

MINE PLANNING REPORT

CONDITIONAL USE PERMIT RENEWAL MARENGO MINE MARENGO, ILLINOIS

**PREPARED FOR
MAPLE VALLEY MATERIALS, L.L.C.**

PROJECT No. 22353.043

SEPTEMBER 2024

SUBMITTED BY:



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- Exhibit 2 – Existing Conditions Map
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- Exhibit 6 – Mining Plan
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Seal Applies to Report Content
Except Appendices C, D, E, H and I

License Expires 11/30/2025

September 26, 2024

Jeffrey C. Schuch

1.0 INTRODUCTION

1.1 General

This Mine Planning Report presents an assessment of the Proposed Marengo Mine conducted by Patrick Engineering Inc. (Patrick) for Maple Valley Materials, L.L.C. (MVM). The report includes the methods, data and evaluation of the mine plans and anticipated impact from the development of the proposed earth extraction (sand and gravel) facility. This report supports a petition by MVM for Conditional Use Permit Renewal and is prepared in accordance with McHenry County Zoning Ordinance §16.56.030 Principal Use Standards Section P and §16.56.030 Sensitive Aquifer Recharge Area requirements. MVM plans to extract and process sand and gravel at the Site for use as construction aggregates and to produce concrete at the Site. Processed materials (aggregates and concrete) would be transported off-Site by truck to markets situated primarily to the north. The mine site would ultimately be reclaimed as a recreational lake with potential for lakefront residential properties.

MVM formerly petitioned the County and was granted a Conditional Use Permit on August 19, 2003 (with modifications on November 4, 2003) for similar activities at the Site. An entrance driveway to the planned gravel pit was permitted by McHenry County in 2009 and constructed as originally proposed during the Conditional Use zoning process in 2003.

In 2013 MVM petitioned the County to renew its Conditional Use Permit. The County issued a Conditional Use Permit to MVM on April 15, 2014. No development activities associated with the Conditional Use were completed at the Site due to a downturn in market conditions. The 10-year term of the Conditional Use for the Site is nearing expiration.

There is one significant difference between the current petition and the 2014 Conditional Use Permit. In this CUP request, MVM seeks to use the Site property to extract and process sand and gravel and operate a concrete batch plant. This request is consistent with the original Conditional Use Permit that included provisions for an asphalt batch plant, a redi-mix concrete facility, and a concrete recycling operation. Only the redi-mix concrete facility combined with the

sand and gravel operation is currently being sought by MVM for the Site. Consequently, the number of planned full-time employees is 7. (Depending on daily operation requirements there could be 3 personnel at the site operating the concrete batch plant and 4 operating the mine) and the number of trucks entering and leaving the facility per day is 60 (30 aggregate trucks and 30 concrete trucks). The details regarding the planned operations are presented later in this report.

This report includes geologic, hydrogeologic and drainage (hydrologic) assessments, traffic impact assessment, a Mine Plan, a Mine Phasing Plan, and a Mine Reclamation Plan. A Noise Study Report is submitted separately to support the CUP petition. These components of the report present information required to comply with Section P of the Ordinance, including:

- a. Ownership of land
- b. Minerals to be extracted or mined.
- c. Character and composition of vegetation and wildlife on land to be affected.
- d. Current assessed valuation of lands to be affected.
- e. Assessed valuation shown by two (2) quadrennial assessments next preceding the currently effective assessment.
- f. The nature, depth, and proposed disposition of the overburden.
- g. The estimated depth to which the mineral or aggregate resource will be extracted or mined.
- h. The technique to be used in the extracting and/or mining operation.
- i. Estimated type and volume of excavation.
- j. The equipment proposed to be used.
- k. Practices and methods proposed to be used to minimize noise, dust, air contaminants, and vibration and to prevent pollution of surface or ground water.
- l. If applicable, the recycling of water used for washing and grading.
- m. If applicable, the proposed usage or drainage of excess water.
- n. The simultaneous reclamation plan including methods of accomplishment, phasing, and timing.
- o. Current and past uses of the land.
- p. Location of existing roads, and anticipated access and haulage roads planned to be used or constructed in conducting earth extraction and/or mining operation(s).
- q. Location and names of all streams, creeks, wetlands and bodies of water within lands to be affected.
- r. Drainage on and away from affected land, including directional flow of water, natural and artificial drainage ways and waterways, and streams or tributaries receiving the discharge.

- s. A topographic survey with one-foot (1') contours, at the same scale as the aerial photo showing the existing conditions on the subject site.
- t. A traffic study showing the impacts of increased truck traffic from the location of the earth extraction or mining site to the nearest County or State highway that will be used for transport.
- u. A current Illinois Department of Natural Resources Endangered Species Consultation (EcoCAT) Report.

In addition, the requirements of the Sensitive Aquifer Recharge Area (§ 16.52.030) are addressed in Section 4.4.

1.2 Site Location and Boundary Information; Ownership

The proposed mine Site, Owned by Maple Valley Materials, LLC (MVM), is located west of Maple Street between Coral (West) Road to the north and Anthony Road to the south, approximately 3 miles south of the Village of Marengo, Illinois (Figure 1, *Site Vicinity Map*). The Site occupies approximately 111 acres. For a complete legal description of the property refer to the Boundary Survey provided in Appendix E.

1.3 Zoning

The Site is zoned Agricultural A-1-C. The proposed zoning would remain A-1 with a Conditional Use for Earth Extraction and Mining. The adjoining properties situated along the western property line of the Site are zoned A-1-C with Conditional Use Permits for Earth Extraction and/or Mining Operations. Other adjoining properties are zoned A-1 except for 1) a small R-1 Residential Subdivision (Maple Lake Shores), which occupies a reclaimed portion of a former sand and gravel mine east of the central portion of the Site and 2) properties north and southeast of the site are E2-Estate. All the adjoining properties and their respective zoning designations are presented on an aerial photographic representation of the Site and vicinity in Exhibit 1, *Adjoining Property and Zoning Map*. A topographic map depicting the features and topography is presented in Exhibit 2, *Existing Conditions Map*.

1.4 Current and Past Land Uses

Nearly 100% of the Site is currently used to raise grain-producing crops during the growing season. The former farmhouse, barn and small outbuildings located on a 5-acre parcel situated near the center of the east portion of the Site are excluded from the mine. This parcel is shown on the Plat of Survey in Appendix E. An abandoned sand pit occupying approximately 1/3 acre is situated in the north-central portion of the Site. This topographically high knob was historically mined to extract sand and gravel.

1.5 Character and Composition of Vegetation and Wildlife

Other than the dominance of farming row crops at the Site, a small amount of vegetation including grasses, small shrubs and trees is located along the fencerows, and has overgrown the former sand pit. Wildlife on the property includes typical Illinois farmland fauna including insects, birds, reptiles, raccoons, coyotes, groundhogs and small mammals such as field mice, voles and shrews. Deer may periodically occupy portions of the Site. An Endangered Species Consultation Process (EcoCAT Review #2404958) with the Illinois Department of Natural Resources (IDNR) was initiated for the Site by Patrick. The IDNR indicated that the Site is in the vicinity of several recorded nesting sites for the State-listed endangered Swainson's Hawk, *Buteo swainsoni*. However, the IDNR concludes in the consultation that proposed mine is unlikely to adversely modify the essential habitat of the Swainson's Hawk. Refer to the IDNR letter in Appendix F.

1.6 Minerals to be Extracted

MVM plans to extract sand and gravel at the Site for use as construction aggregates and in the production of concrete. The nature and extent of the minerals to be extracted are discussed in the Geology section of this report.

1.7 Nature, Depth and Proposed Deposition of the Overburden

Generally, less than 5 feet of soil overburden materials will be stripped to reach the minerals to be extracted. The stripped overburden will be predominantly used to construct landscape berms at perimeter locations on the Site. The excess stripped overburden not used for berm

construction will be placed back into the excavated areas from which the minerals were extracted. The nature and extent of the overburden are discussed in the Geology section of this report.

1.8 Estimated Type and Volume of Excavation

Approximately 95 acres are proposed to be excavated as an open pit mine at the Site. The proposed pit is anticipated to be between 20 feet and 35 feet deep based on the Site geologic conditions, which are discussed in the Geology section of this report. The excavated volume of the proposed quarry would be approximately 4.5 million cubic yards over the expected 20 to 25-year life of the quarry. The excavation will extend below the water table forming a lake as the pit progresses. After mining is completed, a recreational lake, which will cover approximately 60 to 65 acres of the Site, will remain as discussed in the Hydrogeology section of this report. The unmined acreage will be reclaimed as prairie grasslands and residential lots. Detailed mine and reclamation plans are described in the latter sections of this report.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 Soil Boring and Monitoring Wells

Several soil borings and monitoring wells drilled at the Site were used to help characterize the subsurface conditions. In addition to the Site-related borings specifically drilled for geologic purposes, private water well records near the Site were also reviewed. Ten soil borings were drilled previously on or near the proposed mine Site during the 1980s (assumed) by the former landowner. Four of these borings were drilled in the area currently proposed for the mine and the remaining six borings were drilled near the former gravel pit situated east of the Site in the area now occupied by Maple Lakeshores Subdivision. Three additional borings drilled by Patrick were completed on the proposed quarry Site to supplement the data derived from the historical boring program and to construct groundwater monitoring wells. The wells were constructed to determine the depth to the water table, estimate groundwater flow direction and for use for groundwater monitoring in accordance with McHenry County Zoning Ordinance §16.56.030 Principal Use Standards Section P and §16.52.030 Sensitive Aquifer Recharge Area monitoring requirements.

The Site-related locations of the soil borings and monitoring wells are presented in Exhibit 3, *Boring Location and Water Table Map*. Table 1, *Site Borings / Monitoring Wells*, presents a detailed construction summary of the Site soil borings and monitoring wells. The historical boring report data, boring logs, and monitoring well installation reports are presented in Appendix A, *Soil Borings and Monitoring Well Installation Reports*.

2.2 Private, Public, Industrial and Commercial Water Wells

Water well records from the Illinois State Water Survey (ISWS) well-record database were acquired for the area surrounding the Site. A summary of the Private Water Well Survey wells is presented in the table in Exhibit 4, *Private and PICS Water Well Survey Wells – One Mile Radius*. The wells on record as of the 2014 CUP Renewal are designated in columns 1-3. The new wells (wells placed into the ISWS GIS database since the 2014 renewal) are shown in column 4. The

well logs for the new wells are provided in Appendix B1. Well logs for the well logs on file for the 2014 CUP Renewal are in Appendix B2.

In addition to identifying water supply wells using a desk-top study, a field survey was performed to identify the locations of private water supply wells located near the site. Wells that could be seen from public property were surveyed and are shown on the survey provided in Appendix E. The location of one well was provided by the McHenry County Health Department (reference Appendix B1). The wells located within 250 feet of the right-of-way are shown on Exhibit 6 and include a 200-ft radius line. The planned limits of mining are outside the 200-ft setback zone.

Maple Valley Materials will perform another field survey at the time of mining and will attempt to locate those wells that may be present but could not be seen from public property. Any new wells that could possibly be within 200 feet of the limits of earth extraction will be surveyed. The location of the mine limits will be adjusted if necessary to provide the 200-foot setback from the well to the edge of earth extraction.

3.0 REGIONAL AND SITE GEOLOGY

3.1 General

The geology of the area near the Site includes approximately 180 feet to 220 feet of unconsolidated sediments unconformably overlying consolidated bedrock formations. The unconsolidated materials were deposited during episodes of continental glaciation, which dominated this region during the Pleistocene Epoch of the Quaternary Period, generally within the last 200,000 years. The bedrock formations, which subcrop beneath the glacial-aged sediments, are reported to be several hundred feet thick. These formations were emplaced in a shallow sea during the Ordovician Period of the Paleozoic Era approximately 450 million years ago.

Cross-sections of geologic materials at the Site have been created based on the boring and water well data collected during the investigation. The locations of the cross-sections are shown in Exhibit 3, *Boring Location and Water Table Map*. The cross-sections are presented in Exhibit 5, *Geologic Cross-Sections A – A' and B – B'*.

3.2 Unconsolidated / Overburden Sediments

Several geologically distinct units or formations divide the unconsolidated/overburden sediments at the Site based on geologic studies performed in the region and data derived from the on-site soil boring programs. The units are presented below from oldest (deepest) to youngest (at the surface) beginning at the interface with the buried bedrock surface.

The oldest definable unconsolidated unit near the Site is the Oregon Member of the Glasford Formation. This unit was deposited during the Illinois Episode of the Pleistocene Epoch between 190,000 and 130,000 years ago. This unit is comprised of diamicton (clay-rich poorly sorted glacial till) interbedded with sand and gravel-rich glacial till, and stratified, sand and gravel-rich fluvial (meltwater-borne) deposits. There are two well-defined, grayish colored glacial till portions of the formation sandwiching about 20 feet of fluvial sand and gravel. The lowermost portion is approximately 100 feet thick and the uppermost portion is about 10 feet thick.

Overlying the Glasford Formation is the Morton Tongue - Robein Member - Berry Clay Member Complex. This undifferentiated, mappable complex potentially represents portions of several different Pleistocene glacial events including the Illinois (Pre-Wisconsin), Sangamon and Wisconsin Episodes. This unit may represent sediments deposited and soils formed between 130,000 and 25,000 years ago. This complex typically is comprised of grayish-brown colored, organic-rich silt, clay and peat representing a former pre-Wisconsin to Wisconsin soil/wetlands horizon and is about 5-feet thick at the Site.

Overlying the older organic-rich complex is the Tiskilwa Formation of the Wedron Group. This formation was deposited during the Wisconsin Episode of the Pleistocene Epoch. The Tiskilwa Formation is a pinkish-brown colored clay-rich glacial till diamicton. It ranges between 5-feet and 40-feet thick at the Site. The thinner portions of this formation are typically coincident with the thicker portions of the overlying sand and gravel formation. This formation rises to the ground surface east and north of the Site, becoming very thick in the upland areas, forming the hilly area called the Marengo Moraine. This moraine represents deposits at a temporary margin of the melting glacial ice sheet, which paused during its retreat from the region between 25,000 and 14,000 years ago. Upper portions of the Wedron Group sediments were difficult to differentiate from the fine-grained portions of the overlying Beverly Tongue of the Henry Formation at the Site. These undifferentiated zones may represent transitional interbeds of the Tiskilwa and Henry Formations.

Overlying the Tiskilwa Formation is the Beverly Tongue of the Henry Formation of the Mason Group. The Henry Formation is glacial outwash deposit comprised predominantly of stratified sand and gravel with limited, localized lenses of silt and clay. The Henry Formation is approximately 20 and 40 feet thick forming a broad outwash plain across the Site and beyond. This formation was formed by sediment carried by glacial meltwater emanating from the glacial ice-margin that formed the Marengo Moraine. The sediments were carried by meltwater in a braided stream network, which flowed southwesterly from melting glacial ice. The Henry Formation formed when these water-borne sediments settled out as a layer of sand and gravel

where the velocity of the stream flow diminished away from the ice-margin. The finer-grained portions of the formation represent small, localized ponds and stream cut-offs that formed on the outwash plain. Additional coarser grained sediments, typical of highly variable braided stream networks, ultimately buried these finer grained pockets of materials.

The Beverly Tongue of the Henry Formation and/or the Tiskilwa Formation is mantled with a thin layer of silt and clay-rich glacial loess (windblown sediments). This unit is the Peoria Silt Formation of the Mason Group of the Wisconsin Episode and probably was deposited shortly after the ice retreated about 14,000 years ago. The Peoria Silt Formation at the Site is typically less than 4-feet thick and may be nearly unrecognizable due to disturbances from plowing and modern soil development processes. In fact, the parent materials for the organic-rich modern soils present at the Site are usually a mixture of this formation and the underlying glacial outwash.

3.3 Soils

Several modern soils have been identified at the Site according to the McHenry County Soil Survey. Typically, these soils are described as developing in loamy, sand and gravel outwash deposits with slopes less than 2%. These soils are specifically identified as the Warsaw Loam, Lorenzo Loam, Kane Silt Loam, Hoopole Loam and a small incidence of Parr Silt Loam. Typically, these soils are well drained to somewhat well drained. The Hoopole Loam is poorly drained.

3.4 Bedrock

No on-Site borings were drilled deep enough to intersect the bedrock. Nonetheless, several water wells in the area reported bedrock on their respective well logs. Based on this information, apparently the bedrock subcrops beneath the Site between 180 and 220 feet below the ground surface. However, bedrock was reported to be less than 100 feet deep in a few locations northwest of the Site near Route 23. This indicates that the bedrock surface may have significant topographic relief in the region.

Evidently, two geologic units (i.e., a very thick limestone overlain by up to 20 feet of shale) were identified in some of the water wells that penetrated bedrock near the Site. Published data for the area indicate the Ordovician-aged bedrock that subcrops in the region should consist of dolomitic limestone of the Galena Group and shale of the Maquoketa Group. Therefore, due to the reported presence of shale in the well logs, it is assumed that the lowermost portion of the Scales Formation (Maquoketa Group) overlies the Dubuque Formation of the Galena Group beneath the area at or near Site. The Galena Group is reported to be over 250 feet thick in the area where overlain by the Maquoketa Group. However, as inferred from the potential variations in topographic relief of the bedrock surface near the Site, regionally the Scales Formation and portions of the uppermost Galena Group formations may be partially or totally missing in limited areas.

3.5 Mine Reserves and Overburden

The unconsolidated sand and gravel portions of the Beverly Tongue of the Henry Formation are the principal targets for proposed mining activities at the Site. This sand and gravel formation represents all of the mining reserves intended for permit request. The bottom of the mine is anticipated to be coincident with the top of the Tiskilwa Formation. The Tiskilwa Formation and other deeper clay-rich formations are too thick overall to effectively mine the yet deeper stratified sand and gravel of the Glasford Formation. The organic-rich modern soil horizons within the Peoria Silt Formation and any clay-rich lenses of the Henry Formation are considered overburden material and will be stripped and used for berm construction, landscaping, and reclamation activities as discussed in detail in the Mine Plan and Reclamation sections of this report.

4.0 SITE HYDROGEOLOGY

4.1 General

Normally, aquifers (i.e., economically significant water producing materials) are typically present in the more permeable coarser-grained materials. These include water saturated sand and gravel, sand or silt formations and permeable bedrock. However, the more coarse-grained the material or more fractured the bedrock, the more likely it may qualify as an aquifer, if water saturated. Therefore, geologic formations that are unfractured, very well graded or with high percentages of silt and clays are not typically viable aquifers. These poorly producing formations are typically aquitards, meaning they do not transmit water readily and effectively isolate different aquifers from one another.

Several aquifer systems are reported to exist in McHenry County. These aquifers include portions of the bedrock system as well as multiple aquifers in the unconsolidated formations at various locations across the County. In addition, several geologic units are excellent aquitards and effectively isolate different aquifer systems from each another. Given that the proposed mine will only extract materials from the uppermost formations of a very thick unconsolidated geologic sequence at the Site, only the hydrogeology of the unconsolidated materials near the Site will be considered in this report. Please refer to Exhibit 5, *Geologic Cross-Sections A – A' and B – B'* for more specific information regarding the distribution of the aquifers at the Site.

4.2 Site Hydrogeology

Two aquifers are thought to exist at the Site based on boring logs, water well records, groundwater monitoring wells constructed by Patrick, and local ponds and lakes. These include the deeper Glasford Aquifer, which is coincident with the stratified sand and gravel portion of the Oregon Member of the Glasford Formation, and the shallower Surficial Drift Aquifer, which is coincident with the water saturated portion of the Beverly Tongue of the Henry Formation. The Surficial Drift Aquifer is the uppermost aquifer present at the site. These two aquifers are separated by three separate geologic formations with hydrogeologic characteristics of aquitards. These aquitard units include the Tiskilwa Formation, the Morton Tongue - Robein Member -

Berry Clay Member Complex, and the upper clay-rich Oregon Member of the Glasford Formation. In fact, these three clay-rich units lie between the two aquifers (i.e., Glasford and Surficial Drift aquifers) in a continuous vertical hydrostratigraphic sequence, combining as a single aquitard approximately 35 feet thick. This combined hydrostratigraphic unit is thought to be a very effective aquitard, isolating the shallower, uppermost Surficial Drift Aquifer from the deeper Glasford Aquifer. This clay-rich aquitard acts to restrict downward groundwater percolation into the Glasford Aquifer from precipitation, which results in a well-saturated aquifer (i.e., the Surficial Drift Aquifer) perched above it in the permeable sand and gravel of the Beverly Tongue of the Henry Formation.

