount water level is lowered below static level. Was a pump test made? NO If yes, by whom? Yield: gal./min with ft. drawdown after hrs.	WELL CONSTRUCTOR CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.
Recovery data Time Water Level Time Water Level Time Mater Level	HAME DOZIMENT PUMP & DRILLING (Person, firm, or corporation) (Type or print)
Date of test / / ft. drawdown after hrs. Air test 150 gal/min. w/ stem set at 100 ft. for l hrs. Artesian flow g.p.m. Temperature of water Was a chemical analysis made? MD	ADDRESS 3245 USAN MAY SOUTH [SIGNED] LICENSE No. 0097 Contractor's Registration No. MORTHPD137FO Date 06/28/96



	SECOND COPY - OWNER, THIRD COPY - DRILLER ST	TATE OF WASHINGTON START CARD NO. W157720 WATER RIGHT PERMIT NO.			
ort.	(1) OWNER NAME REMOLIF WATER SYSTEM (2) LOCATION OF WELL: County KING	ADDRESS: P.O. BOX 1012, ENUMCLAW WA. 98022 SW 1/4 SE 1/4 SEC 36 TWP 21N R 6E DIST. & 272ND AVE. S.E. ENUMCLAW WA. 98022			
II Rep	(3) PROPOSED USE: CLASS "A" (4) TYPE OF WORK: NEW WELL METHOD: ROTARY	(10) WELL LOG OR DECOMMISSIONING PROCEDURE DESCRIPTION			
Ş		MATERIAL FROM TO			
on this Well Report	(5) DIMENSIONS: Diameter of well 8 inches Drilled 114 feet. Depth of completed well 113'-11" ft.	BROWN SAND, GRAVELS, COBBLES 26 35 REDDISH BROWN SAND, GRAVELS, LOOSE 35 68 HARDPAN 68 72			
ormation c	(6) CONSTRUCTION DETAILS Casing instit: 8 * Diam. From 0 ft. to 102-5* ft. Wetded	GREY SAND, GRAYELS, WATER 72 113'-11' WHITE CLAY WITH GRAYEL 114 7			
and/or the Information	Perforations: Yes No 2 Type of perforator used Size of perforations in. by in. by perforations from ft. to in. perforations from ft. to in. perforations from ft. to in. in.	THE TOTAL OF BUILD THE REPORT OF THE PARTY O			
Data	Screens: Yes ② No □ Manufacturer's Name: JOHNSON Type STAINLESS Diam 8" Slot size 80 from 104 ft. to 109 ft. Diam 8 Slot size 60 from 109 ft. to 114 ft.				
nty th	Gravel packed Yes □ No ☑ Size of gravel? Gravel packed from ft. to ft.	27			
NOT Warranty the	Surface seal. Yes No To what depth? 30 ft. Material used in seal BENTONITE Did any strata contain unusable water? Yes No York of Strata Method of sealling strata off R.	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
oes N	(7) PUMP. Marufacturer's Name Type H. P.				
Ecology does	(8) WATER LEVELS: Surface elev above mean sea level 1t. Static level 23'-1" below top of well Date 07/06/04 Artesian pressure lbs. Per sq. in Date Artesian pressure is controlled by				
Department of Ec	(9) WELL TESTS: Primp feet made? By Whom Yeld gal/min with flud awd win after has yeld gal/min with flud drawd win after has yeld gal/min with flud drawd own after has Recovery data: Time Witr Lyl, Time Witr Lyl, Time Witr Lyl,	Work Started 06/24/04 Completed: 07/06/04 WELL CONSTRUCTOR CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.			
The Depa	Artesion flow gal/min Date	Name: RICHARDSON WELL DRILLING COMPANY IMPACT AND ADDRESS P. O. BOX 4427 TACOMA, WA 98.00 Lic No. 2623 (Signed) Lic No. 2623 Contractor's Registration No. RICHARW 3210B DATE 7/9/2004			

