

Desktop Hydrogeological Investigation

Pendleton Solar Energy Centre

January 21, 2018

Prepared for:

Pendleton Energy Centre Limited Partnership 53 Jarvis Street, Suite 300 Toronto, Ontario M5C 2H2

Prepared by:

Stantec Consulting Ltd. 100-300 Hagey Boulevard Waterloo, Ontario N2L 0A4P

Sign-off Sheet

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Prepared by

(signature)

T. Nicole Semper, B.Sc. P.Geo., Senior Hydrogeologist



Approved by _

(signature)

Grant Whitehead, MES, P.Geo. (Limited), Senior Hydrogeologist

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Abbreviations

AMSL	Above mean sea level
AC	Alternating current
ANSI	Area of Natural and Scientific Interest
BGS	Below ground surface
HVA	Highly Vulnerable Aquifer
m	Metre(s)
MNRF	Ministry of Natural Resources and Forestry
MOECC	Ministry of the Environment and Climate Change
MW	Megawatt
O. Reg.	Ontario Regulation
PCC	Pont of Common Coupling
Pendleton	Pendleton Energy Centre Limited Partnership
PV	Photovoltaic
REA	Renewable Energy Approval
SGRA	Significant Groundwater Recharge Area
SNCA	South Nation Conservation Authority
Stantec	Stantec Consulting Ltd.
WHPA	Well Head Protection Area
WWR	Water well record

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1.0 INTRODUCTION

1.1 **PROJECT PURPOSE**

Pendleton Energy Centre Limited Partnership (Pendleton) is proposing to develop a 12-megawatt (MW) solar photovoltaic (solar PV) energy generating facility, known as the Pendleton Solar Energy Centre (the Project), on an approximately 53 hectare (ha) parcel of land (Site) located southeast of the intersection of County Road 2 and County Road 19 in the Township of Alfred and Plantagenet, United Counties of Prescott and Russell (Figure 1, Appendix A). Pendleton is proposing the renewable energy project in response to the Government of Ontario's Large Renewable Procurement (LRP) initiative to promote the development of renewable electricity in the province.

The environmental approval for renewable energy projects is called the Renewable Energy Approval (REA) and is regulated by the Ministry of the Environment and Climate Change (MOECC) and the Ministry of Natural Resources and Forestry (MNRF). To obtain a REA, each project is subject to the requirements of Ontario Regulation (O. Reg.) 359/09, the Renewable Energy Approvals Under Part V.0.1 of the Act, created under the Environmental Protection Act. Part of the REA Regulation requires specific documents to be prepared for each project to describe the project and identify potential adverse effects. Any potential adverse effects will be prevented or minimized through monitoring and mitigation. Various documents have been previously prepared for the Project and are described in Section 2.1 The proposed solar PV distribution grid connected system is considered a Class 3 Solar Facility under O. Reg. 359/09, s. 4.

1.2 SCOPE OF WORK

As part of the REA application for the Project, Pendleton retained Stantec Consulting Ltd. (Stantec) to complete a desktop-level hydrogeological assessment of the Site. The scope of work for the hydrogeological assessment consisted of the following:

- A desktop-level background review of available geological and hydrogeological data/information for the Site and surrounding area, which included but was not limited to the following:
 - Ministry of Environment and Climate Change (MOECC) Water Well Records (WWRs)
 - Ontario Geological Survey (OGS) Mapping
 - Regional Groundwater and Source Water Protection Studies
 - Local Geotechnical, Hydrogeological and Environmental Site Assessment Investigations
 - Aerial photography and topographic mapping
 - Project design concept drawings and details.
- An evaluation of the potential need for groundwater dewatering at the Site.

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 A door-to-door survey of all properties located within 300 m of the Site to evaluate the potential for wells located on those properties to be impacted by potential onsite dewatering and/or other construction activities.

The above-mentioned information was used to develop a conceptual hydrogeological model for the Site and surrounding area to better understand the form and function of the regional and local hydrogeological system, with this information then being used to identify potential offsite private properties that could be affected by the Project construction and operation and to evaluate the need for development of pre-, during and post-construction groundwater monitoring programs for the Site. The report provides suggestions for the use of onsite monitoring wells (to be constructed), accessible offsite private wells, or a combination of both in the monitoring program, and a discussion of potential frequency and duration of the monitoring program, including suggested quality parameters to be monitored. Potential mitigation measures that could be employed at the Site to minimize any potential disturbances from construction activities to local private well quantity and/or quality are also discussed in the report.

1.3 **REPORT ORGANIZATION**

The report is arranged into six sections including this introduction. Section 2 presents a summary of background information focusing on the interpretation of regional geological and hydrogeological conditions. Section 3 presents a summary of local site conditions including geology, hydrogeology and private water wells. Section 4 presents a summary of potential groundwater related impacts. Section 5 presents the recommended groundwater monitoring program. Section 6 presents the references used in preparing this report. All figures and tables references are presented in Appendices A and B, respectively. Appendix C presents a summary of the local MOECC Water Well Records. Appendices D, E and F presents borehole and test pit logs, private well survey results, and dewatering calculations, respectively.

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2.0 BACKGROUND

2.1 GENERAL SITE AND PROJECT DESCRIPTION

The Site is located on an approximately 53 ha parcel of land located southeast of the intersection of County Road 2 and County Road 19 in the United Counties of Prescott and Russell, Ontario (Figure 1, Appendix A). The Site predominantly consists of agricultural land that is generally flat, with the topographic profile slightly sloping to the southeast from an elevation of 78 m above mean sea level (AMSL) to 73 m AMSL (Figure 2, Appendix A). The existing agricultural field is underlain by a drainage network that ties into a drainage feature located at the southeast property boundary of the Site (Figure 3, Appendix A). The Site is situated within the South Nation Watershed which lies within the boundary of the South Nation Conservation (SNC).

The Pendleton Solar Energy Centre Project will include the installation of approximately 35,000 to 60,000 solar panels that will be mounted off the ground on a rack system in rows. The project will require six (6) stations including one or more inverter step-up transformer(s) and inverter(s) and a 27.6 kV substation comprised of circuit breakers, disconnect switches, grounding transformer, surge arresters, auxiliary services transformer, revenue metering equipment, and control building. Electricity generated from the solar panels will be transported to the inverters and then on to the substation via underground cables. A connection line, approximately 75 m long, will be required from the substation to the Pont of Common Coupling (PCC) located in the right-of- way east of County Road 19. The PCC is the point where Hydro One Networks Inc. (Hydro One) will connect the Project to the existing distribution grid line located on the west side of County Road 19, and will consist of small permanent structures, such as storage containers that will be used to store equipment and spare parts used for maintenance activities. The proposed layout of the Site is presented in Figure 1 (Appendix A).

Site preparation will include road and parking area construction, removal of vegetation and topsoil, and compaction of the sub-soils. Construction activities will include excavation of the substation area for footings and foundations. These activities have the potential to impact local groundwater conditions, which are discussed in more detail in Section 4.0.

2.2 REGIONAL PHYSIOGRAPHY

The Site lies within the physiographic region classified by Chapman and Putnam (1984) as the Russell and Prescott Sand Plains, with the Ottawa Valley Clay Plains located further west and south of the Site (Figure 4, Appendix A). The Russell and Prescott Sand Plains comprise an area of about 1,490 km² that extends from Ottawa to Hawkesbury and are dominated by coarse deltaic deposits. The sand unit is underlain by Ottawa Valley Clay.

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2.3 REGIONAL GEOLOGY AND HYDROGEOLOGY

Geological conditions throughout the region are documented in previous studies completed by Ontario Geological Survey (OGS, 2010) and the Raisin Region Conservation Authority and South Nation Conservation (RRCA & SNC, 2008, 2009 and 2016b). In summary, subsurface conditions throughout the region in which the Site is located consist of the following key geological formations, with these units being listed from youngest to oldest with hydrostratigraphic significance:

Recent Alluvial Deposits:	mainly consist of modern alluvial clay, silt, sand, and gravel deposits, that may contain organic materials transported by recent rivers and creeks (Unit 19; Figure 5, Appendix A); and ancient alluvial_deposits of clay, silt, sand, gravel, organic materials deposited in the early Ottawa River (Unit 12; Figure 5, Appendix A).
Coarse-textured Glaciomarine E	Deposits (Aquifer): consists of sands deposited as deltas by the Champlain Sea in shallow marine environments (Unit 11a; Figure 5, Appendix A). These deltaic sands unit are considered an overburden aquifer, having reported hydraulic conductivities in the range of 7.7 x 10 ⁻⁶ m/s (WESA, 2006).
Fine-textured Glaciomarine Dep	osits (Aquitard): consists of glaciomarine silt and clay sediments deposited by the Champlain Sea in deep water environments (Unit 10a; Figure 5). This unit has reported hydraulic conductivities in the range of 8.8 x 10 ⁻⁷ m/s (WESA, 2006).
Glaciofluvial Deposits (Aquifer):	sand and gravel aquifer having reported hydraulic conductivities in the range of 1.0 x 10^{-3} m/s (WESA, 2006).
<u>Till Deposits (Aquitard/Aquifer)</u> :	typically consists of hard, compact, calcareous sandy silt till, but can comprise silty sand till with boulders and cobbles. The till is widespread throughout the region and generally directly overlies bedrock. The till ranges in thickness from less than 1 m to more than 10 m in some areas (RRCA & SNC, 2008). Hydraulic conductivities of the sandy silt till are reported to be in the range of 1.0×10^{-8} m/s, whereas the silty sand till has hydraulic conductivities in the range of 1.2×10^{-4} m/s (WESA, 2006).
<u>Bedrock (Aquifer/Aquitard)</u> :	Paleozoic Era sedimentary rocks belonging to the Ottawa Group, specifically limestone and shale of the Lindsay (Upper Ordovician) Formation. Bedrock is located from 25 to 50 m BGS and slopes gently to the southwest (RRCA & SNC, 2009). The reported range of hydraulic conductivities for the Upper Lindsay Formation is 1×10^{-7} m/s to 1.0×10^{-11} m/s, with the hydraulic conductivities for the Lower Lindsay Formation being in the range of 1.1×10^{-4} m/s (WESA, 2006).

Potentiometric surface mapping presented in the *Water Budget: Conceptual Understanding Report* (RRCA & SNC, 2009) indicates that groundwater flow through the overburden deposits beneath the Site is southward towards the South Nation River, with a similar groundwater flow pattern being interpreted for the shallow bedrock.

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The Ottawa Group bedrock aquifer units are widely exploited across the region for private, commercial, institutional, and municipal use, and approximately 83% of wells drilled in the South Nation watershed, are bedrock wells (RRCA & SNC, 2009). The South Nation watershed area also has many highly permeable glacial deposits, glaciofluvial complexes and extensive deltaic sand deposits which produce good yields of groundwater (RRCA & SNC, 2009).

2.4 SOURCE WATER PROTECTION

Review of MOECC WWR database indicates there are no municipal wells located within 300 m of the Site (Appendix C). The nearest Well Head Protection Area (WHPA) is for the Vars (City of Ottawa) municipal wells, which are located more than 20 km to the southwest of the Site.

Based on mapping generated from the MOECC Source Water Protection Information Atlas (https://www.gisapplication.lrc.gov.on.ca/SourceWaterProtection/Index.html?site=SourceWaterProtection &viewer=SWPViewer&locale=en-US), the Site is not located within a mapped Wellhead Protection Area (WHPA), Intake Protection Zone (IPZ), or Issue Contributing Area. The Site is located within a highly Significant Groundwater Recharge Area (SGRA) and a Highly Vulnerable Aquifer (HVA) area, both with a vulnerability scores of six (6). According to the Raisin-South Nation Source Protection Region Source Protection Plan (RRCA & SNC, 2016a), a HVA is an aquifer on which external (contaminant) sources have or are likely to have a significant adverse effect, and includes the land above the aquifer. Aquifers are considered highly vulnerable based depth, and the permeability and characteristics of the soil or rock covering and surrounding them. A SGRA is defined as an area where the rate of recharge to an underlying aquifer system is more than 1.15 times greater (computed to be 208.5 mm/year) than the average recharge that occurs throughout the source protection area (RRCA & SNC, 2016a).

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3.0 LOCAL CONDITIONS

3.1 LOCAL GEOLOGY AND HYDROGEOLOGY

Figure 5 (Appendix A) presents the surficial geological conditions within the Site and surrounding area as mapped by the OGS (2010), as well as the location of Cross Sections A-A' (Figure 6, Appendix A) and B-B' (Figure 7, Appendix A). The construction of the cross-sections involved using soils information obtained from MOECC WWR (Appendix C) and borehole and test pit logs associated with a geotechnical investigation completed at the Site by Houle Chevrier Engineering (HCE, 2015). The locations of onsite test pits (TP14-1 through TP14-7) and boreholes (BH14-1 through BH14-7), and nearby MOECC WWR is presented on Figure 5 (Appendix A). Copies of the Houle Chevrier Engineering (2015) test pit and borehole logs are included in Appendix D.

Deposits of sand to silty sand, with some occurrences of sandy silt, covers the Site and surrounding area, with this deposit interpreted to represent the Coarse-textured Glaciomarine Aquifer. The onsite test pits and boreholes were terminated within the sand/silty sand deposit at depths ranging from 1.6 m to 6.7 m BGS. Review of nearby WWR 5201579, located approximately 240 m northwest of the Site, indicated the sand unit extended to a depth of 13.7 m BGS, and is underlain a 28.4 m thick deposit of clay (interpreted to represent the Fine-textured Glaciomarine Aquitard), which in turn is underlain by gravel with clay and sand to a depth of 46.6 m BGS (maximum depth of drilled hole).

Table 1 (Appendix B) presents the groundwater levels measured in the open boreholes and test pits at the time of completion, between January 12 and 13, 2015 (HCE, 2015). The depth to groundwater ranged from 2.1 m (TP14-6) to 4.9 m (BH14-2), with corresponding water elevations ranging from 69.1 m AMSL to 72.9 m AMSL. Figure 8 (Appendix A) presents the interpreted groundwater elevation contours for the shallow overburden aquifer based on groundwater level data observed between January 12 to 13, 2015. Groundwater flow direction within the shallow overburden aquifer is toward the south, with southwestern and southeastern components, and is likely influenced by local topography. This interpreted flow direction agrees with regional flow interpretations provided in RRCA & SNC (2009)

3.2 PRIVATE WATER SUPPLY WELLS

Figure 5 (Appendix A) presents the location of water supply wells near the Site based on the information obtained from the MOECC WWR database. The database indicates that there are seven (7) private wells (5201579, 5202727, 5202992, 5203384, 5203417, 5203944 and 7161732) located within 500 m of the Site. All wells were completed within overburden to depths ranging from 6.1 m to 47.2 m BGS (or elevations of 63.2 m to 20.8 m AMSL) between 1979 and 2010. The construction method for four (4) of the wells (5202992, 5203384, 5203417, and 5203944) is reported as digging, with the remaining wells reported as drilled. Static water levels measured in the water wells at their time of construction ranged from 2.4 m to 15.2 m BGS (60.8 m to 74.1 m AMSL).

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3.3 PRIVATE WATER WELL SURVEY

Pendleton retained CanAcre to perform a door-to-door well survey of properties located within a 300 m radius of the Site to verify the location, construction details, integrity and performance (i.e., quantity and quality) of local private water wells. CanAcre conducted the survey in December 2017, which involved asking the contacted residents a series of questions pertaining to the construction details, integrity and performance of their wells. CanAcre identified and visited 46 properties within the survey area and obtained completed forms from 21 properties. Review of the completed private well survey forms indicated that there are several shallow dug private wells located on nearby properties that are used for domestic purposes. The locations of the properties contacted during the survey and all completed forms received from the residents are provided in Appendix E.

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4.0 POTENTIAL GROUNDWATER RELATED IMPACTS

4.1 CONSTRUCTION PHASE

4.1.1 Construction Dewatering

Overall, dewatering of service/utility trench excavations completed during construction may be required to manage the following events:

- Groundwater seepage into the excavation.
- Precipitation within construction area and subsequent runoff into the excavation.
- Accumulated groundwater within the excavation following a prolonged construction delay.

As described on the *Construction Plan Report* (Stantec, 2017a), the solar panels will be mounted to rack system that is positioned 0.5 m to 1.5 m above the existing grade, with the racks being supported by helical piers/piles. Helical piles are wound into the ground and, subsequently, will require no excavations for their installation. Consequently, no dewatering activities will be needed for the construction of the solar panel arrays.

The type and extent of dewatering system to be used at the excavations will be the responsibility of the Construction Contractor and may include the use of a vacuum well point system, sump/trash pumps located within the excavation, or a similar type system.

Dewatering activities are expected to be completed on an as-required basis, with the rate of this dewatering being dictated by the amount of construction activity occurring across the Site at a given time, the type of subsurface material and groundwater levels encountered in the excavations, and the elevation at which the groundwater table must be lowered to install the utilities/services. Calculations of the construction dewatering rates that could be required throughout at the Site is provided in the sections below, with these rates being largely determined using hydrogeological information obtained from the desktop background review.

The average day pumping rates for open cut trench excavation was estimated using the Dupuit-Forchheimer equations for trench/linear excavation based on calculations presented by Powers *et al.* (2007). The input parameters required for the Dupuit-Forchheimer Flow Equations include the following: length of the open trench, excavation, horizontal hydraulic conductivity of the subsurface material, the base elevation of the hydrostratigraphic unit being pumped, the static groundwater elevation, and the targeted groundwater dewatering elevation. Assumptions for the calculations are as follows and are considered conservative and based on available data:

• Stantec understands that typical trench excavations at the Site are estimated to be up to 0.5 m wide and 1.2 m deep (Stantec, 2017a), with the potential length of open trench excavation at any single time estimated to be up to 300 m

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- to include as factor of safety in the dewatering estimates, the depth of dewatering is taken as 0.5 m below the maximum depth of trench (i.e. 1.7 m)
- the highest groundwater level measured in the open boreholes completed across the Site in January 2015 was 2.1 m BGS (TP14-6) (Section 3.1). The depth of the proposed utility trench excavations (i.e., 1.2 m) are planned to occur above this groundwater level. However, site visits completed by Pendleton personnel in October 2017 found that some areas of the Site were wet, suggesting that the seasonally high groundwater table may occur near ground surface. As a result, for conservative estimation purposes and considering seasonal fluctuations, a static groundwater level of 0.1 m BGS was used in the dewatering calculations.
- based on the values presented in *The Water Budget: Conceptual Understanding Report* (RRCA & SNC (2009) for the Coarse-Textured Glaciomarine Aquifer (Section 2.3), a hydraulic conductivity of 7.7 x 10⁻⁶ m/s was used in the dewatering calculations. This hydraulic conductivity is within the range of literature values of 10⁻⁷ m/s to 10⁻⁵ m/s for silty sands and fine sands (Fetter, 1994)
- the base of the aquifer is assumed to be 1.0 m below the maximum excavation depths, and is representative of the depth from which groundwater will be drawn during dewatering activities.

Based on the above assumptions, the average day dewatering rate from open trench excavation up to 300 m in length is estimated at 174,450 L/day. Detailed dewatering calculations are provided in Appendix F.

Dewatering above 50,000 L/day but below 400,000 L/day requires registration with the Environmental Sector and Activity Registry (EASR) of the MOECC to proceed. A Permit to Take Water (PTTW) is required for dewatering rates exceeding 400,000 L/day. As such, an EASR should be obtained for the project to provide the Contractor with flexibility, should additional dewatering be required for storm water control during a large precipitation event, or unexpected conditions that are encountered in the field. Groundwater quality will need to be reviewed in support of an EASR.

The above assumptions are considered conservative and are based on available Site data. The Contractor will be responsible to confirm dewatering conditions prior to construction, and to design and implement an appropriate dewatering system to manage discharge during the excavation activities.

A key issue of concern with the performing of groundwater dewatering activities for construction is the potential impact that pumping water from the groundwater system could have on local private water well supplies. The above dewatering calculations suggest that that the maximum horizontal extent of pumping drawdown around an open trench excavation up to 300 m in length is expected to range from seven (7) to 13.6 meters (Appendix F). Based on the Site buildable area boundary shown on Figure 1 (Appendix A), the dewatering cone of influence from a trench theoretically positioned directly along this boundary would not extend into any of the adjoining private properties. In the very unlikely event that the dewatering cone of influence were to intercept an offsite private well, the resulting drawdown interference is not expected to detrimentally impact local water quantities / well usage, given that water wells on adjoining properties are constructed to depths ranging from 7.6 m to 12.0 m BGS (Appendix F). In comparison, the required water level drawdown caused from onsite dewatering would not exceed the depth of the service/utility trench excavation of 1.2 m (based on conservative assumption that the water table that is at or near existing grade, which groundwater observations in onsite boreholes suggest is not the case; Table 1,

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Appendix B). Overall, it is reasonable to assume that no notable interference impacts will occur to local private wells from temporary onsite construction dewatering activities, if such measures are required.

4.1.2 Spill Containment and Response

Incidental and unanticipated accidental spills at ground surface from activities such as the onsite refueling of vehicles or hydraulic oil leaks from equipment during construction, or various fluid leaks from vehicles utilizing the parking areas following construction, could potentially result in adverse effects to groundwater quality given that the Site is covered by surficial sand to sandy silt deposits. However, an adverse residual effect on groundwater quality at the Site is unlikely, given that if an accidental spill were to occur, it would be localized, involve a small volume of material, and have appropriate environmental management practices in place to address the spill [refer to Section 3.7 of the *Construction Plan Report* (Stantec, 2017a) and Section 5.7 of the *Design and Operations Report* (Stantec, 2017b)].

Best management protocols will be implemented at the Site to minimize the effect of potential contaminant spills at ground surface including:

- secondary containment of any fuel storage
- storage of all oils, lubricants and other chemicals in suitable containers and handling in accordance with applicable regulations
- refueling of equipment in dedicated locations away from areas located near onsite drainage pathways
- development and implementation of emergency spill response protocols.

4.2 OPERATIONAL PHASE

No changes to the shallow groundwater flow system, or volume of water moving through the shallow groundwater flow system, are anticipated from the solar development that could potentially impact recharge to the shallow aquifer system. Precipitation falling on the solar panels will flow onto the ground underlying these structures, which will have been reseeded with vegetation such as grasses and clover species (Stantec, 2017a). Consequently, this precipitation will continue to infiltrate into the native sand deposits that cover the Site, maintaining the pre-development groundwater recharge function of these lands.

The potential for accidental spills, although limited, are possible during the operational phase of the Project and, subsequently, there is the potential to impact the local groundwater quality. If an accidental spill occurs, appropriate mitigation measures are to be implemented and will be the same as described in the previous section for the construction phase (Section 4.1).

4.3 DECOMMISSIONING PHASE

No groundwater related impacts are anticipated during the decommissioning stage as there will only be minor local alterations to soil conditions during onsite activities. As during the construction phase, there is the potential for accidental spills resulting in possible groundwater contamination and proposed mitigation measures will be the same as described in the previous section (Section 4.1).

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5.0 RECOMMENDED GROUNDWATER MONITORING PROGRAM

Based on the understanding of the local geological and hydrogeological conditions obtained from the findings of the desktop study for the Project, Stantec recommends that onsite groundwater monitoring wells be installed at the Site. The main concern at the Site is the shallow depth to the overburden (sand) water supply aquifer and, consequently, the limited amount of natural protection (i.e., absence of thick, low permeability overburden cover) that this aquifer has from potential surface sources of contamination. In addition, shallow dug private wells are located near the Site, with these wells obtaining their water supply from the shallow portions of sand aquifer.

The installation of onsite monitoring wells and subsequent sampling of water quality from these wells will be beneficial in that background groundwater quality conditions will be established in the shallow sand aquifer beneath the Site, which can be used to provide an additional level of information should complaints arise concerning the quality of water in nearby private wells after the start of construction.

5.1 GROUNDWATER MONITORING LOCATIONS

The recommended locations for the installation of groundwater monitoring wells at the Site are outlined below and shown on Figure 8 (Appendix A).

<u>MW1-18 - Upgradient Location</u> – One (1) monitoring well is proposed in the northwestern corner of the Site, as this area is interpreted to be an upgradient location (Figure 8, Appendix A). This well will provide data on the quality of groundwater flowing onto the Site and used as a baseline for comparison of groundwater quality in monitoring wells installed downgradient of the solar panel area. This well together with the other recommended monitoring well locations will provide the triangulation necessary to confirm the shallow groundwater flow direction. The groundwater table is expected to be encountered within sand at this location at depths ranging from 2 m to 5 m BGS.

<u>MW2-18 - Downgradient Location</u> – One (1) monitoring well is proposed in the southwestern area of the Site near the property boundary, as this area is interpreted to be a downgradient location (Figure 8, Appendix A). This well together with the other recommended monitoring well locations will provide the triangulation necessary to confirm the shallow groundwater flow direction. There is flexibility in where this monitoring well can be positioned in the southwest corner of the Site; however, the final location should be away from future construction activities. The groundwater table is expected to be encountered within sand at this location at depths ranging from 2 m to 5 m BGS.

<u>MW3-18 - Downgradient Location</u> – One (1) monitoring well is proposed to be in the southeastern area of the Site near the property boundary, as this area is interpreted to be a downgradient location. This well together with the other recommended monitoring well locations will provide the triangulation necessary to confirm the shallow groundwater flow direction. There is flexibility in where this monitoring well can be positioned in the southwest corner of the Site; however, the final location should be away from future

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construction activities. The groundwater table is expected to be encountered within sand at this location at depths ranging from 2 m to 5 m BGS.

<u>MW4-18 - Downgradient Location</u> – One (1) monitoring well is proposed to be in the northeast to central area of the Site near the property boundary, as this area is interpreted to be a downgradient location. This well together with the other recommended monitoring well locations will provide the triangulation necessary to confirm the shallow groundwater flow direction. There is flexibility in where this monitoring well can be positioned along the east central property boundary area; however, the final location should be away from future construction activities. The groundwater table is expected to be encountered within sand at this location at depths ranging from 2 m to 5 m BGS.

Stantec notes that the anticipated depths to the groundwater table are only estimates based on limited data. Consequently, decisions regarding the completion depth for the monitoring well installations are to be made in the field by a qualified Hydrogeologist or Engineer specializing in hydrogeology at the time of drilling. The monitoring wells are to be installed prior to construction activities beginning at the Site.

5.2 GROUNDWATER MONITORING PROGRAM

This monitoring program presented below for the proposed onsite wells has been provided as an outline and may be subject to adjustments, with the final scope of the monitoring program ultimately being left to the discretion of the MOECC. The recommended monitoring program is as follows:

- Stantec recommends that groundwater level fluctuations in at least one of the proposed four (4) onsite monitoring wells be measured using a Solinst® LT Levelogger® or an equivalent datalogger device, which is designed to continuously record water levels at specified intervals, with manual water levels being collected from the remaining wells once per month. This information when analyzed in conjunction with local precipitation patterns will allow Pendleton to properly assess whether construction activities associated with the solar development have caused any notable impacts to groundwater quantities beneath the Site, or whether observed fluctuations are merely a function of naturally occurring seasonal atmospheric conditions.
- During the pre-construction period, Stantec recommends that one (1) water quality sample be collected from each onsite monitoring well. The collection of these samples will allow Pendleton to establish baseline water quality conditions at each well from which future sampling results can be compared. Well water samples are to be analyzed for general chemistry and metals to provide an overall understanding of existing groundwater quality.
- Once baseline water quality has been established, trigger concentrations for these parameters can be set at each of the monitoring wells and used as an early warning mechanism to identify whether groundwater quality beneath the Site is potentially at risk of being impacted by the construction and/or ongoing operation of the solar development and, subsequently, whether the implementation of mitigation measures are required before such impacts reach unacceptable levels. Stantec suggests that the trigger level for a given water quality parameter be set at the 75th percentile between the average background concentration detected in the well and the corresponding Ontario Drinking Water Standard (ODWS) for those parameters having a Maximum Acceptable Concentration (IMAC / MAC)

Recommended Groundwater Monitoring Program January 21, 2018

(i.e., health-related parameter); however, this does not preclude the using of other methods/techniques to set trigger levels as deemed appropriate by the consultant responsible for overseeing the monitoring program.