The lower clay-rich Oregon Member of the Glasford Formation, which lies below the Glasford Aquifer is approximately 100 feet thick and is thought to behave as another hydrostratigraphic aquitard unit. This aquitard should effectively isolate any other deep bedrock aquifer systems (or other unknown unconsolidated aquifers such as the Basal Drift Aquifer, which may be present in the region) from the shallower Glasford Aquifer.

The Glasford Aquifer system is likely confined and totally isolated from the shallower Surficial Drift Aquifer above and the deeper aquifers below by the extensive clay-rich aquitards previously discussed. No Site borings penetrated the Glasford Aquifer. However, several local water wells apparently exploit this aquifer system, based on their reported depths. No information is available regarding the flow direction of groundwater in this aquifer.

The shallow, uppermost Surficial Drift Aquifer is thought to be locally unconfined and well-connected to most shallow surface water bodies such as small streams, ponds, lakes and wetlands. Generally, the source water in this aquifer is from infiltration of precipitation and stormwater runoff originating in the uplands east and north of the Site. The water table of this shallow aquifer system would likely vary several feet at any given location, seasonally or in response to prolonged periods of drought, excessive precipitation or stormwater management practices.

The position of the water table within the Surficial Drift Aquifer at the Site is estimated based on information gathered at the three on-Site groundwater monitoring wells constructed in it, the former quarry lake located east of the Site in Maple Lakeshores subdivision, the Meyers Pit Lake located to the west-southwest. The surface water bodies are generally thought to be coincident with the water table near the Site. A review of the water level data collected in 2002, July 2013, and recently for this report suggest that the water levels have varied at each of the locations by several feet between these times. A water table map was generated from the water level data collected in 2002 from the on-Site groundwater monitoring wells and nearby lakes to graphically depict general water table and groundwater flow direction relationships in the Surficial Drift Aquifer near the Site. This drawing is presented in Exhibit 3, *Boring Location and Water Table Map*.

The 2002 water table map and more recent water level data gathered for the Surficial Drift Aquifer indicates the water table is typically 10 to 15 feet below the ground surface beneath the Site. The elevation of the water table at the northeastern portion of the Site near groundwater monitoring well MW-1 ranged between approximately 843 and 849 feet above mean sea level between 2002 and 2023, respectively. The elevation at the far southwestern corner of the Site near groundwater monitoring well MW-3 ranged approximately between 834 and 829 feet above mean sea level between 2002 and 2023, respectively. The water level of Meyers' Pit Lake may have fallen from about 828 to 825 feet above mean sea level during the same period.

The water table measurements in the shallow Surficial Drift aquifer show that most groundwater passing through the north-northeastern portion of the Site ultimately ends up in the Meyers' Pit Lake after flowing beneath the Site. Groundwater flow across the Site is southwesterly with a hydraulic gradient likely varying between approximately 0.005 and 0.01ft/ft. The groundwater monitoring wells constructed at the Site are screened within the uppermost Surficial Drift Aquifer. Well MW-1 is generally hydraulically upgradient to the Site, and wells MW-2 and MW-3 are hydraulically downgradient.

4.3 Mining Impacts to Site Water Levels

The proposed mine will penetrate and remove the sand and gravel portion from Surficial Drift Aquifer at the Site. The sand and gravel excavated below the water table will be replaced by groundwater from the shallow aquifer, and precipitation during mining activities. The resulting lake level will be a direct manifestation of the water table, like the lake located in Maple Lakeshores subdivision, as well as lakes at the Meyer mine site and other nearby mines. The lake which will form as the material is excavated will have a water level dependent on the seasonably variable Site water table conditions, local precipitation, evaporation and recharge from stormwater runoff directed into the lake. Annual lake evaporation rates are reported to be roughly equal or slightly less than evapotranspiration rates of row crops or grasslands in the region, thereby balancing those particular losses (Roberts and Stall, 1967). Water level variation of the lake may occur depending on precipitation and normal seasonal water table fluctuations as previously discussed. Therefore, the elevation of water level of the lake is estimated to seasonally range between approximately 835 to 840 feet above mean sea level and will vary as the mine progresses.

The proposed mine is not expected to significantly impact the water levels or water quality of the shallow Surficial Drift Aquifer or negatively impact any local water wells. All the documented local water wells are constructed in deeper aquifer systems situated below and hydraulically isolated from the shallow Surficial Drift Aquifer at the Site and will be unaffected.

4.4 Sensitive Aquifer Recharge Area Requirements

The mine site is located in a Sensitive Aquifer Recharge Area as defined by McHenry County and as shown on Overlay Districts Map in Appendix B of the Sensitive Aquifer Recharge Area (§ 16.52.030) of the McHenry County Code of Ordinances. The site is not located in a Class III Special Resource Groundwater area.

Per the Ordinance, a permanent concrete batch plant shall meet the following conditions:

1. Comply with all State regulations and permit requirements, and
2. Perform quarterly groundwater sampling by Illinois licensed professional engineers or Illinois licensed professional geologists. The Zoning Enforcement Officer shall approve the groundwater monitoring plan. This criterion can be satisfied if the concrete batch plant is located within an earth extraction and/or mining site with an approved groundwater monitoring plan.

MVM is committed to complying with all State and County requirements and permit conditions and will perform the groundwater monitoring as detailed in this report and as required by Ordinance.

Development Standards for a property that includes a SARA Overlay District or any Class III Special Resource Areas Overlay District, are:

1. The maximum impervious surface coverage is limited to the lesser of the maximum impervious surface area allowed in the zoning district or fifty percent (50%), but in no case shall more than fifty percent (50%) of the SARA Overlay District area on site (110.7 acres) be made impervious. The planned mine will have less than 13% of the property considered impervious. (Conservatively, the impervious areas include the access road and office/scale (1.0 acre), haul road (1.0 acre-gravel), shop (0.1 acre), and aggregate processing area (11.4 acres-gravel).
2. When the property to be developed contains any Class III Special Resource Areas Overlay District, the property owner shall submit the proposed development plans to the Illinois Environmental Protection Agency prior to the site plan review process. The mine site is not located in a Class III Special Resource Overlay Area.

5.0 DRAINAGE

5.1 General

The Site is located in the Kishwaukee River Watershed, a major tributary to the Rock River. The Kishwaukee generally flows westerly in the region with its closest point to the Site situated about 4 miles north. The confluence of the Kishwaukee River with the Rock River is located approximately 25 miles to the southwest. The Site is situated within the Coon Creek Watershed, a subsection of the Kishwaukee River Watershed. Coon Creek is situated about 2 miles southwest of the Site and is tributary to the Kishwaukee River. The confluence of Coon Creek with the Kishwaukee River is approximately 10 miles northwest of the Site.

5.2 Site Drainage

Generally, surface drainage near the Site moves southwesterly from the uplands of the Marengo Moraine complex to Coon Creek. There is no well-defined surface drainage system at the Site. A small culvert, situated approximately 1,100 feet south of the northeastern property corner, directs stormwater runoff onto the Site. This stormwater originates from the ditches along Maple Street and from the upland Marengo Moraine north and east of the Site. The roadway ditch drainage moves southwesterly across the Site in a poorly developed, farmed swale. However, the swale is nearly indefinable within less than 1,000 feet of Maple Street. There is no well-defined drainage swale leaving the Site along the western margins of the property. Apparently, all stormwater entering the Site into this swale infiltrates into the permeable sand and gravel outwash sediments that dominate the near surface geology at the Site, recharging the groundwater system. Hoopole Silt Loam soils appear to have developed near the west-central portion of the Site where a large portion of the drainage from the swale may temporarily collect and infiltrate to groundwater. All other precipitation and storm runoff at the Site moves as sheet flow, evaporates, transpires, or infiltrates to the groundwater.

Historical farming practices at the Site have created slightly higher ground near the western property line. This high ground potentially interrupts a former swale that may have previously moved high intensity storm water flows off-site. If this is the case, Site stormwater may have

historically flowed westerly offsite in an ill-defined swale into yet another poorly-defined swale situated about 300 feet west of the property boundary. Apparently, that swale historically moved runoff southwesterly to Coon Creek. However, the Meyers' gravel pit lake has truncated that particular swale, now wholly capturing all water that flows from it.

Wetland Inventory mapping does not identify any wetland on the Site. However, a small area of occasionally-farmed, potential wetlands (less than 2 acres in size) was observed near the northwestern corner of the Site. This small, potential wetland is outside of any areas planned to be developed for the proposed mine and will not be disturbed. FEMA Flood Insurance Rate Mapping indicates approximately a one-acre area below the elevation of 839.5 feet centered along the southern property line may lie within the 100-year flood plain of Coon Creek. This area is designated as FEMA Floodplain Zone A, for which no Base Flood Elevation (BFE) has been established. Normally, the Site is routinely tilled for agricultural purposes, including this Flood Zone. The exceptions are the former sand and gravel pit, the extreme margins of the property and periodically the potential wetland area.

5.3 Mining Impacts to Surface Drainage

Apparently under normal conditions, practically no surface water leaves the Site. Nearly all available water either infiltrates, evaporates or transpires. A small amount may leave the Site as sheet (overland) flow near its margins. The proposed planned mining practices at the Site will continue this pattern. Nearly all stormwater runoff will be effectively captured or retained by on-Site drainage swales, ditches or landscape berms and directed to the process water ponds or the lake created during mining operations. The remainder of any excess will move off Site as sheet flow. There is no anticipated negative impact to the drainage system from the proposed mine. There will be no stormwater outfalls, therefore, no NPDES permit for non-coal surface mines will be required for the Site. However, a construction NPDES permit will be required under provisions of the General Stormwater Permit for the State. Erosion and sediment controls will be provided as required to comply with local and state/federal requirements. Permits necessary for the site to operate will be obtained prior to any earth extraction operations.

6.0 TRAFFIC IMPACTS

6.1 General

Currently, Valley Aggregates, a related company of MVM, operates mining and concrete production facilities in Woodstock. The proposed MVM facility is expected to generally mimic the combined operations of the existing facilities. Excavated material will be used in the production of concrete, by Gavers Asphalt Paving & Excavating in its operations, and by third-party entities. Estimates of the number of full-time employees and truck traffic for the proposed Conditional Use were derived from operational experience at the existing facilities coupled with current plans for the new facility. The Traffic Assessment for the proposed Conditional Use is summarized in this section and the complete report is presented in Appendix C.

6.2 Site Accessibility

Direct access to the development will be via one existing driveway situated along the west side of Maple Street. The MVM gravel pit access entrance driveway was originally proposed for the Site during the Conditional Use zoning process in 2003. The entrance was permitted by McHenry County in 2009 and constructed. Currently, no additional entrance pavement modifications are thought to be required for the proposed Conditional Use. A stop sign will be installed at the mine exit in accordance with McHenry County Division of Transportation requirements and the Manual of Uniform Traffic Control Devices.

Maple Street is under the jurisdiction of the McHenry County Division of Transportation and consists of two lanes of travel (one in each direction) in the vicinity of the proposed driveway. The speed limit along Maple Street is 55 mph. The surrounding land use of the subject site includes mining operations owned and operated by other companies, farmland, and scattered residential homes. Coral Road, located approximately 3,000 feet north of the proposed driveway, is an east-west route under the jurisdiction of the Illinois Department of Transportation that consists of two lanes of travel. Coral Road serves traffic from IL Route 23 on the west and US Route 20 on the east. At the intersection of Maple Street and Coral Road, Maple Street is under stop sign control.

6.3 Mining Impacts to Local Traffic

The traffic impact study of the proposed MVM facility indicates that no improvements along Maple Road are required at this intersection because of this development. The peak hour volumes generated by the gravel pit were applied to the existing PM peak hour to present the worst-case scenario.

- The total number of trips expected to be generated per day is 60 truck trips inbound and 60 truck trips outbound, as well as 7 employee trips inbound and outbound.
- For the purposes of this study, this development will generate a total of trips 10 entering and 10 exiting during the PM peak hour.
- Access to the proposed development will be from an existing entrance located along Maple Street approximately 3,000 feet south of Coral Road.
- 24-Hour Traffic Counts were taken during October of 2023, and the existing ADT volume is 1,543 vehicles per day along Maple Street and 1,612 along Coral Road.
- Sufficient stopping sight distance, over 1,000 feet (570 feet required), and intersection sight distance, over 1000 feet, is provided at the proposed mine pit entrance.
- Turn lanes are not warranted at the mine entrance.

7.0 MINE PLAN

7.1 General

MVM plans to extract sand and gravel at the Site for use as construction aggregate and to produce concrete. Approximately 95 to 97 acres of the property will be mined during the planned 20 to 25-year life of the mine. The planned operation will employ approximately seven full-time individuals (3 at the concrete plant and 4 at the mine; possibly more depending on specific daily operational requirements) to operate and maintain the equipment, direct the mining activities, batch concrete, record operate the scale weights, etc. The planned hours of operation for all activities other than maintenance functions will be between 7 a.m. and 7 p.m. weekdays and 7 a.m. to 3 p.m. Saturdays under normal conditions. Additional hours of operation may be required during the peak construction season. However, this exception will not exceed the requirements of the McHenry County Ordinance, which allows operations between 5 a.m. and 9 p.m. between April 1st and October 31st, and between 6 a.m. and 6 p.m. the rest of the year, and certain emergency situations. A detailed drawing to support the text in this section is presented as Exhibit 6, *Mine Plan*.

7.2 Site Preparation

All traffic activity related to the Site operation will use a single entrance to Maple Street, situated approximately 550 feet south of the northeastern property corner as shown on the Mine Plan (Exhibit 6). Approximately 6 acres of the northernmost portion of the Site south of the utility easements and right-of-ways will be developed to include the paved entrance driveway, office (with two ADA compliant (handicapped accessible) bathrooms), scales and equipment storage and a shop. A locked gate will be situated at the entrance to Maple Street to prevent unwanted traffic and access. A stop sign will be installed at the exit. A Maple Valley Materials sign will be installed on the south side of the entrance. (Sign will be 6 feet high by 8 feet wide and will be set back at least 10 feet from the ROW and will not be illuminated.) A septic field with tank, a parking area, and water supply well will be located near the office. The well will be located at least 75 feet from the septic field. Design of the septic field and parking area will be completed at the time of mine permitting. The area for the planned septic field was evaluated and found to be

suitable for the intended use. See the report in Appendix H. The parking area will be paved and will include 8 passenger vehicle spaces and one ADA compliant space. The parking area location and layout is shown on Exhibit 6.

Approximately 11 acres of the northwestern portion of the Site is set aside for the processing area and for the concrete batch plant. An additional 4 acres situated immediately south of the processing area will be used for a settling pond and clear processing water. Haul roads between the excavation and the processing area will typically extend along the western margins of the Site.

Landscaped berms will be constructed along the northern, eastern and south-easternmost 300 feet to the eastern edge of the FEMA Floodplain Zone A to shield the operation from the surrounding roads and properties as shown on the Mine Plan (Exhibit 6). A 25-foot buffer will be maintained between the berms and the Maple Street Right-of-Way, and along the 5-acre "exception" property. The remaining perimeter, without berms will include a farm fence of not less than 54-inches in height and of such a design to allow the free flow of wild animals but discourage trespassing by humans or farm animals.

The berms will be at least 8 feet high along the north and south perimeters and at least 8-feet high along the east perimeter, with side slopes no steeper than 1.5:1 as indicated by the Ordinance. The berms will be constructed of overburden material stripped from the processing area, processing water ponds and mine.

The berms and planting areas will be landscaped with appropriate prairie grasses, small trees and shrubs, dominated by conifers. The landscape plan provides for high-density planting of conifers on the eastern perimeter berms, and decorative plantings at the entrance. The high-density conifer plantings will include a double off-set (serpentine) line of trees, a minimum of 6-feet tall at planting, planted on 22-foot centers. The landscape plan, which includes suggested plant

species, cross sections and rendered perspectives at both 5-years and maturity, is provided in Appendix D.

All aggregate processing and stockpiling will be within the 10-acre processing area as shown on the Mine Plan (Exhibit 6). The stockpiles will occupy the eastern portion of the processing area for visual and sound buffers to the aggregate processing plant and the concrete batch plant.

7.3 Planned Mining Technique

The sand and gravel materials will be extracted by use of front-end loaders and excavators while above the water table. Once the water table is intersected, a dragline will be used to excavate the sand and gravel. The excavated materials will be temporarily stockpiled near the dragline and transferred into a hopper using front-end loaders. The hopper will distribute the aggregate onto a conveyor belt, which will transport the materials to the processing area. The processing area will include crushing, washing and screening to appropriate size gradations. The washed and graded materials will be transferred to stockpiles. Materials from the stockpiles will be loaded onto trucks using front-end loaders. Loaded trucks will proceed to the scales and then exit the Site. No blasting will be required to mine the sand and gravel.

It is anticipated that the reserves will be mined to a depth between 20 feet and 35 feet deep based on the Site geologic conditions. The excavated volume of the proposed mine would be approximately 4,500,000 cubic yards over the expected 20 to 25-year life of the mine. Process water and water for dust control will be pumped from the clear water pond located immediately south of the process area. Sediment-laden process water will be drained to the setting pond adjacent to the clear water pond. No process water will leave the Site by way of ditches. All process water will be allowed to seep back into the shallow water table aquifer.

The process-related settling ponds will generally be constructed in the area on the Site where Hoople Silt Loam soil has developed. This area of the Site is where much of the stormwater from the drainage swale currently infiltrates. The intended presence of the process ponds in this

general location is to mimic the current infiltration condition at the site. Provisions will be made to periodically clean the wash-fines out of the settling pond as needed. The wash-fines will be incorporated into the overburden materials and used during reclamation.

7.4 Concrete Batch Plant Operations

MVM plans to operate a concrete batching plant at the Site. The planned location of the operations is shown on Exhibit 6. The concrete batch plant will be a portable unit meeting IEPA emission requirements. Permits, as applicable, will be obtained for use prior to any batching operations.

7.5 Noise Levels

The Mining Plan includes the construction of vegetated berms to act in part as noise barriers. MVM plans to locate the heavy equipment associated with the processing of the construction aggregate and the concrete batching equipment in a 10-acre parcel situated along the western property boundary to minimize noise levels to residential areas east of the Site. The easternmost edge of the processing area will be located approximately 800 feet west of Maple Street. Aggregate stockpiles will be located east of the processing equipment in the 10-acre parcel to further shield noise.

A Noise Study was performed by Thunder Hearing & Sound LLC to assess the potential noise levels associated with proposed aggregate excavation and processing and concrete batching at the Site. The results of the noise study are contained in a separate report.

7.6 Dust Emission and Controls

Dust emissions at the Site will be controlled to meet the National Ambient Air Quality Standards (NAAQS) as established by the U.S.EPA under Subpart 000. This regulatory authority has been delegated to the Illinois EPA and is regulated under Title 35 of the Illinois Administrative Code: Environmental Protection; Subtitle B: Air Pollutions; Chapter I: Pollution Control Board. These standards are very strict regarding the amount of fugitive dust emissions allowed to escape from

a mine site. The Illinois standards have been found by the U.S.EPA to protect against health risks as well as nuisance effects. A mine operation must show it can meet these standards or a permit will not be issued. In addition, if the standards are violated, the permits can be revoked.

Certain equipment planned for use at the Site is currently in use at the Valley Aggregates facility in Woodstock. All the processing equipment there is currently operating under a Lifetime General Operating Permit for Aggregate Processing Plants (Air Permit). As the processing equipment gets moved to the proposed operation, new air permits will need to be granted because the equipment has been moved. However, because the processing equipment is currently permitted, it is expected that once realigned at the Site, a new operating air permit will be granted.

The proposed feedstock typically will be excavated by dragline from below the water table and be fully saturated with water. Therefore, the particulate matter emissions from processing the aggregate materials will be primarily controlled by natural surface moisture of the feedstock. Additional moisture may periodically be required during processing and will be controlled using sprayers on the processing equipment, as needed. Water for these sprayers will be pumped from the fresh water pond constructed on-site.