	21	-6E.	36N
WATER WELL REPORT	CURRENT Notice of Intent No	71	
Orginal & 1st copy - Ecology, 2nd copy - owner, 3rd copy - driller	Unique Ecology Well ID Tag No. A 130	0-57	0
Construction/Decommission ("x" in circle) 134 943	Water Right Permit No.		
O Decommission ORIGINAL CONSTRUCTION Notice of Intent Number	Property Owner Name Richard		eS
PROPOSED USE: Domestic Industrial Municipal DeWater Irrigation Test Well Other	Well Street Address 26266 S	E 380	5 ^{+h} ST
	City Epuncia W County:	KIN	9
TYPE OF WORK: Owner's number of well (if more than one) New Well Reconditioned Method Dug Bored Driven	Location 5W 1/4 1/4 SW 1/4 Sec 3C T		WWM
DIMENSIONS: Drameter of well	Lat/Long: Lat Deg I	at Min/Sec	
Depth of completed well 368 ft	REQUIRED) Long Deg I Tax Parcel No. 362106905	ong Min/Sec	
CONSTRUCTION DETAILS		CHARLES THE REAL PROPERTY.	
Casing Welded G" Diam from + 2 ft to 22 ft. Installed: Liner installed VC 4" Diam from - 1 ft to 368 ft.	CONSTRUCTION OR DECOMMISSIO Formation Describe by color, character, size of ma		
Threaded Diam. from ft toft.	kind and nature of the material in each stratum pen		
Perforations: Yes No	entry for each change of information Indicate all w (USE ADDITIONAL SHEETS IF NECESSARY)		ea
Type of perforator used Saw	MATERIAL	FROM	то
SIZE of perfs/18 in by 3 in and no of perfs_100 from 290 ft to 365 ft	Surface	0	3
Screens: Yes Mo K-Pac Location	Clay-brown	3	12
Manufacturer's Name	Shale-cray-hand	12	180
Diam Slot Size from ft to ft	Donayardshole-brown	180	265
DiamSlot Sizefromft toft	Sandston-gray-medium	265	323
Gravel/Filter packed: Yes No Size of gravel/sand	Sandstone-gray-water	323	330
Materials placed fromfttoft	Sandstone -gray	330	368
Surface Seal: Syes No To what depth? 18 ft Materials used in seal 62NTON, To	Decayed-rock-brown	308	
Materials used in seal OCPIONIIS Did any strata contain unusable water? □Yes ■No			
Type of water? Depth of strata			
Method of sealing strata off			
PUMP: Manufacturer's Name			
Туре Н.Р	RECE	AED	
WATER LEVELS: Land-surface elevation above mean sea levelft Static levelft below top of well		3 2003	
Artesian pressure lbs per square inch Date	JUL 0	9 2000	
Artesian water is controlled by	DEPT OF	ECOLO(äΥ
WELL TESTS: Drawdown is amount water level is lowered below static level	. DELLO		
Was a pump test made? Yes No If yes, by whom?			
Yield gal/nun with ft drawdown after hrs			
Yield gal/min with ft drawdown after hrs Yield gal/min with ft drawdown after hrs			
Recovery data (time taken as zero when pump turned off)(water level measured from			
well top to water level) Time Water Level Time Water Level Time Water Level			
Day of the			
Date of testgal /min_withft_drawdown afterhrs			
Artestan flow gal /min with stem set at 360 ft for 2 hrs			
Temperature of water Was a chemical analysis made? Ycs No	Start Date 8-25-63 Completed Da	ite_C-30	-03
WELL CONSTRUCTION CERTIFICATION: 1 constructed and/or accept respo Washington well construction standards. Materials used and the information re	possibility for construction of this well, and its construction of this well, and its constead above are true to my best knowledge at	ompliance w	ıth all
Driller Dengineer Trainee Name (Print) Back John Son	Drilling Company Johnson Da	Minac	10.14
Driller/Engineer/Trainee Signature	1-115 275	100	SÉ
Driller or Trainee License No. 023.3	- Address 19415 108	00	8.55
	Contractor SHUSP (2070M)	1 18	70-07
If trainee, licensed driller's Signature and License no.	Registration No.	ate	30-10