- Stantec recommends that one (1) set of samples be collected from the onsite monitoring wells during the construction phase and one (1) set of samples collected shortly after the end of the construction phase and analyzed for the same water quality parameters discussed previously (i.e. general chemistry and metals), with these results then being compared to established parameter trigger levels. If any notable changes in onsite groundwater quality are determined to be attributed to construction activities, Pendleton will contact the MOECC to discuss these results and, if necessary, the possibility of implementing mitigation measures at the Site.
- Previously described water quality sampling will continue to be performed at the onsite monitoring
 wells for two (2) years following the end of construction activities to ensure that there are no water
 quality issues associated with the operational activities of the solar facility. Water quality samples will
 be taken once per year over this period and compared to established parameter trigger levels. If any
 notable changes in onsite groundwater quality are determined to be attributed to the Project
 operations, Pendleton will contact the MOECC to discuss these results and, if necessary, the
 possibility of implementing mitigation measures at the Site.
- Pendleton will report the summary of the results of the groundwater monitoring program on an annual basis to the MOECC District Manager.

Conclusions January 21, 2018

6.0 CONCLUSIONS

Based on the desktop hydrogeological investigation, the following conclusions are provided:

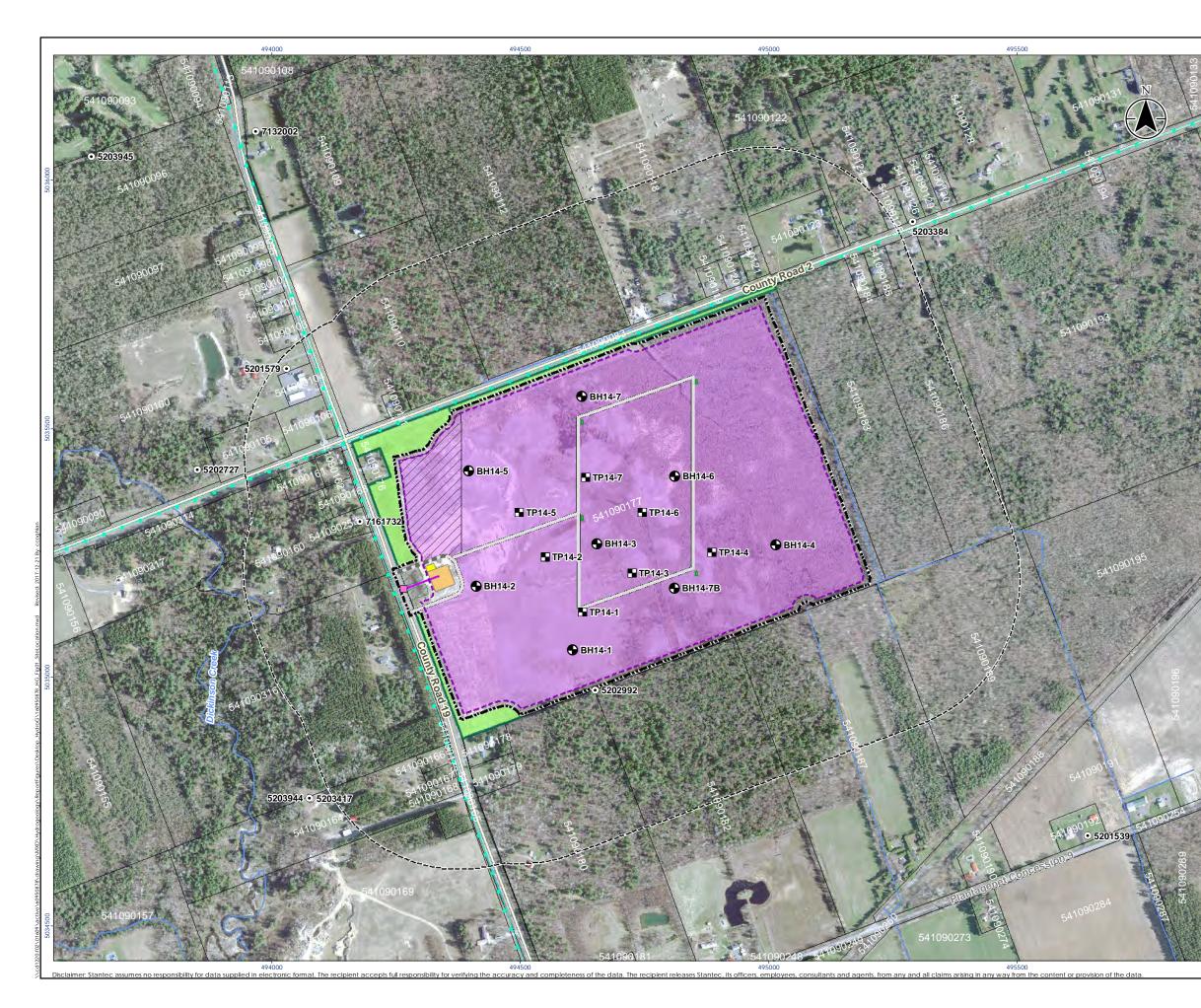
- The Site is characterized by surficial deposits of sand to silty sand, with some occurrences of sandy silt that is interpreted to represent a regionally extensive coarse-textured glaciomarine stratigraphic aquifer unit. The surficial sand deposits are interpreted to be underlain by the fine-textured glaciomarine silt and clay aquitard, which was encountered at a depth of approximately 14 m BGS in a nearby private well.
- 2. Groundwater levels encountered in boreholes/test pits completed on Site have been measured to range from 2.1 m to 5.0 m BGS, with groundwater flow interpreted to be south with southwestern and southeastern components.
- 3. Construction dewatering may be required for the installation of utility/service trenches throughout the Site. Since the solar panel arrays will be mounted on racks supported by helical piers/piles, no subsurface excavations and, subsequently, dewatering activities will be required for these works. Conservative dewatering calculations suggest that the pumping rate required to remove the volume of groundwater seeping into trench excavations completed into the sandy deposits over a 300 m stretch of open trench will exceed 50,000 L/day (but remain below 400,000 L/day) and, consequently, the Construction Contractor will need to register an MOECC EASR for the project to complete these dewatering activities.
- 4. Review of MOECC water well records and completed private well survey forms from a door-to-door survey of properties within 300 m of the Site indicate there are several shallow dug private wells located on nearby properties that are used for domestic purposes, with these wells obtaining their water supply from the shallow portions of sand aquifer.
- 5. Based on the potential dewatering zone of influence and positioning of local private wells relative to the Site, no notable interference impacts are anticipated at local private wells from temporary onsite construction dewatering activities, if such works are required.
- 6. The main concern at the Site is the shallow overburden (sand) water supply aquifer and the lack of natural protection that this aquifer has from potential surface sources of contamination. There is potential for accidental spills to occur during the construction, operation and decommissioning phases of the project, and appropriate mitigation measures will be implemented to minimize potential to impact the local groundwater quality.
- 7. Installation of onsite monitoring wells and subsequent sampling of water quality from these wells is recommended and will be beneficial in establishing background groundwater quality conditions in the shallow sand aquifer beneath the Site, which can be used to provide an additional level of information should complaints arise concerning the quality of water in nearby private wells.

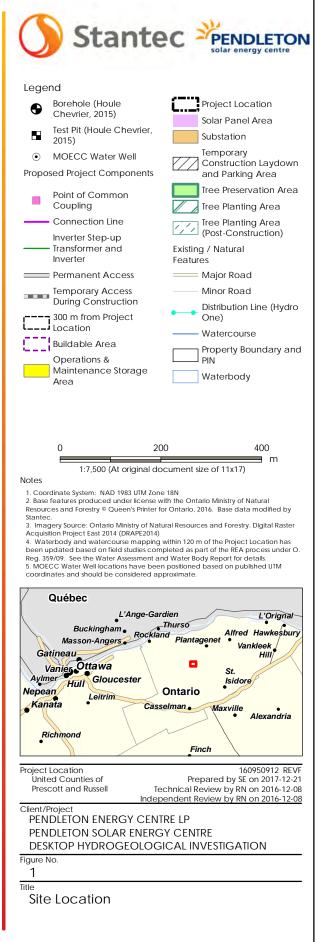
References January 21, 2018

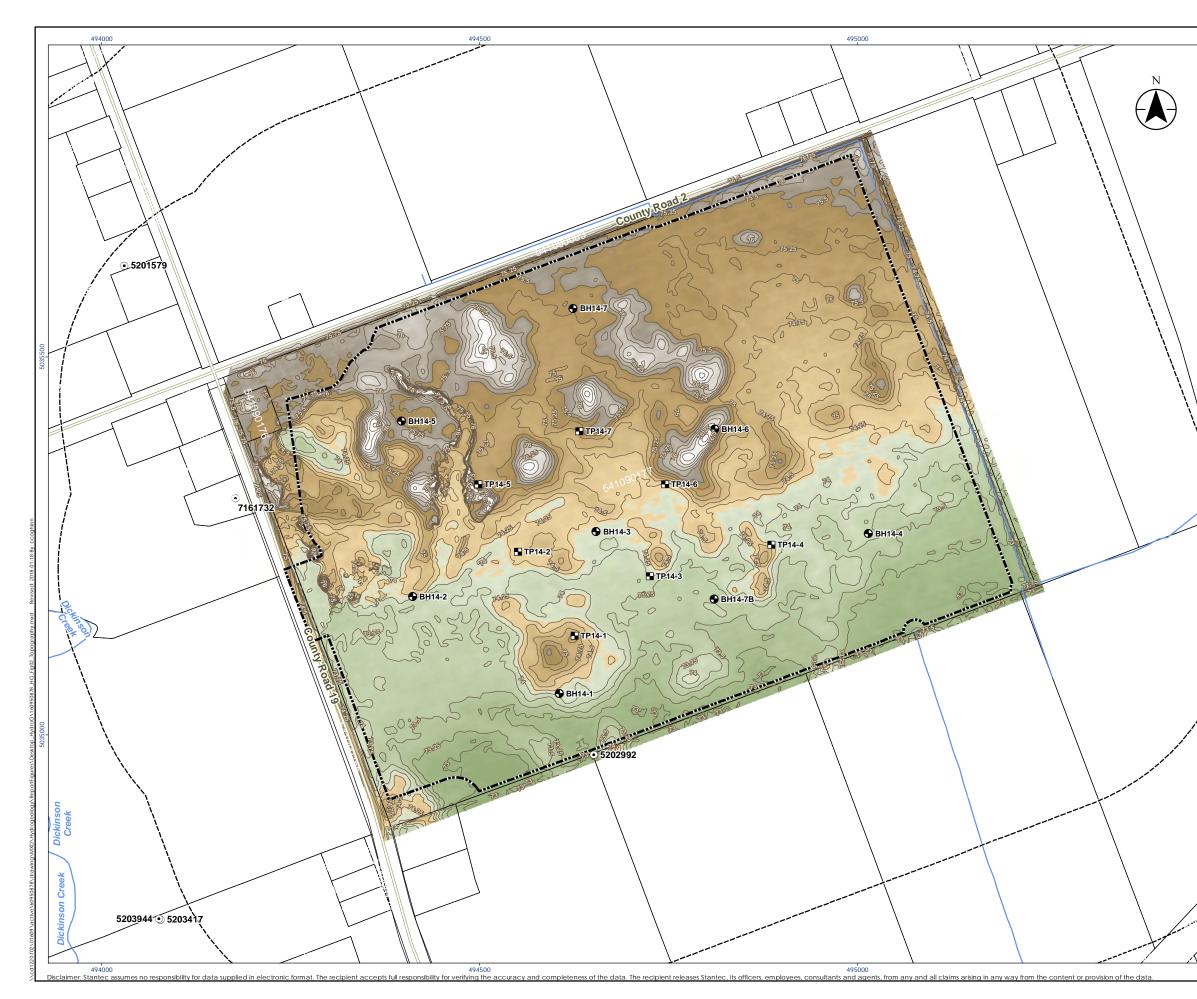
7.0 REFERENCES

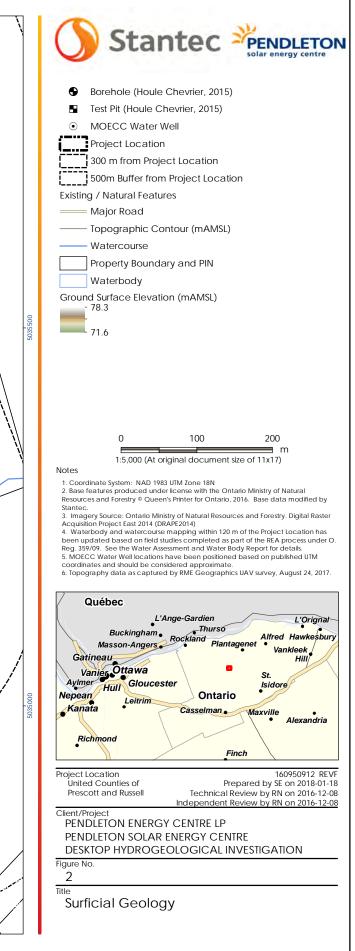
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APPENDIX A: FIGURES