A Dust Control Plan will be developed and used by MVM to manage the dust at the Site. The plan will include best management practices for dust control during removal of overburden and sand and gravel, windblown dust from storage piles, dust from traffic on haul roads, dust from conveyors and transfer points, and dust from loading and dumping materials. The dust at the Site will be managed using vegetated berms and wetting of the aggregate materials as needed to reduce dust emissions. Wind speed and direction and soil moisture conditions will be considered during excavation. Water trucks will be used to reduce dust on haul roads generated during dry conditions. The approximately 1,000 feet of paved access roadway will be cleaned as required to reduce the potential for dust and tracking of loose soils onto Maple Street. A wash pad will be provided to allow trucks to be cleaned as needed prior to exiting the site. Aggregate stockpiles will be located near the western portion of the Site, away from property lines to reduce the potential for windblown material to leave the Site to the east.

7.7 Surface and Groundwater Pollution

The planned aggregate processing at the Site includes crushing, washing and grading (sorting) of the sand and gravel as needed. The process wash-water will be acquired from two ponds situated in the 10-acre processing area near the western property line. The ponds will be excavated below the water table and could have up to approximately 2.3 acres of surface area. A 0.5-acre pond will be used as a settling pond, which will flow into a 1.8-acre clear-water pond from which process water will be pumped. The fine-grained materials that collect in the process ponds will be periodically cleaned and used at the Site for reclamation or sold as product.

Initially, all surface runoff water from the Site will be discharged into the process ponds. Eventually, some of the surface runoff will be directed to the lake created by the mining extraction operations. All the water will be collected in the process ponds and/or Lake and diffused into the shallow groundwater system. It is expected that no surface water runoff from inside the berms will leave the property and no surface or process water will be directly discharged from the Site. Therefore, an NPDES permit for non-coal surface mines will not be required.

Groundwater levels and quality will be monitored at the Site in accordance the Conditional Use Permit. This will consist of using the three (3) existing monitoring wells (one upgradient and two downgradient groundwater monitoring wells) and quarterly groundwater sampling. In order to establish background concentrations of select constituents in groundwater at the site, groundwater samples were obtained from the three monitoring wells on December 14, 2023. The test results are provided in Appendix G.

To protect the groundwater resources at the Site from possible contamination by fuels, lubricants or other potentially hazardous materials used at the Site, a Spill Prevention, Control and Countermeasures (SPCC) Plan will be adopted by MVM as part of their best management practices. It is expected the mine will have one 1,200 gal above ground petroleum storage tank (AST) that will be located within a spill containment pad capable of containing the entire contents

of the tank plus 10% or the contents of the tank plus the 100-year, 24-hour storm event (whichever volume is greater) or the tank will be a double wall tank. The location and type of tank are to be determined prior to mine development, and the AST will be located at least 200 feet from the on-site well. The outlet to the secondary containment will have a locked valve to prevent unauthorized release of fuel from the containment area.

Oils and other petroleum fluids will be stored in drums in the Maintenance Building within a spill containment pad able to contain 110% of the drum capacity.

The equipment at the site will be refueled using a portable fuel truck having a total storage volume of 200 gallons. The fueling truck will have sorbent material that can be immediately used should there be any spill while fueling equipment. The fueling truck will not be left unattended while fueling.

The SPCC Plan is included in Appendix I.

8.0 MINE PHASING PLAN

8.1 General

The mine will progress in a systematic manner according to the demands of the market. As previously noted, MVM plans to operate the facility for 20 to 25 years. The initial phases of mining will include Site preparation, berm and roadway construction, processing plant installation, batch plant erection, construction of the office, scale, and maintenance/storage building. The sequencing of the mine is planned to proceed according to Exhibit 7, *Mine Phasing Plan*.

8.2 Phasing Sequence and Operations

The initial mine will begin in the southeastern corner of the Site. The overburden will be stripped and used for berm construction or stockpiled for use during reclamation. All the material down to the water table will be excavated using front-end loaders and backhoes, after which dragline equipment will be utilized. The mining will progress by excavating a series of cells. Each cell will initially be approximately 3-acres in size and excavated to the bottom depth of the sand and gravel deposit (Beverly Tongue of the Henry Formation). When one cell nears completion, the overburden will be stripped from the next cell in preparation for excavating that cell. The sequence will include excavating cells in a westerly manner to the western edge of the property, then move north (one cell width) and begin another sequence of westward-progressing cells beginning along the eastern side of the Site. Please refer to Exhibit 7, *Mine Phasing Plan* for the anticipated sequencing process throughout the projected life of the mine.

After approximately 14 years into the mining process, excavation will proceed northerly (cells 15 through 17) along Maple Street and then southerly through the north central portion of the Site. The final few years will include incorporating the settling and processing ponds into the lake and removing the reserves beneath the process area. Reclamation will occur simultaneously as described in the Mine Reclamation Plan section of this report.

9.0 MINE RECLAMATION PLAN

9.1 General

As the mine progresses as described in the Mining Plan, a lake will form and expand according to the excavation. The shoreline of the lake will be simultaneously reclaimed using the overburden material previously stripped and stockpiled. (The perimeter berms are planned to remain.) The final reclaimed Site will likely be utilized for residential housing as lakefront properties, like Maple Lakeshores subdivision to the east. During the years the mine is in operation, the vegetated berms and planting will grow to maturity. It is anticipated that the berms and mature vegetation may be altered minimally, dependent upon the final disposition of the property for reclamation. Please refer to Exhibit 8, *Mine Reclamation Plan* for additional detail.

9.2 Site Reclamation

Overburden material (including topsoil) will be used to backfill the shoreline of the lake after the reserves have been removed. Reclamation will likely lag approximately one to two cells behind the progress of the mine to allow enough room to work and to prevent interference with the mining operation. Generally, reclamation will proceed simultaneously according to the lag schedule.

The side slopes of the lakeshore will be backfilled to a slope no steeper than 8:1, graded with appropriate topsoil, and planted with naturally compatible prairie grasses. All final grades will be smoothly matched to the pre-existing ground surface along the margins of the property. Some of the berms and plantings may ultimately be modified to accommodate the final subdivision plans. The on-site building, such as the office/scale house and maintenance/storage facility, may be removed or modified to accommodate the planned final use. The on-site well, septic field, and parking area will be removed unless they are incorporated into the final use. All reclamation will be accomplished according to the McHenry County Mining Ordinance.

BIBLIOGRAPHY OF CITED AND UN-CITED REFERENCES

- Berg, R. C., Kempton, J. P., Follmer, L. R., and D. P. McKenna, 1985, *Illinoian and Wisconsinan Stratigraphy and Environments in Northern Illinois: the Altonian Revised*, Midwest Friends of the Pleistocene 32nd Field Conference, ISGS Guidebook 19, 177p.
- Curry, Brandon B., Richard C. Berg and Robert C. Vaiden, 1997, *Geologic Mapping For Environmental Planning, McHenry County, Illinois*, Illinois State Geologic Survey, Circular 559, 79p.
- Follmer, L.R., McKenna, D.P. and J. King, 1986, *Quaternary Records of Central and Northern Illinois*, ISGS Guidebook 20, 86p.
- Hackett, James E and Robert E. Bergstrom, 1956, *Groundwater In Northeastern Illinois*, ISGS Circular 207, 25p.
- Hansel, A. K. And W. H. Johnson, 1996, *Wedron and Mason Groups: Lithostratigraphic Reclassification of Deposits of the Wisconsin Episode, Lake Michigan Lobe Area*, ISGS Bulletin 104.
- Hensel, Bruce, 1992, *Natural Recharge of Groundwater in Illinois*, ISGS Environmental Geology 143 (EG-143), 34p.evaporation
- Hughes, George M., Paul Kraatz, and Ronald A. Landon, 1966, *Bedrock Aquifers of Northeastern Illinois*, ISGS Circular 406, 15p.
- Kempton, John P., 1991, *Glacial Geology of the Midwest; Framework and Applications*, 34th Annual Meeting, Association of Engineering Geologists, September 30 to October 4, 111 p.
- Lloyd, Orville B. and William L. Lyke, 1995, *Ground Water Atlas of the United States Segment 10 Illinois, Indiana, Kentucky, Ohio, Tennessee*, USGS Hydrologic Investigations Atlas 730-K, 30 p.
- Mankowski, Anne, David Baker and Karen Miller, et al, 1996, *Rock River Area Assessment, Volume 1, Natural Resources*, IDNR/EEA-96/10(1) 200/1996, Illinois Department of Natural Resources, Office of Scientific Research and Analysis, Natural history Survey Division, Champaign, IL.
- Midwest Friends of the Pleistocene 32nd Field Conference, 1985, *Illinoian and Wisconsinan Stratigraphy and Environments in Northern Illinois: the Altonian Revised*, ISGS Guidebook 19.

Natural Resource Conservation Service, 2002, *McHenry County, Illinois Soil Survey*, Soil View version 2.0 software, U.S. Department of Agriculture and Illinois Cooperative Soil Survey.

Roberts, Wyndham J. and John B Stall, 1967, *Lake Evaporation in Illinois*, ISWS Report of Investigation 57, Urbana, IL, 44p.

United States Geologic Survey, 1975, *Marengo South Quadrangle Illinois*, 7.5 Minute Series Topographic Map, 1:24,000.

United States Geologic Survey, 1968, *Riley Quadrangle Illinois*, 7.5 Minute Series Topographic Map, 1:24,000.

Visocky, Adrian P., Marvin G. Sherrill, and Keros Cartwright, 1985, *Geology, Hydrology, and Water Quality of the Cambrian and Ordovician Systems in Northern Illinois*, ISGS, ISWS and USGS Cooperative Groundwater Report 10, 136p.

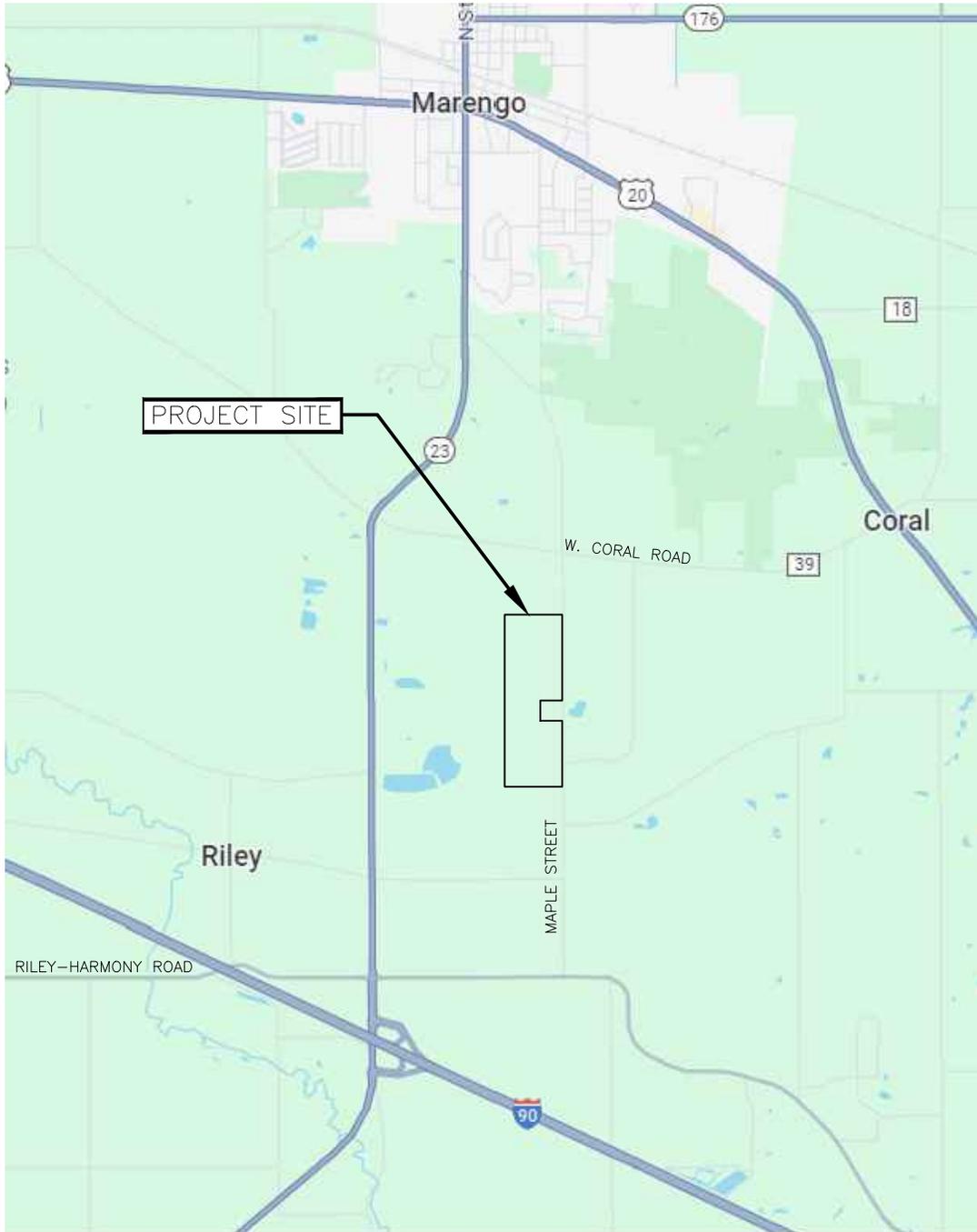
Willman, H.B. et. al., 1975, *Handbook of Illinois Stratigraphy*, ISGS Bulletin 95, 261p.

Willman, H.B. and D. R. Kolata, 1978, *The Platteville and Galena Groups in Northern Illinois*, ISGS Circular 502, 55p.

FIGURES

FIGURE 1

SITE VICINITY MAP



NOTE:

THIS DRAWING WAS PREPARED USING GOOGLE EARTH. (2024)



GRAPHIC SCALE

allprojects\Lisle\Maple Valley Materials\New Survey Maps\LOC-MAP.dwg

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|----------------------|
| DATE: MARCH 2024 |
| PROJ. NO.: 22353.043 |
| APP. BY: JCS |

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|--|
| PROPOSED MARENGO QUARRY MAPLE VALLEY MATERIALS, L.L.C. MARENGO, ILLINOIS |
| SITE VICINITY MAP |



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ILLINOIS ENGINEERING FIRM
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TABLES

TABLE 1

SITE BORINGS / MONITORING WELLS

TABLE 1
SITE BORINGS / MONITORING WELLS
MAPLE VALLEY MATERIALS, L.L.C.
 Proposed Marengo Quarry
 Patrick project No. 21353.032

| BORING/ WELL I.D. | DATE DRILLED | GROUND SURFACE ELEVATION | TOTAL DEPTH | MONITORING WELL (Y/N) | TOP OF CASING ELEVATION | SCREENED INTERVAL (bgs) | WATER LEVELS* | DATE MEASURED |
|----------------------|-----------------|--------------------------------|----------------|-----------------------------|-------------------------------|-------------------------------|------------------|------------------|
| MW-1 | 10/31/2002 | 855.5 | 20.0 | Y | 857.97 | 4.8 - 19.8 | 10.10 | 11/5/2002 |
| MW-2 | 10/31/2002 | 842.6 | 20.0 | Y | 845.05 | 4.8 - 19.8 | 6.74 | 11/5/2002 |
| MW-3 | 10/31/2002 | 841.4 | 20.0 | Y | 843.67 | 4.8 - 19.8 | 9.92 | 11/5/2002 |
| B-6 | 1980's** | 853.0** | 40.0 | N | NA | NA | 17bgs | 1980's** |
| B-7 | 1980's** | 843.0** | 56.0 | N | NA | NA | 17bgs | 1980's** |
| B-8 | 1980's** | 844.5** | 40.0 | N | NA | NA | 16bgs | 1980's** |
| B-9 | 1980's** | 845.5** | 40.0 | N | NA | NA | 20bgs | 1980's** |
| B-10 | 1980's** | 856.5** | 48.0 | N | NA | NA | 16bgs | 1980's** |

* Below Top of Casing Unless Otherwise Noted

** Estimated

bgs Below Ground Surface (in Feet)

NA Not Applicable

Unk Unknown

TABLE 2

**PRIVATE WELL IDENTIFICATION
2014 CUP WELLS**

TABLE 2
PRIVATE WELL IDENTIFICATION TABLE
MAPLE VALLEY MATERIALS, L.L.C.
 Proposed Marengo Quarry
 Patrick Project No. 21353.032