ENTERED

Start Card Mo. Unique Well I.D. # Water Right Permit No. WELL ₩ 064772 STATE OF WASHINGTON ENUNCIAN, NA 98022-2//6/ (1) OWNER: Name NICHOLS, RICK 38016 274 AVE SE (2) LOCATION OF WELL: County KING
(2a) STREET ADDRESS OF WELL (or nearest address) 38016 274 AVE SE, - SE 1/4 SE 1/4 Sec 36 T 21 M., R 6 (3) PROPOSED USE: DOMESTIC (10) WELL LOG Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation. Owner's Number of well (If more than one) Nethod: ROTARY (4) TYPE OF WORK: MEN METT (5) DIMENSIONS: Drilled 320 Diameter of well 6 Depth of completed well 320 inches MATERIAL TO 2 64 191 209 320 MATERIAL
TOPSOIL
BEOME COULTED SAID & GRAVEL
GRAY SAIDSTONE
COAL
GRAY SAIDSTONE N/ COAL (6) CONSTRUCTION DETAILS: Casing installed: WELDED/LIBER IN 64 191 209 ft. ft. in. by 3 ft. to 320 ft. to ft. to Screens: 10 Manufacturer's Name Type Diam. slot si Model No. Diam. Gravel packed: MO
Gravel placed from RECEIVED Size of gravel ft. Surface seal: YES To what depth? 18
Material used in seal BENTOWITE CLAY
Did any strata contain unusable water? NO
Type of water?
Hethod of sealing strata off N/A JUN 27 1996 DEPT. OF ECULUGY (7) PUMP: Manufacturer's Name Type N/A WATER LEVELS: Land-surface elevation above mean sea level ... ft.
Static level FLOW ft. below top of well Date 03/25/96
Artesian Pressure .5 lbs. per square inch Date 03/25/96
Artesian water controlled by CAP & VALUE (8) WATER LEVELS: Completed 03/25/96 Work started 03/21/96 WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief. (9) WELL TESTS: Drawdown is amount water level is lowered below static level.

Was a pump test made? NO If yes, by whom?

Yield: gal./min with ft. drawdown after hrs. Recovery data
Time Water Level Time Water Level Time Water Level MAME WORTHWEST PUMP & DRILLING (Person, firm, or corporation) (Type or print) ADDRESS 3245 AFFICIAL WAY SOUTH Date of test / Bailer test gal Air test 4 gal/mi Artesian flow Temperature of water [SIGTED] (6 Delgran License No. 0097 est // ft. drawdown after gal/min. w/ stem set at 320 ft. for 1 g.p.m. Was a chamical analysis w Contractor's Registration No. MORTEPD137PO Date 03/22/96 Was a chemical analysis made? NO



the first the state of the stat	LL REPORT UNIQUE WELL I.D. #		
		Franc	16.00 100
			9
(2) LOCATION OF WELL: County King		21 N.R. I	E wai.
(ZA) GITTELT ADDITECTO OF TVEEL OF RESIDENCES (SE 384 Enuncian WA		22
(3) PROPOSED USE: Domestic Industrial Municipal C	(10) WELL LOG OF ABANDONMENT PROCEDURE DE		
DeWahar Test We1 Other	Formation: Describe by color, character, size of material and structure, and and the kind and nature of the material in each straium penetrated, with a change of information.	least one en	by for nach
Abandoned New well Method: Dug Bored	MATERIAL	FROM	TO
Geepened ☐ Gable ☐ Driven ☐ Reconditioned ☐ Relary ▼ Joiled ☐	CATER BURDET	-	3
	DOLDER FORHER	70	3(
(5) DIMENSIONS: Diameter of well	DUICK ENHIVITE SHARE	77	100
	7		
(6) CONSTRUCTION DETAILS: Casing installed: 6 Diam. from 6 ft. to 6 ft.			
	RECEITED	\rightarrow	
Windled Ch It. Liner installed ☐ □ Diam. from	13 E		
Perforations: Yes No R	FEB 23 1996		
Type of perforator used			
SIZE of perforations	المتحلفانة أنها أوالم		
perforations from it. to it.	OL.		
perforations from ft. to ft.			
Screens: Yes 🗌 No 🔀			
Manufacturer's Name			•
Type Model No Diam Slot size from ft. to ft.			
Diam. Skot size from ft. to ft.		-	
Gravel packed: Yes No Size of gravel			
Gravel placed fromft. toft.	·		
Surface seal: Yos A No To whist depth? 1			
Material used in seal BAKCID HOLE (12-65)			
Old any strata contain urusable water? Yes No \tag{ Depth of strata			
kfethod of sealing strate off			
(7) PUMP: Manufacturor's NameH.P	5 -		
/8\ WATER EVELS: Land-surface elevation	Work Started 1 - 16 - 1749. Completed 1-1	4-46	, 19
Static level	WELL CONSTRUCTOR CERTIFICATION:		
Artesian pressure	1 constructed and/or accept responsibility for construction	-f shi	and the
(Cap, valve, etc.)	compliance with all Washingtonswell construction standards	. Materials u	rsed and
(9) WELL TESTS: Drawdown is amount water level is lowered below static level	the information reported above are true to my best knowledg	e and beliet.	
Was a pump test made? Yes ☐ No ☒ If yes, by whom?hrs. Yield:gal./min. withft. drawdown afterhrs.	NAME Ceclery ren Ormania (TIPE OR	PRINT)	
n " " " " "	Artifess 38104-160 \$ P.P. SE	Aubar	1. 44
11 11 11 39	-11081	7.	100
Recovery data (time taken as zero when pump turned off) {water level measured from well top to water level)	(Signed) (WELL DRILLER) Licens	9 No7.	
Time Water Lavel Time Water Level Time Water Level	Contractor's		
	No. CEDERODO 55 KN Date 7eh	15	19_96
	(USE ADDITIONAL SHEETS IF NECESSA	ARY)	
Dato of test Baller testgal./min. withft. drawdown afterhrs.		•	
Airtestgal./min. with stem set atft. forhrs.	Ecology is an Equal Opportunity and Affirmative Action of		
Artesian flow g.p.m. Date	cial accommodation needs, contact the Water Resources 407-8600. The TDD number is (208) 407-6008.	s rrogram a	at (200)
Temporature of water Was a chemical analysis made? You No	50 U		.0.
			20 G