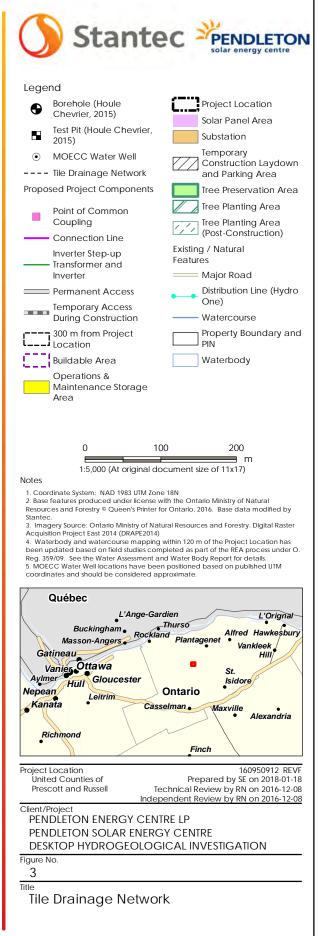


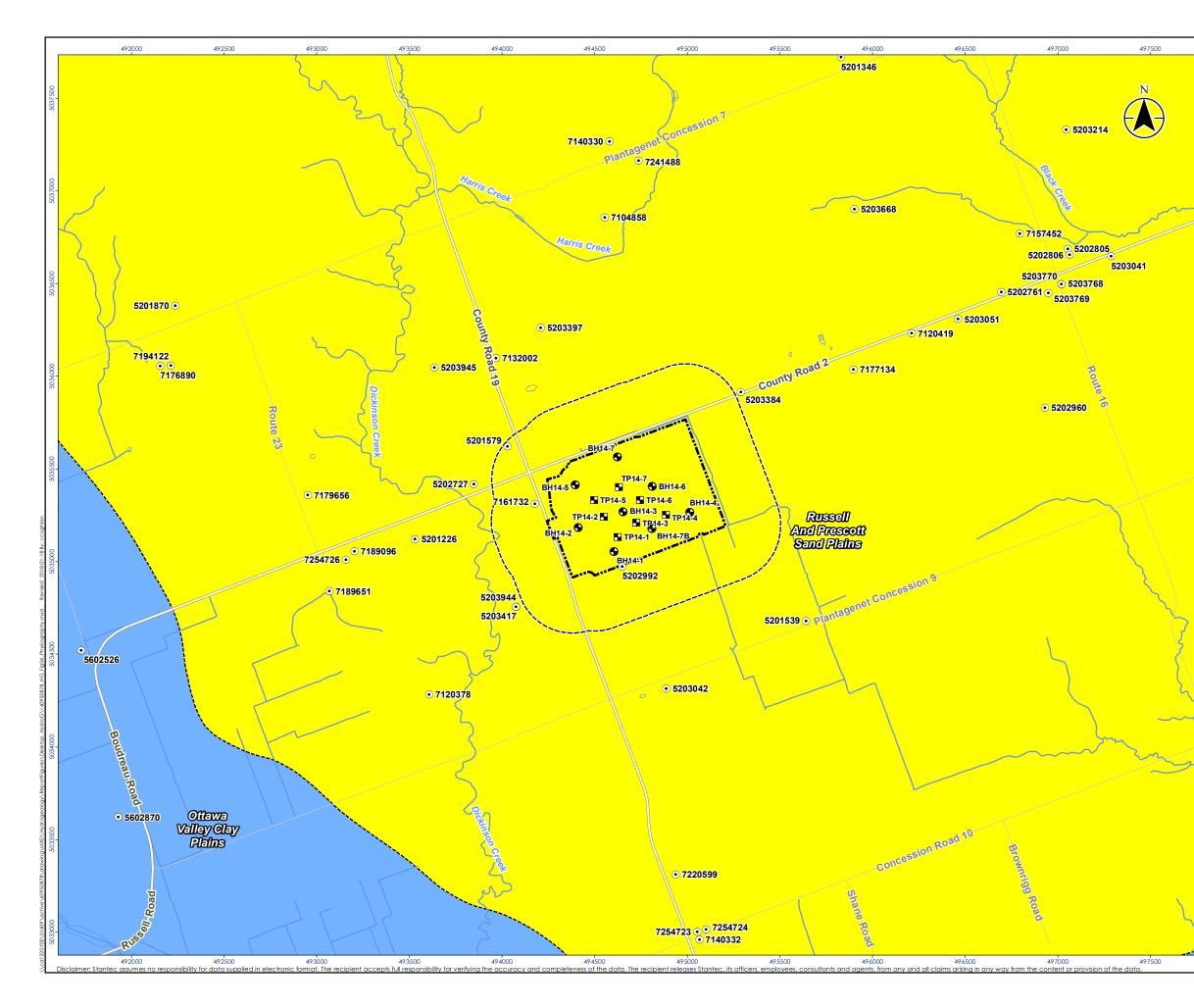


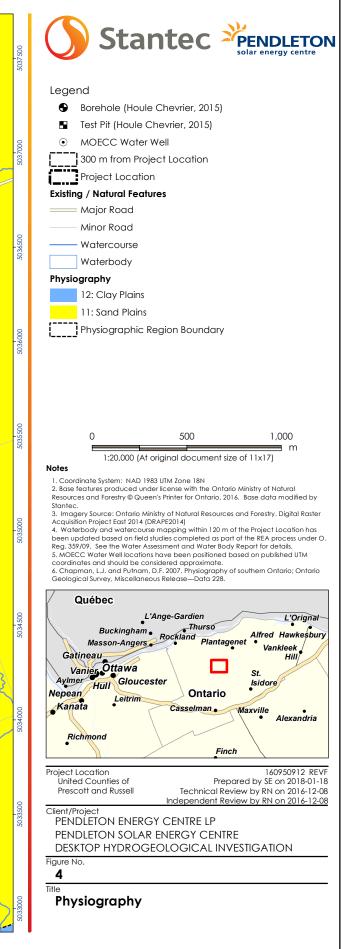


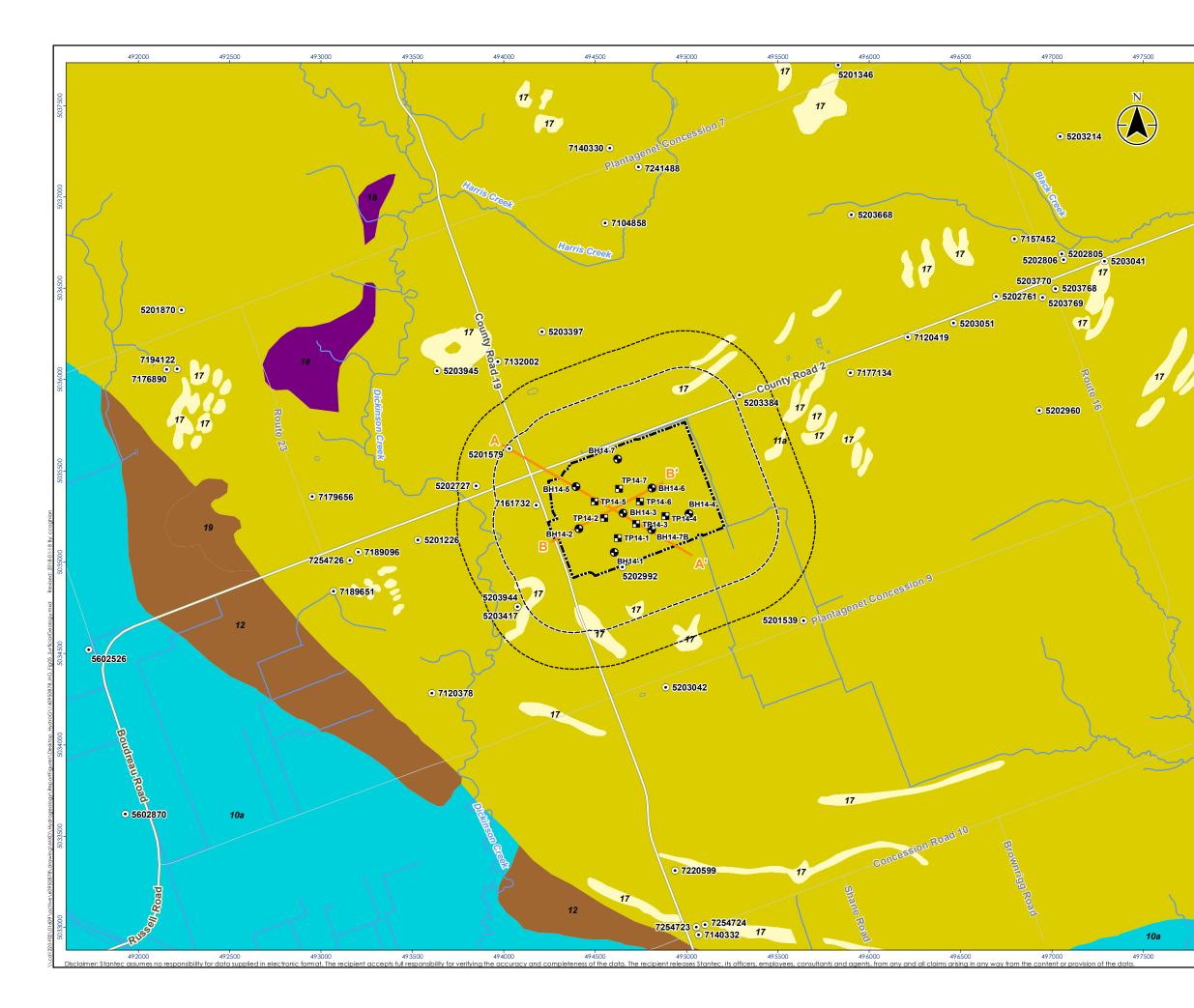


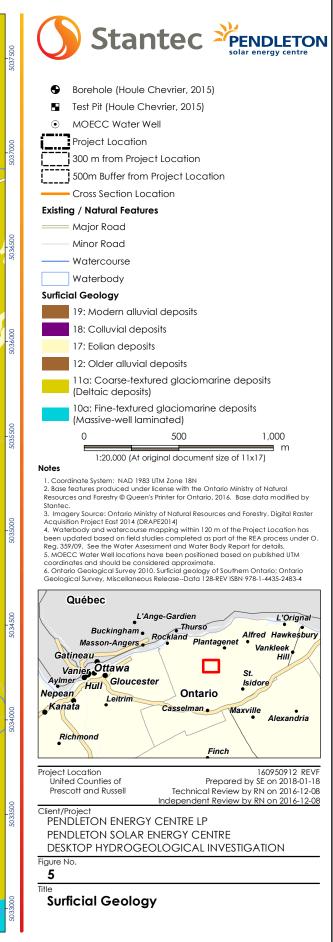


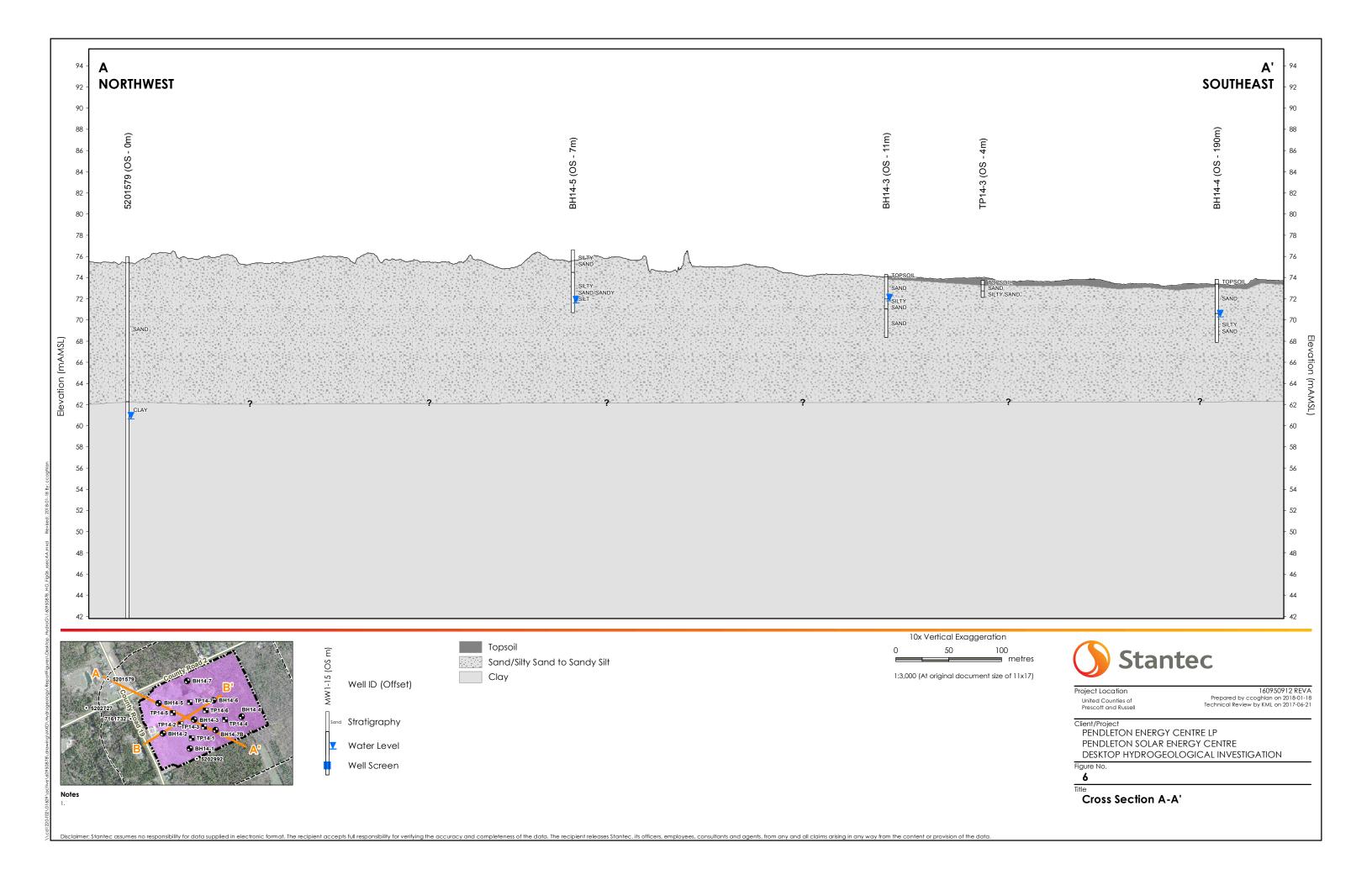


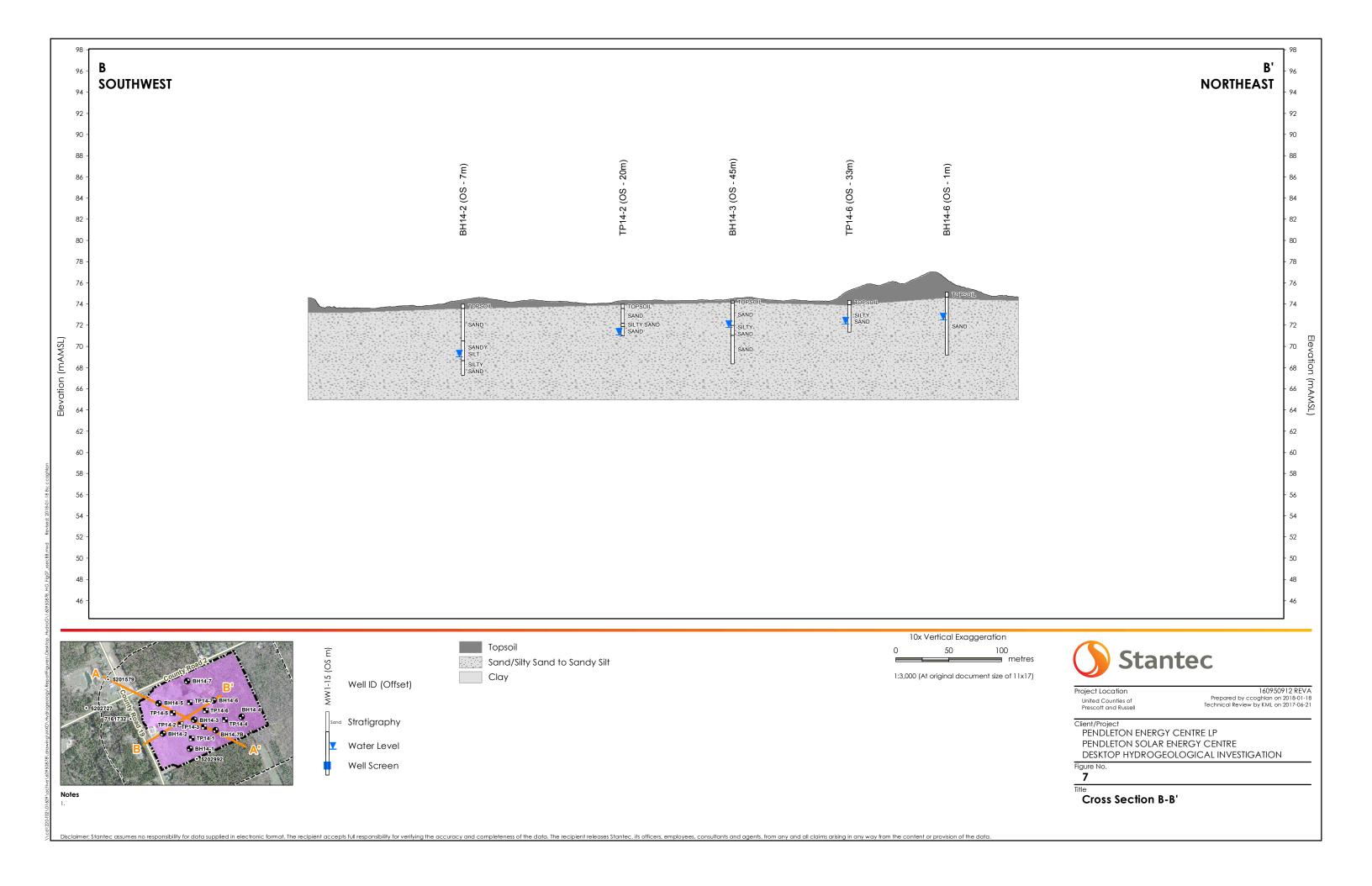


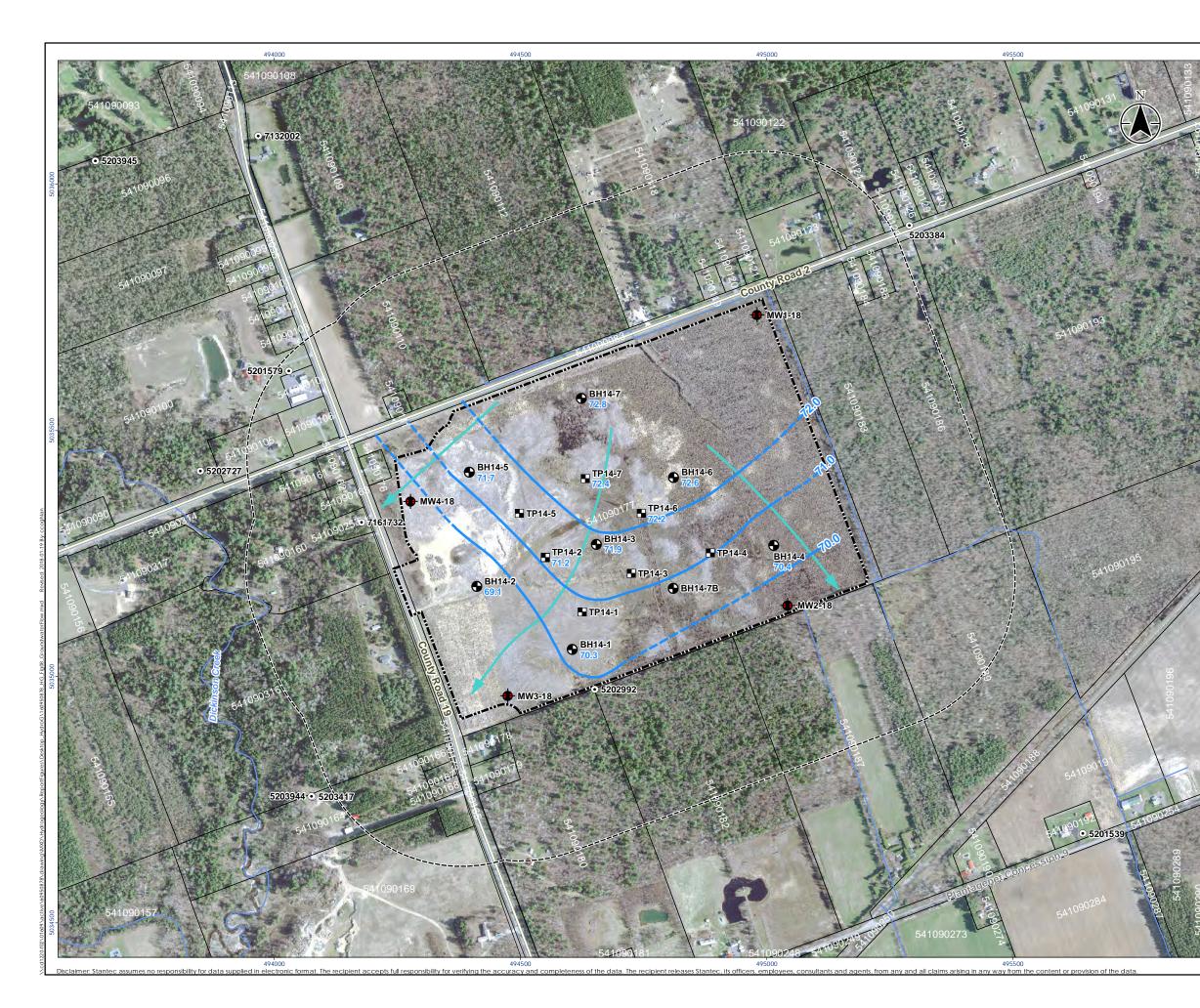


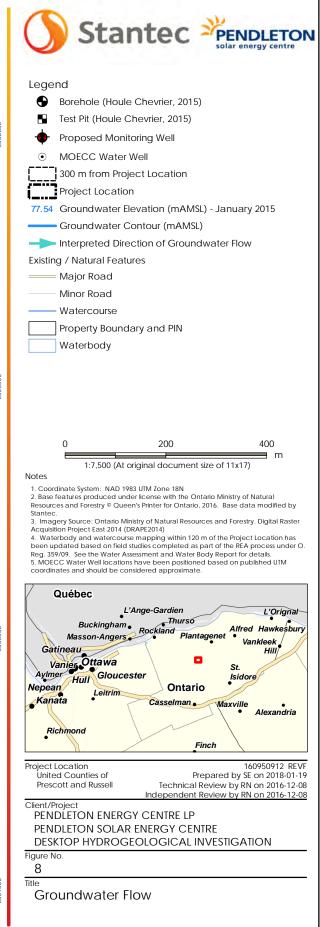












APPENDIX B: TABLES

TABLE 1 GROUNDWATER LEVEL DATA PENDLETON SOLAR ENERGY CENTRE DESKTOP HYDROGEOLOGICAL INVESTIGATION

Borehole / Test Pit ID	UTM Coordinates		Date	Borehole / T	est Pit Depth	Ground Surface Elevation	Groundw	ater Level
	Northing	Easting		(m BGS)	(m AMSL)	(m AMSL)	(m BGS)	(m AMSL)
BH14-1	5035055	494605	13-Jan-15	5.9	68.1	74.0	3.7	70.3
BH14-2	5035183	494411	12-Jan-15	6.7	67.3	74.0	4.9	69.1
BH14-3	5035269	494654	12-Jan-15	5.9	68.3	74.3	2.4	71.9
BH14-4	5035266	495014	13-Jan-15	5.9	67.9	73.8	3.5	70.3
BH14-5	5035415	494397	12-Jan-15	5.9	70.7	76.6	5.0	71.6
BH14-6	5035405	494811	13-Jan-15	5.9	69.2	75.1	2.5	72.6
BH14-7	5035564	494624	12-Jan-15	5.9	69.4	75.4	2.5	72.9
TP14-2	5035242	494551	12-Jan-15	3.0	71.0	74.0	2.8	71.2
TP14-6	5035332	494746	12-Jan-15	3.0	71.3	74.3	2.1	72.2
TP14-7	5035402	494632	12-Jan-15	3.0	72.4	75.4	3.0	72.4

Notes:

m BGS = meters below ground surface

m AMSL = meters above mean sea level

All data summarized from Houle Chevrier Engineering (HCE, 2015) Preliminary Geotechnical Investigation Report

APPENDIX C: MOECC WATER WELL RECORDS

BORE HOLE ID	WELL ID	AUDIT NO	TAG	ZONE	EAST	NORTH	BOT DPTH	GRND ELEV	BOT ELEV	FINAL STA	Use1	Use2	DATE COMPLETED	METHOD	County	Township	Expr1	Expr2	LOT	STREET	CITY
																NORTH PLANTAGENET					
10348304	5201579			18	494030	5035621	46.63439941	75.992286	29.35788659	1	Domestic		18-Oct-79	Cable Tool	PRESCOTT	TOWNSHIP	CON	07	021		
																NORTH PLANTAGENET					
10349444	5202727	117790		18	493850	5035418	47.24399948	68.069274	20.82527452	1	Domestic		22-Jul-92	Cable Tool	PRESCOTT	TOWNSHIP	CON	07	021		
																NORTH PLANTAGENET					
10349708	5202992	120359		18	494651	5034974	4.87680006	74.483634	69.60683394	1	Domestic		26-Oct-94	Digging	PRESCOTT	TOWNSHIP	CON	08	020		
																NORTH PLANTAGENET					
10350099	5203384	184216		18	495290	5035916	6.096000195	77.12899	71.03298981	1	Domestic		21-Jun-99	Digging	PRESCOTT	TOWNSHIP	CON	07	018		
																NORTH PLANTAGENET					
10350131	5203417	191104		18	494078	5034756	7.924799919	71.340835	63.41603508	1	Domestic		09-Sep-99	Digging	PRESCOTT	TOWNSHIP	CON	08	021		
																NORTH PLANTAGENET					
11107235	5203944	Z01821	A001740	18	494075.8	5034757	8	71.15789	63.15789	1	Domestic		01-Dec-03	Digging	PRESCOTT	TOWNSHIP	CON	08	021		
																NORTH PLANTAGENET				821 COUNTY RD	ر
1003495523	7161732	Z113471	A098901	18	494177	5035313	6.705600262	75.536636	68.83103574	1	Domestic		08-Jun-10	Driving	PRESCOTT	TOWNSHIP	CON	08	021	19	CARRAN

BORE_HOLE_ID	WELL_ID	EAST	NORTH	GRND_ELEV	TOP_DPTH	BOT_DPTH	TOP_ELEV	BOT_ELEV	MAT1	MAT2	MAT3	COLOUR
10348304	5201579	494030	5035621	75.992286	0	13.716	75.992286	62.276286	SAND	LOOSE		BROWN
10348304	5201579	494030	5035621	75.992286	13.716	42.0624	62.276286	33.929886	CLAY	SOFT		GREY
10348304	5201579	494030	5035621	75.992286	42.0624	46.0248	33.929886	29.967486	GRAVEL	CLAY	SAND	GREY
10348304	5201579	494030	5035621	75.992286	46.0248	46.6344	29.967486	29.357886	UNKNOWN TYPE			
10349444	5202727	493850	5035418	68.069274	0	42.672	68.069274	25.397274	PREV. DRILLED			
10349444	5202727	493850	5035418	68.069274	42.672	47.244	25.397274	20.825274	GRAVEL	LOOSE		GREY
10349708	5202992	494651	5034974	74.483634	0	1.8288	74.483634	72.654834	SAND	TOPSOIL		BROWN
10349708	5202992	494651	5034974	74.483634	1.8288	4.8768	72.654834	69.606834	SAND			GREY
10350099	5203384	495290	5035916	77.12899	0	0.3048	77.12899	76.82419	TOPSOIL			BROWN
10350099	5203384	495290	5035916	77.12899	0.3048	1.2192	76.82419	75.90979	SAND			YELLOW
10350099	5203384	495290	5035916	77.12899	1.2192	6.096	75.90979	71.03299	SAND			GREY
10350131	5203417	494078	5034756	71.340835	0	3.6576	71.340835	67.683235	TOPSOIL			BROWN
10350131	5203417	494078	5034756	71.340835	3.6576	7.9248	67.683235	63.416035	SAND			GREY
11107235	5203944	494075.8	5034757	71.15789	0	2.5	71.15789	68.65789	TOPSOIL			BROWN
11107235	5203944	494075.8	5034757	71.15789	2.5	8	68.65789	63.15789	SAND			WHITE
1003495523	7161732	494177	5035313	75.536636	0	0.3048	75.536636	75.231836	TOPSOIL			BROWN
1003495523	7161732	494177	5035313	75.536636	0.3048	1.2192	75.231836	74.317436	SAND			YELLOW
1003495523	7161732	494177	5035313	75.536636	1.2192	6.7056	74.317436	68.831036	SAND			WHITE

MOECC WWR (CASING)

BORE_HOLE_ID	PIPE_ID	CASING_ID	WELL_ID	Diameter_cm	Depth_m	casing_material
10348304	10896874	930572590	5201579	15.23999977	45.72000122	STEEL
10346304	10090874	930372390	5201579	15.25999977	43.72000122	JIEEL
10349444	10898014	930574147	5202727	15.23999977	47.24399948	STEEL
10349708	10898278	930574538	5202992	91.44000244	4.87680006	CONCRETE
10350099	10898669	930575153	5203384	91.44000244	6.096000195	CONCRETE
10350131	10898701	930575208	5203417	91.44000244	7.924799919	CONCRETE
11107235	11114258	930840357	5203944	90	6	PLASTIC
1003495523	1003868339	1003868345	7161732	3.174999952	6.705600262	STEEL

BORE_HOLE_	D WELL_ID	PIPE_ID	well_type	DP2BR	Well_Depth_m	Static_WL	FinalLevAfterPumping_m	Pumping_rate	Pump_Duration_HR	Recom_rate	Rate_UOM	Recom_pump_depth_m	ScreenID	TopOfScreen	BottomOfScreen
10348304	5201579	10896874	Overburden		46.63439941	15.24	32.004	10	1	5	GPM	36.576			
10350131	5203417	10898701	Overburden		7.924799919		6.096	3	1	4	GPM	1.2192			
10350099	5203384	10898669	Overburden		6.096000195	3.048	6.096	5	4		GPM				
10349708	5202992	10898278	Overburden		4.87680006	2.4384	3.3528	4	1	4	GPM	4.572			
10349444	5202727	10898014	Overburden		47.24399948	4.2672	6.096	6	24	5	GPM	24.384			

APPENDIX D: BOREHOLE AND TEST PIT LOGS

RECORD OF BOREHOLE 14-1

SHEET 1 OF 1

LOCATION: See Borehole Location Plan, Figure 2

BORING DATE: January 13, 2015

DATUM:	Geodetic

T_{t}	8	SOIL PROFILE			S/	AMPL	ES	DYN/	MIC PER		ION *	\geq	HYDR k, cm/		CONDUC	TIVITY,	Т	(7)	
MICINES	BORING METHOD		Ь		~		Ĕ					30		10 ⁻⁷	10 ⁻⁶	10 ⁻⁵	10 ⁻⁴ ⊥	ADDITIONAL LAB. TESTING	PIEZOMETE
	N Q	DESCRIPTION	STRATA PLOT	ELEV.	NUMBER	TYPE	BLOWS/0.3m		R STRE	NGTH r	nat.V - 🚽	I ⊦ Q-●	W. 1	ATER C	ONTENT	, PERC	ENT	OTIO DITIO	OR STANDPIP
-	ORIN		RAT	DEPTH (m)	NS.	≿	P	Cu, k	Pa	r	em. V - 6	9 U-0		p	40 W	/		₽ ₽ ₽	INSTALLATI
Ļ	ă		s.	(11)				<u> </u>	20 4	40 (50 E	90		20	40 (60	80	ļ	
0	\vdash	Ground Surface Dark brown silty sand, some organic	st le	74.00	_	-					<u> </u>		[<u> </u>	<u> </u>			-	Borehole
		material (TOPSOIL)	17:31	70.00				ł											backfilled with auger
				7 <u>3.69</u> 0.31	1	50 D.O.	35								1				cuttings
		Compact, brown, fine to medium grained SAND, trace silt													1				
						4													
,																			
Ί					2	50 D.O.	10]	
									1										
					L	4													
				72.22															
		Compact, brown, fine to medium		7 <u>2,22</u> 1.78	3	50 D.O.	11							0					
		grained SAND, some silt						\vdash	1	1				1	1			1	
					\vdash	-				1					1				
	E			71.56	1					1	1				1				
	v Stern	Very loose to loose, grey brown SILTY SAND			4	50 D.O.	8												
Jec.	Follor								1										
Power Auger	200 mm Diameter Hollow				<u> </u>	-		\vdash		-								-	
Powe	Diam																		
	E				5	50 D.O.	4											I .	
	200					1								1					
					-	-													
				<u>69.94</u> 4.06				μ								-		-	
		Very loose to loose, brown, fine to		4.06	6.	50 D.O	4												
		medium grained SAND, some silt				-													
					\vdash	-			1										
		8			7	50	2												
					['	D.O.		\vdash				<u> </u>						-	
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				1	\vdash	1.				1									
					8	50	3												
						D.0.	· -												
		End of Borehole	1.01	<u>68.06</u> 5.94	┢	-		\parallel					 	0			_	-	
F	1						ľ.	'											Water level
		0											1						3.71m below ground
													1						surface upon
																			completion of borehole
·									1			<u> </u>	<u> </u>	<u> </u>				4	(Elevation 70.29
												1	1						metres)
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DE	PTH	SCALE			F	łoi	le	Che	vrie	r Eng	aine	erino	1					LOGO	GED: A.N.
1 t	o 4	0						Unc			2							CHEC	CKED:

RECORD OF BOREHOLE 14-2

SHEET 1 OF 1

LOCATION: See Borehole Location Plan, Figure 2

BORING DATE: January 12, 2015

DATUM	Geodetic
0.110.011	0000000

щ		Q	SOIL PROFILE			S	AMPL	ES	DYNAM RESIST	IC PENE ANCE, E	ETRATI	ON -	\geq	HYDR/ k, cm/s	AULIC C	ONDUC	TIVITY,	. T	<u>ں</u>		_
DEPTH SCALE	ETRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV.	NUMBER	түре	BLOWS/0.3m	20 I SHEAR	40) 6	50 8	30 	1	0 ⁻⁷ 1	IO ⁻⁶ 1	10 ⁻⁵	10 ⁻⁴	ADDITIONAL LAB. TESTING	PIEZOMI OR STANDI	PIPE
DEP	ž	BORIN	DESCRIPTION	STRAT	DEPTH (m)	NUN	1	BLOW	Cu, kPa 20		n	em. V - e	₽ Ū- <u>0</u> 30	Wr 2			50	WI 80	ADD LAB.	INSTALLA	ATION
F	0		Ground Surface Dark brown clayey silt, some organic	34	73.99		-					~								Borehole	
Ē			Dark brown clayey silt, some organic material (TOPSOIL)	17 3		1	50	26												Borehole backfilled with auger cuttings	
ŀ			Compact, brown, fine grained SAND,	Ar.	7 <u>3.58</u> 0.41	1	50 D.O.	20				ļ								çuturigs	
Ē			trace silt and clay													-					
ŀ	1					2	50	10											MH		
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ŀ				8		3	50	10													
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F		Ower A			70.54 3.45	5	50 D.O.	6													
Ē		Power Auger	Very loose, grey brown SANDY SILT, some clay			E	-					2									
F	4	2NC																			
ŧ						6	50 D.O.	4													
20-15							1									ľ					
2015-01-14.GPJ 2-20-15						7	50 D.O.	2											MH,		
01-14.0	5						D.O.												refer to Fig. A1		
2015-			Very loose to loose, grey SILTY		6 <u>8,66</u> 5.33	┢	1														
			SAND			8	50 D.O.	4													
GS GS	6						-									3					
							1									!					
OREH			:			9	50 D.O,	9													
4580 B		+	End of Borehole		67.28 6.71	\vdash	1													Water level in augers	
WC 1	7						2					-								4.86m below ground surface	-
THLAE																!				upon completion of borehole	-
012 W																				(Elevation 69.13 metres)	-
CORD	8																				-
BOREHOLE RECORD 2012 WITH LAB WC 14580 BOREHOLE LOGS GNT V01																			<u> </u>		
BOREH		to 4	H SCALE 40			F	lou	le	Chev	rier	Enç	linee	ering						LOGG	BED: A.N.	

RECORD OF BOREHOLE 14-3

SHEET 1 OF 1

LOCATION: See Borehole Location Plan, Figure 2

BORING DATE: January 12, 2015

		Ţ	SOIL PROFILE				AMPL	EG	DYNAM	C PEN	ETRATI	ON -	_	HYDR	AULIC C	ONDUC	TIVITY	Т			
DEPTH SCALE METRES	BORING METHOD	2	SUIL PROFILE			54		ES	DYNAMI RESIST	ANCE,	BLOWS	/0.3m	\geq	k. cm/s	5				μų		
N SCA				6		~		Ë	20	4	0 6	0 8	0	1	0 ⁻⁷ 1	0 ⁻⁶ 1	10 ⁻⁵	10-4 -	ADDITIONAL LAB. TESTING	PIEZOMET	FER
ΞË	20	;	DESCRIPTION	A PI	ELEV.	NUMBER	끮	BLOWS/0.3m	SHEAR			at V - 🗐	0.0		I ATER CO				ĔĔ	OR STANDPI INSTALLAT	PE
Ens			DESCRIPTION	EAT.	DEPTH] ≶	TYPE	Š	Cu, kPa	C I I L I	re	em. V - 6	9 Ū-0	1					Q 8	INSTALLAT	TION
<u> </u>) ĝ	ŝ		STRATA PLOT	(m)	Z		BLO	20	4	0.6	0 8	0		p	10 6	50 K	WI 30	1 ° - 1		
		┥					-											1			
- o	┝╌┤	+	Ground Surface Dark brown sandy silt, some organic	AL	74.28															Borehole	YAYOF
Ľ.			material (TOPSOIL)	-	74.10 0.18															backfilled 1	ते खि
ŀ			Compact and because fine to meeting		0.18	1	50	16	\vdash											with auger cuttings	25
t			Compact, grey brown, fine to medium grained SAND, some silt				D.O.														2021-
ŀ			•				-														9821-
t.							4											1			9031-
F .	11				1	1		1													663
- 1						2	50	10							b	1				l b	
Ę.	1						D.O.								ř						
┠																					2021-
È .		ł																			9831
-							1										1.1				603 ·
- 20 - I							6	40												5	rsbi
╞						3	50 D.O.	12													285 -
- 2																					
ŀ					71 00		1														<u>20</u>
<u> </u>		أء		11	7 <u>1,99</u> 2.29		1														88
-		mm Diameter Hollow Stem	Very loose, grey brown SILTY SAND																		1800
		ð				4	50 D.O.	4						}		-					6653
	ger	휜		14			1.0	1													
- 2	rAu	eter				 	1														
: 3	Power Auger	a			1	\vdash	1														
	٩	핟		Ш	71.05	ł	1														983 ·
		Ē	Very loose, grey brown, fine to medium grained SAND, trace to some			5	50	3							0						603
		30	medium grained SAND, trace to some silt				D.O.	1					1								665g-
		1	SIL			\vdash	1						1								
						H	1														202
4					1																988 I
-4						6	50	2													
							D.Q.		\vdash		L				ļ	ļ	ļ	<u> </u>			665
							1										1				295
							1												.		
		(S)				1															<u>36</u>
						7	50	2													908j
5						Γ΄.	D.O.										1				008
														1							665g
									┣──┤		<u> </u>		-	<u> </u>	<u> </u>			ļ	-		
						1															202
				ė.		١.	6														969j
						8	50 D.O.	2						1							908 ·
					68.34	1															602
6		1	End of Borehole		68.34 5.94	<u> </u>	1								ľ					Water level	
						1									1					in augers 2.43m below	-
						1			┣──┼		<u> </u>			<u> </u>			<u> · · · </u>		1	ground surface	-
																				upon	
				25	1									1						completion of borehole	-
						1		1					1							(Elevation	-
						1		1										1		71.85 metres)	-
7					1	1					1							1			-
																		1			-
									├ ───┼			<u> </u>	1	1	<u> </u>				1		
																1					
																					-
																					-
								1										1			
- 8						1						1				1		1			-
	1			1	L	1		1				1		I	1.	1	l	1	1		
I	DEP	тн	SCALE			н		le	Chev	rier	End	inee	erino	1					LOGG	GED: A.N.	
	1 to	40				•													CHEC	KED:	
		_									_										

DEPTH SCALE METRES BORING METHOD

0

1

2

Power Auger

4

5

6

7

8

DEPTH SCALE

1 to 40

2-20-15

200 mm Diamete

RECORD OF BOREHOLE 14-4

SHEET 1 OF 1 DATUM: Geodetic

SPT HAMMER: 63.5 drop 0.76 metres

LOGGED: A.N.