| U.S.G.S. TOWNSHIP /RANGE | U.S.G.S. SECTION NUMBER | I.S.W.S. I.D. NUMBER | I.S.G.S. I.D. NUMBER | PLOT | DEPTH | RECORD TYPE | WELL USE | WELL TYPE | AQUIFER TYPE | DRILLER | DATE DRILLED | STATIC LEVEL | PUMPING LEVEL | PUMPING GPM | PUMPING hours |
|--------------------------|-------------------------|----------------------|----------------------|------|-------|-------------|----------|-----------|--------------|------------------------|--------------|--------------|---------------|-------------|---------------|
| 43N 5E | 11 | 98983 | | | 192 | GR | DO | | | | | | | | |
| 43N 5E | 11 | 99028 | *22544 | 8H | 275 | GR | DO | | | VAN HOOZEN | 1943 | | | | |
| 43N 5E | 11 | 99027 | *23296 | 1D | 240 | GR | DO | | | BOETSCH WATER SUPPLY | 08/03/1975 | | | | |
| 43N 5E | 11 | 99028 | *22758 | 3C | 252 | GR | DO | | | P BARKER | 02/24/1977 | | | | |
| 43N 5E | 11 | 99029 | *23863 | 3C | 77 | GR | DO | | | DARR SILVIUS | 05/03/1976 | | | | |
| 43N 5E | 11 | 99030 | *22175 | 4G | 255 | RG | DO | | | J STONE | 05/27/1981 | | | | |
| 43N 5E | 11 | 98031 | *1714 | | 100 | O | DO | | | DUPAGE PUMP | 10/24/1974 | | | | |
| 43N 5E | 11 | 99032 | *23298 | 7A | 114 | RG | DO | | | BOETSCH WATER SUPPLY | 1973 | | | | |
| 43N 5E | 11 | 99033 | *23284 | 4C | 126 | RG | DO | | | L LIVINGSTON | 09/ /1977 | | | | |
| 43N 5E | 11 | 99034 | *23295 | 5B | 225 | RG | DO | | | P BARKER | 02/12/1977 | | | | |
| 43N 5E | 11 | 99035 | *23297 | 4A | 295 | RG | DO | | | P BARKER | 04/18/1978 | | | | |
| 43N 5E | 11 | 99036 | 25276 | 5A | 125 | RG | DO | | | P BARKER | 12/01/1978 | | | | |
| 43N 5E | 11 | 99038 | *23535 | 6E | 235 | RG | DO | | | M NICE | 07/18/1988 | | | | |
| 43N 5E | 11 | 188737 | *631 | 5B | 165 | RG | DO | | UN | M NICE | 08/17/1979 | 17 | 87 | 16 | 1 |
| 43N 5E | 11 | 188738 | 26825 | 3C | 380 | RG | DO | | BR | SIGRIST | 04/30/1989 | 30 | 40 | 10 | 4 |
| 43N 5E | 11 | 188739 | 29985 | 6F | 280 | RG | DO | | BR | NICE | 08/09/1988 | 30 | 40 | 10 | 4 |
| 43N 5E | 11 | 233187 | | | 200 | RG | DO | | BR | NICE | 01/27/1990 | 60 | 70 | | 4 |
| 43N 5E | 11 | | 25088 | | 77 | | DO | | UN | BOETSCH | 04/24/1973 | | | | |
| 43N 5E | 11 | 233188 | *705 | | 192 | | DO | | BR | GROSCH | 5/12/1986 | 22 | | 82 | 3 |
| 43N 5E | 11 | 246584 | 32768 | 3D | 192 | RG | DO | | BR | LUCY VAN HOOZEN | | 60 | 60 | 10 | 4 |
| 43N 5E | 11 | 280230 | 34357 | 3A | 92 | RG | DO | | UN | LUCY VAN HOOZEN | 1943 | | | | |
| 43N 5E | 11 | 309868 | 36198 | 4D | 116 | RG | DO | | UN | HUEMANN | 01/11/1994 | 34 | 47 | | 5 |
| 43N 5E | 11 | 322552 | 37406 | 1G | 84 | RG | DO | DL | UN | KELLER | 09/05/1995 | 19 | 24 | 10 | 24 |
| 43N 5E | 11 | 325705 | 37681 | 5F | 140 | RG | DO | DL | UN | HUEMANN&SONS / TALLMAN | 02/22/1999 | 34 | 47 | 25 | 8 |
| 43N 5E | 11 | 343848 | 40115 | 3D | 90 | RG | DO | DL | UN | BINZ & SON | 04/11/2000 | 53 | 78 | 15 | 2 |
| 43N 5E | 11 | 448895 | 43841 | 5B | 260 | RG | DO | DL | BR | COUNTRY WELL & PUMP | 07/19/2000 | 29 | 59 | 10 | 2 |
| 43N 5E | 12 | 98984 | *707 | | 220 | RG | DO | DL | BR | MARENGO W&P/D. LESSMAN | 2/14/2002 | 69 | 139 | 10 | 12 |
| 43N 5E | 12 | 98039 | 25277 | | 265 | GR | DO | | BR | M NICE | 7/6/2009 | 39 | 99 | 10 | 2 |
| 43N 5E | 12 | 99040 | | | 285 | RG | DO | | | VAN HOOZEN | 1944 | | | | |
| 43N 5E | 12 | 99041 | 26063 | | 280 | RG | DO | | | M NICE | 03/11/1987 | | | | |
| 43N 5E | 12 | 99042 | 24680 | 4H | 303 | GR | DO | | | W BOETSCH | 10/19/1978 | | | | |
| 43N 5E | 12 | 99043 | *1207 | 1A | 385 | RG | DO | | | M NICE | 10/14/1987 | | | | |
| 43N 5E | 12 | 99044 | *22176 | 1A | 311 | GR | DO | | | M NICE | 02/11/1986 | | | | |
| 43N 5E | 12 | 99045 | *1413 | 1A | 278 | RG | DO | | | JLEBERG | 10/01/1976 | | | | |
| 43N 5E | 12 | 99046 | *23230 | 1B | 311 | GR | DO | | | P BARKER | 09/15/1970 | | | | |
| 43N 5E | 12 | 99047 | *23300 | 1B | 283 | RG | DO | | | P BARKER | 03/09/1973 | | | | |
| 43N 5E | 12 | 99048 | *23307 | 1C | 210 | RG | DO | | | P BARKER | 05/11/1971 | | | | |
| 43N 5E | 12 | 99049 | *23301 | 1F | 255 | RG | DO | | | K & K WELL DRLG | 03/ /1975 | | | | |
| 43N 5E | 12 | 99050 | | 1A | 280 | RG | DO | | | P BARKER | 11/22/1978 | | | | |
| 43N 5E | 12 | 99051 | | 2A | 420 | GR | DO | | | W BOETSCH LOT 5 | 03/17/1979 | | | | |
| 43N 5E | 12 | 99052 | | 2A | 415 | RG | DO | | | P BARKER | 08/08/1978 | | | | |
| 43N 5E | 12 | 99053 | 25463 | 2A | 262 | RG | DO | | | P BARKER | 07/28/1972 | | | | |
| 43N 5E | 12 | 99054 | | 2E | 200 | RG | DO | | | K & K WELL DRLG | 07/31/1984 | | | | |
| 43N 5E | 12 | 99055 | *22757 | 2G | 144 | RG | DO | | | W HUEMANN | 02/27/1987 | | | | |
| 43N 5E | 12 | 99056 | *22759 | 3A | 330 | RG | DO | | | P BARKER | 10/27/1975 | | | | |
| 43N 5E | 12 | 99057 | *23308 | 3H | 415 | RG | DO | | | W BOETSCH | 10/20/1976 | | | | |
| 43N 5E | 12 | | | | 298 | RG | DO | | | P BARKER | 06/07/1973 | | | | |
| 43N 5E | 12 | | | | 415 | RG | DO | | | P BARKER | 10/23/1978 | | | | |

TABLE 2
PRIVATE WELL IDENTIFICATION TABLE
MAPLE VALLEY MATERIALS, L.L.C.
Proposed Marengo Quarry
Patrick Project No. 21353.032

| U.S.G.S. TOWNSHIP/RANGE | U.S.G.S. SECTION NUMBER | I.S.W.S. I.D. NUMBER | I.S.G.S. I.D. NUMBER | PLOT | DEPTH | RECORD TYPE | WELL USE | WELL TYPE | AQUIFER TYPE | DRILLER | DATE DRILLED | STATIC LEVEL | PUMPING LEVEL | PUMPING GPM | PUMPING hours |
|-------------------------|-------------------------|----------------------|----------------------|------|-------|-------------|----------|-----------|--------------|----------------------|--------------|--------------|---------------|-------------|---------------|
| 43N 5E | 12 | 99058 | *1798 | 3E | 389 | RG | DO | | | D SILVIUS | 07/20/1973 | | | | |
| 43N 5E | 12 | 99059 | *23304 | 4H | 307 | RG | DO | | | P BARKER | 10/31/1978 | | | | |
| 43N 5E | 12 | 99060 | *23305 | 4H | 370 | RG | DO | | | A DENFFNER | 08/27/1979 | | | | |
| 43N 5E | 12 | 99061 | *22177 | 5H | 399 | RG | DO | | | P BARKER | 09/25/1972 | | | | |
| 43N 5E | 12 | 99062 | *23303 | 5H | 438 | RG | DO | | | W HUEMANN | 09/22/1978 | | | | |
| 43N 5E | 12 | 99063 | *1412 | 8D | 288 | RG | DO | | | P BARKER | 04/20/1971 | | | | |
| 43N 5E | 12 | 99084 | *22002 | 8A | 273 | RG | DO | | | BOETSCH WATER SUPPLY | 03/19/1974 | | | | |
| 43N 5E | 12 | 99065 | *23299 | 8B | 315 | RG | DO | | | P BARKER | 11/09/1976 | | | | |
| 43N 5E | 12 | 99066 | *23302 | 8C | 310 | RG | DO | | | P BARKER | 10/31/1978 | | | | |
| 43N 5E | 12 | 188741 | 26537 | | 350 | RG | DO | BR | BR | NICE | 05/11/1988 | 100 | 120 | 10 | 4 |
| 43N 5E | 12 | 188742 | 28341 | 1A | 208 | RG | DO | | | PILGARD | 04/ /1988 | 75 | 75 | 10 | 2 |
| 43N 5E | 12 | 188743 | 26750 | 2A | 430 | RG | DO | BR | BR | DUPAGE PUMP INC | 07/07/1988 | 250 | 250 | 10 | 2 |
| 43N 5E | 12 | 188744 | 29988 | 2B | 380 | RG | DO | BR | BR | KNIERIM | 10/11/1989 | 100 | 336 | | |
| 43N 5E | 12 | 188745 | 28634 | 2D | 303 | RG | DO | UN | UN | HUEMANN | 07/06/1988 | 150 | 180 | 25 | 3 |
| 43N 5E | 12 | 188746 | 27043 | 3B | 215 | RG | DO | UN | UN | NICE | 09/20/1988 | 80 | 70 | 10 | 4 |
| 43N 5E | 12 | 233169 | *708 | 2C | 350 | BR | DO | BR | BR | SILVIUS BROS. | 1966 | 140 | 140 | 24 | 3 |
| 43N 5E | 12 | 244900 | | 8C | 260 | RG | DO | BR | BR | NICE | 10/01/1993 | 79 | 90 | | 4 |
| 43N 5E | 12 | 246931 | 32789 | 1C | 420 | RG | DO | BR | BR | NICE | 11/03/1993 | 139 | 150 | | 4 |
| 43N 5E | 12 | 253571 | 32818 | 1D | 400 | RG | DO | BR | BR | NICE | 02/21/1994 | 99 | 110 | | 4 |
| 43N 5E | 12 | 253572 | | 4B | 352 | RG | DO | BR | BR | ROSENQUIST | 12/10/1993 | 59 | 75 | 15 | 2 |
| 43N 5E | 12 | | 31729 | | 222 | | DO | BR | BR | SNELTEN | 9/14/1992 | 80 | 60 | | 4 |
| 43N 5E | 12 | | 34708 | | 385 | | DO | BR | BR | HUEMANN & SONS | 7/24/1996 | 140 | 190 | 10 | 6 |
| 43N 5E | 12 | | *1842 | | 282 | | DO | BR | BR | P BARKER | 6/6/1971 | 80 | 80 | 20 | 24 |
| 43N 5E | 12 | | 34918 | | 280 | | DO | BR | BR | NICE | 8/21/1996 | 100 | 220 | 12 | 2 |
| 43N 5E | 12 | | 27276 | | 340 | | DO | BR | BR | NICE | 11/10/1988 | 100 | 110 | | 4 |
| 43N 5E | 12 | | 32575 | | 260 | | DO | BR | BR | NICE | 6/3/1993 | 80 | 90 | | 4 |
| 43N 5E | 12 | | 33959 | | 320 | | DO | BR | BR | NICE | 6/9/1996 | 70 | 140 | 12 | 2 |
| 43N 5E | 12 | | *23026 | | 317 | | DO | BR | BR | P BARKER | 10/27/1976 | 184 | 215 | 15 | 2 |
| 43N 5E | 12 | | 28834 | | 303 | | DO | UN | UN | HUEMANN & SONS | 3/1/1988 | 150 | 175 | | 4 |
| 43N 5E | 12 | | 32815 | | 352 | | DO | BR | BR | HUEMANN & SONS | 7/14/1993 | 60 | 75 | 15 | 2 |
| 43N 5E | 12 | 301579 | 35403 | 2B | 320 | RG | DO | DL | DL | MARENGO W&P/KELLER | 01/26/1998 | 119 | 199 | 20 | 4 |
| 43N 5E | 12 | 305967 | 35798 | 7A | 340 | RG | DO | DL | DL | COUNTRY W&P/M. NICE | 08/11/1998 | 79 | 199 | 10 | 2 |
| 43N 5E | 12 | 306082 | 35795 | 3G | 380 | RG | DO | DL | DL | MARENGO W&P/KELLER | 07/31/1998 | 164 | 174 | 12 | 24 |
| 43N 5E | 12 | 312570 | 36815 | 1D | 235 | RG | DO | DL | DL | COUNTRY WELL & PUMP | 09/20/1999 | 74 | 119 | 10 | 2 |
| 43N 5E | 12 | 312849 | 36814 | 2D | 380 | RG | DO | DL | DL | MARENGO WELL & PUMP | 07/31/1999 | 149 | 169 | 20 | 24 |
| 43N 5E | 12 | 319612 | 37255 | 2B | 277 | RG | DO | DL | UN | HUEMANN & SONS | 12/13/1999 | 89 | 104 | 20 | 6 |
| 43N 5E | 12 | 319731 | 37519 | 4A | 128 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 11/24/1999 | 49 | 79 | 10 | 2 |
| 43N 5E | 12 | 320291 | 37258 | 1C | 350 | RG | DO | DL | BR | COUNTRY WELL & PUMP | 01/05/2000 | 169 | 239 | 10 | 2 |
| 43N 5E | 12 | 343017 | 40151 | 4A | 380 | RG | DO | DL | BR | COUNTRYW&P/M NICE | 8/21/2002 | 89 | 239 | 10 | 2 |
| 43N 5E | 12 | 343441 | 27278 | 2E | 340 | RG | DO | DL | BR | C NICE | 3/1/1989 | 99 | 109 | | 4 |
| 43N 5E | 13 | 99067 | 24995 | | 145 | RG | DO | | | M NICE | 09/04/1986 | | | | |
| 43N 5E | 13 | 99068 | 25597 | | 151 | RG | DO | | | M NICE | 05/30/1987 | | | | |
| 43N 5E | 13 | 99069 | *23311 | | 200 | RG | DO | | | K & K WELL DRLG | 09/30/1977 | | | | |
| 43N 5E | 13 | 99070 | *23537 | | 177 | RG | DO | | | M NICE | 11/10/1979 | | | | |
| 43N 5E | 13 | 99071 | *23539 | | 160 | RG | DO | | | M NICE | 10/15/1979 | | | | |
| 43N 5E | 13 | 99072 | 24680 | | 175 | RG | DO | | | M NICE | 07/10/1986 | | | | |
| 43N 5E | 13 | 99073 | | 4D | 185 | RG | DO | | | M NICE | 03/05/1984 | | | | |
| 43N 5E | 13 | 99074 | 27422 | 1G | 185 | RG | DO | | | M NICE | 08/30/1984 | | | | |

TABLE 2
PRIVATE WELL IDENTIFICATION TABLE
MAPLE VALLEY MATERIALS, L.L.C.
 Proposed Marengo Quarry
 Patrick Project No. 21353.032

| U.S.G.S. TOWNSHIP/RANGE | U.S.G.S. SECTION NUMBER | I.S.W.S. I.D. NUMBER | I.S.G.S. I.D. NUMBER | PLOT | DEPTH | RECORD TYPE | WELL USE | WELL TYPE | AQUIFER TYPE | DRILLER | DATE DRILLED | STATIC LEVEL | PUMPING LEVEL | PUMPING GPM | PUMPING hours |
|-------------------------|-------------------------|----------------------|----------------------|------|-------|-------------|----------|-----------|--------------|-----------------------------|--------------|--------------|---------------|-------------|---------------|
| 43N 5E | 13 | 99076 | | 1D | 32 | R | DO | | | OWNER | 07/1/1979 | | | | |
| 43N 5E | 13 | 99077 | *22761 | 2G | 220 | RG | DO | | | K & K WELL DRLG | 04/20/1976 | | | | |
| 43N 5E | 13 | 99078 | *1414 | 3C | 150 | RG | DO | | | P BARKER | 06/20/1971 | | | | |
| 43N 5E | 13 | 99079 | *1412 | 1D | 250 | RG | DO | | | P BARKER | 05/09/1971 | | | | |
| 43N 5E | 13 | 99080 | *22536 | 1H | 75 | RG | DO | | | W F HUEMANN | 09/13/1979 | | | | |
| 43N 5E | 13 | 99081 | *23538 | 2E | 134 | RG | DO | | | P BARKER | 07/01/1979 | | | | |
| 43N 5E | 13 | 99082 | *22545 | 3C | 220 | RG | DO | | | K & K WELL DRLG | 10/10/1975 | | | | |
| 43N 5E | 13 | 99083 | 23886 | 2D | 260 | RG | DO | | | K & K WELL DRLG | 05/31/1983 | | | | |
| 43N 5E | 13 | 99085 | 23887 | 4F | 320 | RG | DO | | | K & K WELL DRLG | 11/14/1979 | | | | |
| 43N 5E | 13 | 99086 | 23888 | 4H | 320 | RG | DO | | | K & K WELL DRLG | 06/05/1979 | | | | |
| 43N 5E | 13 | 99087 | *281 | 8H | 206 | RG | DO | | | P BARKER | 09/02/1972 | | | | |
| 43N 5E | 13 | 99088 | *1755 | 4G | 283 | RG | DO | | | F MATTHES | 07/18/1973 | | | | |
| 43N 5E | 13 | 99089 | *1843 | 2H | 205 | RG | DO | | | P BARKER | 01/28/1973 | | | | |
| 43N 5E | 13 | 99090 | *22760 | 2H | 227 | RG | DO | | | P BARKER | 06/14/1973 | | | | |
| 43N 5E | 13 | 99091 | *23310 | 2H | 178 | RG | DO | | | R STONE | 07/28/1977 | | | | |
| 43N 5E | 13 | 99092 | *23309 | 2F | 200 | RG | DO | | | K & K WELL DRLG | 01/03/1978 | | | | |
| 43N 5E | 13 | 188747 | *22457 | 1G | 225 | RG | DO | BR | BR | MARTIN JURKS & SON | 06/28/1975 | 70 | 105 | 10 | 1 |
| 43N 5E | 13 | 188748 | 29987 | 2D | 156 | RG | DO | BR | BR | NICE | 07/18/1989 | 20 | 25 | | 4 |
| 43N 5E | 13 | 188749 | 23885 | 3G | 220 | RG | DO | UN | UN | KNIERIM | 11/13/1979 | 30 | 120 | | |
| 43N 5E | 13 | 188750 | 26342 | 4E | 350 | RG | DO | BR | BR | NICE | 09/28/1988 | 40 | 50 | 10 | 4 |
| 43N 5E | 13 | 188751 | 26343 | 4G | 210 | RG | DO | BR | BR | NICE | 09/20/1988 | 25 | 35 | | 4 |
| 43N 5E | 13 | 233191 | 27423 | | 185 | RG | DO | UN | UN | MARVIN NICE | 03/19/1984 | 89 | 100 | 10 | 4 |
| 43N 5E | 13 | 233194 | | 2D | 156 | RG | DO | BR | BR | MARVIN NICE | 04/27/1989 | 19 | 25 | | 4 |
| 43N 5E | 13 | 243013 | | 4A | 320 | RG | DO | BR | BR | NICE | 03/05/1991 | 34 | 45 | | 4 |
| 43N 5E | 13 | 261032 | | 2A | 222 | RG | DO | DL | DL | SNELTEN | 11/18/1992 | 59 | 60 | | 4 |
| 43N 5E | 13 | 264518 | 33565 | 2G | 80 | RG | DO | DL | DL | HUTCHINGS | 07/20/1994 | 20 | 40 | | 24 |
| 43N 5E | 13 | 264530 | 33405 | 2G | 190 | RG | DO | DL | DL | NICE | 09/19/1994 | 49 | 59 | | 4 |
| 43N 5E | 13 | 264534 | 33404 | 2E | 166 | RG | DO | DL | DL | NICE | 10/13/1994 | 39 | 30 | | 4 |
| 43N 5E | 13 | 288277 | 34526 | 2H | 182 | RG | DO | DL | DL | NICE | 04/11/1996 | 39 | 49 | | 4 |
| 43N 5E | 13 | 291895 | 34877 | 4E | 72 | RG | DO | DL | DL | COUNTRY WELL & PUMP | 11/18/1996 | 9 | 39 | 20 | 2 |
| 43N 5E | 13 | 295249 | | 2D | 87 | RG | DO | DL | DL | MARENGO W&P/KELLER | 04/28/1997 | 30 | 33.5 | 12 | 3 |
| 43N 5E | 13 | 295480 | | 3B | 205 | RG | DO | DL | DL | COUNTRY W&P/M. NICE | 04/21/1997 | 49 | 139 | 10 | 2 |
| 43N 5E | 13 | 300355 | 35251 | 1E | 88 | RG | DO | DL | DL | MARENGO W&P/KELLER | 10/24/1997 | 10 | 14 | 12 | 24 |
| 43N 5E | 13 | | 31187 | | 320 | | DO | | BR | NICE | 7/16/1990 | 35 | 45 | | 4 |
| 43N 5E | 13 | 340322 | 39048 | | 80 | | DO | | UN | KELLER | 9/17/2001 | 4 | 4 | 10 | 3 |
| 43N 5E | 13 | 339051 | 39721 | | 81 | | DO | | UN | KELLER | 7/24/2001 | 10 | 15 | 10 | 3 |
| 43N 5E | 13 | | 34919 | | 75 | | DO | | UN | HOWE | 10/9/1996 | 25 | 43 | 18 | |
| 43N 5E | 13 | | 26342 | | 350 | | DO | | BR | NICE | 10/1/1987 | 40 | 50 | 10 | 4 |
| 43N 5E | 13 | | 34920 | | 205 | | DO | | BR | NICE | 9/27/1996 | 50 | 140 | 10 | 2 |
| 43N 5E | 13 | 312064 | 36546 | 4C | 70 | RG | DO | DL | UN | MARENGO W&P/KELLER | 02/18/1999 | 1 | 2 | 12 | 24 |
| 43N 5E | 13 | 313121 | | 4D | 67 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 11/23/1999 | 11 | 19 | 10 | 2 |
| 43N 5E | 13 | 313122 | 36816 | 4D | 67 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 11/23/1999 | 11 | 19 | 10 | 2 |
| 43N 5E | 13 | 322484 | 37471 | 4C | 80 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 03/20/2000 | 9 | 19 | 10 | 2 |
| 43N 5E | 13 | 322486 | 37469 | 3C | 80 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 03/21/2000 | 9 | 19 | 10 | 2 |
| 43N 5E | 13 | 322491 | 37464 | 3D | 67 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 03/21/2000 | 14 | 19 | 10 | 2 |
| 43N 5E | 13 | 330053 | 38088 | 4D | 85 | RG | DO | DL | UN | MARENGO WELL & PUMP | 03/30/2001 | 5 | 39 | 10 | 4 |
| 43N 5E | 13 | 334156 | 39314 | 4D | 67 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 07/05/2001 | 4 | 19 | 10 | 2 |
| 43N 5E | 13 | 345660 | 40328 | 2C | 125 | RG | DO | DL | UN | SUBURBAN WELL DLG/JABLONSKI | 9/10/2002 | 13 | 43 | 10 | 1 |