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21/6E/36 N

	WASHINGTON Water Right Permit No.
(1) OWNER: Name CLARK, WILL Address P O	BOX 1241 COOS BAY, OR 97420-
(2) LOCATION OF WELL: County KING	- SW 1/4 SW 1/4 Sec 36 T 21 N., R 6 WM
(2a) STREET ADDRESS OF WELL (or nearest address) 261XX SE 383 ST	ABOUT THOSE OF AND THE CO. COMMENTED FROM THE CHARGOS CHARGOS AND THE SECURITY.
(3) PROPOSED USE: DOMESTIC	(10) WELL LOG
***************************************	=
(4) TYPE OF WORK: Owner's Number of well (If more than one)	Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind
NEW WELL Method: ROTARY	and nature of the material in each stratum penetrated, with
(5) DIMENSIONS: Diameter of well 6 inches	at least one entry for each change in formation.
Drilled 202 ft. Depth of completed well 202 ft.	MATERIAL FROM TO
(6) CONSTRUCTION DETAILS:	TOPSOIL 0 3 BROWN CEMENTED SAND & GRAVEL 3 8
Casing installed: 6 "Dia. from 0 ft. to 38 ft.	BLUE GLACIAL TILL 8 29
WELDED/LINER IN 4 "Dia. from 20 ft. to 202 ft. "Dia. from ft. to ft.	
Perforations: YES Type of perforator used SAW CUT	
SIZE of perforations 1/8 in. by 3 in.	
50 perforations from 182 ft. to 202 ft. perforations from ft. to ft.	
perforations from ft. to ft,	
Screens: NO	
Manufacturer's Name	
Type Model No. Diam. slot size from ft. to ft.	
Diam, slot size from ft. to ft.	
Gravel packed: MO Size of gravel Gravel placed from ft. to ft.	
Surface seal: YES To what depth? 18 ft.	RECEIVED
Material used in seal BENTONITE CLAY Did any strata contain unusable water? NO	
Type of water? Depth of strata ft. Method of sealing strata off N/A	MAY 2 4 1991
	DEPT. OF ECOLOGY
(7) PUMP: Manufacturer's Name Type N/A H.P.	DEFT. OF ECOLOGY
	-
(8) WATER LEVELS: Land-surface elevation above mean sea level ft.	
Static level 3 ft. below top of well Date 04/15/91	*
Artesian Pressure lbs. per square inch Date Artesian water controlled by W/A	
And Matter Annual Control of Tables 2 511 No. 0	Work started 04/15/91 Completed 04/15/91
(9) WELL TESTS: Drawdown is amount water level is lowered below	
static Level.	I constructed and/or accept responsibility for con- struction of this well, and its compliance with all
Was a pump test made? NO If yes, by whom? Yield: gal./min with ft. drawdown after hrs.	Washington well construction standards. Materials used
	and the information reported above are true to my best knowledge and belief.
Recovery data	<u></u>
Time Water Level Time Water Level Time Water Level	NAME NORTHWEST PUMP & DRILLING (Person, firm, or corporation) (Type or print)
	ADDRESS 3245 BUBURN WAY SOUTH
Date of test / / Bailer test gal/min. ft. drawdown after hrs.	[SIGNED] K. B. De Gran License No. 0097
Air test 125 gal/min. w/ stem set at 200 ft. for 1 hrs	
Artesian flow g.p.m. Date	Contractor's Registration No. NORTHPD137PQ Date 04/16/91
Temperature of water Was a chemical analysis made? NO	Registration No. North-Distra Date 04/10/71





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*					