CHECKED:

LOCATION: See Borehole Location Plan, Figure 2

BORING DATE: January 13, 2015

SOIL PROFILE		S/	MPL	ES	DYNA	MIC PEN	BLOWS	ON [~] ;/0.3m	\geq	HYDR k, cm/s		ONDUC	ΤΙνίτγ,	Т	.0			
	5		~		Зщ	1				80	1	10 ⁻⁷ 1	10 ⁻⁶ 1	10 ⁻⁵ 1	10-4⊥	ADDITIONAL LAB. TESTING	PIEZOM	ÉTER
DESCRIPTION	IAPI	ELEV.	NUMBER	TYPE	VS/0.	SHEAI	R STRE	NGTH л	at. V - ⊣	. 0	w	ATER CO		, PERCE	ENT	E	OR STAND INSTALL	PIPE
	STRATA PLOT	DEPTH (m)	Ĩ	-	BLOWS/0.3m	Cu, kP				9 Ū-Ō 10	w	p ├──	W c		WI 30	₽₿		ATION
0 10 10	0	-	<u> </u>		_							- 0.			,,,, T			
Ground Surface Dark brown sandy silt, some organic material (TOPSOIL)	11	73.84		1				[Borehole	6002
material (TOPSOIL)	0.9		1	50	21												backfilled with auger cuttings	
	NE	7 <u>3.41</u> 0.43	l '	50 D.O.	21												cuttings	
Compact, grey brown, fine to medium grained SAND, some silt			<u> </u>]														
granes of the borne one														ļ				
			2	50	19						с							
			1	D.O.								1						
			<u> </u>											1				
														}				685
			3	50	15													
				D.O.		\backslash												668
			<u> </u>]				
2									r.									
			4	50	3													
				D.O.														
			-											<u> </u>				
		70.61		l				ĺ	1									
Very loose, grey SILTY SAND, some		70,61 3.23	5	50	1			1	1			0						
clay				50 D.O.				}				20						
			-															R S
100						\vdash								2				
· 20			6	50	w. н.													685
				D.O.														668
			-															
				1														
			7	50	2	\vdash												
				D.O.														
		· ·					1											
				1														
			8	50	3											MH,		
		67.00		D.O.		\square							<u> </u>		ļ	refer to Fig. A1		
End of Borehole		67,90 5.94		1														R SS
						Ì											Water level in augers	
										}							3.45m below around	
																	surface upon	
																	completion of borehole	
																	(Elevation 70.39	
																	metres)	
92																		
								1					1					

Houle Chevrier Engineering

BOREHOLE RECORD 2012 WITH LAB WC 14580 BOREHOLE LOGS GNT V01 2015-01-14.GPJ

BOREHOLE RECORD 2012 WITH LAB WC 14580 BOREHOLE LOGS GNT V01 2015-01-14.GPJ 2-20-15

RECORD OF BOREHOLE 14-5

SHEET 1 OF 1

LOCATION: See Borehole Location Plan, Figure 2

BORING DATE: January 12, 2015

																	,			
щ	BORING METHOD	SOIL PROFILE		S/	MPL	ES	DYNAM RESIST	ANCE,	BLOW	110N /S/0.3m	>	k, cm/s	5	ONDUC	- 23		ە ت			
DEPTH SCALE METRES	AET!		STRATA PLOT		~		Ë	20) 4	40	60	80	1	10 ⁻⁷ 1	0 ⁻⁶ 1	0-5	10 ^{-4⊥}	ADDITIONAL LAB. TESTING	PIEZOM	ETER
HH HH	ģ	DESCRIPTION	API	ELEV.	NUMBER	TYPE	BLOWS/0.3m			NGTH		+ Q-● ⊕ U-○	w	ATER CO	I DNTENT	, PERCE	ENT	LES	OR STAND INSTALL	PIPE
E E E E E E	N		Į₹.	DEPTH	NN.	F	No.						w	p 20 4		—	WI	ADI	INSTALL	ATION
	ă		<u>م</u>	(m)				20) 4	40	60	80	2	20 4	10 6	i0 '8	30			82
— o		Ground Surface		76.63																
-		Very loose to loose, grey brown SILTY SAND, some clay																	Borehole backfilled	
-					1	50	37												with auger cuttings	
						D.O.														
-					-					-	_		<u> </u>		<u> </u>	<u> </u>				
-																				
- 1													1000							200
- '				1	2	50 D.O.	3						0							
-										1										
]														
											_									
-					3	50 D.O.	9											MH,		603
- 2						Ð.O.												refer to Fig. A1		603
				74,50 2.13														[603
		Compact to very loose, grey brown SILTY SAND / SANDY SILT, trace to				{														658
-		some clay																		665
-	Power Auger	8			4	50 D.O.	15													RSS A
-	uger																			
- 3	er A]														285
-	Å.																			
-		Ē			5	50	10								2					
-		8				D.O.														
						}														
				1	-															
- 4																				
					6	50 D.O.	5													
-]				ж. С										
-																				
					7	50 D.O.	3							0				мн.		
- 5						D.O.												MH, refer to Fig. A1		
					-	{												[
-						ł														
-		- 23			8	50 D.O.	4											1		
-				70.69 5.94																608
- 6		End of Borehole		5.94															Water level in augers	-
								6											4.95 m below	
-																			ground surface	
-					· •														upon completion	
			-															1	of borehole (Elevation	
																			71.68	
- 7																			metres)	-
													1							
t l																	1			
-								\vdash					 	ļ		1		Į		
-															Ē.					
																_				
															[
C	EP1	HSCALE			L	.		Chai			aine	orin-						LOGG	ED: A.N.	
1	to	40				UU	1C	Chev	nel		Şine	ennç	1					CHEC		
	-																			

DATUM: Geodetic

RECORD OF BOREHOLE 14-6

SHEET 1 OF 1

LOCATION: See Borehole Location Plan, Figure 2

BORING DATE: January 13, 2015

DATUM: Geodetic

	1	g	SOIL PROFILE			SA	AMPL	.ES	DYNA	MIC PER	BLOWS	ION 3/0.3m	\geq	HYDRAULK k, cm/s	CONDUC	TIVITY,	T			
	METRES	BORING METHOD		5		~ ~		33					BO	10-7	10 ⁻⁶	10 ⁻⁵ 1	0⊸⊥	ADDITIONAL LAB. TESTING	PIEZOME	ETER
Ĩ	METF	NO N	DESCRIPTION	STRATA PLOT	ELEV.	NUMBER	TYPE	BLOWS/0.3m	SHEA	R STRE	NGTH r	at. V	+ Q-•	WATER	CONTENT		I INT	μ E E E E E E E	OR STANDF INSTALLA	
Ĭ		30RI			DEPTH (m)	Ĩ	F	LOV	Cu, ki				⊕ U-© 80	Wp	40 W		WI	88	INSTALLA	TION
⊢				ŝ		<u> </u>		<u> </u>	· · ·	1		1	1	20		1				
F	0	\vdash	Ground Surface Dark brown sandy silt, some organic	<u>sa 1</u> ,	75.12			1											Borehole	6402
Ł			material (TOPSOIL)	4.3		1	50	39									1	1	backfilled with auger	
Ł				34	74.66	1'	D.O.	33											cuttings	
Ŀ			Compact to very loose, grey brown, fine to medium grained SAND, trace		0.40		-													
F			to some silt																	
F	1					2	50	14												
F						1	D.O.	17		3			1					1		
F										<u></u>										
F							1													
Ē				= =		3	50	13												
È	2						D.0]		
ŧ									<u> </u>									1		
È							1													
Ŀ.		100		0		4	50	8												
Ŀ.		ger					D.O.													
Ŀ	3	at Au																		
E	-	Power Auger					1			+								-		
E				U		5	50	4												
Ł		8	²				D.O.	·												
E				-01																
F																				605
F	4					6	50	5			ļ									
F				-			D.O.													
-22				1.11																
ą.						7	50	3												88
2015-01-14.GPJ 2-20-15	5						D.O.	·		<u> </u>										
÷										8								1		
												1								
울						8	50 D.O.	5		1								1		
S				15	69.18		0.0.													884
ő-	6		End of Borehole	1	69.18 5.94		1										·		Water level in augers	in 1 - 1 - Service
팘																			2.49m below ground	
퇐										1	0								surface upon	
8						1													completion of borehole	
4580																			(Elevation 72.63	
ş-	7																		metres)	-
₹F											1		1			1		1	6	
퇀																				
12					11															
													1							
Į.	8																			-
BOREHOLE RECORD 2012 WITH LAB WC 14580 BOREHOLE LOGS GNT V01				<u> </u>	L								<u> </u>							
EH6			HSCALE			Η	lou	le	Che	vrier	Eng	inee	ering	1				LOGG	BED: A.N.	
ğ_	1	to	40								-	-						CHEC	KED:	

RECORD OF BOREHOLE 14-7

SHEET 1 OF 1

LOCATION: See Borehole Location Plan, Figure 2

BORING DATE: January 12, 2015

DATUM:	Geodetic
DATUM:	Geodetic

	ų	8	SOIL PROFILE			S	AMPL	ES	DYNAMIC PE RESISTANCE		TION VS/0.3m	\geq	HYDR/		CONDUC	TIVITY,	Т	.0		
	METRES	BORING METHOD		LOT		R.		.3m	1	40	60	80			10 ⁻⁶ 1		10 ⁻⁴	ADDITIONAL LAB. TESTING	PIEZOM	ETER
		RING	DESCRIPTION	STRATA PLOT	ELEV.	NUMBER	TYPE	BLOWS/0.3m	SHEAR STRE Cu, kPa	NGTH	nat. V - rem, V -	+ Q- ⊕ U-0	W/	ATER C	ONTENT	PERCE		B. TE	OR STANDI INSTALL	PIPE ATION
	5	BOF		STR	(m)	ž		BLO		40	60	80	W1 2	p	40 6	0 8	WI 80	∣₹₹		
	0		Ground Surface		75.36															
ţ			Dark brown sandy silt, some organic material (TOPSOIL)	24															Borehole backfilled with auger	
ŧ					75.00	1	50 D.O.	9			_	_							cuttings	
ŧ			Compact, brown, fine to medium grained SAND, some silt																	
F						\vdash														
F	1				74.29	2	50	13					1	0						
ŀ			Compact to very loose, grey brown SILTY SAND		1.07		D.O.						1							
ŀ			SILTTSAND							<u> </u>	-									
ţ																				
ŧ						3	50 D.O.	8									r			
F	2					L														
E						-														
ŀ		10				4	50	4						0						
ľ		Auger					D.O.													
F	3	Power Al					1													
E		Power Auger															8			
ŀ		2	Ē			5	50 D.O	4												
ţ		ſ					4													
ţ							1													
F	4					6	50	3												
E					71.09 4.27		D.O.	·							[
20-15			Very loose to loose, grey brown, fine to medium grained SAND, trace to some silt				1													
2015-01-14.GPJ 2-20-15			Some Sint																	
₽ ₽	5					7	50 D.O	w.н												
5						-	{													
				9						-										
ş			5			8	50	5												
S.					<u>69.42</u> 5.94	L	D.O.													
őj-	6		End of Borehole		5.94														Water level in augers 2.52m below	
ų																			ground surface	-
30RE																			upon completion	-
280																			of borehole (Elevation 72.84	
₹ U	7		12																metres)	-
AB AB			8																	
ŧ																				-
12																				-
SRD 2																				-
LEC	8																		. ()	
BOREHOLE RECORD 2012 WITH LAB WC 14580 BOREHOLE LOGS GNT V01	D	EPT	HSCALE			Ц		مار	Chevrie	En	aine	erinc	1					LOGO	BED: A.N.	
BORE	1	to	40							Inc I I	Aule	Ching						CHEC	KED:	

RECORD OF TEST PIT 14-1

SHEET 1 OF 1

DATUM: Geodetic

TYPE OF EXCAVATOR: Hydraulic Shovel

DEPTH SCALE METRES	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. DEPTH	SAMPLE NUMBER		HEAR STR Cu (kPa Natural. V Remoulded	. +		w	. e (IT)	wi	ADDITIONAL LAB. TESTING	WATER LEVEL OPEN TEST PI OR STANDPIPE INSTALLATIO
0	Ground Surface TOPSOIL	STR	(m) 74.75	SAN	20	40		80	2		40 E		80	A.	Test pit backfilled with excavation
- 1	Grey brown, fine to medium grained SAND, trace to some silt		74.45	1						2					spoils
2	Grey to grey brown SILTY SAND Soil becoming saturated at 2.0m below ground surface		72.75										8		
3	End of Test Pit		71.75	-								:47			No groundwater inflow observed entering test pit upon completion
4													ST.		
5															
6 DEP 1 to	TH SCALE .		Hou	lle	Chevri	er En	gine	erinç						LOGG	ED: C.M.

RECORD OF TEST PIT 14-2

SHEET 1 OF 1

DATUM: Geodetic

TYPE OF EXCAVATOR: Hydraulic Shovel

ľ	щ	SOIL PROFILE			Ë											
	DEPTH SCALE METRES	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLE NUMBER		HEAR STRI Cu (kPa) Natural. V - Remoulded 40	+ V-⊕	30	Wp 2	(F	ER CON PERCEN	T) 	WI 30	ADDITIONAL LAB. TESTING	WATER LEVEL IN OPEN TEST PIT OR STANDPIPE INSTALLATION
ļ	- 0	Ground Surface	AT.	73.98												Test sit
	Ū	TOPSOIL	<u>A. I.</u> <u>A. I.</u> <u>A. I.</u>	73.58												Test pit backfilled with excavation spoils
	- 1	Reddish grey brown to grey brown, fine to medium grained SAND, some silt		0.40												
-				72 18	1											
-	- 2	Grey brown SILTY SAND		72,18 1.80 71.88 2.10												
-		Grey, fine to medium grained SAND, some silt		2.10												
3PJ 2-20-15	- 3	End of Test Pit		70.98 3.00												Groundwater inflow - observed at 2.8m below - ground - surface - upon - (Elevation - 71.18 metres) -
T PIT LOGS GNT V01 2015-01-14.0	- 4															
TESTPIT RECORD 2012 WITH LAB WC 14580 TEST PIT LOGS GNT V01 2015-01-14. GPJ 2-20-15	- 5															
TESTPIT RECO		TH SCALE		Hou	le	Chevri	er Enç	jinee	ering					<u> </u>	LOGG	ED: C.M. KED:

RECORD OF TEST PIT 14-3

SHEET 1 OF 1

DATUM: Geodetic

TYPE OF EXCAVATOR: Hydraulic Shovel

1			1 🛄					l I								
DEPTH SCALE METRES	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLE NUMBER	Nati Ren	AR STRE Cu (kPa) ural. V - noulded, 40 (+ ∨-⊕	0	Wr 2	() 	ER CON PERCEN O W	т) 	WI 80	ADDITIONAL LAB. TESTING	WATER LI OPEN TE OR STAND INSTALL	EVEL IN ST PIT PIPE ATION
- 0	Ground Surface		73.73												Test -V	h) /
	TOPSOIL	<u>117 1</u> <u>17 211</u> <u>117 1</u>	73.33												Test pit backfilled with excavation spoils	
-	Grey brown, fine to medium grained SAND, trace to some silt		0.40													
			7 <u>2.73</u>													
	Grey brown SILTY SAND Soil becoming saturated at 1.0m below ground surface		1.00	1		2										
	End of Test Pit		72.13 1.60												No	
- - 2 - -															groundwater inflow observed entering test pit upon completion	
									-							- - - -
- 3 - -							1									-
- - - - -			-									. *				
- 4 	- - -	i.													- a	-
-																
- 5																-
- 6																-
DEP	27TH SCALE	1	Hou	l	Chevrie	l Enç	inee	ering			<u> </u>		<u> </u>	LOGG CHEC	ED: C.M.	

PROJ	ECT:	14-580

RECORD OF TEST PIT 14-4

SHEET 1 OF 1

DATUM: Geodetic

TYPE OF EXCAVATOR: Hydraulic Shovel

	DEPTH SCALE METRES	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLE NUMBER		R STRENGTH, 1 (kPa) 1 vl - + 1 vlded. V - ⊕ 2) 60 81	0		ER CONTENT ERCENT) O 60	r -i wi 80	ADDITIONAL LAB. TESTING	WATER LEVEL IN OPEN TEST PIT OR STANDPIPE INSTALLATION
•	0	Ground Surface TOPSOIL Reddish brown to grey brown, fine to medium grained SAND, trace silt and clay	<u>112 - 1</u>	74.26 74.16 0.10	1				*				Test pit backfilled with excavation spoils 0000 - 0000 - 00000 - 00000 - 0000 - 0000 - 0000 -
	2	Grey, fine to medium grained SAND, trace to some silt		72.96									
-01-14.GPJ 2-20-15	4	End of Test Pit		71.26 3.00						2			No groundwater inflow observed entering test pit upon completion
D 2012 WITH LAB WC 14580 T	5	s. €		n									- - - - - - - - - - - - - - - - - - -
TESTPIT REC	DEP 1 to	TH SCALE 30	I	Hou	le	Chevrier	Enginee	ering		I		logg Chec	ED: C.M. KED:

RECORD OF TEST PIT 14-5

SHEET 1 OF 1

DATUM: Geodetic

TYPE OF EXCAVATOR: Hydraulic Shovel

ш	SOIL PROFILE			Ë						
DEPTH SCALE METRES		LOT		SAMPLE NUMBER	SHEAR STR Cu (kPa	ENGTH, }		ER CONTENT PERCENT)	ADDITIONAL LAB. TESTING	WATER LEVEL IN OPEN TEST PIT OR STANDPIPE INSTALLATION
EPTH	DESCRIPTION	STRATA PLOT	ELEV. DEPTH	APLE	Natural, V Remoulded	- + i.∨-⊕	wp I	- o W _ wi	AB. TE	STANDPIPE INSTALLATION
		STR	(m)	SAN	20 40	60 . 80	20 4	0 60 80		
- o	Ground Surface	<u></u>	77.73							Test pit
-	Grey brown, fine to medium grained sand, some organic material (TOPSOIL / FILL)	1 51-1								Test pit backfilled with
-		<u>v t</u>	77.33							excavation spoils
-	Grey brown SILTY SAND, trace clay		<u>77,33</u> 0.40	1						
-										
È.	а. С									
- 1										
F										
-										
È.			76.13 1.60	1						
-	End of Test Pit		1.60						_	No groundwater inflow
-										observed
- 2	ц.									entering test pit upon completion
-										
-										
-										
-									-	
- 3										
F										
- 15										
2-20-							-			
GPJ										
4-14-										-
2015-										
5										
EN C										
LOGS	it.								_	
										-
1458									-	
AB WC										
Ъ Н										
012 W										
TESTPIT RECORD 2012 WITH LAB WC 14580_TEST PIT LOGS_GNT_V01_2015-01-14.GPJ_2-20-15 1	3									
REC	<u> </u>	1	<u> </u>							
DE DE	o 30		Hou	le	Chevrier En	gineering	9			GED: C.M.
۳ ـــــ ـــ		CHECKED								

LOCATION: See Test Pit Location Plan, Figure 2

RECORD OF TEST PIT 14-6

SHEET 1 OF 1

DATUM: Geodetic

TYPE OF EXCAVATOR: Hydraulic Shovel

DATE OF EXCAVATION: January 12, 2015 NUMBER SOIL PROFILE SCALE 6

	DEPTH SCALE METRES	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLE NUMBE		AR STRE Cu (kPa) tural. V - moulded. 40 6		0	Wp 20	(F	ER CON PERCEN O 6	T) `	WI 30	ADDITIONAL LAB. TESTING	WATER LEVEL IN OPEN TEST PIT OR STANDPIPE INSTALLATION
	- 0	Ground Surface	AL	74.34												Tost pit
		TOPSOIL	<u>x1</u> , <u>x1</u> , <u>x1</u> , <u>x1</u> , <u>x1</u> ,	7 <u>3.94</u> 0.40												Test pit backfilled with excavation spoils
		Grey brown SILTY SAND		0.40												
-	- 1															
					1				-							
	- 2			7 <u>2.24</u> 2.10									15			
		Grey SILTY SAND														
	- 3			71,34 3.00												
		End of Test Pit		3.00												Groundwater inflow observed at 2.1m below ground surface
2015-01-14.GPJ 2-20-15	- 4															upon completion (Elevation 72.24 metres)
TESTPIT RECORD 2012 WITH LAB WC 14580 TEST PIT LOGS GNT V01	· · ·															
C 14580 TEST P	- 5 -															-
WITH LAB WC																-
ORD 201:	- 6															- -
TESTPIT REC	DEP 1 to	TH SCALE 30	1	Hou	le	Chevrie	r Eng	inee	ring			L			LOGG CHEC	ED: C.M. KED:

RECORD OF TEST PIT 14-7

SHEET 1 OF 1

DATUM: Geodetic

TYPE OF EXCAVATOR: Hydraulic Shovel

SCALE	SOIL PROFILE	Го	· · · ·	JUMBER	SHE	AR STRE Cu (kPa)	NGTH,	,	WATER CON		STING	WATER LEVEL IN OPEN TEST PIT
DEPTH SCALE METRES	DESCRIPTION	STRATA PLOT	<u>ELEV.</u> DEPTH (m)	SAMPLE NUMBER		ural.V- noulded. 40 6	+ V-⊕ 30 80	Wp ⊢ 20			ADDITIONAL LAB. TESTING	WATER LEVEL IN OPEN TEST PIT OR STANDPIPE INSTALLATION
- 0	Ground Surface TOPSOIL Group brown, fine to medium anning SAND	<u></u>	75.38 75.28 0.10									Test pit backfilled with
- - - - - - - - -	Grey brown, fine to medium grained SAND, trace to some silt		74.38									excavation spoils
	Grey SILTY SAND Soil becoming saturated at 1.0m below ground surface				22						-	
- - - 2 - -						2					_	
- - - - - - -			72.38 3.00	1		e						Groundwater
	End of Test Pit		0.00									inflow observed at 3.0m below ground surface
1 2015-01-14.GPJ 2-20-15 • • • • • • • • • • • • • • • • • • •												upon completion - (Elevation _ 72.38 metres) - - -
TESTPIT RECORD 2012 WITH LAB WC 14580 TEST PIT LOGS GNT V01 2015-01-14.GPJ 2-20-15 9 9 9 6 1 1 2 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25										-	
2012 WITH LAB WC 145												
TESTPIT RECORD	EPTH SCALE to 30		Hou	le	Chevrie	r Eng	ineering			×	LOGG	ED: C.M.

APPENDIX E: PRIVATE WELL SURVEY

Sta	antec	WATER WELL	INVENTORY FO	RM	
		Project Reference:	Pendleton Solar Ene	rgy Centre	
	Stantec Assig	ned Well ID Number:	541090122	(PIN)	
Ten Maili 911 Add Township, C T Date o		ZOL7 water supply system?		Yes Yes	□ No ⊇ No □ No
0,	For what uses? D Drinking		Lawn 🗹 Other	GARDENING	/
d)	Do you use any other sources of wa			🗆 Yes	E No
e)	Alternative Sources (cistern, bottled Do you have a copy of the driller's I If so, please forward a copy of the t	og for the well?		🗆 Yes	10 No
ŋ	If you are unable to provide us a co This information may help us to loc Original Well Owner: Date Constructed: Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface) Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance Depth set in well (below ground set Initial setting (at construction): Present setting:	py of the well log, plea ate your well record. If 2005 SHAUDI 1.5 IN 13 FEE	se provide as much of the inverse are able to locate your to be are able to locate your to locat		
g)	Please circle the terms that best de buried in a pit or concrete char other (please describe):	nber 🤇	casing sticks above the gro	bund	
h)	If the well is in a pit or concrete cha single circular concrete slab		e type of lid: Ilar concrete slabs	square lid within a larger	circular concrete slab
i)	other (please describe): Has the well ever gone dry? Date when this event last occurre How long did the well remain dry? Do you know reason why?			🗆 Yes	ENO

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WATER WELL INVENTORY FORM

	Stantec Assigned V	Vell ID Numbe	er:			-		
j)	How would you rate your water quality?	Poor	Good 🗌	Excellent	Poor	Good Good	Excellent Excellent	
	How would you describe your water quali	. /						
	How consistent is your water quality?	Very Co	onsistent	Consistent	C Variable	C Very Va	ariable	
	If you answered Variable or Very Variab							
	How does your water quality change (e	.g., taste, smo	ell, appearanc	e)?				
	No							
	How often does it change?	NEVER						
1.5	Reasons for why it changes (if known)	NIA					12 No	
k)	Do you test the water quality through the	Health Unit?			🗆 Yes		12 No	
	When, and what were the results?							
3) Water W	/ell Treatment			1				
(a)	Do you treat your well water?	🗆 Ye	25	E No				
(b)	If you answered yes, what method of trea	atment do you	use (e.g., chi	orination, UV, filtrat	ion, water softe	ener)?		
(c)	What issue(s) occurred that prompted yo	ur decision to	treat your drir	king water?				
			,					
	system Information							
8)	Do you have a private septic system?				□ Yes		E No	
b)	Are you connected to the municipal sewe				🖸 Yes			and
c)	Have you ever experienced problems wit	h your septic	system?		🗆 Yes		BNO (DONT	HHVE
	If yes, what was the problem?							
	Does this problem still occur? How often?							
d)	Do you get your septic system pumped o	ur?			🗋 Yes		🗆 No	
	How regularly / frequency?							
Please	provide us with a sketch showing the local	tion of your we	ell and septic s	system				
relative	to the road, house and other structures or	n your propert	y. Please incl	ude a north arrow.		. 1		5
						N-	π	
							-	
						/		
	X T WEI	-L						
								1
		M						
	(OUNTY	20 2					

🔿 Stantec

WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:

- SHOULD PROVIDE CHOICE OF FRENCH FORM

- IF ANY POTENTIAL GROUND WATER EFFECT OF SOLAR ENERGY INSTALATION IS KNOWN OR BECOMES KNOWN IN THE FUTURE, ALL OWNERS THAT COULD BE AFFECTED HAVE TO BE NOTIFIED AS SOON AS INFORMATION BECOMES KNOWN TO ANY OF THE PARTIES INVOLVED.

Thank you for taking the time to complete this inventory.

Please note that the completed form may be included as an appendix in Stantec's report to our client.

Signatures

Signatures:

(field personnel)

(project manager)

DEC 14,2017 (dale) (date)

WATER WELL INVENTORY FORM

	Project Reference: Pendleton		Jentre	
	Stantec Assigned Well ID Number: 541 C	090193	(PIN)	
1) General	nformation			-
Ow	ner's Name:			
Ter	ant's Name: N/A			
Mail	ng Address:			 8 32
911 Add	ress of well:			
Township, (Con #, Lot #:			
	elephone #:	L		
	of Inventory: DEC 13, 2017			
2) Water W	all information	8	,	
a)	Do you have a private water well?		🗹 Yes	□ No
b)	Are you connected to the municipal water supply system?		🗆 Yes	D2 No
c)	Do you use your private water well?		Yes	🗆 No
	For what uses? 🗹 Drinking 🗹 Washing 🗹 Lawn	C Other		,
d)	Do you use any other sources of water?		🗆 Yes	D No
	Alternative Sources (cistern, bottled):			
e)	Do you have a copy of the driller's log for the well?		Yes	12 No
	If so, please forward a copy of the well log along with this inventory form	n.		
Ŋ	If you are unable to provide us a copy of the well log, please provide as	much of the followir	ng information	as you can.
	This Information may help us to locate your well record. If we are able to	o locate your well re-	cord, we will m	ail you a copy.
	Original Well Owner:			
	Date Constructed: UNKNOWN			
	Driller:			
	Well Type (drilled, dug/bored):			
	Casing Inside Diameter:			
	Depth (below ground surface):			
	Water Level (below ground surface):			
	Pump			
	Brand/Type:			
	Horsepower / Rating (L/min):			
	Date Installed:			
	Date of last service / Maintenance:			
	Depth set in well (below ground surface)			
	Initial setting (at construction):			
	Present setting:			
g)	Please circle the terms that best describe the accessibility of your well:			
	buried in a pit or concrete chamber casing sticks	above the ground		
	other (please describe):			
h)	If the well is in a pit or concrete chamber, please circle the type of lid:			
	single circular concrete slab two semi-circular concrete s	ilabs 💽	quare lid withir	a larger circular concrete stal
	other (please describe):			
i)	Has the well ever gone dry?		🗹 Yes	
	Date when this event last occurred: SUMMER a	016 (151	TIME	GINCE DUG)
	How long did the well remain dry? $3 - 4$ w EEKS	,		÷

Star	itec
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WATER WELL INVENTORY FORM

	Stantec Assigned	Well ID Numb	er:				-	
j)	How would you rate your water quality?	Poor	2 Good	Exce	ellent	Poor	Good	Excellent
	How would you describe your water qua	ality?						
	How consistent is your water quality?	🗹 Very C	onsistent	Con:	sistent	C Variable	🗆 Very Va	ariable
	If you answered Variable or Very Varia	able						
	How does your water quality change							
	のれいく いれきや い How often does it change?	ATER	LEVEL	15	Low	2		
	How often does it change?	ONC	E A	YEAR	(Su	MMER)		
	Reasons for why it changes (if known	1)		·				
k)	Do you test the water quality through the	e Health Unit?				C Yes		De No
	When, and what were the results?							
3) Water	Well Treatment			/				·····
(a)	Do you treat your well water?	D Ye	es	🗹 No				
(b)	If you answered yes, what method of tr	eatment do you	i use (e.g., cl	hlorination, L	IV, filtrati	on, water softe	ner)?	
(c)	What Issue(s) occurred that prompted y	your decision to	treat your di	rinking water	?			
<u></u>								
	System information					T Yes		
a)	Do you have a private septic system?	Constant and				⊡ Yes		
b) c)	Are you connected to the municipal sev Have you ever experienced problems w		evetam?			⊡ Yes		L'I No
0,	If yes, what was the problem?	nui your sepue	system					
	Does this problem still occur? How ofte	n?						,
d)	Do you get your septic system pumped					🗆 Yes		E No
	How regularly / frequency?							
Pleas	e provide us with a sketch showing the loc	ation of your w	ell and septic	: system				
relativ	ve to the road, house and other structures	on your propert	y. Please in	clude a north	arrow.			
			_		-			
	20-50	M	X	<	WA	ter v	VELL	
			1					
		. e.						
			1-	Hous	E			
				COUN	m .	RD 2		
					``			1

WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:

N/A

Thank you for taking the time to complete this inventory.