TABLE 2
PRIVATE WELL IDENTIFICATION TABLE
MAPLE VALLEY MATERIALS, L.L.C.
Proposed Marengo Quarry
Patrick Project No. 21353.032

| U.S.G.S. TOWNSHIP /RANGE | U.S.G.S. SECTION NUMBER | I.S.W.S. I.D. NUMBER | I.S.G.S. I.D. NUMBER | PLOT | DEPTH | RECORD TYPE | WELL USE | WELL TYPE | AQUIFER TYPE | DRILLER | DATE DRILLED | STATIC LEVEL | PUMPING LEVEL | PUMPING GPM | PUMPING hours |
|--------------------------|-------------------------|----------------------|----------------------|------|-------|-------------|----------|-----------|--------------|-----------------------------|--------------|--------------|---------------|-------------|---------------|
| 43N 5E | 13 | 346726 | 40580 | 3D | 90 | RG | DO | DL | UN | MARENGO | 10/22/2002 | 7 | 49 | 10 | 3 |
| 43N 5E | 13 | 348906 | 40930 | 3D | 64 | RG | DO | DL | UN | COUNTRY W&P/M. NICE | 4/25/2003 | 19 | 59 | 10 | 2 |
| 43N 5E | 13 | 355051 | 41063 | 3C | 79 | RG | DO | DL | UN | COUNTRY W&P/M. NICE | 9/25/2003 | 9 | 59 | 10 | 2 |
| 43N 5E | 13 | 361532 | 41483 | 6E | 65 | RG | DO | DL | UN | J. HUEMANN/M. HOLLINGSWORTH | 5/3/2004 | 2 | 11 | 10 | 6 |
| 43N 5E | 13 | 362585 | 41563 | 6D | 76 | RG | DO | DL | UN | COUNTRY W&P/M. NICE | 6/22/2004 | 9 | 39 | 10 | 2 |
| 43N 5E | 13 | 366275 | 41606 | 2F | 101 | RG | DO | DL | UN | COUNTRY W&P/M. NICE | 10/14/2004 | 37 | 79 | 10 | 2 |
| 43N 5E | 13 | 366430 | 41606 | 3D | 75 | RG | DO | DL | UN | JOS H. HUEMANN/M. SCHMITT | 10/8/2004 | 19 | 24 | 10 | 6 |
| 43N 5E | 13 | 366431 | 41607 | 3C | 80 | RG | DO | DL | UN | JOS H. HUEMANN/R. TALLMAN | 10/7/2004 | 14 | 21 | 10 | 6 |
| 43N 5E | 13 | 375245 | 42498 | 1D | 76 | RG | DO | DL | UN | MARENGO W&P/D. LESSMAN | 8/26/2005 | 27 | 39 | 20 | 2 |
| 43N 5E | 13 | 375258 | 42497 | 4D | 77 | RG | DO | DL | UN | COUNTRY W&P/M. NICE | 10/3/2005 | 19 | 59 | 10 | 2 |
| 43N 5E | 13 | 363194 | 42642 | 1A | 97 | RG | DO | DL | UN | COUNTRY W&P/M. NICE | 4/26/2006 | 24 | 39 | 10 | 2 |
| 43N 5E | 13 | 420765 | 42926 | 4C | 150 | RG | DO | DL | BR | M NICE | 10/16/2006 | 17 | 119 | 10 | 2 |
| 43N 5E | 13 | 422482 | 42996 | 2A | 98 | RG | DO | DL | UN | M NICE | 10/20/2006 | 39.16 | 1.16 | | |
| 43N 5E | 13 | 422926 | 43025 | 4B | 365 | RG | DO | DL | BR | J. JABLONSKI | 11/12/2006 | 136 | | | |
| 43N 5E | 13 | 431690 | 43380 | 4A | 160 | RG | DO | DL | BR | M NICE | 7/12/2007 | 2 | 139 | 15 | 2 |
| 43N 5E | 13 | 432226 | 43361 | 3D | 90 | RG | DO | DL | UN | M NICE | 7/10/2007 | 19 | 39 | 10 | 2 |
| 43N 5E | 13 | 434147 | 43514 | 4D | 67 | RG | DO | DL | UN | R TALLMAN | 7/18/2007 | 5 | 9 | 10 | 6 |
| 43N 5E | 13 | 442089 | 43691 | 1E | 240 | RG | DO | DL | BR | M NICE | 9/17/2006 | 59 | 119 | 10 | 2 |
| 43N 5E | 13 | 454191 | 44094 | 1C | 150 | RG | DO | DL | BR | M NICE | 2/9/2009 | 5 | 119 | 10 | 2 |
| 43N 5E | 14 | 99094 | *23312 | 7C | 120 | RG | DO | | | P BARKER | 05/09/1977 | | | | |
| 43N 5E | 14 | 166752 | 26979 | 5G | 98 | RG | DO | | UN | NICE | 08/11/1966 | 10 | 15 | 10 | 4 |
| 43N 5E | 14 | 217249 | 29968 | 5E | 90 | GR | DO | | BR | CRAIG A NICE | 04/27/1990 | 14 | 25 | | 4 |
| 43N 5E | 14 | 243707 | 32576 | 4H | 74 | RG | DO | | UN | HOWE | 10/02/1992 | 16 | 21 | 20 | |
| 43N 5E | 14 | 244861 | 32577 | 4D | 60 | RG | DO | | UN | NICE | 08/09/1993 | 14 | 25 | | 4 |
| 43N 5E | 14 | 248971 | | 4B | 42 | RG | DO | | UN | NICE | 11/19/1993 | 5 | 15 | | |
| 43N 5E | 14 | 325022 | 37593 | 8A | 260 | RG | DO | DL | BR | MARENGO WELL & PUMP | 05/10/2000 | 139 | 199 | 20 | 4 |
| 43N 5E | 14 | 366265 | 41809 | 4D | 100 | RG | DO | DL | BR | COUNTRY W&P/M. NICE | 10/27/2004 | 14 | 79 | 10 | 2 |
| 43N 5E | 14 | 446251 | 43619 | 5D | 65 | RG | DO | DL | BR | M NICE | 6/4/2009 | 6 | 19 | 10 | 2 |
| 43N 5E | 23 | 99124 | 26539 | 3F | 160 | RG | DO | | | M NICE | 12/17/1967 | | | | |
| 43N 5E | 23 | 99125 | 25413 | 4D | 60 | RG | DO | | | M NICE | 09/29/1966 | | | | |
| 43N 5E | 23 | 99126 | | 4E | 191 | RG | DO | | | J MACK | 02/08/1979 | | | | |
| 43N 5E | 23 | | 29321 | | 32 | | DO | | | OWNER | 8/16/1976 | | | | |
| 43N 5E | 23 | 99127 | 37550 | 5D | 59 | RG | DO | | | GEORGE GAFFKE | 5/20/1989 | 10 | | 400 | |
| 43N 5E | 23 | 99126 | *695 | 6E | 80 | R | DO | | | F MACK | 09/28/1979 | | | | |
| 43N 5E | 23 | 99129 | *22763 | 6E | 120 | RG | DO | | | G FOWLER | 06/01/1970 | | | | |
| 43N 5E | 23 | 99130 | *657 | 8F | 70 | RG | DO | | | P BARKER | 08/08/1975 | | | | |
| 43N 5E | 23 | 99131 | 23691 | 6F | 63 | RG | DO | | | P BARKER | 06/15/1970 | | | | |
| 43N 5E | 23 | 99132 | *23030 | 6A | 260 | RG | DO | | | M NICE | 06/09/1960 | | | | |
| 43N 5E | 23 | 99133 | *23316 | 6D | 120 | RG | DO | | | K & K WELL DRLG | 12/22/1976 | | | | |
| 43N 5E | 23 | 323203 | | | 60 | RG | DO | | | P BARKER | 09/04/1976 | | | | |
| 43N 5E | 23 | 323206 | 37460 | 1E | 52 | RG | DO | DL | UN | GEORGE FOWLER | 06/01/1970 | 19 | 22 | 15 | 6 |
| 43N 5E | 24 | 99134 | *23543 | 2G | 160 | RG | DO | | | COUNTRY WELL/PUMP | 05/03/2000 | 9 | 19 | 10 | 2 |
| 43N 5E | 24 | 99135 | *22650 | 3B | 160 | RG | DO | | | M NICE | 09/01/1979 | | | | |
| 43N 5E | 24 | 99136 | 23682 | 4A | 190 | RG | DO | | | K & K WELL DRLG | 04/22/1976 | | | | |
| 43N 5E | 24 | 99137 | 29322 | 6A | 24 | R | DO | | | OWNER | 04/18/1960 | | | | |
| 43N 5E | 24 | 325697 | 37761 | 6E | 47 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 09/ 07/1976 | | | | |
| 43N 5E | 24 | 347474 | 40696 | 6E | 56 | RG | DO | DL | UN | COUNTRY WELL & PUMP | 06/26/2000 | 9 | 19 | 10 | 2 |
| 43N 5E | 24 | | | | | | | | | | 2/19/2003 | 19 | 39 | 10 | 2 |

TABLE 2
PRIVATE WELL IDENTIFICATION TABLE
MAPLE VALLEY MATERIALS, L.L.C.
Proposed Marengo Quarry
Patrick Project No. 21353.032

| U.S.G.S. TOWNSHIP /RANGE | U.S.G.S. SECTION NUMBER | I.S.W.S. NUMBER | I.S.G.S. ID. NUMBER | PLOT | DEPTH | RECORD TYPE | WELL USE | WELL TYPE | AQUIFER TYPE | DRILLER | DATE DRILLED | STATIC LEVEL | PUMPING LEVEL | PUMPING GPM | PUMPING hours |
|--------------------------|-------------------------|-----------------|---------------------|------|-------|-------------|----------|-----------|--------------|------------------------|--------------|--------------|---------------|-------------|---------------|
| 43N 5E | 24 | 386491 | 41811 | 7E | 58 | RG | DO | DL | BR | MARENGO W&P/D. LESSMAN | 12/11/2004 | 16 | 17 | 10 | 2 |
| 43N 5E | 24 | 378804 | 42600 | 7D | 60 | RG | DO | DL | UN | MARENGO W&P/D. LESSMAN | 11/23/2005 | 16 | 19 | 10 | 2 |
| 43N 6E | 7 | 101020 | 25469 | | 275 | RG | DO | | | M NICE | 10/10/1987 | | | | |
| 43N 6E | 7 | 101021 | | 1E | 300 | RG | DO | | | K & K WELL DRLG | 10/24/1983 | | | | |
| 43N 6E | 7 | | 24723 | | 272 | RG | DO | | UN | NICE | 10/17/1985 | 70 | 80 | 10 | 4 |
| 43N 6E | 7 | 337512 | 29536 | | 460 | RG | DO | | BR | NICE | 9/27/2000 | 120 | 300 | 25 | 2 |
| 43N 6E | 7 | 101022 | | 1H | 300 | RG | DO | | | K & K WELL DRLG | 10/13/1977 | | | | |
| 43N 6E | 7 | 101023 | 23899 | 1H | 253 | RG | DO | | | G ROSENQUIST | 12/18/1983 | | | | |
| 43N 6E | 7 | 101024 | 24723 | 3B | 272 | RG | DO | | | M NICE | 10/19/1985 | | | | |
| 43N 6E | 7 | 101025 | 23900 | 4H | 244 | RG | DO | | | M NICE | 07/28/1980 | | | | |
| 43N 6E | 7 | 189478 | 26914 | 3D | 255 | RG | DO | | UN | NICE | 08/18/1988 | 60 | 70 | 10 | 4 |
| 43N 6E | 7 | 189481 | | 4H | 57 | RG | DO | | UN | HUEMANN | 03/08/1989 | 15 | 15 | | 2 |
| 43N 6E | 7 | 233233 | *1407 | | 1020 | RG | DO | | BR | H. ABRAHAM | 1928 | | | | |
| 43N 8E | 7 | 233234 | *284 | | 419 | RG | DO | | BR | SILVIUS BROTHERS | 1959 | 89 | | | |
| 43N 6E | 7 | 233237 | | | 149 | RG | DO | | BR | H. ABRAHAM | | | | | |
| 43N 6E | 7 | 233238 | | | 247 | RG | DO | | BR | H. ABRAHAM | | | | | |
| 43N 6E | 7 | 261932 | 32804 | 2D | 247 | RG | DO | DL | UN | NICE | 10/28/1983 | 59 | 70 | | 4 |
| 43N 6E | 7 | 288245 | 34382 | 3A | 340 | RG | DO | DL | BR | NICE | 02/06/1988 | 79 | 89 | | 4 |
| 43N 8E | 7 | 283335 | 34926 | 2B | 245 | RG | DO | DL | BR | COFUNITY WELL & PUMP | 02/12/1997 | 69 | 179 | 10 | 2 |
| 43N 8E | 7 | 304688 | 35677 | 3A | 260 | RG | DO | DL | BR | MARENGO W&P/KELLER | 08/28/1998 | 81 | 139 | 12 | 4 |
| 43N 6E | 7 | 314609 | 36818 | 1B | 460 | RG | DO | DL | BR | COUNTRY WELL & PUMP | 10/01/1999 | 199 | 399 | 10 | 2 |
| 43N 8E | 7 | 337512 | 39538 | 8B | 460 | RG | DO | DL | BR | COUNTRY WELL & PUMP | 9/17/2001 | 119 | 299 | 25 | 2 |
| 43N 8E | 18 | 101075 | | 3A | 240 | RG | DO | | | K & K WELL DRLG | 10/09/1984 | | | | |
| 43N 6E | 18 | | 34554 | | 200 | DO | DO | | BR | NICE | 1/12/1986 | 70 | 80 | | 4 |
| 43N 6E | 18 | | 34880 | | 203 | DO | DO | | BR | NICE | 7/19/1996 | 40 | 180 | 12 | 10 |
| 43N 6E | 18 | 101076 | 26065 | 3C | 238 | RG | DO | | | M NICE | 07/13/1987 | | | | |
| 43N 8E | 18 | 101077 | | 3C | 47 | A | DO | | | M NICE | 1987 | | | | |
| 43N 6E | 18 | 101078 | *23332 | 3C | 280 | RG | DO | | | M JUR AND SON | 12/01/1977 | | | | |
| 43N 6E | 18 | 217050 | 30005 | 3B | 170 | GR | DO | | UN | MARK E NICE | 10/24/1990 | 39 | 50 | | 4 |
| 43N 6E | 18 | 233273 | | | 130 | RG | DO | | UN | H. ABRAHAM | | | | | |
| 43N 6E | 18 | 285956 | | 2H | 197 | RG | DO | DL | UN | KELLER | 1995 | 59 | 69 | | 24 |
| 43N 8E | 18 | 288256 | 34554 | 1H | 200 | RG | DO | DL | BR | NICE | 05/09/1996 | 69 | 79 | | 4 |
| 43N 8E | 18 | 300357 | 35256 | 5H | 240 | RG | DO | DL | BR | COUNTRY W&P/M. NICE | 09/11/1997 | 69 | 179 | 10 | 2 |
| 43N 6E | 18 | 325707 | 37683 | 1F | 190 | RG | DO | DL | BR | COUNTRY WELL & PUMP | 08/16/2000 | 59 | 119 | 10 | 2 |
| 43N 6E | 18 | 344190 | 40182 | 6B | 200 | RG | DO | DL | BR | COUNTRY W&P/M. NICE | 7/15/2002 | 39 | 139 | 22 | 2 |
| 43N 8E | 19 | 101078 | *22546 | 1H | 398 | RG | DO | | | K & K WELL DRLG | 07/11/1975 | | | | |
| 43N 6E | 19 | 101080 | *22109 | 2A | 380 | RG | DO | | | K & K WELL DRLG | 06/ /1974 | | | | |
| 43N 6E | 19 | 101081 | 28208 | 3D | 230 | RG | DO | | | G ROSENQUIST | 08/29/1987 | | | | |
| 43N 6E | 19 | 101082 | | 3E | 137 | C | DO | | | | 1971 | | | | |
| 43N 8E | 19 | 101083 | 23868 | 3F | 218 | RG | DO | | | DUPAGE PUMP | 08/13/1984 | | | | |
| 43N 8E | 19 | 101084 | *23333 | 3H | 280 | RG | DO | | | P BARKER | 06/15/1978 | | | | |
| 43N 6E | 19 | 101085 | | 4G | 280 | RG | DO | | | K & K WELL DRLG | 11/24/1984 | | | | |
| 43N 6E | 19 | 189499 | 30007 | 3A | 300 | RG | DO | | BR | NICE | 10/27/1989 | 50 | 60 | | 4 |
| 43N 6E | 19 | 189502 | 27115 | 3E | 265 | RG | DO | | BR | DUPAGE PUMP | 11/25/1988 | 80 | 80 | | 2 |

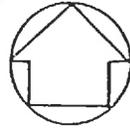
* Denotes County Number Instead of ISGS Number

APPENDICES

APPENDIX A

Soil Borings
Monitoring Well Installation Reports

gravel under & around
power line



N6 PL
HIGH LINE

#10

110 A

#9

5 Acre
EXCEPTION

Existing
Mined Area

#6

#5

#4

#3

37 A

#1

#2

50m should be square

#8

#7

Ralph Metcalf
2018 W. Coral Rd.
Marengo, Illinois

QUANTITIES

RALPH METCALF PROPERTY
20718 W. CORAL ROAD
MARENGO, ILLINOIS

Total Acreage of Farm - 152 acres

Acreage Needed to Preserve Property Line - 19.5

Area Previously Mined - 10 acres *in area not depth*

Total Movable Acreage - 122.5 acres

Total Amount of Overburden - 450,800 cubic yards

Total Amount of Movable Material - 5,751,375 cubic yards

Boring #4

- 0'-2' - overburden
- 2'-8' - fine sand - small gravel
- 8'-16' - medium sand - trace of clay - some small to medium gravel
- 16'-24" - fine clayey sand - some medium gravel - clay @ 20-22' - no sample
- 24' - water
- 24'-32' - medium sand - small gravel - some clay - no sample
- 32'-38' - coarse, gray sand - small gravel - some clay
- 38'-48' - gray clay

END OF BORING

Boring #5

- 0'-1' - overburden
- 1'-8' - fine silty sand - medium gravel - some fractured
- 8'-16' - fine-medium brown sand and small to medium gravel
- 16'-24' - fine brown sand - little medium gravel
- 24' - water
- 24'-32' - silt - trace of small gravel
- 32' - clay
- 32'-40' - gray clay

END OF BORING

Boring #5

- 0'-1' - overburden
- 1'-8' - fine silty sand - some small gravel
- 8'-16' - fine sand - little small gravel
- 16'-24' - silty clay - little small gravel - no sample
- 24'-32' - silty sand - little small gravel - no sample
- 32' - clay
- 32'-40' - gray clay

END OF BORING

Boring #7

- 0'-2' - overburden
- 2'-9' - medium gravel and fine sand
- 8'-16' - fine and medium gravel - little coarse sand
- 16'-17' - same
- 17' - water
- 17'-24' - gray, fine sand and medium gravel; gray and sharp
- 24'-32' - coarse gray sand and fine gray gravel - angular grains
some fine sand @ 28'

Boring #7 (continued)

- 32'-40' - angular fine and medium gravel (gray) - trace of coarse sand - clay seam @ 33' - no sample
- 40'-48' - gray clay
- 44'-48' - brown, dry peat
- 48'-52' - peat
- 52'-56' - gray clay

END OF BORING

Boring #8

- 0'-4' - overburden
- 4'-8' - coarse sand with medium angular gravel
- 8'-16' - coarse sand with medium gravel (sharp)
- 16' - water
- 16'-20' - coarse brown sand - medium brown gravel
- 20'-24' - gray fine and medium gravel - trace of sand
- 24'-30' - gray fine and medium gravel - little sand
- 30' - trace of clay
- 30'-40' - clay

END OF BORING

Boring #9

- 0'-2' - overburden
- 2'-8' - fine sand - with fine and medium gravel
- 8'-16' - fine and medium brown, round gravel - little coarse sand
- 16'-20' - same
- 20'-24' - gray coarse sand with fine gray gravel
- 24'-28' - gray coarse sand with fine gray gravel
- 28'-30' - fine gray sand - trace of medium gray gravel
- 30'-40' - gray clay

END OF BORING

Boring #10

- 0'-8' - overburden (on a hill)
- 8'-12' - same
- 12'-16' - fine sand with fine gravel - round - brown
- 16'-24' - fine-medium gray sand - trace of medium gray gravel
- 24'-28' - gray clay
- 28'-32' - fine gray silty sand
- 32'-36' - coarse gray silty sand - medium gray gravel
- 36'-40' - gray clay
- 40'-48' - gray clay

END OF BORING

overburden is probably nearly the same as above.

This boring was taken on top of an old gravel pit that had been filled in, less than $\frac{1}{2}$ acre in size.

properly was over run
 since test was made - some tile as deep
 as 10-12 ft.

| BORING # | DEPTH OF OVERBURDEN | DEPTH AT WATER | DEPTH AT CLAY | TOTAL DEPTH OF MATERIAL |
|----------|------------------------|-------------------|------------------|----------------------------|
| 1 | 0 | 34 | 34 | 34 |
| 2 | 1 | 26 | 26 | 25 |
| 3 | 2 | 16 | 38 | 36 |
| 4 | 2 | 24 | 38 | 36 |
| 5 | 1 | 24 | 32 | 31 |
| 6 | 1 | 17 | 32 | 31 |
| 7 | 2 | 17 | 40 | 38 |
| 8 | 4 | 16 | 30 | 26 |
| 9 | 2 | 20 | 30 | 28 |
| 10 | 8 | 16 | 36 | 28 |

misleading ——— (8)

34 ——— probably
 should
 be

Average Depth of Overburden - 2.3 feet

Average Depth of Material Above Water - 18.7 feet

Average Depth of Material Below Water - 11.6 feet

Total Average Depth of Material - 31.3 feet

DESCRIPTIVE TERMS

Particle Sizes

| | |
|-----------------|---------------------|
| Boulders | Over 8" diameter |
| Cobbles | 3" - 8" |
| Gravel - Coarse | 1" - 3" |
| Medium | 3/8" - 1" |
| Fine | 2mm (#10) - 3/8" |
| Sand - Coarse | .6mm (#30) - 3/8" |
| Medium | .2mm (#80) - #30 |
| Fine | #200 - #30 |
| Silt | .06mm - .002mm |
| Clay | Smaller than .002mm |

Relative Proportions

| | |
|--------|-------------|
| Trace | 1% - 10% |
| Little | 10% - 20% |
| Some | 20% - 35% |
| And | 25% - 50% |
| With | No Estimate |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Seeman, Guy Well No. _____
 Address 6103 Fairfield Dr. Union IL
 Well address 20419 Demings Dr. Marengo, IL
 Lot 4 Subd Maple Lake Shores ISWS P# 313122
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-G9946-99 Date 03/12/1999
 Water from gravel County McHenry
 at depth 63 to 67 ft. Sec. 13
 Screen: Diam. 4 in. Twp. 43 N
 Length: 4 ft. Slot 15 Rge. 5 E
 Elev. _____



Casing and Liner Pipe NW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 63 |
| | | | |
| | | | |

Size hole below casing: _____ in.
 Static level 12 ft. below casing top which is 1 ft.
 above ground level. Pumping level 20 ft. when pumping at 10
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel | 28 | 30 |
| clay | 33 | 63 |
| gravel | 4 | 67 |
| | | |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-36816-00 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Imber Construction, LTD Well No. _____
 Address 8702 Maple St. Marengo IL
 Well address 20505 Demming Marengo, IL
 Lot 2 Subd Maple Lake Shores ISWS P# 330053
 Driller Keller, Larry License No. 092-7210
 Permit No. H-4610 Date 12/20/2000
 Water from sand/gravel County McHenry
 at depth 72 to 76 ft. Sec. 13
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 15 Rge. 5 E
 Elev. _____



Casing and Liner Pipe NW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC | 0 | 72 |
| 5 | STAINLESS STL SCREEN | 72 | 76 |
| | | | |

Size hole below casing: _____ in.
 Static level 6 ft. below casing top which is 1 ft.
 above ground level. Pumping level 40 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| sand/gravel | 35 | 35 |
| brown stony clay | 20 | 55 |
| brown peat | 5 | 60 |
| gray stony clay | 9 | 69 |
| sand/gravel | 16 | 85 |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-38088-00 13-43N-5E

PATRICK ENGINEERING INC.

BORING NUMBER **MW-1** SHEET **1** OF **1**
 CLIENT **Maple Valley Materials, LLC**
 PROJECT & NO. **Permitting 9418.A0**
 LOCATION **NE side of site**

LOGGED BY **BMS**
 GROUND ELEVATION **855.5**

| ELEVATION | DEPTH (FT) | STRATA | SOIL/ROCK DESCRIPTION | SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN) | BLOW COUNTS | Water Content | | | | | NOTES & TEST RESULTS |
|-----------|------------|--------|--|---|----------------|---------------|---------------------------------------|---|---|----|---|
| | | | | | | PL | Unconfined Compressive Strength (TSF) | | | LL | |
| | | | | | | 1 | 2 | 3 | 4 | 5 | |
| 855.5 | 0.0 | | Black silty clay topsoil | AU-1 0.0-1.0 | | | | | | | |
| | | | | | | | | | | | |
| | | | Tan coarse to medium sand, little coarse to fine gravel, moist, dense | SS-2 3.5-5.0 13" R | 11 19 30 | | | | | | N=49 |
| 849.4 | 6.1 | | | | | | | | | | |
| 848.3 | 7.2 | | | | | | | | | | |
| | | | Tan coarse sand, little fine gravel, trace silt, wet, medium dense | SS-3 8.5-10.0 15" R | 3 11 13 | | | | | | N=24 |
| | | | | | | | | | | | |
| | | | Wet to saturated | SS-4 13.5-15.0 18" R | 23 17 8 | | | | | | 3' blow in Water added to borehole N=25 |
| | | | | | | | | | | | |
| 839.5 | 16.0 | | Gray to pinkish gray silty clay, little coarse to medium sand, stiff, medium plasticity, moist | CL | | | | | | | Water introduced to Augers to prevent blow in |
| | | | | | | | | | | | |
| | | | | SS-5 18.5-20.0 18" R | 4 8 10 | | * | | | | |
| 835.5 | 20.0 | | End of Boring at 20.0' | | | | | | | | |

DRILLING CONTRACTOR **Patrick Drilling**
 DRILLING METHOD **4 1/4" ID HSA 3" O.D. SS**
 DRILLING EQUIPMENT **CME 75 ATV**
 DRILLING STARTED **10/31/02** ENDED **10/31/02**

REMARKS
**Set monitoring well at 20.0'
 15' of screen**

WATER LEVEL (ft.)
 ▽ **9**
 ▽ **9**
 ▽ **7.2** BGS

PATRICK ENGINEERING INC.

BORING NUMBER **MW-2** SHEET **1 OF 1**
 CLIENT **Maple Valley Materials, LLC**
 PROJECT & NO. **Permitting 9418.A0**
 LOCATION **W side of property**

LOGGED BY **BMS**
 GROUND ELEVATION **842.6**

| ELEVATION | DEPTH (FT) | STRATA | SOIL/ROCK DESCRIPTION | SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN) | BLOW COUNTS | Water Content | | | | | NOTES & TEST RESULTS |
|-----------|------------|--------|--|---|----------------|---------------|---|---|---|---|--|
| | | | | | | PL | Unconfined Compressive Strength (TSF) * | | | | |
| | | | | | | 1 | 2 | 3 | 4 | 5 | |
| 842.6 | 0.0 | | Black silty clay topsoil | AU-1 0.0-1.0 | | | | | | | |
| 841.6 | 1.0 | | | | | | | | | | |
| 838.4 | 4.2 | ▽ | Tan coarse to medium sand, little fine gravel, trace silt, moist, medium dense | SS-2 3.5-5.0 11" R | 5 10 16 | | | | | | N=26 |
| 837.8 | 4.8 | ▽ | | | | | | | | | |
| 834.1 | 8.5 | ▽ | Tan coarse to medium sand, little silt, trace fine gravel, wet to saturated, dense | SS-3 8.5-10.0 18" R | 10 23 25 | | | | | | N=48 |
| 831.4 | 11.2 | | | | | | | | | | |
| 826.6 | 16.0 | | Gray medium to fine gravel, little sand, saturated, dense | SS-4 13.5-15.0 10" R | 13 16 18 | | | | | | N=34 |
| 822.6 | 20.0 | | Tan medium sand, trace silt, saturated, dense | SS-5 18.5-20.0 18" R | 17 23 21 | | | | | | N=44 |
| | | | End of Boring at 20.0' | | | | | | | | 2' blow in Water added for head pressure (sample possible blow in) |

DRILLING CONTRACTOR **Patrick Drilling**
 DRILLING METHOD **4 1/4" ID HSA 3" O.D. SS**
 DRILLING EQUIPMENT **CME 75 ATV**
 DRILLING STARTED **10/31/02** ENDED **10/31/02**

REMARKS
Set monitoring well at 20.0' with 15' of screen

WATER LEVEL (ft.)

▽ **8.5**
 ▼ **4.81**
 ▼ **4.20 BGS**

PATRICK ENGINEERING INC.

BORING NUMBER MW-3 **SHEET** 1 OF 1
CLIENT Maple Valley Materials, LLC
PROJECT & NO. Permitting 9418.A0
LOCATION SW corner

LOGGED BY BMS
GROUND ELEVATION 841.4

| ELEVATION | DEPTH (FT) | STRATA | SOIL/ROCK DESCRIPTION | SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN) | BLOW COUNTS | Water Content | | | | | NOTES & TEST RESULTS |
|-----------|------------|--------|---|---|---------------|---------------|---|----|----|----|----------------------|
| | | | | | | PL | Unconfined Compressive Strength (TSF) * | | | LL | |
| | | | | | | 10 | 20 | 30 | 40 | 50 | |
| 841.4 | 0.0 | | Black silty clay topsoil | AU-1 0.0-1.0 | | | | | | | |
| 839.3 | 2.1 | | Tan coarse to medium sand, little to trace fine gravel, moist, very dense | SS-2 3.5-5.0 12" R | 9 29 35 | | | | | | N=64 |
| 834.8 | 7.3 | | Very dense to dense, moist to saturated | SS-3 8.5-10.0 10" R | 8 16 20 | | | | | | N=36 |
| 831.9 | 9.5 | | | SS-4 13.5-15.0 14" R | 5 18 17 | | | | | | N=35 |
| 825.1 | 16.3 | | | SS-5 18.5-20.0 14" R | 7 11 13 | | | | | | N=24 |
| 821.4 | 20.0 | | Tan and gray fine gravel, some coarse to medium sand, medium dense, saturated | GP-SP | | | | | | | |

End of Boring at 20.0'

DRILLING CONTRACTOR Patrick Drilling
DRILLING METHOD 4 1/4" ID HSA 3" O.D. SS
DRILLING EQUIPMENT CME 75 ATV
DRILLING STARTED 10/31/02 **ENDED** 10/31/02

REMARKS
 Set monitoring well at 20.0' with 15' screen

WATER LEVEL (ft.)

▽ 9.5
 ▼ 7.2
 ▼ 7.31 BGS

PATRICK ENGINEERING INC.

MONITORING WELL INSTALLATION REPORT

MW NO. MW-1

PROJ. NO. 9418.A0-2

PROJECT MARENGO GRAVEL PIT PERMITTING

LOCATION MARENGO, ILLINOIS

CLIENT MAPLE VALLEY MATERIALS, L.L.C.

GEOLOGIST BRIAN SNETTEN

DRILLER KEVIN SHAMWAY

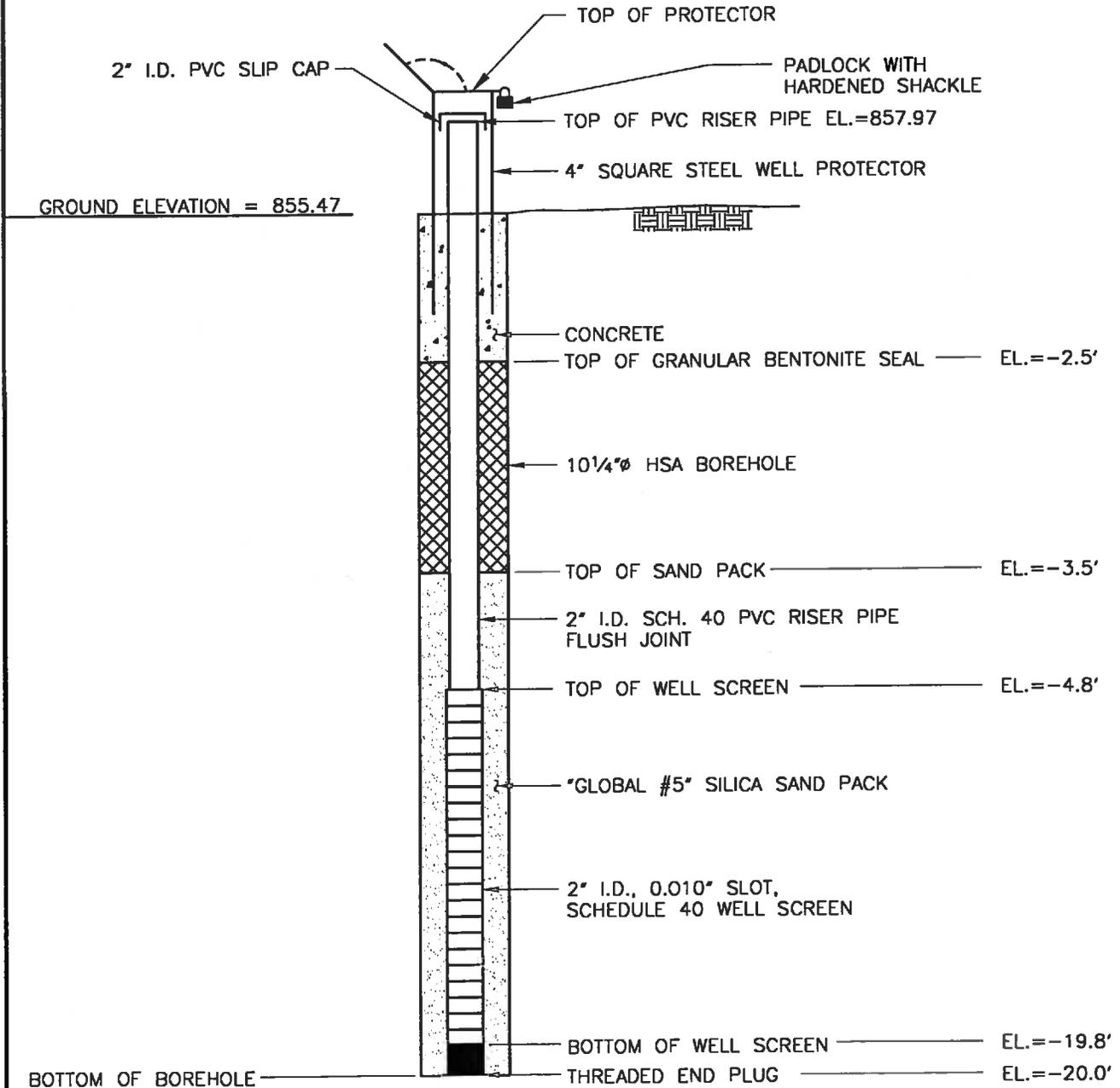
MW NO. MW-1

LOCATION NE SIDE OF

PROPERTY

INSTALLATION DATE 10/31/02

WEATHER CLEAR, LOW 40'S



PATRICK ENGINEERING INC.

**MONITORING WELL
INSTALLATION REPORT**

MW NO. MW-2

PROJ. NO. 9418.A0-2

PROJECT MARENGO GRAVEL PIT PERMITTING

LOCATION MARENGO, ILLINOIS

CLIENT MAPLE VALLEY MATERIALS, L.L.C.

GEOLOGIST BRIAN SNELTEN

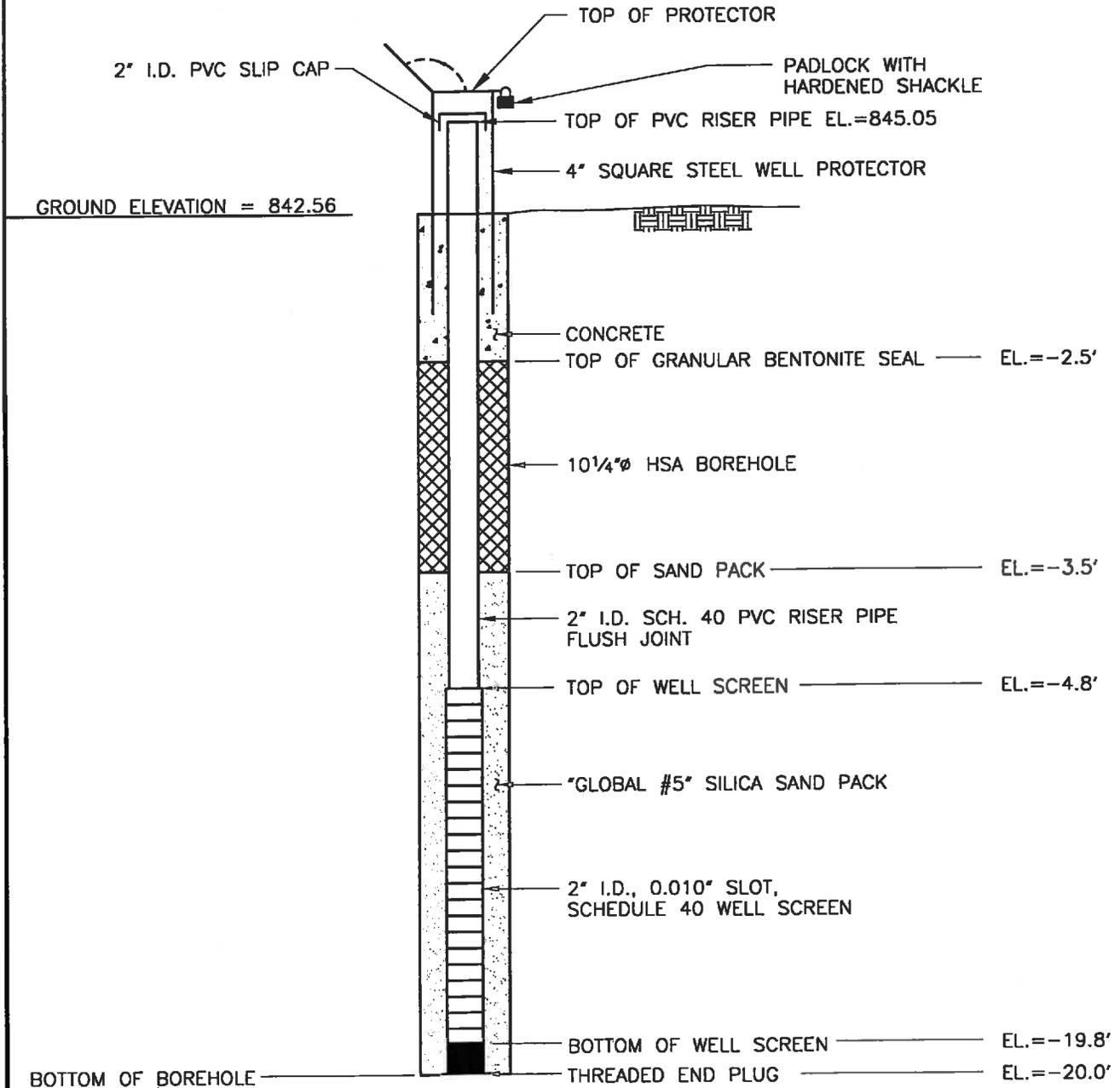
DRILLER KEVIN SHAMWAY

MW NO. MW-2

LOCATION WEST SIDE OF
 PROPERTY

INSTALLATION DATE 10/31/02

WEATHER CLEAR, LOW 40'S



PATRICK ENGINEERING INC.