Please note that the completed form may be included as an appendix in Stantec's report to our client.

Signatures:

(field personnel)

Signatures: (project manager)

DEC 13, 2017 (date)

WATER WELL INVENTORY FORM

Project Reference:	Pendleton	Solar	Energy Centre	ł
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	Stantec Assigned W	ell ID Number:	5410	90111	(PIN)	
(1) General In Owne	formation er's Name:	- 1			<u> </u>	
Tenar	nt's Name: N (A					
Mailing	Address:	.				
911 Addre	ss of well: _		242			
Township, Co					-	
-	ephone #:					
	Inventory: VEC 14, 20	17				
(2) Water Well	Information					
	Do you have a private water well?				Ves Yes	ы рю
b) /	Are you connected to the municipal water	supply system?	•		□ Yes	1 No
c) [Do you use your private water well?	1	1		Yes	🗆 No
F	For what uses? 🖸 Drinking 💀	Washing	Lawn	C Other		/
d) [Do you use any other sources of water?				Yes	I No
	Alternative Sources (cistern, bottled): Do you have a copy of the driller's log for	N A the well?			Yes	□ No
I	f so, please forward a copy of the well lo	g along with this	inventory f	orm.		
f) I	f you are unable to provide us a copy of	he well log, plea	ase provide	as much of the f	ollowing information as yo	ou can.
	This information may help us to locate yo	ur well record. If	we are abl	e to locate your v	well record, we will mail yo	ou a copy.
(Driginal Well Owner:					
1	Date Constructed:	FEB 2	4,2	510		
(Driller:	1				
١	Well Type (drilled, dug/bored):	1000				
(Casing Inside Diameter:	12 IN	Ю			
I	Depth (below ground surface):	40 5	EET			
1	Nater Level (below ground surface):					
I	Pump	SUBME	RSAB	Æ		
	Brand/Type:					
	Horsepower / Rating (L/min):					
	Date installed:	WELL	TAG	# - AI	172424 ,	REGULATON 903
	Date of last service / Maintenance:					
	Depth set in well (below ground surface)				
	Initial setting (at construction):					
	Present setting:					
g) I	Please circle the terms that best describe	the accessibility	y of your we	¥I;		
	buried in a pit or concrete chamber		casing stic	ks above the gro	und	
	other (please describe):					
h)	If the well is in a pit or concrete chamber,	please circle th	e type of lid	:		
	single circular concrete slab	two semi-circ	ular concret	e slabs	square lid within a la	rger circular concrete slab
	other (please describe):					No
i) i	Has the well ever gone dry?				□ Yes	KT 100
	Date when this event last occurred:					1965 1967
	How long did the well remain dry?					
	Do you know reason why?					

WATER WELL INVENTORY FORM

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Project Reference:	Pendleton	Solar Energy Centre

	Stantec Assigned We	ell ID Number	r:			-	
j)	How would you rate your water quality?	Poor	Good	Excellent	D Poor	Good	
	How would you describe your water quality	R					
	How consistent is your water quality?	Very Co	nsistent	Consistent	C Variable	🗆 Very Va	riable
	If you answered Variable or Very Variable	•					
	How does your water quality change (e.g	g., taste, sme	ll, appearance	e)?			
	No						
	How often does it change?	NEVER	-				
	Reasons for why it changes (if known)						
k)	Do you test the water quality through the H	lealth Unit?			Ves Yes		🗆 No
	When, and what were the results?	2017	· - Per	lfett Re	SUCTS		
) Water W	ell Treatment						
(a)	Do you treat your well water?	2 Ye	s	🗆 No			
(b)	If you answered yes, what method of treat	ment do you	use (e.g., chic	prination, UV, filtral	tion, water softe	ener)?	
(c)	CHLORINATION What issue(s) occurred that prompted you	r decision to	treat your drin	king water?			
	NA		-				
) Septic S	ystem Information				(
a)	Do you have a private septic system?				🗹 Yes		D No
b)	Are you connected to the municipal sewer	system?			Yes		M No
c)	Have you ever experienced problems with	your septic s	system?		🗆 Yes	i	C No
	If yes, what was the problem?						
	Does this problem still occur? How often?						
d)	Do you get your septic system pumped ou	t?			Li/Yes		🗆 No
	How regularly / frequency?	two	TIME	s per	YEAR		
	provide us with a sketch showing the location to the road, house and other structures on 15 M J X - COUN		ER W	ude a north arrow.			

WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:

N/A

. -

Thank you for taking the time to complete this inventory. Please note that the completed form more to included as an appendix in Stantec's report to our client.

Signatures:

DEC 14, 2017 (date)

(field personnel) Signatures: (project manager)

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WATER WELL INVENTORY FORM

Project Reference:	Pendieton	Solar	Energy	Cen
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Project Ref	Project Reference: Pendleton Solar Energy Centre							
Stantec Assigned Well ID N	lumber: <u>541</u>	090124	(PIN)					
(1) General Information		1-	· · · · · · · · · · · · · · · · · · ·					
Owner's Name:								
Tenant's Name: N/A								
Mailing Address:								
911 Address of well:								
Township, Con #, Lot #:								
Telephone #:				140				
Date of Inventory: DEC 13, 2017								
(2) Water Well Information			/					
a) Do you have a private water well?			Yes	D No				
b) Are you connected to the municipal water supply	system?		🗆 Yes	12 No				
c) Do you use your private water well?			Le Yes	🗆 No				
For what uses? 🗹 Drinking 🗹 Wash	ing 🛛 Lawn	Other		,				
d) Do you use any other sources of water?			🗋 Yes	D2 No				
Alternative Sources (cistern, bottled):				/				
e) Do you have a copy of the driller's log for the well	1?		🗆 Yes	No No				
If so, please forward a copy of the well log along	with this inventory f	form.						
f) If you are unable to provide us a copy of the well	log, please provide	as much of the follo	owing information as yo	ou can.				
This information may help us to locate your well	This information may help us to locate your well record. If we are able to locate your well record, we will mail you a copy.							
Original Well Owner:								
Date Constructed:								
Driller:	NKNOWN	25						
Well Type (drilled, dug/bored):	u pit to the							
Casing Inside Diameter:								
Depth (below ground surface):								
Water Level (below ground surface):								
Pump								
Brand/Type:								
Horsepower / Rating (L/min):								
Date installed:								
Date of last service / Maintenance:								
Depth set in well (below ground surface)								
Initial setting (at construction):								
Present setting:								
g) Please circle the terms that best describe the ac	cessibility of your w	ell:						
buried in a pit or concrete chamber	casing stic	ks above the groun	d					
other (please describe):	HALLOW	SURFACE	WELL					
h) If the well is in a pit or concrete chamber, please								
	semi-circular concret		square lid within a la	rger circular concrete slab				
other (please describe):				1				
i) Has the well ever gone dry?			🗆 Yes	D No				
Date when this event last occurred:	A							
How long did the well remain dry?								
Do you know reason why?								

Star	ntec
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WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number:		
j)	How would you rate your water quality? Poor Good Excellent	Poor	Good Excellent
	How would you describe your water quality?		-
	How consistent is your water quality? 🔽 Very Consistent	t 🛛 Variable	Very Variable
	If you answered Variable or Very Variable		
	How does your water quality change (e.g., taste, smell, appearance)?		
	DOESN'T CHANGE		
	How often does it change? NEVER Reasons for why it changes (if known)		
k)	Do you test the water quality through the Health Unit?	🗆 Yes	NO NO
,		TSULTS	
	- •		<u></u>
-	ell Treatment		
(a) (b)	Do you treat your well water? LI Yes LI No If you answered yes, what method of treatment do you use (e.g., chlorination, UV, filt	ration water softe	ner)7
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, ov, hit	liauon, water solter	
(c)	What issue(s) occurred that prompted your decision to treat your drinking water?		
	/stem Information	☑ Yes	
a)	Do you have a private septic system?	⊠ Yes □ Yes	□ No I ¹ No
b)	Are you connected to the municipal sewer system?	□ Yes	L' No
c)	Have you ever experienced problems with your septic system?		
	If yes, what was the problem? Does this problem still occur? How often?		
d)	Do you get your septic system pumped oul?	Ves	D No
-,	How regularly / frequency?		
			· · · · · · · · · · · · · · · · · · ·
	provide us with a sketch showing the location of your well and septic system		
relative	to the road, house and other structures on your property. Please include a north arro	IW.	
	- SEPTIC BED		
	- SEPTIC	TANK	
	- House		
	20M J X - 4	JELL	
	COUN	IM RD 2	



WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:

TWO LARGE PONDS STOCKED WITH FISH IN BACKYARD OF PROPERTY.

OWNER REQUESTS SAMPLING COMPLETED ON PONDS DUE TO INVESTMENT OF POND

OWNER PROVIDED COMPANY NAME SACOUR ELECTRIC (NC. IF EDF REQUIRES HIS SERVICES IN THE FUTURE

613 - 850 - 8170

Thank you for taking the time to complete this inventory.

Please note that the completed form may be included as an appendix in Stantec's report to our client.

Signatures

DEC 13,2017

(date)

Signatures (project manager)

(field personnel)

WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number: 541090120		
(1) General	Information	-	
0	wner's Name:		
Те	nant's Name		
Mai	iling Address:)		
911 Ad	dress of well:		
Township.	Con #, Lot #: 1		
	Telephone #:		
	of Inventory: DEC 14, 2017		
(2) Water V	Vell Information	1	
a)	Do you have a private water well? Two wells	P Yes	🗆 No
b)	Are you connected to the municipal water supply system?	□ Yes	I No
c)	Do you use your private water well?	WYes	D No
	For what uses? 🛛 Drinking 🗹 Washing 🖾 Lawn 🗔 Other		
d)	Do you use any other sources of water?	🗆 Yes	No No
	Alternative Sources (cistern, bottled):		/
e)	Do you have a copy of the driller's log for the well?	🗆 Yes	No No
	If so, please forward a copy of the well log along with this inventory form.		
f)	If you are unable to provide us a copy of the well log, please provide as much of the folk	wing information as y	ou can.
	This information may help us to locate your well record. If we are able to locate your well	l record, we will mail y	ou a copy.
	Original Well Owner:		
	Date Constructed: 1991		
	Driller.		
	Well Type (drilled, dug/bored):		
	Casing Inside Diameter:		
	Depth (below ground surface):		
	Water Level (below ground surface): 25 FEET		
	Pump		
	Brand/Type:		
	Horsepower / Rating (L/min):		
	Date installed:		
	Date of last service / Maintenance:		
	Depth set in well (below ground surface)		
	Initial setting (at construction):		
	Present setting:		
g)	Please circle the terms that best describe the accessibility of your well:		
	buried in a pit or concrete chamber casing sticks above the ground	t	
	other (please describe): SURFACE WELL		
h)	If the well is in a pit or concrete chamber, please circle the type of lid:		
	single circular concrete slab two semi-circular concrete slabs	square lid within a la	rger circular concrete slab
	other (please describe):		
i)	Has the well ever gone dry?	🗋 Yes	No
	Date when this event last occurred:		
	How long did the well remain dry?		
	Do you know reason why?		

WATER WELL INVENTORY FORM

	Stantec Assigned Well IE	Number:			-	
j)	How would you rate your water quality?	Poor Good	Excellent	Poor	Good	Excellent
	How would you describe your water quality?	/				
	How consistent is your water quality?	Very Consistent	Consistent	🛛 Variable	🗋 Very Va	ariable
	If you answered Variable or Very Variable					
	How does your water quality change (e.g., ta	ste, smell, appearanc	e)?			
	No					
	How often does it change? N	WER				
	Reasons for why it changes (if known)					_
k)	Do you test the water quality through the Healt			M Yes		🗋 No
	When, and what were the results?	007,20	11			
(3) Water W	/ell Treatment	· · · · · · · · · · · · · · · · · · ·	/	· · ·		
(a)	Do you treat your well water?	🛛 Yes	No No			
(b)	If you answered yes, what method of treatmen	t do you use (e.g., chi	orination, UV, filtrat	ion, water softe	ner)?	
(c)	What issue(s) occurred that prompted your de	cision to treat your drin	nking water?			
	•	<u></u>				
(4) Septic S	System Information			_		_
a)	Do you have a private septic system?			2 Yes		□ No
b)	Are you connected to the municipal sewer syst			C Yes		12 No
c)	Have you ever experienced problems with you	r septic system?		□ Yes		₩ No
	If yes, what was the problem?					
d)	Does this problem still occur? How often? Do you get your septic system pumped out?			12 Yes		🗆 No
u)		1000	-2 1/0			
		very 2	-3 YEA			
Please	provide us with a sketch showing the location of	your well and septic :	system			
relative	e to the road, house and other structures on your	property. Please incl	ude a north arrow.			
			HOUSE			
	14 PC	er wells				
		N				
	χ./	\searrow X	\uparrow			
			40 F	EET F		
			V			
		C	OVNTY F	202.		



WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:

NA

Thank you for taking the time to complete this inventory.

Please note that the completed form may be included as an appendix in Stantec's report to our client.

Signatures:

DEC 14, 2017 (date)

Signatures: (project manager)

(fiera personnel)

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WATER WELL INVENTORY FORM

	Stantec Assigned We	ell ID Number: <u>54109010</u>	2 (PIN)	
	Information	ß		<u> </u>
	wner's Name:			
Te	nant's Name: N(A			
Mai	ling Address:		<u>80</u>	1121
911 Ad	dress of weil:			
Township,	Con #, Lot #:			
	Telephone #:			
Date	of Inventory: DEC 13, 201	7		
(2) Water V	Vell Information		(
a)	Do you have a private water well?		Yes	D No
b)	Are you connected to the municipal water s	supply system?	🗆 Yes	1 No
c)	Do you use your private water well?	/ /	Pres	🖾 No
	For what uses? 🗹 Drinking 🗹	Washing 🗹 Lawn 🗆 Other		
d)	Do you use any other sources of water?		C Yes	₽ No
	Alternative Sources (cistern, bottled):			/
e)	Do you have a copy of the driller's log for the	he well?	🗆 Yes	D No
	If so, please forward a copy of the well log	along with this inventory form.		
ŋ	If you are unable to provide us a copy of th	te well log, please provide as much of t	the following information as yo	ou can.
	This information may help us to locate you	r well record. If we are able to locate ye	our well record, we will mail yo	ou a copy.
	Original Well Owner:			
	Date Constructed:			
	Driller:	UNKNOWN		
	Well Type (drilled, dug/bored):			
	Casing Inside Diameter:			
	Depth (below ground surface):			
	Water Level (below ground surface):			
	Pump			
	Brand/Type:			
	Horsepower / Rating (L/min):			
	Date installed:			
	Date of last service / Maintenance:			
	Depth set in well (below ground surface)			
	Initial setting (at construction):			
	Present setting:			
g)	Please circle the terms that best describe t	the accessibility of your well:		
0,	buried in a pit or concrete chamber	casing sticks above the	ground	
	other (please describe):	UNKNOWN	-	
h)	If the well is in a pit or concrete chamber, p			
	single circular concrete slab	two semi-circular concrete slabs	square lid within a la	rger circular concrete slab
	other (please describe):			
i)	Has the well ever gone dry?		□ Yes	1 No
·	Date when this event last occurred:			
	How long did the well remain dry?			
	Do you know reason why?			

1.2	Stantec
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WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number:		
D	How would you rate your water quality? Poor Good Excellent	nt 🛛 Poor	Good Excellent
	How would you describe your water quality?		
	How consistent is your water quality?	lent 🛛 Variable	Very Variable
	If you answered Variable or Very Variable		
	How does your water quality change (e.g., taste, smell, appearance)?	-	
	NEVER CHANGES (OWNED WELL 3: How often does it change? NEVER	5 YEARS	+/- 5 YEARS)
			1
k)	Reasons for why it changes (if known) Do you test the water quality through the Health Unit?	E Yes	🗆 No
κ,	When, and what were the results? UNKNOWN	Lp 103	
(3) Water W	ell Treatment		
(a)	Do you treat your well water? Yes No		
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, UV,	filtration, water softe	ner)?
(c)	What issue(s) occurred that prompted your decision to treat your drinking water?		
	ystem Information	Ves	-
a)	Do you have a private septic system?		
b)	Are you connected to the municipal sewer system?	C Yes	IZ No
c)	Have you ever experienced problems with your septic system?	🗆 Yes	G]∕No
	If yes, what was the problem?		
d)	Does this problem still occur? How often? Do you get your septic system pumped out?	I Yes	D No
u)	How regularly / frequency? 3 - 4 YEARS		
	provide us with a sketch showing the location of your well and septic system		
relative	to the road, house and other structures on your property. Please include a north an	ITOW.	
	M- HOUSE		
	10003-		
	TX - WATER	. WELL	
	ISM		

WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:

N/A

Thank you for taking the time to complete this inventory.

Please not that the completed form may be included as an appendix in Stantec's report to our client.

Signatures

DEC 13, 2017 (date)

(dale)

Signatures: (project manager)

(field personnel)

WATER WELL INVENTORY FORM

	Stantec Assigned W	/ell ID Number: <u>S41</u>	0910123 (PIN	
(1) General Ow	Information vner's Name:		9		
Ter	nant's Name:	٠			
Mail	ing Address:				
	Iress of well:				
	Con #, Lot #:				
	Felephone #:				
		-017			
(2) Water W	ell Information			1	
a)	Do you have a private water well?			Yes Yes	No No
b)	Are you connected to the municipal water	supply system?		🗆 Yes	DE No
c)	Do you use your private water well?	/ /	/	Yes	🗆 No
	For what uses? 🖸 Drinking 🗹	Washing Z Lawn	d Other	LIVE S	TOCK - CHICKENS
d)	Do you use any other sources of water?			🗆 Yes	No No
	Alternative Sources (cistern, bottled):				/
e)	Do you have a copy of the driller's log for	the well?		🗌 Yes	No No
	If so, please forward a copy of the well log	g along with this inventory fo	vm.		
f)	If you are unable to provide us a copy of	the well log, please provide a	as much of the follo	wing information a	s you can.
	This information may help us to locate yo	ur well record. If we are able	to locate your well	record, we will ma	il you a copy.
	Original Well Owner:				
	Date Constructed:				
	Driller:				
	Well Type (drilled, dug/bored):	UNKNOWN			
	Casing Inside Diameter:	0			
	Depth (below ground surface):				
	Water Level (below ground surface):				
	Pump				
	Brand/Type:				
	Horsepower / Rating (L/min):				
	Date installed:				
	Date of last service / Maintenance:				
	Depth set in well (below ground surface)			
	Initial setting (at construction):				
	Present setting:				
g)	Please circle the terms that best describe	the accessibility of your we	11:		
	buried in a pit or concrete chamber	casing stick	s above the ground		
	other (please describe):	SANDPOINT			
h)	If the well is in a pit or concrete chamber,	please circle the type of lid:			
	single circular concrete slab	two semi-circular concrete	e slabs	square lid within	a larger circular concrete slab
	other (please describe):				
i)	Has the well ever gone dry?			🗆 Yes	12/No
	Date when this event last occurred:	1			
	How long did the well remain dry?	NA			
	Do you know reason why?	L C			

WATER WELL INVENTORY FORM

	Stantec Assign	ed Well ID Numbe	er:			-	
j)	How would you rate your water quality	iy? 🗌 Poor	Good 🗌	Excellent	D Poor	Good	Excellent Excellent
	How would you describe your water of	quality? /					
	How consistent is your water quality?	Very Co	onsistent	Consistent	🛛 Variable	🗆 Very Va	riable
	If you answered Variable or Very Va	ariable					
	How does your water quality chang	e (e.g., taste, sme	ell, appearan	ce)?			
	No						
	How often does it change?	NEVER	e chi	ANGES			
	Reasons for why it changes (if kno	•					—
k)	Do you test the water quality through		_		₽J Yes		🗋 No
	When, and what were the results?	PERFE	ECT				
(3) Water	Veli Treatment			/			
(a)	Do you treat your well water?	🗆 Ye	5	Mo No			
(b)	If you answered yes, what method of	treatment do you	use (e.g., ch	lorination, UV, filtrai	tion, water softe	ener)?	
(c)	What issue(s) occurred that prompte	d your decision to	treat your dr	inking water?			
	System Information	^					[]] N
a)	Do you have a private septic system				☑ Yes		
b)	Are you connected to the municipal s		number m2		□ Yes		
c)	Have you ever experienced problem	s with your seplic	system		L res		
	If yes, what was the problem?	80			/		
d)	Does this problem still occur? How o Do you get your septic system pump				M Yes		🗇 No
4,	How regularly / frequency?	EVERY	S	TEARS			
		EVAC		MARC			
	e provide us with a sketch showing the	-					
relati	ve to the road, house and other structure	es on your propert	y, Please inc	sude a norm arrow.			
2							
	UNABLE TO	DESCRIBE	: AS	were is	"S'ANDPO	INT.	
						3	

Stantec

WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number: Please provide any other comments: NA Thank you for taking the time to complete this inventory. Please note that the completed form may be included as an appendix in Stantec's report to our client. DEC 12, 2017 Signatures: (field personnel) (date) , Signatures: (project manager) (date)

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🕘 Stantec

WATER WELL INVENTORY FORM

	Stantec Assigned Well ID N	lumber: 54(0°	10195		
	Information mer's Name:			<u>, 14 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 </u>	
Ter	aant's Name:				
Mail	ing Address:				
911 Add	iress of well:				
Township,	Con #, Lot #:				
·	l'elephone #:				
	of Inventory: DEC 13, 2017				
(2) Water W	eli Information				
a)	Do you have a private water well?			🗆 Yes	🗆 No
b)	Are you connected to the municipal water supply	system?		Yes	□ No
C)	Do you use your private water well?	_		🗆 Yes	🗆 No
	For what uses? Drinking Wash	ing 🗆 Lawn	C Other	_	_
d)	Do you use any other sources of water?			🗆 Yes	🖸 No
e)	Alternative Sources (cistern, bottled): Do you have a copy of the driller's log for the wel	12		□ Yes	🗆 No
	If so, please forward a copy of the well log along		~		
ſ)	If you are unable to provide us a copy of the well This information may help us to locate your well of Original Well Owner: Date Constructed: Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting:	ecord. If we are able		ell record, we will mail y	
g)	Please circle the terms that best describe the act	essibility of your well	f:		
	buried in a pit or concrete chamber other (please describe):	casing sticks	s above the grour	nd	
h)	If the well is in a pit or concrete chamber, please	circle the type of lid:			
	single circular concrete slab two s	emi-circular concrete	slabs	square lid within a l	arger circular concrete slab
15	other (please describe):			□ v	
i)	Has the well ever gone dry?			🗆 Yes	🗆 No
	Date when this event last occurred:				
	How long did the well remain dry?				
	Do you know reason why?				

Stantec

WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number:				-	
j)	How would you rate your water quality?] Good	Excellent	Poor	Good	Excellent
	How would you describe your water quality?					
	How consistent is your water quality?	ent	Consistent	🗌 Variable	🗆 Very Va	mable
	If you answered Variable or Very Variable					
	How does your water quality change (e.g., taste, smell, ap	pearance)	?			
	How often does it change?					
	Reasons for why it changes (if known)			_		_
k)	Do you test the water quality through the Health Unit?			🗌 Yes	85	🗆 No
	When, and what were the results?					
Water W	lell Treatment					
(a)	Do you treat your well water?		🗋 No			
(b)	If you answered yes, what method of treatment do you use (e.g., chlor	ination, UV, filtrati	on, water softe	ner)?	
(c)	What issue(s) occurred that prompted your decision to treat	your drink	ing water?			
) Septic S	ystem Information					
а)	Do you have a private septic system?			🗌 Yes		🗆 No
b)	Are you connected to the municipal sewer system?			🗆 Yes		🗋 No
C)	Have you ever experienced problems with your septic system	m?		🗋 Yes		□ No
	If yes, what was the problem?					
	Does this problem still occur? How often?					
d)	Do you get your septic system pumped out?			🗌 Yes		🗆 No
	How regularly / frequency?					
1	provide us with a sketch showing the location of your well and a to the road, house and other structures on your property. Ple					
ľ						
1						



Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments: PROPERTY DOES NOT HAVE WATER WELL. OWNER DID NOT PARTAKE IN WATER WELL INVENTORY SURVEY OWNER WAS PROVIDED EDF INFO DOCUMENTS OF PROJECT Thank you for teking the time to complete this inventory. Please note that the completed form may be included as an appendix in Stantec's report to our client. Dec 13, 2017 Signatures (date) (field personnel) Signatures: (project manager) (date)

Stantec

WATER WELL INVENTORY FORM

	Stantec Assigned	Well ID Number: 5410	290110	(PIN)	
	Information mer's Name:				
Ter	ant's Name:	•			
Mail	ing Address:				
911 Add	iress of well:				
Township, (Con #, Lot #:				
1	elephone #:				
Date	of Inventory: DEC 13, 2	017			
2) Water W	ell Information				
a)	Do you have a private water well?			🗋 Yes	🗆 No
b)	Are you connected to the municipal wat	ter supply system?		🛛 Yes	🗆 No
c)	Do you use your private water well?			🗆 Yes	🗆 No
	For what uses? Drinking	🗆 Washing 🛛 Lawn	Other		
d)	Do you use any other sources of water	?		🖸 Yes	🗆 No
	Alternative Sources (cistern, bottled):			_	_
e)	Do you have a copy of the driller's log for	or the well?		🗆 Yes	□ No
	If so, please forward a copy of the well	log along with this inventory i	orm.		
	Date Constructed: Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting:		e see	PAGE 3-	
g)	Please circle the terms that best describuried in a pit or concrete chamber other (please describe):		ell: ks above the grou	nd	
h)	If the well is in a pit or concrete chambe	er, please circle the type of lic	l:		
	single circular concrete slab	two semi-circular concre	te slabs	square lid within a la	arger circular concrete slab
	other (please describe):				
i)	Has the well ever gone dry?			🗋 Yes	🗆 No
	Date when this event last occurred:				
	How long did the well remain dry?				
	Do you know reason why?				