MONITORING WELL INSTALLATION REPORT

MW NO. MW-3

PROJ. NO. 9418.A0-2

PROJECT MARENGO GRAVEL PIT PERMITTING

LOCATION MARENGO, ILLINOIS

CLIENT MAPLE VALLEY MATERIALS, L.L.C.

GEOLOGIST BRIAN SNELTEN

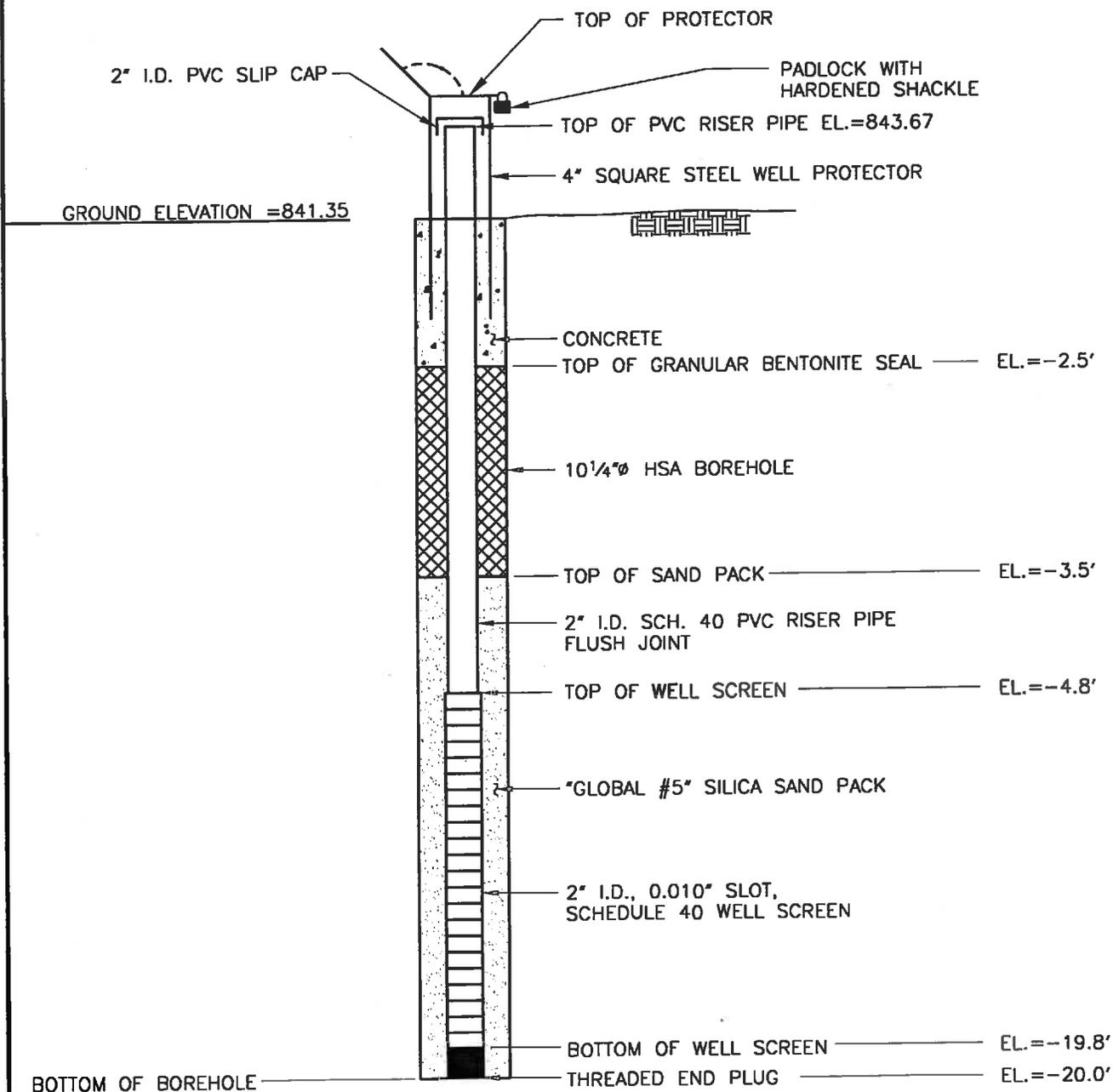
DRILLER KEVIN SHAMWAY

MW NO. MW-3

LOCATION SW CORNER OF
PROPERTY

INSTALLATION DATE 10/31/02

WEATHER CLEAR, LOW 40'S



APPENDIX B1

PRIVATE WATER WELL LOGS
ONE-MILE RADIUS
NEW WELLS 2023

SECTION 7

| Water Well | Top | Bottom |
|---------------------|-----|------------|
| drift | 0 | 268 |
| rock | 268 | 274 |
| Total Depth | | 274 |
| Driller's Log filed | | |

Permit Date:

Permit #:

COMPANY

FARM Stephan, William

DATE DRILLED

NO.

ELEVATION 943DM

COUNTY NO. 00719

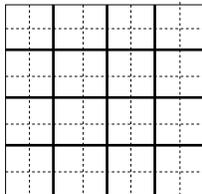
LOCATION SW SW SW

LATITUDE 42.212193

LONGITUDE -88.587666

COUNTY McHenry

API 121110071900



7 - 43N - 6E

ILLINOIS STATE GEOLOGICAL SURVEY

| Water Well | Top | Bottom |
|--|-----|------------|
| red clay | 0 | 90 |
| sand & gravel (dirty) | 90 | 110 |
| gray clay | 110 | 142 |
| good sand & gravel | 142 | 150 |
| Total Depth | | 150 |
| Casing: 5" PVC SDR 21 from 0' to 147' | | |
| 5" SCREEN from 147' to 150' | | |
| Screen: 3' of 5" diameter 30 slot | | |
| Grout: BENTONITE from 0 to 147. | | |
| Water from gravel at 147' to 150'. | | |
| Static level 70' below casing top which is 2' above GL | | |
| Pumping level 120' when pumping at 15 gpm for 2 hours | | |
| Permanent pump installed at 120' | | |
| on October 18, 1993, with a capacity of 15 gpm | | |
| Owner Address: , | | |
| Address of well: 7878 Somerset | | |
| Marengo, IL | | |
| Location source: Aerial Photograph verified | | |
| Verified by: VJA on | | |
| November 6, 2012. | | |

Permit Date:

Permit #: 111-F60

COMPANY Binz, David Joseph

FARM Walters, Bruce

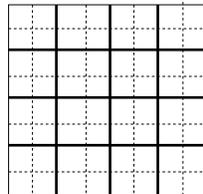
DATE DRILLED October 15, 1993 NO.

ELEVATION COUNTY NO. 44864

LOCATION SW NE SE

LATITUDE 42.215516 LONGITUDE -88.574051

COUNTY McHenry API 121114486400 7 - 43N - 6E



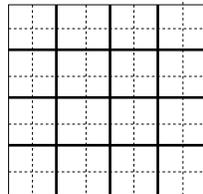
ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| brown stoney clay | 0 | 112 |
| black peat | 112 | 128 |
| sand/gravel | 128 | 141 |
| Total Depth | | 141 |
| Casing: 5" PVC from 0' to 136' 5" SS SCREEN from 136' to 140' | | |
| Screen: 4' of 5" diameter 25 slot | | |
| Grout: BENTONITE from 0 to 100. | | |
| Water from gravel at 136' to 140'. | | |
| Static level 73' below casing top which is 1' above GL | | |
| Pumping level 80' when pumping at 20 gpm for 3 hours | | |
| Permanent pump installed at 120' on October 7, 2002, with a capacity of 20 gpm | | |
| Remarks: driller's est well yield 70 gpm | | |
| Owner Address: 18570 Stevens Rd. Marengo, IL | | |
| Address of well: 19303 West Coral Rd. Marengo, IL | | |
| Location source: Aerial Photograph verified Verified by: VJA on August 16, 2010. | | |

Permit Date: May 30, 2002

Permit #: H-8657

COMPANY Keller, Larry
 FARM Volkening, Bruce & Vicki
 DATE DRILLED October 4, 2002 NO.
 ELEVATION COUNTY NO. 40329
 LOCATION SW SE SE
 LATITUDE 42.212993 LONGITUDE -88.5741
 COUNTY McHenry API 121114032900



7 - 43N - 6E

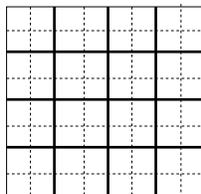
ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| brown stoney clay | 2 | 66 |
| sand gravel | 66 | 71 |
| brown stoney clay | 71 | 150 |
| brown peat | 150 | 160 |
| sand gravel | 160 | 168 |
| brown stoney clay | 168 | 268 |
| limestone | 268 | 330 |
| Total Depth | | 330 |
| Casing: 5" PVC from 0' to 247' | | |
| 5" STEEL from 247' to 268' | | |
| Grout: BENTONITE from 0 to 100. | | |
| Water from limestone at ' to '. | | |
| Static level 108' below casing top which is 1' above GL | | |
| Pumping level 160' when pumping at 20 gpm for 3 hours | | |
| Permanent pump installed at 240' | | |
| on November 18, 2003, with a capacity of 20 gpm | | |
| Remarks: driller's est well yield 20 gpm | | |
| Owner Address: 584 Sleeping Bear Tr. Gilberts, IL | | |
| Address of well: 7566 Somerset Drive | | |
| Marengo, IL | | |
| Add'l loc. info: Lot: 11 Subdivision: Somerset Woods | | |
| Location source: Aerial Photograph verified Verified by: VJA on August | | |
| 16, 2010. | | |

Permit Date: June 6, 2001

Permit #: H-5639

COMPANY Keller, Larry
 FARM Sanford, Charles & Maribeth
 DATE DRILLED October 31, 2002 NO.
 ELEVATION COUNTY NO. 40931
 LOCATION SE SW NE
 LATITUDE 42.219177 LONGITUDE -88.575923
 COUNTY McHenry API 121114093100



7 - 43N - 6E

ILLINOIS STATE GEOLOGICAL SURVEY

| Irrigation Well | Top | Bottom |
|---|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 315 |
| limestone | 315 | 680 |
| Total Depth | | 680 |
| Casing: 8" STEEL from 0' to 315' | | |
| Grout: BAROID from 0 to 315. | | |
| Water from limestone at 315' to 680'. | | |
| Static level 100' below casing top which is 1' above GL | | |
| Pumping level 440' when pumping at 40 gpm for 2 hours | | |
| Permanent pump installed at 440' | | |
| on May 14, 2003, with a capacity of 40 gpm | | |
| Remarks: driller's est well yield 100 gpm | | |
| Owner Address: 31 W 060 Bartlett Rd. Bartlett, IL | | |
| Address of well: 19919 Coral Rd. | | |
| Union, IL | | |
| Location source: Location from permit | | |

Permit Date: April 16, 2003

Permit #:

COMPANY Nice, Mark E.

FARM Sebert Landscaping Co.

DATE DRILLED May 7, 2003

NO.

ELEVATION 0

COUNTY NO. 41194

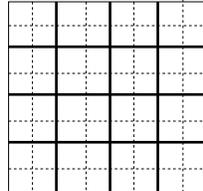
LOCATION SE SW SW

LATITUDE 42.212206

LONGITUDE -88.585279

COUNTY McHenry

API 121114119400



7 - 43N - 6E

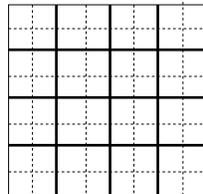
ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|------------|
| brown clay | 0 | 15 |
| gray clay | 15 | 120 |
| gray clay & gravel | 120 | 141 |
| yellow gravel | 141 | 147 |
| Total Depth | | 147 |
| Casing: 5" PVC from 0' to 143' 5.625" STAINLESS STL SCREEN from 143' to 147' Screen: 4' of 5.6" diameter 25 slot Grout: WYOBEN from 0 to 120. Water from yellow gravel at 141' to 147'. Static level 90' below casing top which is 1' above GL Pumping level 105' when pumping at 10 gpm for 6 hours Permanent pump installed at 120' on September 20, 2005, with a capacity of 10 gpm Remarks: driller's est. well yield 15 gpm Owner Address: 2012 Red Barn Rd. Woodstock, IL Address of well: 7901 Somerset Marengo, IL Add'l loc. info: Lot: 2 Subdivision: Hamilton Location source: Tax record verified Verified by: VJA on August 16, 2010. | | |

Permit Date: February 10, 2005

Permit #: 111-007

COMPANY Huemann, Joseph J.
FARM Meranda, Forrest & Penny
DATE DRILLED September 20, 2005 **NO.**
ELEVATION **COUNTY NO.** 42309
LOCATION NW SE SE
LATITUDE 42.214497 **LONGITUDE** -88.573669
COUNTY McHenry **API** 121114230900



7 - 43N - 6E

SECTION 11

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|---|
| topsoil | 0 | 2 |
| sandy clay | 2 | 173 |
| dark shale | 173 | 200 |
| white limestone | 200 | 380 |
| Total Depth | | 380 |
| Casing: 5" PVC from 0' to 179' | | |
| 5" STEEL from 179' to 190' | | |
| Grout: BENTONITE from 0 to 189. | | |
| Water from limestone at 200' to 380'. | | |
| Static level 120' below casing top which is 1' above GL | | |
| Pumping level 180' when pumping at 15 gpm for 2 hours | | |
| Permanent pump installed at 260' | | |
| on September 13, 2018, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20 gpm | | |
| Owner Address: 1550 W. Bartlett Rd. Marengo, IL | | |
| Address of well: 21215 Rosewood Dr. | | |
| Marengo, IL 60152 | | |
| Add'l loc. info: Lot: 1 Subdivision: Wildwood | | |
| Location source: Global Positioning System verified | | Verified by: VJA on February 5, 2019. |

Permit Date: December 8, 2016

Permit #: 111-295

COMPANY Nice, Mark E.

FARM Sebert, Jeff

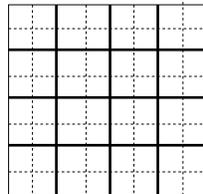
DATE DRILLED September 12, 2018 NO.

ELEVATION COUNTY NO. 45437

LOCATION SW NE SE

LATITUDE 42.21665 LONGITUDE -88.613267

COUNTY McHenry API 121114543700 11 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|---------------------------------------|
| topsoil | 0 | 2 |
| br stoney clay | 2 | 142 |
| sand/gravel | 142 | 147 |
| brown stoney clay | 147 | 244 |
| limestone | 244 | 365 |
| Total Depth | | 365 |
| Casing: 5" PVC from 0' to 230' | | |
| 5" STEEL from 230' to 245' | | |
| Grout: BENTONITE from 0 to 245. | | |
| Water from limestone at 245' to 365'. | | |
| Static level 120' below casing top which is 1' above GL | | |
| Pumping level 140' when pumping at 10 gpm for 3 hours | | |
| Permanent pump installed at 200' | | |
| on September 1, 2017, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20 gpm | | |
| Owner Address: 7 N. Meadow Ct. South Barrington, IL | | |
| Address of well: 7211 S. Rt. 23 | | |
| Marengo, IL 60152 | | |
| Location source: Global Positioning System verified | | Verified by: VJA on July 16, 2018. |

Permit Date: August 15, 2017

Permit #: 111-021

COMPANY Keller, Larry

FARM Boyle, John

DATE DRILLED August 25, 2017

NO.

ELEVATION

COUNTY NO. 45687

LOCATION NE NE NE

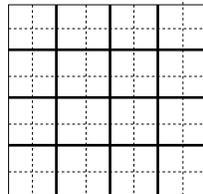
LATITUDE 42.224483

LONGITUDE -88.6103

COUNTY McHenry

API 121114568700

11 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|--|-----------|
| topsoil | 0 | 2 |
| clay & gravel | 2 | 20 |
| clay & gravel | 20 | 65 |
| clay | 65 | 88 |
| sand & gravel | 88 | 96 |
| Total Depth | | 96 |
| Casing: 5" PVC SDR 21 ASTM from 0' to 92' 5" SCREEN/SS from 92' to 96' Screen: 92' of 5" diameter 96 slot Grout: BENTONITE/SLURRY from 0 to 89. Water from gravel at 92' to 96'. Static level 33' below casing top which is 1' above GL Pumping level 37' when pumping at 20 gpm for 3 hours Permanent pump installed at 40' on May 11, 2020, with a capacity of 10 gpm Remarks: Drillers Estimated Well Yield 20 gpm Owner Address: 206 E Jefferson Ave Hampshire, IL Address of well: 7619 Acorn Lane Marengo, IL Location source: Global Positioning System verified | | |
| | Verified by: VJA on December 11, 2020. | |

Permit Date: August 16, 2019

Permit #: S201907

COMPANY Huemann, Joseph J.

FARM Iamirand, Kevin

DATE DRILLED April 30, 2020

NO.

ELEVATION 15

COUNTY NO. 46017

LOCATION NE NW SE

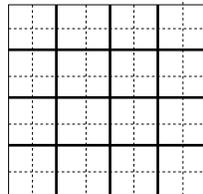
LATITUDE 42.217765

LONGITUDE -88.614232

COUNTY McHenry

API 121114601700

11 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Irrigation Well | Top | Bottom |
|--|-----|-----------|
| fine to coarse gravel | 0 | 10 |
| brown clay | 10 | 15 |
| fine to coarse gravel | 15 | 56 |
| brown clay | 56 | 58 |
| embedded clay | 58 | 77 |
| Total Depth | | 77 |
| Casing: 12" PLAIN STEEL from 0' to 52' 12" STEEL SCREEN from 52' to 77' | | |
| Screen: 25' of 12" diameter 50 slot | | |
| Grout: BENTONITE from 0 to 2. | | |
| Static level 22' below casing top which is ' above GL | | |
| Pumping level ' when pumping at 823 gpm for hours | | |
| Owner Address: 801 Clinton Palace River Forest, IL | | |
| Location source: Location from permit | | |

Permit Date: May 12, 1986

Permit #: 123618

COMPANY Grosch, Wayne A.

FARM O'Brien, Dan

DATE DRILLED May 14, 1986

NO.

ELEVATION

COUNTY NO. 25086

LOCATION SW NE SW

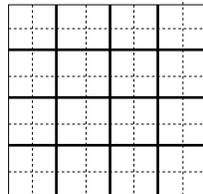
LATITUDE 42.215965

LONGITUDE -88.621865

COUNTY McHenry

API 121112508600

11 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 132 |
| dark gray shale | 132 | 170 |
| limestone | 170 | 220 |
| Total Depth | | 220 |
| Casing: 5" PVC F480 from 0' to 125' | | |
| 5" STEEL A53B from 125' to 146' | | |
| Grout: BAROID from 0 to 145. | | |
| Water from limestone at 170' to 220'. | | |
| Static level 60' below casing top which is 1' above GL | | |
| Pumping level 140' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 140' | | |
| on September 21, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 10-15 gpm | | |
| Owner Address: 21610 Pleasant Grove Rd. Marenco, IL | | |
| Address of well: same as above | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 24, 2009. | | |

Permit Date: September 14, 2004

Permit #: 111-078

COMPANY Nice, Mark E.

FARM Fodor, Mike

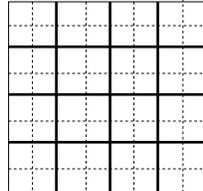
DATE DRILLED September 16, 2004 NO.