Stantec

WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number:			
j)	How would you rate your water quality? Poor Good Exc	cellent	Poor	Good Excellent
	How would you describe your water quality?			
	How consistent is your water quality?	nsistent	🗆 Variable	Very Variable
	If you answered Variable or Very Variable			
	How does your water quality change (e.g., taste, smell, appearance)?			
	How often does it change?			
	Reasons for why it changes (if known)			
k)	Do you test the water quality through the Health Unit?		🗆 Yes	🗆 No
	When, and what were the results?			
(3) Water V	/ell Treatment			
(a)	Do you treat your well water?			
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination,	UV, filtration	, water softe	ner)?
(c)	What issue(s) occurred that prompted your decision to treat your drinking wate	31.5		
(4) Septic S	system Information			
a)	Do you have a private septic system?		🗆 Yes	🗆 No
b)	Are you connected to the municipal sewer system?		🗌 Yes	🗆 No
c)	Have you ever experienced problems with your septic system?		🗆 Yes	□ No
	if yes, what was the problem?			
	Does this problem still occur? How often?		_	_
d)	Do you get your septic system pumped out?		🗌 Yes	🗆 No
	How regularly / frequency?			
	e provide us with a sketch showing the location of your well and septic system e to the road, house and other structures on your property. Please include a nor	th arrow		



Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number;

Please provide any other comments: OWNER DID NOT PARTAKE IN WATER WELL INVENTORY SURVEY. OWNER WAS PROVIDED INFORMATION DOC'S FOR REVIEN Thank you to taking the time to complete this inventory. Please Late that the completed form may be included as an appendix in Stantec's report to our client. DEC 13, 2017 Signatures: (field personnel) (dale) Signatures (project manager) (date)

🔵 Stantec

WATER WELL INVENTORY FORM

	Stantec Assigned V	Vell ID Number: <u>5410</u>	90100	54109010)(ç
(1) General	Information			/	
Ov	vner's Name:				
Те	nant's Name:				
Mai	ing Address:		8		
911 Add	dress of well:	L			
Township,	Con #, Lot #:				
	Telephone #: PL	EPSE SEE	PACE	3	
	of Inventory: DEC 13, 20		11100		
	(-		
	/ell Information			🗆 Yes	□ No
a)	Do you have a private water well?	s europhy austors?		□ Yes	
b)	Are you connected to the municipal water	r supply system?			
c)	Do you use your private water well? For what uses?] Washing 🔲 Lawn	Other	☐ Yes	
d)	Do you use any other sources of water?] Washing 🗌 Lawn		🗆 Yes	🗆 No
4)					
e)	Alternative Sources (cistern, bottled): Do you have a copy of the driller's log for	the well?		□ Yes	□ No
0,					
f)	If so, please forward a copy of the well lo If you are unable to provide us a copy of			outing information on you	
17	This information may help us to locate yo				
	Original Well Owner:	al wentecold. It we ale abli	e to tocate your we	a record, we was mail you	а сору.
	Date Constructed:				
	Driller:				
	Well Type (drilled, dug/bored):				
	Casing Inside Diameter:				
	Depth (below ground surface):				
	Water Level (below ground surface):				
	Pump				
	Brand/Type:				
	Horsepower / Rating (L/min):				
	Date installed:				
	Date of last service / Maintenance:				
	Depth set in well (below ground surface)			
	Initial setting (at construction):				
	Present setting:				
g)	Please circle the terms that best describe	the accessibility of your we	ti:		
	buried in a pit or concrete chamber	casing stick	s above the groun	d	
	other (please describe):				
h)	If the well is in a pit or concrete chamber,	please circle the type of lid			
	single circular concrete slab	two semi-circular concret	e slabs	square lid within a large	er circular concrete slab
	other (please describe):				_
i)	Has the well ever gone dry?			🗋 Yes	🗆 No
	Date when this event last occurred:				
	How long did the well remain dry?				
	Do you know reason why?				

Stantec

WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number:		•
j)	How would you rate your water quality? Poor Good Ex	cellent D Poor	Good Excellent
	How would you describe your water quality?		
	How consistent is your water quality?	onsistent D Variable	Very Variable
	If you answered Variable or Very Variable		
	How does your water quality change (e.g., taste, smell, appearance)?		
	How often does it change?		
	Reasons for why it changes (if known)		
k)	Do you test the water quality through the Health Unit?	🗋 Yes	□ No
	When, and what were the results?		
	Vell Treatment		
(a)	Do you treat your well water? Ves No		
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination,	, UV, filtration, water softe	ner)?
(c)	What issue(s) occurred that prompted your decision to treat your drinking wat	ler?	
(4) Septic \$	System Information		
a)	Do you have a private septic system?	🗋 Yes	□ No
b)	Are you connected to the municipal sewer system?	🗆 Yes	□ No
c)	Have you ever experienced problems with your septic system?	🗋 Yes	□ No
	If yes, what was the problem?		
	Does this problem still occur? How often?		
d)	Do you get your septic system pumped out?	🗆 Yes	🗆 No
	How regularly / frequency?		
Plane	a provide us with a sketch showing the location of your well and septic system		
	e to the road, house and other structures on your property. Please include a no	th arrow	
Teldar	e to the fold, house and other structures on your property. These moude a no		
<u> </u>			

Stantec

WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:

(project manager)

OWNER DID NOT WANT TO PARTICIPATE IN WATER WELL INVENTORY SUPVEY
2
Thank you for taking the time to complete this inventory. Please note that the completed form may be included as an appendix in Stantec's report to our client.
Signatures: DEC 13, 2017 (field personnei) (date)

(dale)



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WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Nur	nber:				
(1) Gene	ral Information					
(Owner's Name					
٦	Fenant's Name:					
M	lailing Address:	4				
911 A	Address of well:					
Township	р, Сол #, Lot #:			1.12020		100 100
	Telephone #			1. matrix		
Dat	te of Inventory DEC 16/17		-		(a)	-
2) Water	Well Information			/		
a)	Do you have a private water well?			Nes Yes	🗆 No	
b)	Are you connected to the municipal water supply sys	item?		🗆 Yes	DENO	
C)	Do you use your private water well?			🗆 Yes	🗆 No	
	For what uses?	Lawn I	Other			
d)	Do you use any other sources of water?			🗆 Yes	🗋 No	
	Alternative Sources (cistern, bottled)	Some	time	0		
e)	Do you have a copy of the driller's log for the well?	_		□ Yes	DE No	
	If so, please forward a copy of the well log along with	this inventory form.			•	
f)	If you are unable to provide us a copy of the well log,	please provide as n	nuch of the follow	ing information a	as you can.	
	This information may help us to locate your well reco	rd. If we are able to	locate your well re	ecord, we will ma	ail you a copy.	
	Original Well Owner:	mers				
	Date Constructed	95			-	
	Driller:	0	, 7 /	- A -	_	_
	Well Type (drilled, dug/bored):	stall	. Wel	l		-
	Casing Inside Diameter:	547.		a a		
	Depth (below ground surface):	ster		21 N		
	Water Level (below ground surface):	8-10	feet	•		
	Pump					
	Brand/Type:	et pun	a P =		· · · · ·	
	Horsepower / Rating (L/min):	12	•			
	Date installed:	2010			-	
	Date of last service / Maintenance:	2010				
	Depth set in well (below ground surface)	senni	+			
		senn	K	10 S		100
-1	Present setting:		12		-	-
g)	Please circle the terms that best describe the accessit					
	buried in a pit or concrete chamber	casing sticks abo	ive the ground			
ы	-	11 0 0			2	
h)	If the well is in a pit or concrete chamber, please circle		_			
		ircular concrete slab	s so	uare lid within a	larger circular conci	rete slab
i)	other (please describe): Has the well ever gone dry?					- 25
"	- ,			🗆 Yes	NO NO	
	Date when this event last occurred			200		
			(*)			2 (2)
	How long did the well remain dry? Do you know reason why?		-			



Project Reference: Pendleton Solar Energy Centre

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	Stantec Assigned Well ID Number:
j)	How would you rate your water quality? Poor Good Excellent Poor Good Excellent
	How would you describe your water quality?
	How consistent is your water quality?
	If you answered Variable or Very Variable
	How does your water quality change (e.g., taste, smell, appearance)?
1	
	How often does it change?
	Reasons for why it changes (if known)
k)	Do you test the water quality through the Health Unit?
	When, and what were the results? 2015 30804
Water V	Vell Treatment
(a)	Do you treat your well water? Yes INo
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, UV, filtration, water softener)?
	Javar
(C)	What issue(s) occurred that prompted your decision to treat your drinking water?
	G-1- MASS
) Septic S	System Information
a)	Do you have a private septic system?
b)	Are you connected to the municipal sewer system?
c)	Have you ever experienced problems with your septic system?
-7	If yes, what was the problem?
d)	Does this problem still occur? How often? Do you get your septic system pumped out?
d)	
	How regularly / frequency? 6 - 1 - 41.5
Please	provide us with a sketch showing the location of your well and septic system
	to the road, house and other structures on your property. Please include a north arrow.
relative	to the road, house and other structures on your property. Please include a hortin andw.
	County Rd 2
c	
	Septic
	House
	•
·	@ well



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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number

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Please provide any other con	nments;					
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<i>a</i>				1.17 H.		
					57 - 74 Nov	
				-		2 N
					50 (S)	
Thank you for taking the time to	complete this inventory					
Please note that the completed		pendix in Stantec's r	report to our cli	ent		
Signatures				Deci	16/17	
(field personnel)				(date)		
(project manager)	2	-		(date)		



	Oteriter Assigned y	Vell ID Number:		
(1) Gener	al information		······	(s
(Owner's Name:		-	
т	enant's Name:			
М	ailing Address:		°	
911 A	ddress of well:	11 .		
Township	, Con #, Lot #:			
	Telephone #:			
Dat	e of Inventory:	51:1	-	
2) Water	Well Information			
a)	Do you have a private water well?		Yes	🗆 No
b)	Are you connected to the municipal water	supply system?	🗆 Yes	No No
C)	Do you use your private water well?	1	Yes	D No
	For what uses?	Washing Lawn D'Oth	er	
d)	Do you use any other sources of water?	nation data and the 🖤	□ Yes	PENO
·	Alternative Sources (cistern, bottled):			67.82
e)	Do you have a copy of the driller's log for	the well?	□ Yes	K No
-	If so, please forward a copy of the well log			
ŋ	If you are unable to provide us a copy of the		the following information on w	611 000
''	This information may help us to locate you	17. (-21.)		
	Original Well Owner:	weinecold, if we are able to locate	your wearrecord, we wai maa y	ou a copy.
	Date Constructed:	2002		and the second
		aun		
	Della			
	Driller.	San Bico 1	1010-	
	Well Type (drilled, dug/bored):	Servace !	vell-	· · · · · · · · · · · · · · · · · · ·
	Well Type (drilled, dug/bored): Casing Inside Diameter:	Serface 1	vell-	· · · · · · · · · · · · · · · · · · ·
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface):	Serface (20 Feet.	vell-	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Levei (below ground surface):	Serface 1 20 Feet.	vell-	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump	Serface 1 20 Feet.	vell -	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type:	Serface 1 20 Feet. ?-	vell	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min):	Serface (20 Feet. ?-	vell	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type:	Serface (20 Feet. ?- 2002.	vell	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min):	Serface (20 Feet. ?- 2002	vell	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed:	Serface (20 Feet: ?- 2002	vell	
	Well Type (drilled, dug/bored): Casing Inside Dlameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance:	Serface 1 20 Feet. ?- 2002.	vell	
	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface)	Serface (20 Feet. ?- 2002.	vell	
g)	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction):	?- 2002	vell	
g)	Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting:	?- 2002		
g)	Well Type (drilled, dug/bored): Casing Inside Dlameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe to	? 2002 . ne accessibility of your well:		
g) h)	 Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface): Initial setting (at construction): Present setting: Please circle the terms that best describe to buried in a pit or concrete chamber 	? 2002 ne accessibility of your well: casing sticks above the		
	 Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe to buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab 	? 2002 he accessibility of your well: casing sticks above the	ground	ger circular concrete slab
	 Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe to buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber, p 	? 2002 ne accessibility of your well: casing sticks above the lease circle the type of lid:	ground	
h)	 Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface): Initial setting (at construction): Present setting: Please circle the terms that best describe to buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab other (please describe): Has the well ever gone dry? 	? 2002 ne accessibility of your well: casing sticks above the lease circle the type of lid:	ground square lid within a lar	ger circular concrete slab
h)	 Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe to buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab other (please describe): 	? 2002 ne accessibility of your well: casing sticks above the lease circle the type of lid:	ground square lid within a lar	



Project Reference: Pendleton Solar Energy Centre

	Stantec Assigned Well ID Number:		_	
D	How would you rate your water quality? Poor Good Excelle	ent 🛛 Poor	Good [Excellent
	How would you describe your water quality?			
	How consistent is your water quality? 🛛 Very Consistent 🚺 Consis	itent 🗌 Variable	Very Variat	ie .
	If you answered Variable or Very Variable			
	How does your water quality change (e.g., taste, smell, appearance)?			٠
	How often does it change?			
k)	Reasons for why it changes (if known) Do you test the water quality through the Health Unit?	Yes] No
N)			<u>a</u> 7	U NO
	When, and what were the results? When, and what were the results?	NT 20	94	
(3) Water V	Vell Treatment			
(a)	Do you treat your well water? Yes X No			
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, UV,	filtration, water softe	ener)?	
(C)	What issue(s) occurred that prompted your decision to treat your drinking water?	- 1.		
(-)			_	
(4) Septic S	System Information			
a)	Do you have a private septic system?	V Yes		No
b)	Are you connected to the municipal sewer system?	□ Yes	X	No
C)	Have you ever experienced problems with your septic system?	🗆 Yes	X	No
	If yes, what was the problem?	2/2-		
	Does this problem still occur? How often?			
d)	Do you get your septic system pumped out?	X Yes		No
	How regularly / frequency? 3-4 4/5			
Please	provide us with a sketch showing the location of your well and septic system	• 4	ave a	nan
	to the road, house and other structures on your property. Please include a north an	ow.	1201	n from
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Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Weil ID Number:

Please provide any other c	omments:			
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much	wher English _	First 1	a not spe	is Frenc
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hank you for taking the time lease note that the complete	to complete this inventory. In form may be included as an appendix in	n Stantec's report to our	client.	
	•	-p		11-7
Signatures ((and personnel)	1232 *	ē.)((date) Dec 13	
Signatures:		-		
(project manager)			(date)	



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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

	Stantec Assigne	ed Well ID Number:				
(1) Gener	al Information			~	*	
c	Owner's Name:				10 A	
: Т	enant's Name	1 -		. ¥		-
M	ailing Address:		*	19 C		
	ddress of well	. ~		23		
	2 24	2				
rownsnip	, Con #, Lot #:	1	-	-		
Date	relephone #: + + + + + + + + + + + + + + + + + +	c 16/17			a 14	
2) Water	Well Information			.1		
a)	Do you have a private water well?	•		¹ E Yes		
b)	Are you connected to the municipal wa	ater supply system?		🗆 Yes	NO.	
c)	Do you use your private water well?			VZ Yes	🗆 No	
	For what uses? Drinking	🗆 Washing 🛛 Law	n 🗌 Other		1	
d)	Do you use any other sources of water	? •		☐ Yes	VD8No	-
	Alternative Sources (cistern, bottled):	347.			1	
e)	Do you have a copy of the driller's log			□ Yes	D No	_
	If so, please forward a copy of the well					
ŋ	If you are unable to provide us a copy of					
	This information may help us to locate	your well record. If we are	able to locate yo	ur well record, we will mail	you a copy	
	Original Well Owner:	TITO	100	-		6
	Date Constructed:	-	1970	e i	3	
	Driller:		251	ivell		
	Well Type (drilled, dug/bored):	Surta	200	pece		
	Casing Inside Diameter	-	e e		-	
	Depth (below ground surface):	•	12 (12)		2	
	Water Level (below ground surface): ;	MALL.	1.4	· · ·	5. T -	
	Pump		jet pru	up in bag	,enen	-
	Brand/Type:		-	1 .		_
	Horsepower / Rating (L/min):			-	÷	-
	Date installed:	•	-	-	-	
	Date of last service / Maintenance	a 155		-		
	Depth set in well (below ground surfac	e) •		9		
	Initial setting (at construction):		٠		4	
	Present setting		15			
g)	Please circle the terms that best describ	the accessibility of your	weil			
	buried in a pit or concrete chamber	casing st	icks above the g	round		
	other (please describe)	1.5		÷ ÷	77.0	
h)	If the well is in a pit or concrete chamber	r, please circle the type of I	lid:			
	single circular concrete slab other (please describe):	two semi-circular concr	ete slabs	square lid within a la	rger circular concre	te slab
i)	Has the well ever gone dry?			C Yes	-FINO	
	Date when this event last occurred:				1	
	How long did the well remain dry?				-	
	Do you know reason why?		÷ ·			
	,	*. •			<u>s</u>	
		5 B		a 8		
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		Stantec Assigned Well ID Number:		
_	j)	How would you rate your water quality? Poor Good Excellent Poor Poor	Good	Excellent
		How would you describe your water quality?		
		How consistent is your water quality? Very Consistent Consistent Variable	🗌 Very Va	ariable
		If you answered Variable or Very Variable		
		How does your water quality change (e.g., taste, smell, appearance)?		
		How often does it change?	-	
	81 143	Reasons for why it changes (if known)	-	
	k)	Do you test the water quality through the Health Unit? When, and what were the results? Perfect		🗆 No
		When, and what were the results? PCAT CCA		5 K.
(3)	Water V	Vell Treatment		
	(a)	Do you treat your well water? Yes		
	(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, UV, filtration, water soften	er)?	
		What use us(s) assured that asserted your descent to treat your delations used.		
	(c)	What issue(s) occurred that prompted your decision to treat your drinking water?		
14	Contin 7	untam Information		1
(4)	sepuc s a)	bystem Information Do you have a private septic system?		🗆 No
	b)	Are you connected to the municipal sewer system?		
	c)	Have you ever experienced problems with your septic system?		™SI No
	-,	If yes, what was the problem?		75.10
		Does this problem still occur? How often?		
	d)	Do you get your septic system pumped out?		□ No
		How regularly / frequency?	,	
		provide us with a sketch showing the location of your well and septic system		
	relative	to the road, house and other structures on your property. Please include a north arrow.	3	well
		Ň	6	West
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		Septic print		
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Project Reference Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments: Landowner bought the house recently and the reattor did not disclose the solar farm proposal with them He had lots of questions and fears the value of his home will A follow up call from EDF would be recommended. Thank you for taking the time to complete this inventory. Please note that the completed form may be included as an appendix in Stantec's report to our client. Dec16/17 Signatures (field personnel) (date) Signatures (project manager) (date)



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WATER WELL INVENTORY FORM

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	Stantec Assigned Well ID Number:		
(1) Ge	neral Information		
	Owner's Name:		
	Tenant's Name:		5
	Mailing Address:		
91	1 Address of well		
Town	ship, Con #, Lot #:		5 (M) 6
	Telephone #	-	-
	Date of Inventory Dec 16 2017		
	DEE TO SOTT		
(2) Wa	er Well Information	/	
	a) Do you have a private water well?	🖾 Yes	□ No
	b) Are you connected to the municipal water supply system?	□ Yes	12 No
	c) Do you use your private water well?	L Yes	□ No
	For what uses? 🛱 Drinking 🗹 Washing 🗆 Lawn 🗔 Other		
	d) Do you use any other sources of water?	🗆 Yes	DI NO
	Alternative Sources (cistern, bottled):		
	Do you have a copy of the driller's log for the well?	□ Yes	2 No
	If so, please forward a copy of the well log along with this inventory form,		I
	If you are unable to provide us a copy of the well log, please provide as much of the	following information as v	ou can
	This information may help us to locate your well record. If we are able to locate your		
.()	Original Well Owner:		
····	Date Constructed	*	_
1 (J) V	Driller: *7		
7.013 4	Well Type (drilled, dug/bored):		
N	Casing Inside Diameter.		
	Depth (below ground surface):		
	Water Level (below ground surface) 7		*
	Pump	•	3 - -
	Brand/Type:	85 G	
	Horsepower / Rating (L/min)		
	Date installed		· · · · ·
	Date of last service / Maintenance	2	
	Depth set in well (below ground surface)		- 1×
	Initial setting (at construction):		
	Present setting:		
g)	Please circle the terms that best describe the accessibility of your well		
97			
	buried in a pit or concrete chamber casing sticks above the grou other (please describe)	und	
h)	If the well is in a pit or concrete chamber, please circle the type of lid		
17		2	23
		square lid within a larg	er circular concrete slab
1)	other (please describe): Has the well ever gone dry?		
''		[] Yes	1 LYNO
	Date when this event last occurred	25 (S) (I	
	How long did the well remain dry?		
	Do you know reason why?		



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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

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	Stantec Assigned Well ID Number:			_
j)	How would you rate your water quality? Poor GGood	Excellent	Poor	Good Excellent
	How would you describe your water quality?			
	How consistent is your water quality?	Consistent	🗆 Variable	Very Variable
	If you answered Variable or Very Variable			
	How does your water quality change (e.g., taste, smell, appearance	ce)?		
	· 10			
	How often does it change?		1	-
	Reasons for why it changes (if known)			
k)	Do you test the water quality through the Health Unit?	no l	AllYes	🗆 No
	When, and what were the results?	90A	4	a a
Water V	Veil Treatment			
(a)	Do you treat your well water?	ET No		
(b)	If you answered yes, what method of treatment do you use (e.g., chi	orination, UV, filtration	on, water softe	ner)?
(C)	What issue(s) occurred that prompted your decision to treat your drin	nking water?		-
	<i></i>			
) Septic S	System Information		. 36	
a)	Do you have a private septic system?		Yes	□ No
b)	Are you connected to the municipal sewer system?		Yes	BANO
c)	Have you ever experienced problems with your septic system?		🗆 Yes	X No
	If yes, what was the problem?			
	Does this problem still occur? How often?			_
d)	Do you get your septic system pumped out?	10.00	MYes .	🗆 No
	How regularly / frequency?	YEars	ago	
Please	provide us with a sketch showing the location of your well and septic s	system		
relative	e to the road, house and other structures on your property. Please inclu	de a north arrow		
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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:	:		
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	814.5		
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	34.C 3	280	
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	. a)		
	-		
	_	-	
Thank you for taking the time to comple	ete this inventory.		
Please note that the completed form m	-	tantec's report to our clier	nt.
			No. 11/10-
Signatures: f	-		Dec 16/17
(field personne!, Signatures.	/		(date)
(project manager)	-		(dale)



Project Reference: Pendleton Solar Energy Centre

		Well ID Number:			······.
	al Information		1		
	Owner's Name	2		-	
	enant's Name	٣		٠	
M	ailing Address:		\sim \sim		
911 A	ddress of well: //	, 			
Township	, Con #, Lot #:		221 0 I	41	
	Telephone #				
Dat	e of Inventory: Dec 13,	2017			
2) Water	Well Information				
a)	Do you have a private water well?		Yes		Sand
b)	Are you connected to the municipal wat	er supply system?	🗆 Yes	DELNO	
c)	Do you use your private water well?	/ /	Yes	🗆 No	
	For what uses? Drinking	Washing Lawn Oth	er		
d)	Do you use any other sources of water?	gardien	, 🗌 Yes	No No	<u> </u>
	Alternative Sources (cistern, bottled)	-		7	
e)	Do you have a copy of the driller's log fo	r the well?	□ Yes	No	
	If so, please forward a copy of the well I	og along with this inventory form.			
ŋ	If you are unable to provide us a copy of		f the following information as vo	u can.	
	This information may help us to locate y				
	Original Well Owner:				
	Date Constructed:	Sand Arin	t 2005		
	Driller:	Sand poin	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
		-			
	Well Type (drilled, dua/bored):	Sand Dai	nit		
	Well Type (drilled, dug/bored): Casing Inside Diameter:	Sand Pain	nt		
	Casing Inside Diameter:	28 feet			-
	Casing Inside Diameter: Depth (below ground surface):	Sand point			-
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface):	28 feet			-
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump	28 feet	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		-
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type:	28 feet	np	······································	
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min):	28 feet	np.		-
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed:	28 feet	np.		
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance:	2 28 feet Pump! Jet pur Aug 2005 Self	np.	>06.	
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface)	2 28 feet Pump! Jet pur Aug 2005 Self	np.		50 6
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction):	2 28 feet Pump! Jet pur Aug 2005 Self	np.	30/	50 50
21	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting:	2 28 feet Pump! Jet pur Aug 2005 Self	np.	30/	50 F Was
g)	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min) Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best described	2 28 feet Pump! Jet pur Aug 2005 Self	np. Serv - 20	30/	50 p Was
g)	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber	2 28 feet Pump! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the	np. Serv - 20	30/	50 p Nas
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min) Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe):	2 28 feet Pump! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the Sand point	np. Serv - 20	30/	50 p Was
g) h)	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber,	2 28 feet Pump! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the Sand point please circle the type of lid.	np. Serv - 20	30/	N CG
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab	2 28 feet Pump! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the Sand point	np. Serv - 20	30/	50 p Way
h)	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab other (please describe):	2 28 feet Pump ! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the Sand point please circle the type of lid: two semi-circular concrete slabs	square lid within a larg	30 /	N CG
	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is In a pit or concrete slab other (please describe): Has the well ever gone dry?	2 28 feet Pump! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the Sand point please circle the type of lid.	np. Serv - 20	30/	N CG
h)	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab other (please describe): Has the well ever gone dry? Date when this event last occurred:	2 28 feet Pump ! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the Sand point please circle the type of lid: two semi-circular concrete slabs	square lid within a larg	30 /	N CG
h)	Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is In a pit or concrete slab other (please describe): Has the well ever gone dry?	2 28 feet Pump ! Jet pur Aug 2005 Self the accessibility of your well: casing sticks above the Sand point please circle the type of lid: two semi-circular concrete slabs	square lid within a larg	30 /	Nad

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WATER WELL INVENTORY FORM

	Stantec Assigned V	Vell ID Number:				-	
j)	How would you rate your water quality?	Poor	Good 🗹	Excellent	Poor	Good	Excellent
	How would you describe your water quali	ty?					
	How consistent is your water quality?	Very Consist	ent 🗌 (Consistent	🗌 Variable	U Very Var	iable
	If you answered Variable or Very Variab	le				·	٣
	How does your water quality change (e.	g., taste, smell, ap	pearance)?				
		•					
	How often does it change?						
	Reasons for why it changes (if known)		300			5	8 11 8
k)	Do you test the water quality through the	Health Unit?			M Yes		No No
	When, and what were the results?			100	5.1		
				100	- 1.		1. C
(3) Water V	Neli Treatment	-	_				
(a)	Do you treat your well water?	🗆 Yes	X	lo			
(b)	If you answered yes, what method of treat		· •		on, water softer	ner)?	
(C)	What issue(s) occurred that prompted you	ir decision to treat y	our drinking wa	ater?			
						12	
(4) Septic S	System Information				1		
a)	Do you have a private septic system?				Yes		No
b)	Are you connected to the municipal sewer	system?			🗅 Yes		X No
C)	Have you ever experienced problems with	your septic system	17		🗆 Yes		No
	If yes, what was the problem?						
	Does this problem still occur? How often?						
d)	Do you get your septic system pumped out				Yes		🗆 No
	How regularly / frequency?	3-4	4 yrs	5.			
Disess	na like on like statek eterster te steriterit						
	provide us with a sketch showing the location	-					N (1)
relative	e to the road, house and other structures on y	our property. Plea	ise include a no	rth arrow			nd t
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	Sep County Rd	121-					
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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

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Please provide any other comments:	.		
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	and the second second second		
Thenk you far fatting the time to compl			
Thank you for taking the time to comple Please note that the completed form m		Stantec's report to our client.	
			12/1-
Signatures: (field personnel)		L	e 13/17
(nelo personnel)		(date)	
(project manager)		(date)	

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WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number
	I Information wher's Name
T	enant's Name:
Ma	iling Address:
911 A	Idress of well, //
Township	Con #, Lot #:
	Telephone #
Date	of Inventory: Dec 13/17
(2) Water \	Velt Information
a)	Do you have a private water well?
b)	Are you connected to the municipal water supply system?
C)	Do you use your private water well?
	For what uses? DDrinking BWashing Blawn BOther garden
d)	Do you use any other sources of water?
ө)	Alternative Sources (cistem, bottled): Do you have a copy of the driller's log for the well?
	If so, please forward a copy of the well log along with this inventory form.
Ŋ	If you are unable to provide us a copy of the well log, please provide as much of the following information as you can,
	This information may help us to locate your well record. If we are able to locate your well record, we will mail you a copy.
	Original Well Owners Current cowners
	Date Constructed
	Driller
	Well Type (drilled, dug/bored) Sand paint tiled well_
	Casing Inside Diameter
	Depth (below ground surface): 16 fact
	Water Level (below ground surface). depends.
	Pump
	Brand/Type: Jet pump Strikless Steel.
	Horsepower/Rating (L/min): 1/2 Horsepower
	Date installed:
	Date of last service / Maintenance
	Depth set in well (below ground surface)
	Initial setting (at construction): AFF below service.
g)	Please circle the terms that best describe the accessibility of your well:
	buried in a pit or concrete chamber casing sticks above the ground
	other (please describe): Band point tiled well.
h)	If the well is in a pit or concrete chamber, please circle the type of lid
	single circular concrete slab two semi-circular concrete slabs square lid within a larger circular concrete slab other (please describe).
i)	Has the well ever gone dry?
	Date when this event last occurred
	How long did the well remain dry?
	Do you know reason why?



WATER WELL INVENTORY FORM

	How would you rate your water quality?	or 🗌 Good	Excellent
j)	How would you describe your water quality?	iable 🗌 Very Varial	-
k)	How often does it change? Reasons for why it changes (if known) Do you test the water quality through the Health-Unit? When, and what were the results? High q Vallit	Yes (⊐ No
(3) Water W	Vell Treatment	<u> </u>	
(3) Water (3)	Do you treat your well water?		
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, UV, filtration, water	softener)?	
(C)	What issue(s) occurred that prompted your decision to treat your drinking water?		
(6)	what issue(s) occurred that prompted your decision to treat your dimining watch:		
(4) Septic S	system Information	1	
a)] No
b)			(No
C)		Yes 🔎	No
	If yes, what was the problem?	14	8 8 8
d)	Does this problem still occur? How often? Do you get your septic system pumped out?	Yes	Í No
_,	How regularly / frequency?		
	provide us with a sketch showing the location of your well and septic system		1
	provide us with a sketch showing the location of your well and septic system to the road, house and other structures on your property. Please include a north arrow.		1
			1
			1 N
	to the road, house and other structures on your property. Please include a north arrow.	-	1
		-	1
	to the road, house and other structures on your property. Please include a north arrow.	-	1
	to the road, house and other structures on your property. Please include a north arrow.	-	1
	to the road, house and other structures on your property. Please include a north arrow.	-	1
	to the road, house and other structures on your property. Please include a north arrow.	-	1
	to the road, house and other structures on your property. Please include a north arrow.		1
	to the road, house and other structures on your property. Please include a north arrow.		1
	to the road, house and other structures on your property. Please include a north arrow.	-	1
	to the road, house and other structures on your property. Please include a north arrow.	-	1
	to the road, house and other structures on your property. Please include a north arrow.	-	1. N
	to the road, house and other structures on your property. Please include a north arrow.	•	1

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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other co	omments			
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Thank you for taking the time	to complete this inventory.	······································	· · · · · · · · · · · · · · · · · · ·	
	d form may be included as an appendix in S	itantec's report to our client.		
Signalures:		- 1143	Dec 13/	17
(field personnel)		(date)	
Signatures: (project manager)		(1	date)	l

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Stantec Assigned	Weil ID Number:	· - · · · · · · · · · · · · · · · · · ·		7
1) General Information		1		
Owner's Name:	(*) ********	and Victorian	'	
Tenant's Name.				
Mailing Address:			7	
911 Address of well:	, ¹	_		
Township, Con #, Lot #:				
Telephone #		1		
Date of Inventory Dec	13,2017.			at 11.
) Water Well Information		2 Yes		
a) Do you have a private water well?			🗋 No	
b) Are you connected to the municipal water b) and b) and b)	er supply system?	Yes	K No	
с) Do you use your private water well? For what uses? I Drinking Y	Washing Lawn	ר ער ער ער איז	🗆 No	
 d) Do you use any other sources of water? Alternative Sources (cistern, bottled): 		🗆 Yes	X No	
e) Do you have a copy of the driller's log fo		□ Yes	X NO	
If so, please forward a copy of the well k				
f) If you are unable to provide us a copy of		-	•	
This information may help us to locate yo	our well record. If we are able to loc	ate your well record, we will n	nail you a copy	
Original Well Owner	Fil Dana	- · · · · · · · · · · · · · · · · · · ·	-	
Date Constructed	rail hogy			
Driller:	Vunci			9
Well Type (drilled, dug/bored):	Fall 2009 Duner Sand	point		5. ¹
Casing Inside Diameter:		_		÷.
Depth (below ground surface): Water Level (below ground surface):	26 feet	-		
Pump				
Brand/Type:	Piston Pu	mp.		
Horsepower / Rating (L/min):	1/4 horse	epower		
Date installed:	Fall 200	Q		
Date of last service / Maintenance	no na	red.		1-
Depth set in well (below ground surface) 4		-	,
Initial setting (at construction)	In base	ment.		
Present setting:	111 10-000			
g) Please circle the terms that best describe	the accessibility of your well:			-
buried in a pit or concrete chamber	casing sticks above	the pround		
other (please describe)	Sand	20int		
h) If the well is in a pit or concrete chamber,	please circle the type of lid:	criter.	÷	
single circular concrete slab	two semi-circular concrete slabs	Souare lid within	a larger circular concrete	slab
other (please describe)	the serie enderer concrete algua	SQUERE NO WILLIN		360
i) : Has the well ever gone dry?		□ Yes	No.	
Date when this event last occurred:			2 cmg	
	· · · · · · -	•		
How long did the well remain dry?	а — — — — — — — — — — — — — — — — — — —			1
Do you know reason why?				
Do you know reason why?				

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WATER WELL INVENTORY FORM

Stantec Assigned Weil ID Number:		
j) How would you rate your water quality? Poor . Good Excellent	D Poor	Good Excellent
How would you describe your water quality?		
How consistent is your water quality?	C Variable	U Very Variable
If you answered Variable or Very Variable		
How does your water quality change (e.g., taste, smell, appearance)?		
How often does it change?		
Reasons for why it changes (if known) k) Do you test the water quality through the Health Unit?	Yes	□ No
When, and what were the results?	4	
(3) Water Well Treatment		
(a) Do you treat your well water? 🛛 Yes 🙀 No		
(b) If you answered yes, what method of treatment do you use (e.g., chlorination, UV, filtratio	on, water softer	ier)?
(c) What issue(s) occurred that prompted your decision to treat your drinking water?		
		_
(4) Septic System Information	-	
a) Do you have a private septic system?	🗹 Yes	🖾 No
b) Are you connected to the municipal sewer system?	🗆 Yes	X NO
c) Have you ever experienced problems with your septic system?	🗆 Yes	X No
If yes, what was the problem?		
Does this problem still occur? How often?		
d) Do you get your septic system pumped out?	VYes	□ No
How regularly / frequency? EVERY 5 - Yrs.		
Discourse vide up with a statistic statistic the length of up up will and a satisfic statement.		
Please provide us with a sketch showing the location of your well and septic system relative to the road, house and other structures on your property. Please include a north arrow.		1
relative to the road, house and other structures on your property. Please include a north arrow,		\mathbb{V}
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Stantec Assigned Well ID Number: En 1 17 Please provide any other comments: also constructed this Sand point for this property. Water supply, close to C This is a good water supply - lots of usater Son lives on the property. The water supply will be 120 m of the solar property. House built ind 1982 - moved water supply 1990. Built in 1982. 1990 Moved the supply to top of the hill by the road. Jet Fump installed 1990. - Depth 30 feet. Septic at bottom of hill by House. pumped every 2 yrs. Regular maintance by owner. Ves - tested. - good quality. Thank you for taking the time to complete this inventory. Please note that the completed form may be included as an appendix in Stantec's report to our client Dec 13/17 Signatures (field personnel) Signatures (date)



Project Reference: Pendleton Solar Energy Centre

	Stantec Assigned			
(1) Genera	al Information			
C	wner's Name			
T	enant's Name:			
, Ma	illing Address:			<i>y</i> -
911 Ar	ddress of well	11		8
	Telephone #:			-
Det		13 0017		
	e of Inventory	13,2017	8	- II 2 g
2) Water V	Vell Information		1	
a)	Do you have a private water well?		T Yes	No No
b)	Are you connected to the municipal wat	er supply system?	🗆 Yes	E No
c)	Do you use your private water well?		D Yes	🗆 No
	For what uses? Drinking	🗹 Washing 🔲 Lawn 🖾 Other	Gord	m
d)	Do you use any other sources of water?	1	🗆 Yes	D CNo
	Alternative Sources (cistern, bottled)			
e)	Do you have a copy of the driller's log for	or the well?	🗆 Yes	, XNO
	If so, please forward a copy of the well k	og along with this inventory form		
Ð		the well log, please provide as much of the	following information as ve	NI Can
		our well record. If we are able to locate your		
	Original Well Owner:	т		
	Date Constructed	- 1990	1 P. 241	<u></u>
	Driller:			17
	Well Type (drilled, dug/bored)	-Sand point		1. The second
	Casing Inside Diameter.			-
	Depth (below ground surface)	30 feet.		
	Water Level (below ground surface):		-	-
				-
	Ритр			-
	Pump Brand/Type:	Tot D . N		
	Pump Brand/Type: Horsepower / Rating (L/min):	Jet Piump		
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed:	Jet Piump 1990		
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance:	? 1.70		
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface)	? 1.70		
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance; Depth set in well (below ground surface; Initial setting (at construction):	? 1.70		
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting:	? 1 . 1		
- g)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe	? 1 . 1		
- g)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting:	? 1 . 1	Ind	
g)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe	the accessibility of your well:	Ind	
g)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber	the accessibility of your well: casing sticks above the grou	Ind	
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe):	the accessibility of your well: casing sticks above the grou		er circular concrete stab
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting. Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber,	the accessibility of your well: casing sticks above the grou please circle the type of lid:		er circular concrete slab
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber, single circular concrete slab	the accessibility of your well: casing sticks above the grou please circle the type of lid: two semi-circular concrete slabs		er circular concrete stab
h)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab other (please describe):	the accessibility of your well: casing sticks above the grou please circle the type of lid: two semi-circular concrete slabs	square lid within a larg	
h)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting. Please circle the terms that best describe buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab other (please describe): Has the well ever gone dry?	the accessibility of your well: casing sticks above the grou please circle the type of lid: two semi-circular concrete slabs	square lid within a larg	

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WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number:	3		
j)	How would you rate your water quality? Poor Good	Excellent	Poor	Good Excellent
	How would you describe your water quality?			
	How consistent is your water quality?	Consistent	Variable	U Very Variable
	If you answered Variable or Very Variable			
	How does your water quality change (e.g., taste, smell, appearance)?	10		
	19			
	How often does it change?			
k)	Reasons for why it changes (if known)		No.	
~)	Do you test the water quality through the Health Unit?	90	L Tes	
	When, and what were the results?	10		
) Water W	/eil Treatment			
(a)	* Do you treat your well water?	No '		
(b)	If you answered yes, what method of treatment do you use (e.g., chlorin	ation, UV, filtratio	on, water softer	ner)?
(C)	What issue(s) occurred that prompted your decision to treat your drinkin	a water?		
		g water i		
I) Septic S	ystem Information		/	· · · · · · · · · · · · · · · · · · ·
a)	Do you have a private septic system?		🗹 Yes	🗆 No
b)	Are you connected to the municipal sewer system?		🗆 Yes	12 NO
c)	Have you ever experienced problems with your septic system?		🗌 Yes	₩.No
	If yes, what was the problem?			· · · · ·
	Does this problem still occur? How often?		/	
d)	Do you get your septic system pumped out?		Yes Yes	🗆 No
	How regularly / frequency?	YIS		
Please	provide us with a sketch showing the location of your well and septic syste			
	to the road, house and other structures on your property. Please include			
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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Stan	tec Assigned Well ID Number.			
Please provide any other comments:				
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	v ====			
			_	
Thank you for taking the time to complete	ete this inventory.			
Please note that the completed form m	ay be included as an appendix in Star	ntec's report to our client.		
π.			No. 12	11-7
Signalures; (field personnel)	1.221	(date)	Dec 13,	///
Signatures:		(anca)		
(project manager)		(date)	····	



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WATER WELL INVENTORY FORM

	Stantec Assign	ed Well ID Number:		
	al Information Owner's Name:		7	••••••••••••••••••••••••••••••••••••••
	enant's Name: ailing Address:		·	- 17
911 A	ddress of well:	11 V		
Township), Con #, Lot #:			
	Telephone #:			
Date	e of Inventory:	2-13,2017		
2) Water \	Well Information		1	
a)	Do you have a private water well?		V Yes	No
b)	Are you connected to the municipal w	ater supply system?	□ Yes	No .
c)	Do you use your private water well?	1	Yes	, 🗋 No
	For what uses? Drinking	Y Washing Lawn Other	/	
d)	Do you use any other sources of wate	ar?	Pres	🗆 No
	Alternative Sources (cistern, bottled):	>	• • • • • • • • • • • • • • • • • • • •	- 1
e)	Do you have a copy of the driller's log	for the well?	□ Yes	No No
	If so, please forward a copy of the we	Il log along with this inventory form.		
f)	If you are unable to provide us a copy	of the well log, please provide as much of the	e following information as y	ou can.
	This information may help us to locate	your well record. If we are able to locate you	r well record, we will mail y	ou a copy.
	Original Well Owner:	Previow.		
	Date Constructed:	Prion	- to 199	8
	Driller:			
	Well Type (drilled, dug/bored):	Tiles & Di	19	
	Casing Inside Diameter:		0	
	Depth (below ground surface):	Sfeet.		
	Water Level (below ground surface):			
	Pump			
	Brand/Type:	States Rod	Jacket	Punn
		And Med	Jacon	my
	Horsepower / Rating (L/min):	7		
	Date installed:	•		
	Date of last service / Maintenance:			
	Depth set in well (below ground surfa	C8)		
	Initial setting (at construction):		•	
	Present setting:			
g)	Please circle the terms that best descri	be the accessibility of your well:		
	buried in a pit or concrete chamber	casing sticks above the gro	bund	
	other (please describe):			
h)	If the well is in a pit or concrete chamb	er, please circle the type of lid:		
	single circular concrete slab	two semi-circular concrete slabs	square lid within a lar	ger circular concrete slab
	other (please describe):			
Ð	Has the well ever gone dry?		🗆 Yes	No
	Date when this event last occurred:			<u>.</u>
	How long did the well remain dry?			
	Do you know reason why?			
	•			



Project Reference: Pendleton Solar Energy Centre

5

Stantec Assigned Well ID Number:	
 i) How would you rate your water quality? Poor Good Excelled How would you describe your water quality? Taist function How consistent is your water quality? Very Consistent Consistent for you answered Variable or Very Variable How does your water quality change (e.g., taste, smell, appearance)? How often does it change? Reasons for why it changes (if known) 	stent Variable Very Variable
k) Do you test the water quality through the Health Unit?	ushen bought,
 Water Well Treatment (a) Do you treat your well water? Yes Yes No (b) If you answered yes, what method of treatment do you use (e.g., chlorination, UV, (c) What issue(s) occurred that prompted your decision to treat your drinking water? 	filtration, water softener)?
 4) Septic System Information a) Do you have a private septic system? b) Are you connected to the municipal sewer system? c) Have you ever experienced problems with your septic system? 	Yes No Yes Xino Yes Xino
If yes, what was the problem? Does this problem still occur? How often? d) Do you get your septic system pumped out? How regularly / frequency? 42-5 Yess	Yes INO
Please provide us with a sketch showing the location of your well and septic system relative to the road, house and other structures on your property. Please include a north an Second J	row.
tionse House	



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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other c	omments			
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	and the second sec	a 11 143aa	ang - and Markell Wanakana dirayar 1 Malara dar ka salam	
			2 3 I 2 - V2	ter III tera
1 2				
			_	
Thank you for taking the time	e to complete this inventory.			
Please note that the complet	ed form may be included as an appendix in S	tantec's report to our clie	nt.	
Signatures: (Dec 13/1-	7]
(field personnal)	-	<i>a.</i>	(date)	,
Signatures: (project manager)		-	(date) t	
faolecr umuster)			factor	

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WATER WELL INVENTORY FORM

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Stantec Assigned Well ID Number:	
(1) General Information Owner's Name:	
Tenant's Name:	
Mailing Address:	ć
911 Address of well:	
Township, Con #, Lot #:	
Telephone #:	
Date of Inventory: Dec 14, 201	
(2) Water Weil Information	/
a) Do you have a private water well?	Yes INO
b) Are you connected to the municipal water supply system?	TYes ANO
c) Do you use your private water well?	Pres 🗆 No
For what uses? 🖾 Drinking 🗌 Washing 🖾 Lawn	Other
d) Do you use any other sources of water?	OUGHS DINO
Alternative Sources (cistern, bottled):	
e) Do you have a copy of the driller's log for the well?	🗆 Yes 🗳 No
If so, please forward a copy of the well log along with this inventory form	1.
f) If you are unable to provide us a copy of the well log, please provide as r	much of the following information as you can.
This information may help us to locate your well record. If we are able to	locate your well record, we will mail you a copy.
Original Well Owner:	······································
	996
Driller: SasaZi	
Well Type (drilled, dug/bored):	
Casing Inside Diameter:	
	- 27 ft.
Water Level (below ground surface):	••••••••••••••••••••••••••••••••••••••
Pump	
Brand/Type:	
Horsepower / Rating (L/min):	
Date installed:	
Date of last service / Maintenance:	
Depth set in well (below ground surface)	
Initial setting (at construction):	
Present setting:	
g) Please circle the terms that best describe the accessibility of your well:	
buried in a pit or poncele champer casing sticks ab	
other (please describe):	Latas
h) If the well is in a pit or concrete chamber, please circle the type of lid:	
single circular concrete slab two semi-circular concrete sla	bs square lid within a larger circular concrete slab
other (please describe):	
i) Has the well ever gone dry?	Yes No
Date when this event last occurred:	
How long did the well remain dry?	
Do you know reason why?	



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WATER WELL INVENTORY FORM

j)	How would you rate your water quality?	Good	Excellent	D'Poor	Good Good	Excellent	
	How would you describe your water quality?		- 1-		1 a 17		
	How consistent is your water quality?	Consistent	Consistent	🛛 Variable	U Very Varia	able	
	If you answered Variable or Very Variable						
	How does your water quality change (e.g., taste, sn	nell, appearance	e)?				
	How often does it change?		2 × 1000				
	Reasons for why it changes (if known)						
k)	Do you test the water quality through the Health Unit?			Yes		□ No	
	When, and what were the results?	Sp	rin 2	017	- 1-	□no 2tim	es
Vater V	/ell Treatment						
(a)	Do you treat your well water?	es	200 7	a Vark			
(b)	If you answered yes, what method of treatment do you	use (e.g., chio	prination, UV, filtrati	on, water softer	ier)?		
(C)	What issue(s) occurred that prompted your decision to	treat your drin	king water?			-	
<u> </u>				_			
	ystem Information						
a)	Do you have a private septic system?			Yes Ves		□ No X No	
b)	Are you connected to the municipal sewer system?	austom?		Ves			
C)	Have you ever experienced problems with your septic :	aystern?		□ Yes	7	KI No	
	If yes, what was the problem?			-	2010		-
-1 1	Does this problem still occur? How often?			Yes	1	🗆 No	
(D)	Do you get your sentic system numbed out?					- 110	
d)	Do you get your septic system pumped out?	2-	Aur	<			
	Do you get your septic system pumped out? How regularly / frequency?	3-	- A yr	5.			
		3 -	- 4 4r	5.			
Please	How regularly / frequency?			5.			
Please	How regularly / frequency? provide us with a sketch showing the location of your we			5.			-
Please	How regularly / frequency? provide us with a sketch showing the location of your we			5.			
Please	How regularly / frequency? provide us with a sketch showing the location of your we			<u>s.</u>			
Please	How regularly / frequency? provide us with a sketch showing the location of your we			<u>s.</u>			
Please	How regularly / frequency? provide us with a sketch showing the location of your we			<u>s.</u>			
Please	How regularly / frequency? provide us with a sketch showing the location of your we			<u>s.</u>			
Please	How regularly / frequency? provide us with a sketch showing the location of your we			<u>s.</u>			
Please	How regularly / frequency? provide us with a sketch showing the location of your we			5.			
Please	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion	de a north arrow.	<u>s.</u>			
Please	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion	de a north arrow.	<u>s</u> .			
Piease	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion	de a north arrow.				
Please	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion	de a north arrow.				
Please	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion		<u>s.</u>			
Please	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion	de a north arrow.	<u>s</u> .			
Please	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion	de a north arrow.	S.			
Please	How regularly / frequency? provide us with a sketch showing the location of your we	Please inclusion	de a north arrow.	S.			



WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:	izinan aratemining
Landowner would deep the found Solar Daneto	like to know how lations for the will be. Follow up.
	. 2
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5. 200 B	(17) * * (2) ***
Thank you for taking the time to complete this inventory. Please note that the completed form may be included as an appendix in Sta	ntec's report to our client.
Signatures:	Dec 14 2017
(field personnet)	(dale)
(project manager)	(date)

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WATER WELL INVENTORY FORM

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Stantec Assigned Well ID	Number:		(0)
General information	-		
Owner's Name:			
Tenant's Name:	V ·		
Mailing Address:	-		
911 Address of well: //	1		
ownship, Con #, Lot #:			-
1.0.0.	-		Name and American Street, and
Telephone #:	1.		U
Date of Inventory: Dec 19			•
Water Well Information		1	_
a) Do you have a private water well?		, MYes	□ No
b) Are you connected to the municipal water supply	v system?	C Yes	No.
c) Do you use your private water well?		M Yes	🗆 No
For what uses? Drinking DWash		12 and 14 and 15	
d) Do you use any other sources of water?	Gorden	🗆 Yes	X No
Alternative Sources (cistern, bottled):			
 Do you have a copy of the driller's log for the we 	1?	TYes	No
If so, please forward a copy of the well log along	with this inventory form		
f) If you are unable to provide us a copy of the well	log, please provide as much of th	e following Information as yo	ou can.
This information may help us to locate your well	record. If we are able to locate you	ur well record, we will mail yo	a copy.
Original Well Owner:			
Date Constructed:	2009		
	2009		
Driller:	2009		
Driller: Well Type (drilled, dug/bored):	2009, Inilled 41	Port	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter:	2009, milled 22 Ft 4f	'eet_	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface):	2009 32.5t	eet _	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface):	2009 milled 32. Ft 12 - 14 F<	eet .	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump	2009 milled 32. Ft 12 - 14 Fe	eet	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type:	2009, 32 Ft 12 - 14 Fe Jet Pump	eet	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min):	2009, 32, Ft 12 - 14 Fe Jet Pump 1/4 HP	eet	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type:	2009 10140 32. Ft 12 - 14 Fe Jet Pump 1/4 HP 2009	eet	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min):	2009 10140 32. Ft 12 - 14 Fe Jet Pump 1/4 HP 2009 2009	eet	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed:	174 HP 2009 2009	eet	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance:	174 HP 2009 2009	et the how	e.
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface)	174 HP 2009 2009	eet	е.
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction):	174 HP 2009 2009 is in -	eet	se.
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting:	174 HP 2009 2009 is in -		se.
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: 9) Please circle the terms that best describe the acc	174 HP 2007 2009 mp is in sessibility of your well:		se.
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: g) Please circle the terms that best describe the acc buried in a pit or concrete chamber other (please describe):	2009 2009 mp is in sessibility of your well: casing sticks above the gu		se.
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: g) Please circle the terms that best describe the acc buried in a pit or concrete chamber other (please describe): h) If the well is in a pit or concrete chamber, please of	2009 2009 2009 comp is in composite casing sticks above the gr	round	
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: g) Please circle the terms that best describe the acc buried in a pit or concrete chamber other (please describe): h) If the well is in a pit or concrete slab two set	2009 2009 mp is in sessibility of your well: casing sticks above the gu	round	jer circular concrete slab
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: 9) Please circle the terms that best describe the acc buried in a pit or concrete chamber other (please describe): h) If the well is in a pit or concrete slab two se other (please describe):	2009 2009 2009 comp is in composite casing sticks above the gr	round square lid within a larg	jer circular concrete slab
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: g) Please circle the terms that best describe the accomparison buried in a pit or concrete chamber other (please describe): h) If the well is in a pit or concrete chamber, please other (please describe): h) If the well is in a pit or concrete slab two secother (please describe): i) Has the well ever gone dry?	2009 2009 2009 comp is in composite casing sticks above the gr	round	
 Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface): Initial setting (at construction): Present setting: g) Please circle the terms that best describe the accoburied in a pit or concrete chamber other (please describe): h) If the well is in a pit or concrete chamber, please other (please describe): i) Has the well ever gone dry? Date when this event last occurred: 	2009 2009 2009 comp is in composite casing sticks above the gr	round square lid within a larg	jer circular concrete slab
Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date of last service / Maintenance: Depth set in well (below ground surface) Initial setting (at construction): Present setting: g) Please circle the terms that best describe the accomparison buried in a pit or concrete chamber other (please describe): h) If the well is in a pit or concrete chamber, please other (please describe): h) If the well is in a pit or concrete slab two secother (please describe): i) Has the well ever gone dry?	2009 2009 2009 comp is in composite casing sticks above the gr	round square lid within a larg	jer circular concrete slab



	Stantec Assigned Well I	D Number:					
D	How would you rate your water quality?	Poor	Good Good	Excellent	D Poor	Good Good	Excellent
	How would you describe your water quality?	1					
	How consistent is your water quality?	Very Con	sistent	Consistent	Variable	🗋 Very Va	ariable
	If you answered Variable or Very Variable						9.
	How does your water quality change (e.g., ta	aste, smell,	appearance	≥)?			
	How often does it change?			-		_	
	Reasons for why it changes (if known)						
k)	Do you test the water quality through the Healt	ih Unit?			Yes		□ No
	When, and what were the results?		2	015	when i	wate	r softener
Water W	/ell Treatment	1			······································		
(a)	Do you treat your well water?	O Yes		🗆 No			
(b)	If you answered yes, what method of treatment	t do you us	e (e.g., chlo	rination, UV, filtrat	tion water softe	ner)?	
(C)	What issue(s) occurred that prompted your dec	vision to tre	at your drin	Crotow poin	-		
(0)	what issue(s) occurred that prompted your det		at your unn	ang water r		_	_
Septic S	ystem Information			28	. /		
a)	Do you have a private septic system?				Yes		D No
b)	Are you connected to the municipal sewer syste				C Yes		No
c)	Have you ever experienced problems with your	septic syst	tem?		🗆 Yes		No
	If yes, what was the problem?				-		
	Does this problem still occur? How often?	-			-1		
d)	Do you get your septic system pumped out?		1-	6	Yes		🗆 No
	How regularly / frequency?		T	Jyrs			
Please	provide us with a sketch showing the location of	your well a	nd septic sy	stem			
relative	to the road, house and other structures on your p	property. P	lease includ	le a north arrow.		٠	
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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number;

Please provide any other comment		•	
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		8	
			•
Thank you for taking the time to comp	plete this inventory.		
Please note that the completed form	may be included as an appendix in S	tantec's report to our client.	
	•	<u> </u>	The ILL OCALT
Signatures: (field personnel)		(date)	Dec 14:2017
Signatures:		(Care,	
(project manager)		(date))

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WATER WELL INVENTORY FORM

Stantec Assig	ned Well ID Number:			
1) General Information Owner's Name:	,			
Tenent's Name:-	~ L			
Mailing Address:	11			
911 Address of well:	,)			
Fownship, Con #, Lot #		_		
Telephone #				
Date of Inventory	6,2017			
) Water Well Information		1		
a) Do you have a private water well?		VZ Yes	🗆 No	
b) Are you connected to the municipal	water supply system?	🗆 Yes	No	
c) Do you use your private water well?		V Yes	🗆 No	
For what uses? Drinking	Washing Q Lawn C Other	•		
 d) Do you use any other sources of wa 	•	X,Yes	R No	
Alternative Sources (cistern, bottled)			· · · · ·	
e) Do you have a copy of the driller's lo		C Yes	No	- 2
If so, please forward a copy of the w	-			
		Invian information on v		
	by of the well log, please provide as much of the fol			
	te your well record. If we are able to locate your we	ell record, we will mail y	ou a copy	
Original Well Owner:	100ch			
Date Constructed:		-		
Driller	Surface wel	1-5+	100-	
 Well Type (drilled, dug/bored). 	Shiface Wei	イ・シュ	110	
Casing Inside Diameter.	0410			
Depth (below ground surface)	2077		2 (24)	
Water Level (below ground surface):	12++.			
Pump	AT D K		7	-
Brand/Type:) RA Turn (4	Berkley	/	
Horsepower / Rating (L/min)	12	- - 1	/	
Date installed:	LO/C		1	
Date of last service / Maintenance:	2012			
Depth set in well (below ground sur	ace)			
Initial setting (at construction):	Basement			
Present setting:				
g) Please circle the terms that best desc	ribe the accessibility of your well:			
buried in a pit or concrete chamb		d		
other (please describe):		-		
 h) If the well is in a pit or concrete chami 	ber please circle the type of lid			
single circular concrete slab	two semi-circular concrete slabs	souare lid within a lar	ger circular concrete slab	
other (please describe):		adama ila witnin a lat	ger encolar concrete sidu	
i) Has the well ever gorte dry?		🗌 Yes	X No	
			\wedge	
Date when this event last occurred	-		100 CTUT (1.1	
How long did the well remain dry? Do you know reason why?			-	



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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

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	Stantec Assigned Well ID Number:		-	
j)	How would you rate your water quality? Poor Door Good Excellent How would you describe your water quality?	Poor	Good	Excellent
	How consistent is your water quality? Serv Consistent Consistent If you answered Variable or Very Variable	🗌 Variable	🗌 Very Varia	ble
	How does your water quality change (e.g., taste, smell, appearance)?			
	How often does it change?			
k)	Reasons for why it changes (if known) Do you test the water quality through the Health Unit?	Yes		🗇 No
	When, and what were the results? 2016	~6	and.	-
3) Water V	/ell Treatment			
(a)	Do you treat your well water? Yes XNo	x		
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, UV, filtra	ition, water softe	ner)?	
(c)	What issue(s) occurred that prompted your decision to treat your drinking water?			
4) Septic S	ystem Information	/		
a)	Do you have a private septic system?	Yes] No
b)	Are you connected to the municipal sewer system?	Yes	-	X No
C)	Have you ever experienced problems with your septic system?	Yes	لر	No
	If yes, what was the problem? Does this problem still occur? How often?			
d)	Do you get your septic system pumped out?	Pres	E	No
	How regularly / frequency? 2,54rs			
Please	provide us with a sketch showing the location of your well and septic system			
	to the road, house and other structures on your property. Please include a north arrow.			
	(Septic)1 pt			
	House well M	91		
	8			
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	8			
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i.

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

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F	
Please provide any other comments:	8
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·	<u></u>
Thank you for taking the time to complete this inventory.	
Please note that the completed form may be included as an appendix in St	antec's report to our client.
2	De- 11/17
Signatures: (field personnel)	(date) Dec 16/17
Signatures	-
(project manager)	(date)



Project Reference: Pendleton Solar Energy Centre

	Stantec Assigned	Weli ID Number:		
	al Information			
C	Owner's Name:			
т	enant's Name:	A 1		
M	ailing Address:			-
911 A	ddress of well:	1 16	t:	
Township	o, Con #, Lot #:			
•	Telephone #:			
Dat	te of Inventory:	Dec 11/11		·
(2) Water	Well Information		_/	
a)	Do you have a private water well?		Yes	🗆 No
b)	Are you connected to the municipal wate	r supply system?	□ Yes	No
c)	Do you use your private water well?		Yes	□ No
	For what uses? 🛛 Drinking 🛛	🗅 Washing 🛛 Lawn 🗌 Other		
d)	Do you use any other sources of water?		□ Yes	□ No
	Alternative Sources (cistern, bottled):			
e)	Do you have a copy of the driller's log for	r the well?	□ Yes	D No
	If so, please forward a copy of the well k	g along with this inventory form.		
f)	If you are unable to provide us a copy of	the well log, please provide as much of the	e following information as y	ou can.
	This information may help us to locate yo	our well record. If we are able to locate you	r well record, we will mail y	очасору.
	Original Well Owner:			
	Date Constructed:			
	Driller.			
	Weil Type (drilled, dug/bored):			
	Casing Inside Diameter:	3Ct.		
	Depth (below ground surface):			• · · · · · · · · · · · · · · · · · · ·
	Water Level (below ground surface):			
	Pump			-
	Brand/Type:		_	
	Horsepower / Rating (L/min):			
	Date installed:			
	Date of last service / Maintenance:			
	Depth set in well (below ground surface)	· · · · · · · · · · · · · · · · ·	-	
	Initial setting (at construction):			
	Present setting:		a	
	Please circle the terms that best describe	the compatibility of your wall		
g)		casing sticks above the gr		
	buried in a pit or concrete chamber	casing sicks above the gr	ound	
F 3	other (please describe):	nlosse simis the ture of list		
h)	If the well is in a pit or concrete chamber,		mariana Ratication - 4	
	single circular concrete slab	two semi-circular concrete stabs	square no within a lar	ger circular concrete slab
n	other (please describe):		- 🖸 Yes	
I)	Has the well ever gone dry?	•		□ No
	Date when this event last occurred:	• • • • • • • • • • • •		
	How long did the well remain dry?			
	Do you know reason why?			

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WATER WELL INVENTORY FORM

D				
	How would you rate your water quality?	d D Excellent	Poor	Good Excellent
	How would you describe your water quality?			
	How consistent is your water quality?	Consistent	Variable	Very Variable
	If you answered Variable or Very Variable			
	How does your water quality change (e.g., taste, smell, appeara	ance)?		
	How often does it change?			
	Reasons for why it changes (if known)			
k)	Do you test the water quality through the Health Unit?		🗆 Yes	□ No
	When, and what were the results?		17.	
Water M	/ell Treatment			•
(a)	Do you treat your well water?	🗆 No		
(b)	If you answered yes, what method of treatment do you use (e.g., o	chlorination, UV, filtratio	n, water soften	er)?
			_	
(c)	What issue(s) occurred that prompted your decision to treat your of	drinking water?		
Septic S	ystem Information			
a)	Do you have a private septic system?		🗆 Yes	🗆 No
b)	Are you connected to the municipal sewer system?		Yes	🗆 No
C)	Have you ever experienced problems with your septic system?		🗆 Yes	🗆 No
	If yes, what was the problem?			
	Does this problem still occur? How often?			
	De unu est unus contin suches successi auto			22/
d)	Do you get your septic system pumped out?		Yes	🗆 No
	How regularly / frequency?		LI Yes	
Please		clude a north arrow.		LI NO
Please	How regularly / frequency? provide us with a sketch showing the location of your well and septi			PT N
Please	How regularly / frequency? provide us with a sketch showing the location of your well and septi	clude a north arrow.		T PT Z
Please	How regularly / frequency? provide us with a sketch showing the location of your well and septit to the road, house and other structures on your property. Please in	clude a north arrow.		I No T T N N
Please	How regularly / frequency? provide us with a sketch showing the location of your well and septit to the road, house and other structures on your property. Please in	clude a north arrow.		I No PT N Z

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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments:	
Se ha wild last to it is	
Spoke with tenant, who is daughter 'she did ror of the well, but gave phone number.	lando-whers
anyter. She gid rot	thave knowledge
of the well, but gave	Landowniers
Chone mumper.	
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Thank you for taking the time to complete this inventory.	
Please note that the completed form may be included as an appendix in Stantec's report to our client	
	Dec 17/17
Signatures ((field personnet)	Dec 17/17
(neia personne) · (n Signatures:	date)
(project manager) (r	dale)



WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes	
Yes Yes Yes	
☐ Yes ☐ Yes ☐ Yes	
☐ Yes ☐ Yes ☐ Yes	
⊇ Yes	D No
Yes	
	No
	No No
□ Yes	
LI Yes	
	X No
wing Information as you ca	
record, we will mail you a c	сору.
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feet.	
	-
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square lid within a larger ci	rcular concrete slab
	£
니 Yes	AI No
	-
	feet . square lid within a larger cl

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WATER WELL INVENTORY FORM

	Stantec Assigned Well ID Number:
D	How would you rate your water quality? Poor Good Excellent Poor Good Excellent How would you describe your water quality? How consistent is your water quality? Very Consistent Consistent Variable Very Variable If you answered Variable of Very Variable How does your water quality change (e.g., taste, smell, appearance)?
k)	How often does it change? Reasons for why it changes (if known) Do you test the water quality through the Health Unit? When, and what were the results? $Good.$ (Long f_{1} :2 0-93)
3) Water V	Weil Treatment
(a)	Do you freat your well water?
(b)	If you answered yes, what method of treatment do you use (e.g., chlorination, UV, filtration, water softener)?
(C)	What issue(s) occurred that prompted your decision to treat your drinking water?
	System Information
a) b)	Do you have a private septic system? I Yes No ' Are you connected to the municipal sewer system? I Yes No
c)	Have you ever experienced problems with your septic system?
•,	If yes, what was the problem?
d)	Does this problem still occur? How often? Do you get your septic system pumped out? How regularly / frequency? I - Z + iMes per years
Please	e provide us with a sketch showing the location of your well and septic system
relative	e to the road, house and other structures on your property. Please include a north arrow.
	Shird [Shird]
	putking House.
1	



WATER WELL INVENTORY FORM

· . Stantec Ass	igned Well ID Number:
Please provide any other comments:	
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546) (J	
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	a president of the president of the second sec
_	
Thank you for taking the time to complete this	
Please note that the completed form may be in	ncluded as an appendix in Stantec's report to our client.
Signatures:	Dec 17/17
(field personnel)	(data)
Signatures:	(date)



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WATER WELL INVENTORY FORM

1 Gans	ral Information			2		
	Owner's Name:				,	
	Tenantie Name		2		1	
•••	failing Address:	K - 1				
	Address of well:		-			
	p, Con #, Lot #:		÷			
rownam		· · · · · ·		······································		
	Telephone #:	15/17				
Da	ate of Inventory:	19/11	-			
2) Water	Well Information			/		
a)	Do you have a private water well?			Ves Yes	D No	
b)	Are you connected to the municipal w	ater supply system?		🗆 Yes	W No	
c)	Do you use your private water well?	1		M Yes	D No	
	For what uses? Drinking	🕑 Washing 🔲 Lawn	C Other	1) 	
d)	Do you use any other sources of wate			Yes	No No	
	Alternative Sources (cisters bottled):	D Water 3	system	t for drin	king us	te
e)	Do you have a copy of the driller's log	for the well?		Yes	No	
	If so, please forward a copy of the we	ll log along with this inventory	form.			ŝ
f)	If you are unable to provide us a copy	of the well log, please provid	e as much of the f	ollowing information as y	ou can.	
	This information may help us to locate	your well record. If we are at	ole to locate your	vell record, we will mail y	ou a copy.	
	Original Well Owner:			-		
	Date Constructed:	1999				
	Driller:					
	Well Type (drilled dug/bored):	Drilles	a a			
	Casing Inside Diameter:	4 Ferent	-	-		
	Depth (below ground surface):	Est.	201			
		\sim \circ	6		-	
	Water Level (below ground surface):					
	Water Level (below ground surface): Pump					
	Water Level (below ground surface): Pump Brand/Type:	Tet Du	no in	msen	ent and	Du
	Pump	Jet pu	mp in	basen	ent and	Pu
	Pump Brand/Type:	Jet pu	-	-	· · · · · · · · · · · · · · · · · · ·	-
	Pump Brand/Type: Horsepower / Rating (L/min); Date installed:	1999	-	-	· · · · · · · · · · · · · · · · · · ·	-
	Pump Brand/Type: Horsepower / Rating (L/min): Date Installed: Date of last service / Maintenance:	1999 Wir	-	basens	· · · · · · · · · · · · · · · · · · ·	-
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface)	1999 Wir	-	-	· · · · · · · · · · · · · · · · · · ·	-
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / MaIntenance: Depth set in well (below ground surfat Initial setting (at construction):	1999 Wir	-	-	· · · · · · · · · · · · · · · · · · ·	-
0)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surfat Initial setting (at construction): Present setting:	1999 wir	eing	-	· · · · · · · · · · · · · · · · · · ·	-
g)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best description	ce) be the accessibility of your we	eing.	service	· · · · · · · · · · · · · · · · · · ·	-
g)	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best description buried in a pit or concrete chamber	ce) be the accessibility of your we	eing	service	· · · · · · · · · · · · · · · · · · ·	-
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best describ buried in a pit or concrete chamber other (please describe):	be the accessibility of your we	eing ell: ks above the grou	service	· · · · · · · · · · · · · · · · · · ·	-
g) h)	Pump Brand/Type: Horsepower / Rating (L/min): Date Installed: Date of last service / Maintenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best describured in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber	be the accessibility of your we casing stick ar, please circle the type of lid	eing ell: ks above the grou	service	Sunges	2
	Pump Brand/Type: Horsepower / Rating (L/min): Date Installed: Date of last service / Maintenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best describured in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber single circular concrete slab	be the accessibility of your we	eing ell: ks above the grou	service	· · · · · · · · · · · · · · · · · · ·	2
h)	Pump Brand/Type: Horsepower / Rating (L/min): Date Installed: Date of last service / Maintenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best description buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab single circular concrete slab other (please describe):	be the accessibility of your we casing stick ar, please circle the type of lid	eing ell: ks above the grou	square lid within a lar	Sunges	2 (
	Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / MaIntenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best describ buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber single circular concrete slab other (please describe): Has the well ever gone dry?	be the accessibility of your we casing stick ar, please circle the type of lid	eing ell: ks above the grou	service	Sunges	2 (
h)	Pump Brand/Type: Horsepower / Rating (L/min): Date Installed: Date of last service / Maintenance: Depth set in well (below ground surfar Initial setting (at construction): Present setting: Please circle the terms that best description buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete slab single circular concrete slab other (please describe):	be the accessibility of your we casing stick ar, please circle the type of lid	eing ell: ks above the grou	square lid within a lar	Sunges	2 (



	Stantec Assigned Well ID Number:	/		-	
j)	How would you rate your water quality? Poor Good	5 Discellent	Poor	Good Excellent	
	How would you describe your water quality?		1		
	How consistent is your water quality?	Consistent	Variable	U Very Variable	
	If you answered Variable or Very Variable				
	How does your water quality change (e.g., taste, smell, appeara	nce)?			
	Yellow in season.	5 (Fall)			
	How often does it change?	gend			_
	Reasons for why it changes (if known)	and a base of the later of		•	
k)	Do you test the water quality through the Health Unit?		Yes	No	
,	When, and what were the results?	Once a	UPad	-	
		Under C	7-		
Water W	/ell Treatment	_			
(a)	Do you treat your well water? SYes	□ No	-		
(b)	If you answered yes, what method of treatment do you use (e.g. c	hlorination, UV, filtration	on water softer	ner)	
(c)	What issue(s) occurred that prompted your decision to treat your d				
Septic S	system Information	\$	/		_
a)	Do you have a private septic system?		Yes Yes	No No	
b)	Are you connected to the municipal sewer system?		🗆 Yes	No.	
C)	Have you ever experienced problems with your septic system?		🗆 Yes	No No	
	If yes, what was the problem?				
	Does this problem still occur? How often?	12 I I I	1		
d)	Do you get your septic system pumped out?		Yes Yes	No	
	How regularly / frequency?	Surs			
				and a state of the	
1	provide us with a sketch showing the location of your well and septic	2		\wedge	3
relative	to the road, house and other structures on your property. Please inc	clude a north arrow.			
				<u>к</u> /	
	DI			N	
	Rol.				٦.
	Well				
	House	•		1	
	Septic	5			



WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

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Stantec Assigned Well ID Number:

Please provide any other co	mments:					
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			1211		2 G I	
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					5.5 J.5	
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			24 2			
Fhank you for taking the time Please note that the complete			n Stantec's report to our	client.		
Signaturas:				1	Dec 15/1	17
						-
(field personnel)			1	(dale)		

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Stantec Assigned W	/ell ID Nuraber:	<u></u>	
Information	~		
ner's Name:	(2012) 	a particular and particular and a state of the second second second second second second second second second s	
ant's Name: 11	6 1		
ng Address:			
ress of well:			
Con #. Lot #:			
			a in an
	ngangalang ang ang ang ang ang ang ang ang ang		
ell Information		The second second	
	a set a starra	M Yes	
	supply system?		
		i Ares	🗆 No
	Washing Lawn Li Other		
Do you use any other sources of water?		Ll Yes	12100
Alternative Sources (cistern, bottled):	1		
Do you have a copy of the driller's log for	the well?	L) Yes	⊡-No
If so, please forward a copy of the well lo	g along with this inventory form.		
If you are unable to provide us a copy of	the well log, please provide as much of the	e following information as yo	u can.
This information may help us to locate yo	ur well record. If we are able to locate you	ir well record, we will mail yo	и а сору.
Original Well Owner:		a fa a a a a a a a a a a a a a a a a a	
Date Constructed:	7	A Marcala (B) Analysis (Marcal)	
Driller:	?		
Well Type (drilled, dug/bored):	Surface w	ell	
Casing Inside Diameter:	1		
Depth (below ground surface):	7		
Water Level (below ground surface)	7		
Pump	7		
Brand/Type:			
Date installed			
Date of last service / Maintenance.			
Depth set in well (below ground surface)		
	,		
		hann at raffer deservation process into representation definition or	
D.	the accessibility of your well		
and the second sec		round	
		, 	
	please circle the type of lid		491994
•		square lid within a la	rger eircular concrete sieh
		aquere no vount e la	ger enemin concrete stab
other (please describe):		🗌 Yes	E-No
Has the well ever cone dry?			L 140
Has the well ever gone dry?			Eeno
Has the well ever gone dry? Date when this event last occurred: How long did the well remain dry?			
	nformation her's Name: ant's Name: ant's Name: ant's Name: hg Address: ress of well: con #, Lot #: elephone #: of Inventory: all Information Do you have a private water well? Are you connected to the municipal water Do you use your private water well? For what uses? Lo you use any other sources of water? Alternative Sources (cistern, bottled): Do you use any other sources of water? Alternative Sources (cistern, bottled): Do you use any other sources of water? Alternative Sources (cistern, bottled): Do you have a copy of the driller's log for If so, please forward a copy of the well log If you are unable to provide us a copy of the this information may help us to locate yo Original Well Owner: Date Constructed: Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance. Depth set in well (below ground surface Initial setting (at construction): Present setting: Please circle the terms that best describes buried in a pit or concrete chamber other (please describe): If the well is in a pit or concrete chamber, single circular concrete slab	nformation ner's Name: ant's Name: bo you use aprivate water well? Alternative Sources (cistern, bottleg): bo you use a copy of the well log along with this inventory form.	Information her's Name: ant's Name: ant's Name: ing Address: ress of well: con #, Lot #: elephone #: of Inventory: all Information Do you have a private water well? Are you connected to the municipal water supply system? Do you use apoint a water well? For what uses? D'Inking Do you use apoint of the municipal water? Alternative Sources (cistern, bottled): Do you use any of the stores log for the well? If so, please forward a copy of the well log along with this inventory form. If you are unable to provide us a copy of the well log, please provide as much of the following information as you or file well log along with this inventory form. If you are unable to provide us a copy of the well log. please provide as much of the following information as you or file well log. please provide as much of the following information as you or file. Date Constructed: 7 Ordiner: 7 Well Type (drilled, dug/bored): Suff@accllllllllllllllllllllllllllllllllll

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	How would you rate your water quality?	Poor	Good 🗌	Excellent	Poor	Good Good	C Excellent
	How would you describe your water quality	,E	xcell	ent			
	How consistent is your water quality?	Very Co	onsistent	Consistent	Variable	Very Var	iable
	If you answered Variable or Very Variable						
	How does your water quality change (e g	, taste, sme	ell, appearant	ce)?			
	How often does it change?						an and a fair of the second
	Reasons for why it changes (if known)				/	-	
k)	Do you test the water quality through the H				Ves Yes		🗆 No
	When, and what were the results?	18	214.10	JOIC T	DIAL CO	I.FORM	1 Per 10011
Water W	fell Treatment						· · · · ·
(a)	Do you treat your well water?	🗆 Ye	35	1 No			
(b)	If you answered yes, what method of treatmethod	nent do you	use (e.g., ch	lorination, UV, filtra	tion, water softe	ner)?	
(C)	What issue(s) occurred that prompted your	decision to	treat your dr	inking water?			an bei beiter freige soch vor die der Beitel auf der die der die der die der der der der der der der der der de
Septic S	ystem Information				· · · · · · · · · · · · · · · · · · ·		
a)	Do you have a private septic system?				1 Yes		🗆 No
b)	Are you connected to the municipal sewer	system?			🗆 Yes		1 No
c)	Have you ever experienced problems with	-	system?		🗆 Yes		12 No
	If yes, what was the problem?						
	Does this problem still occur? How often?					-	
al \	Do you get your septic system pumped out	2			1 Yes		🗆 No
d)	be you get your septio system pumper out						
	How regularly / frequency?	R		system	SUMM	r fa	-17
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er_ 20	17
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	17
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	17
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	17
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	1.7
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	17
Please	How regularly / frequency?	n of your w	ell and septic	system	SUMM	er 20	17

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WATER WELL INVENTORY FORM

Project Reference: Pendleton Solar Energy Centre

	Stantec Assigned	Well ID Number: 54	1090183	5		
	Information wner's Name: - ¹					<u> </u>
Te	nant's Name: N/A	- · ·				
	ling Address:				27 307	
	dress of well:	1	J			
	Con #, Lot #: V	٠	1			
	Telephone #: 1				>	
	of Inventory: DEC 12, 20	17				
(2) Water W	/ell Information	· · · · · · · · · · · · · · · · · · ·				
a)	Do you have a private water well?				🗆 Yes	D No
b)	Are you connected to the municipal wate	er supply system?			🗆 Yes	D No
c)	Do you use your private water well?				🗋 Yes	🗆 No
	For what uses? 🔲 Drinking	🛛 Washing 🛛 Lav	wn 🗆 Oth	her		
d)	Do you use any other sources of water? Alternative Sources (cistern, bottled):				🗆 Yes	□ No
e)	Do you have a copy of the driller's log fo	r the well?			Yes	🗆 No
	If so, please forward a copy of the well lo	og along with this invent	tory form.			
	This information may help us to locate ye Original Well Owner: Date Constructed: Driller: Well Type (drilled, dug/bored): Casing Inside Diameter: Depth (below ground surface): Water Level (below ground surface): Pump	our well record. If we are	e able to locate		ecord, we will mail	уоц а сору.
	Brand/Type: Horsepower / Rating (L/min): Date installed: Date of last service / Maintenance: Depth set in well (below ground surface Initial setting (at construction): Present setting:					
g)	Please circle the terms that best describe buried in a pit or concrete chamber other (please describe):		ur well: sticks above ti	he ground		
h)	If the well is in a pit or concrete chamber	, please circle the type	of lid:			
	single circular concrete slab	two semi-circular con	ncrete slabs	1	square lid within a l	arger circular concrete slab
i)	other (please describe): Has the well ever gone dry?				🗌 Yes	□ No
,	Date when this event last occurred:					
	How long did the well remain dry?					
	Do you know reason why?					

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WATER WELL INVENTORY FORM

	rigida ridistande. <u>Fondición oblar Energy Gentie</u>					-	
	Stantec Assigned W	ell ID Numbe	er:				
i)	How would you rate your water quality?	Poor	Good Good	Excellent	Poor	Good	
	How would you describe your water qualit	y?					
	How consistent is your water quality?	Very Co	onsistent	Consistent	Variable	Very Variable	
	If you answered Variable or Very Variabl	e					
	How does your water quality change (e.	g., taste, sme	ell, appearance	:)?			
	How often does it change?						£2
	Reasons for why it changes (if known)						
k)	Do you test the water quality through the I	🗆 Yes	🗆 No				
	When, and what were the results?						
	Veli Treatment			—			
(a) (b)	Do you treat your well water?	☐ Ye		No No			
(b)	If you answered yes, what method of treat	ment do you	use (e.g., chic	rination, UV, filtration	on, water softer	ner)?	
(c)	What issue(s) occurred that prompted you	r decision to	treat your drin	king water?			
Septic S	System Information						
a)	Do you have a private septic system?				🗌 Yes		🗆 No
b)	Are you connected to the municipal sewer				🗆 Yes		🗆 No
c)	Have you ever experienced problems with	your septic s	system?		🗋 Yes		🗆 No
	If yes, what was the problem?						
	Does this problem still occur? How often?						
d)	Do you get your septic system pumped ou	t?			🛛 Yes		🗆 No
	How regularly / frequency?						
Please	e provide us with a sketch showing the location		and sentic s	vstem			·····
	e to the road, house and other structures on						
		Jour property	y, 1 10050 mold	ac a noise anow,			
•							
							÷.
	,						i.



Project Reference: Pendleton Solar Energy Centre

Stantec Assigned Well ID Number:

Please provide any other comments: INFORMED ME THERE IS NO WATER WELL ON PROPERTY. : HAS INFORMED ALL OWNERS OF THIS PROPERTY OF OUR RECENT NOTIFICATIONS OF WATER WELL SURVEY AND FUTURE CONSTRUCTION DATES OF PENDLETON SOLAR ACTIVITIES. IS THE MAIN CONTACT FOR THIS PROPERTY. J IS ALSO OWNER OF PIN F _ AND HAS COMPLETED A SURVEY FOR ALL CONTACT INFO MOVING FORWARD Thank you for taking the time to complete this inventory. Please note that the completed form may be included as an appendix in Stantec's report to our client. DEC 12, 2017 Signatures (field personnel) (date) Signaturas (project manager) (date)

APPENDIX F: DEWATERING CALCULATIONS

Dupuit Forcheimer Equation - Trench/Linear Excavation

To calculate flow from a line source in an unconfined aquifer using a derivation of the Dupuit Forcheimer equation, and assuming a trench with flow from both sides including flow from ends of trench, where each end of the trench is treated as one half of a circular well with radial flow:

$$Q = \frac{2xK(H^2 - h_w^2)}{2L} + \frac{\pi K(H^2 - h^2)}{\ln \frac{R_0}{R_s}}$$

Where:

- $Q = pumping rate in m^3/s$
- K = hydraulic conductivity in m/s
- H = hydraulic head of the original water table (m)
- h_w = hydraulic head at the base of the trench (m)
- R_0 = radius of influence at end of trench (m)
- L = equivalent radius of influence for a line source (m) from centre of the excavation
- x =length of the trench (m)
- R_s = equivalent radius of the dewatering system / trench (m)

The equivalent radius of influence (R_0) for a point source is approximated using the Sichart and Kryieleis method:

$$R_o = R_w + 3000(H - h_w)\sqrt{K}$$

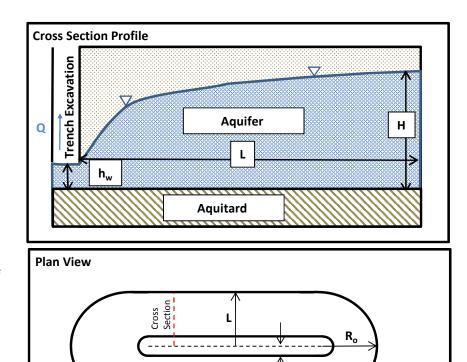
and from approxim

Calculatio

Κ н h_w R_{o}

	$R_o = R_w + 3000(H + 1)$	$(-h_w)\sqrt{K}$			x	
m R _o ,	, the equivalent radius	s of influence (L) for a line source ca	an be			
imate	ed by:					
	$L = \frac{R_o}{2}$					
tions	:			Tren	ch Excavation (300 m in length)	
< =	7.7E-06 m/s	x =	300 m	Q=	0.001995995 m ³ /s	
1 =	2.6 m	R _s =	0.25 m		172,454 L/day	
- w	1 m	Base of Aquifer	2.7 m BGS			
k _o =	13.6 m	Static Water Level	0.1 m BGS			
L =	6.8 m	Depth requiring dewatering	1.7 m BGS			

Equations obtained from Powers, J.P., A.B. Corwin, P.C. Schmall, and W.E. Kaeck, 2007. Construction Dewatering and Groundwater Control, New Methods and Applications. John Wiley & Sons, Inc., 3rd Edition.



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