ELEVATION COUNTY NO. 41805

LOCATION SE SE NW

LATITUDE 42.218567 LONGITUDE -88.619057

COUNTY McHenry API 121114180500 11 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|---------------------------------------|------------|
| topsoil | 0 | 3 |
| brown stoney clay | 3 | 18 |
| sand & gravel | 18 | 70 |
| brown stoney clay | 70 | 95 |
| sand & gravel | 95 | 101 |
| brown stoney clay | 101 | 162 |
| green stoney clay | 162 | 170 |
| brown stoney clay | 170 | 181 |
| gray stoney clay | 181 | 185 |
| limestone | 185 | 237 |
| Total Depth | | 237 |
| Casing: 5" PVC from 0' to 164' 5" STEEL from 165' to 185' | | |
| Grout: BENTONITE from 0 to 80. | | |
| Water from limestone at 185' to 237'. | | |
| Static level 64' below casing top which is 1' above GL | | |
| Pumping level 69' when pumping at 12 gpm for 3 hours | | |
| Permanent pump installed at 100' on September 19, 2006, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 75 gpm | | |
| Owner Address: 1012 Kishwaukee St. Marengo, IL | | |
| Address of well: 21813 Pleasant Grove Rd. Marengo, IL | | |
| Location source: Global Positioning System verified | Verified by: VJA on April 5, 2010. | |

Permit Date: November 2, 2005

Permit #: 111-082

COMPANY Keller, Larry

FARM Kantor, Jane & Michael

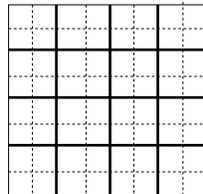
DATE DRILLED September 15, 2006 NO.

ELEVATION COUNTY NO. 42995

LOCATION SE SW NW

LATITUDE 42.220183 LONGITUDE -88.624317

COUNTY McHenry API 121114299500 11 - 43N - 5E



SECTION 12

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|---|------------|
| br stoney clay | 0 | 10 |
| sand/gravel | 10 | 20 |
| br stoney clay | 20 | 110 |
| sand/gravel | 110 | 117 |
| br peet | 117 | 128 |
| sand/gravel | 128 | 136 |
| Total Depth | | 136 |
| Casing: 5" PVC from 0' to 132' 5" SCREEN from 132' to 136' Screen: 4' of 5" diameter 20 slot Grout: BENTONITE from 0 to 100. Water from sand/gravel at 132' to 136'. Static level 66' below casing top which is 1' above GL Pumping level 80' when pumping at 10 gpm for 2 hours Permanent pump installed at 100' on December 15, 2009, with a capacity of 10 gpm Remarks: Driller's Estimated Well Yield 40 gpm Owner Address: 21018 Coral Rd. Marenco, IL Address of well: same as above Add'l loc. info: Lot: 1 Subdivision: Rockwood Location source: Global Positioning System verified | | |
| | Verified by: VJA on February 5, 2019. | |

Permit Date: December 14, 2009

Permit #: 111-417

COMPANY Keller, Larry

FARM Webster, Jeff`

DATE DRILLED December 14, 2009

NO.

ELEVATION

COUNTY NO. 45763

LOCATION SW NW SW

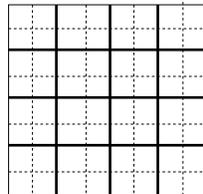
LATITUDE 42.21601

LONGITUDE -88.60828

COUNTY McHenry

API 121114576300

12 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|---|------------|
| top soil | 0 | 2 |
| brown clay | 2 | 21 |
| gray clay w/ sand seams | 21 | 141 |
| gray sand w/ gravel | 141 | 154 |
| Total Depth | | 154 |
| Casing: 5" SDR 21 F 480 from 0' to 150' 5" SCREEN from 150' to 154' Screen: 4' of 5" diameter .02 slot Grout: BENTONITE from 0 to 150. Water from sand w/ gravel at 150' to 154'. Static level 84' below casing top which is 1' above GL Pumping level 98' when pumping at 35 gpm for 1 hour Permanent pump installed at 120' on May 19, 2022, with a capacity of 10 gpm Remarks: Driller's Estimated Well Yield 35 gpm Owner Address: 9014 Voss Rd Marengo, IL Address of well: 20720 W Coral Rd Marengo, IL Location source: Global Positioning System verified | | |
| | Verified by: VJA on October 1, 2022. | |

Permit Date: February 2, 2021

Permit #: 111-21-

COMPANY Smith, Allen E.

FARM Ringwood Holdings/Grismer

DATE DRILLED April 19, 2022

NO.

ELEVATION

COUNTY NO. 46330

LOCATION SW NE SW

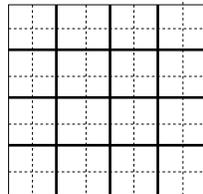
LATITUDE 42.215656

LONGITUDE -88.602303

COUNTY McHenry

API 121114633000

12 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|--|------------|
| top soil | 0 | 2 |
| brown stoney clay | 2 | 58 |
| sand fine gravel | 58 | 74 |
| gray clay | 74 | 108 |
| sand/gravel | 108 | 118 |
| Total Depth | | 118 |
| Casing: 5" PVC CERTILOK from 0' to 114' 5" SCREEN from 114' to 118' Screen: 4' of 5" diameter 20 slot Grout: BENTONITE from 0 to 80. Water from sand/gravel at 114' to 118'. Static level 66' below casing top which is 1' above GL Pumping level 66' when pumping at 15 gpm for 2 hours Permanent pump installed at 100' on October 24, 2022, with a capacity of 15 gpm Remarks: Driller's Estimated Well Yield 30 gpm Owner Address: 20120 Coral Rd Marenco, IL Address of well: same as above Location source: Global Positioning System verified | | |
| | Verified by: VJA on August 1, 2023. | |

Permit Date: October 19, 2022

Permit #: 111-22-

COMPANY Keller, Larry

FARM Luedtke, Kevin

DATE DRILLED October 21, 2022

NO.

ELEVATION

COUNTY NO. 46479

LOCATION NE SE SE

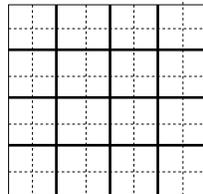
LATITUDE 42.214444

LONGITUDE -88.590833

COUNTY McHenry

API 121114647900

12 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 17 |
| sand gravel | 17 | 24 |
| clay | 24 | 110 |
| sand gravel | 110 | 135 |
| clay | 135 | 170 |
| sand gravel | 170 | 190 |
| rock | 190 | 208 |
| shale | 208 | 220 |
| Total Depth | | 220 |
| Casing: 5" PLASTIC from 0' to 190' | | |
| Size hole below casing: 5" | | |
| Water from shale at 50' to 220'. | | |
| Static level 50' below casing top which is 1' above GL | | |
| Pumping level 147' when pumping at 40 gpm for 4 hours | | |
| Permanent pump installed at 147' | | |
| on , with a capacity of gpm | | |
| Driller's Log filed | | |
| Owner Address: Riley. IL | | |
| Address of well: 20307 Coral Rd. | | |
| Marengo, IL | | |
| Add'l loc. info: Lot: 43 Subdivision: Coral Woods | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on October | | |
| 1, 2009. | | |

Permit Date: October 6, 1975

Permit #: 41824

COMPANY Knierim, James

FARM Sarko, James

DATE DRILLED April 20, 1976

NO.

ELEVATION

COUNTY NO. 22761

LOCATION NW SE SE

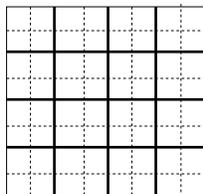
LATITUDE 42.213429

LONGITUDE -88.593453

COUNTY McHenry

API 121112276100

12 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-----------|
| clay | 0 | 50 |
| gravel | 50 | 75 |
| Total Depth | | 75 |
| Casing: 5" 200# PVC from 0' to 71' | | |
| Screen: 4' of 5" diameter 20 slot | | |
| Size hole below casing: 7.87" | | |
| Water from gravel at 50' to 75'. | | |
| Static level 57' below casing top which is 1' above GL | | |
| Pumping level 60' when pumping at 15 gpm for 3 hours | | |
| Permanent pump installed at 71' | | |
| on , with a capacity of gpm | | |
| Owner Address: Kishwaukee Valley Rd. Woodstock, IL | | |
| Address of well: 7702 Hill Rd. | | |
| Marengo, IL | | |
| Add'l loc. info: Lot: 8 Subdivision: Coral Woods | | |
| Location source: Aerial Photograph verified | | |
| Verified by: VJA on August 20, 2012. | | |

Permit Date: May 15, 1979

Permit #: 85626

COMPANY Huemann, William F.

FARM Brokaw, Warren

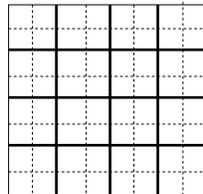
DATE DRILLED September 13, 1979 NO.

ELEVATION COUNTY NO. 23536

LOCATION NE NE SE

LATITUDE 42.217287 LONGITUDE -88.590537

COUNTY McHenry API 121112353600 12 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| clay | 0 | 200 |
| shale | 200 | 205 |
| rock | 205 | 260 |
| Total Depth | | 260 |
| Casing: 5" PLASTIC from 0' to 202' | | |
| Grout: CUTTINGS from 0 to 0. | | |
| Size hole below casing: 5" | | |
| Water from rock at 70' to 260'. | | |
| Static level 70' below casing top which is 1' above GL | | |
| Pumping level 140' when pumping at gpm for hours | | |
| Permanent pump installed at 140' | | |
| on June 16, 1983, with a capacity of gpm | | |
| Remarks: owner to sample, well chlorinated | | |
| Driller's Log filed | | |
| Owner Address: 9220 Fairway Lane Marenco, IL | | |
| Add'l loc. info: Lot: 10 Subdivision: Coral Woods | | |
| Location source: Platbook verified Verified by: VJA on September 30, 2009. | | |

Permit Date: April 8, 1983

Permit #: 106714

COMPANY Knierim, Phil

FARM Carmichael Const.

DATE DRILLED May 31, 1983

NO.

ELEVATION

COUNTY NO. 23886

LOCATION SE NE SE

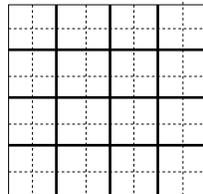
LATITUDE 42.215748

LONGITUDE -88.590114

COUNTY McHenry

API 121112388600

12 - 43N - 5E



SECTION 13

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-----------|
| clay sand gravel | 0 | 10 |
| sand gravel | 10 | 40 |
| clay | 40 | 62 |
| black dirt | 62 | 64 |
| sand gravel | 64 | 75 |
| Total Depth | | 75 |
| Casing: 5" BLK 15# ASTM A53B from -3' to 72' | | |
| Screen: 3' of 4" diameter 15 slot | | |
| Grout: CASING SEAL from 0 to 72. | | |
| Water from sand & gravel at 72' to 75'. | | |
| Static level 25' below casing top which is 3' above GL | | |
| Pumping level 43' when pumping at 18 gpm for hours | | |
| Owner Address: 5815 Willow Ct. Crvstal Lake, IL | | |
| Address of well: 20302 Demings Dr. Marengo, IL | | |
| Add'l loc. info: Lot: 12 Subdivision: Maple Lake Shores | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 30, 2009. | | |

Permit Date: October 9, 1996

Permit #: 111-G43

COMPANY Howe, Robert E. Jr.

FARM Moen, Roger

DATE DRILLED April 4, 1997

NO.

ELEVATION

COUNTY NO. 34919

LOCATION NE NW SE

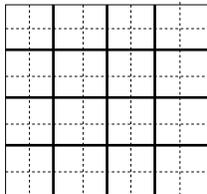
LATITUDE 42.203948

LONGITUDE -88.594113

COUNTY McHenry

API 121113491900

13 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|--|
| top soil | 0 | 2 |
| sand & gravel | 2 | 20 |
| clay | 20 | 35 |
| clay & boulders | 35 | 50 |
| gravel | 50 | 60 |
| Total Depth | | 60 |
| Casing: 5" PVC SDR 21 GLUE from 0' to 56' 5" K PACKER from 56' to 56' 4" SCREEN from 56' to 60' Screen: 4' of 4" diameter .02 slot Grout: BENTONITE from 0 to 50. Water from gravel at 50' to 60'. Static level 30' below casing top which is 1' above GL Pumping level 33' when pumping at 10 gpm for 2 hours Permanent pump installed at 40' on March 3, 2020, with a capacity of 10 gpm Remarks: Drillers Estimated Well Yield 10 gpm Owner Address: 9003 S High Rd Marenco, IL Address of well: same as above Location source: Global Positioning System verified | | |
| | | Verified by: VJA on December 11, 2020. |

Permit Date: October 24, 2019

Permit #: 111-19-

COMPANY Nice, Mark E.

FARM Kushner, Brian

DATE DRILLED February 12, 2020

NO.

ELEVATION

COUNTY NO. 46014

LOCATION NW SE SE

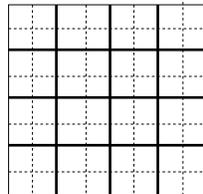
LATITUDE 42.19907

LONGITUDE -88.592974

COUNTY McHenry

API 121114601400

13 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|---|
| sticky gray clay | 47 | 66 |
| coarse sand, gravel and cobble | 0 | 67 |
| coarse gray sand w/ gravel | 66 | 82 |
| Total Depth | | 82 |
| Casing: 5" SDR 21 ASTM from 0' to 78' 5" SCREEN from 78' to 82' | | |
| Screen: 4' of 5" diameter .02 slot | | |
| Grout: BENTONITE from 0 to 78. | | |
| Water from coarse sand at 78' to 82'. | | |
| Static level 15' below casing top which is 1' above GL | | |
| Pumping level 23' when pumping at 35 gpm for 1 hour | | |
| Permanent pump installed at 40' on April 15, 2022, with a capacity of 15 gpm | | |
| Remarks: Driller's Estimated Well Yield 35 gpm | | |
| Owner Address: 1522 Jarvis Ave Elk Grove Village, IL | | |
| Address of well: 20419 Delks Dr Marengo, IL | | |
| Location source: Global Positioning System verified | | Verified by: VJA on October 1, 2022. |

Permit Date: April 19, 2021

Permit #: 111-21-

COMPANY Smith, Allen E.

FARM Tucci, Carmine

DATE DRILLED April 12, 2022

NO.

ELEVATION 859GL

COUNTY NO. 46331

LOCATION NW SW SE

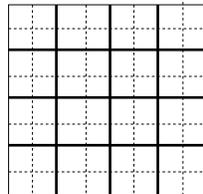
LATITUDE 42.200528

LONGITUDE -88.596536

COUNTY McHenry

API 121114633100

13 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|--|-----------|
| top soil | 0 | 1 |
| brown clay | 1 | 3 |
| sand/gravel | 3 | 34 |
| gray clay | 34 | 58 |
| sand/gravel | 58 | 67 |
| Total Depth | | 67 |
| Casing: 5" PVC CERTILOK SDR 17 from 0' to 63' 5" SCREEN from 63' to 67' Screen: 4' of 5" diameter 20 slot Grout: BENTONITE from 0 to 50. Water from sand/gravel at 63' to 67'. Static level 2' below casing top which is 1' above GL Pumping level 2' when pumping at 10 gpm for 2 hours Permanent pump installed at 20' on February 8, 2023, with a capacity of 15 gpm Remarks: Driller's Estimated Well Yield 60 gpm Owner Address: 6516 Fairfax Ct C'ville, IL Address of well: 9206 S Hill Rd Marengo, IL Location source: Global Positioning System verified | | |
| | Verified by: VJA on August 1, 2023. | |

Permit Date: September 7, 2021

Permit #: 111-025

COMPANY Keller, Larry

FARM J Novalinski Trust

DATE DRILLED November 29, 2022

NO.

ELEVATION

COUNTY NO. 46480

LOCATION SW SW SE

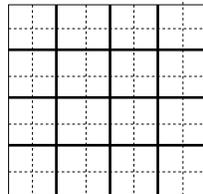
LATITUDE 42.197778

LONGITUDE -88.597222

COUNTY McHenry

API 121114648000

13 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| clay | 0 | 50 |
| gravel | 50 | 55 |
| clay | 55 | 80 |
| sand | 80 | 115 |
| hard clay | 115 | 150 |
| broken limestone/limestone | 150 | 169 |
| Total Depth | | 169 |
| Casing: 5" ASTM 53 T/C from -1' to 153' | | |
| Water from limestone at 153' to 169'. | | |
| Static level 30' below casing top which is 1' above GL | | |
| Pumping level 47' when pumping at 15 gpm for 4 hours | | |
| Permanent pump installed at 80' | | |
| on February 16, 2023, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 40+ gpm | | |
| Owner Address: 10800 Alleghany Pass Huntley, IL | | |
| Address of well: 8909 S Hill Rd | | |
| Marengo, IL 60152 | | |
| Location source: Aerial Photograph verified | | |
| Verified by: VJA on August 1, 2023. | | |

Permit Date: February 9, 2022

Permit #: 111-21-

COMPANY Jason Jablonski

FARM Weinberg, Ryan

DATE DRILLED February 10, 2023

NO.

ELEVATION

COUNTY NO. 46481

LOCATION NW SE SE

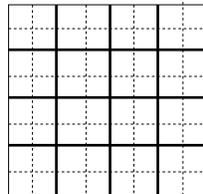
LATITUDE 42.199477

LONGITUDE -88.592257

COUNTY McHenry

API 121114648100

13 - 43N - 5E



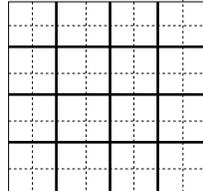
ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-----------|
| top soil | 0 | 3 |
| coarse gravel | 3 | 50 |
| hard clay | 50 | 60 |
| gravel | 60 | 64 |
| Total Depth | | 64 |
| Casing: 5" SDR 21 CERTA LOK from -1' to 60' 4" SCREEN from ' to ' | | |
| Screen: 4' of 4" diameter slot | | |
| Grout: BENTONITE from to . | | |
| Water from sand/gravel at 60' to 64'. | | |
| Static level 15' below casing top which is 1' above GL | | |
| Pumping level 58' when pumping at 12 gpm for 4 hours | | |
| Permanent pump installed at 55' on March 3, 2023, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 12 gpm | | |
| Owner Address: 821 E Grant Hwy #F Marengo, IL | | |
| Address of well: 20411 Delks Dr Marengo, IL | | |
| Location source: Aerial Photograph verified Verified by: VJA on October 1, 2023. | | |

Permit Date: August 30, 2022

Permit #: 111-239

COMPANY Jason Jablonski
 FARM Brackmann Construction
 DATE DRILLED February 18, 2023 NO.
 ELEVATION COUNTY NO. 46547
 LOCATION NW SW SE
 LATITUDE 42.200804 LONGITUDE -88.595911
 COUNTY McHenry API 121114654700



13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 6 |
| gravel,boulders,sand | 6 | 14 |
| clay | 14 | 176 |
| broken limestone | 176 | 208 |
| Total Depth | | 208 |
| Casing: 5" PVC 2.87 from 0' to 165' | | |
| 5" GALV. 15 from 165' to 208' | | |
| Size hole below casing: 5" | | |
| Water from limestone at ' to 208'. | | |
| Static level 75' below casing top which is 1' above GL | | |
| Pumping level 75' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 120' | | |
| on May 30, 1988, with a capacity of 10 gpm | | |
| Remarks: well capacity 50 gpm | | |
| Owner Address: S. Hill Rd. Marenqo, IL | | |
| Add'l loc. info: Lot: 18 Subdivision: Coral Woods | | |
| Location source: Tax record verified Verified by: VJA on September 24, 2009. | | |

Permit Date: October 1, 1987

Permit #: 135920

COMPANY Pilgard, Peter

FARM Bittenbender, Dan L.

DATE DRILLED April 30, 1988

NO.

ELEVATION

COUNTY NO. 26341

LOCATION SE NE NE

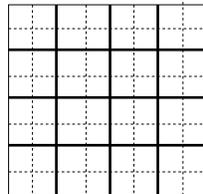
LATITUDE 42.209621

LONGITUDE -88.590115

COUNTY McHenry

API 121112634100

13 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| red clay- gravel | 0 | 40 |
| red clay | 40 | 138 |
| hardpan | 138 | 145 |
| Total Depth | | 145 |
| Casing: 5" PVC 200 LBS from -1' to 145' | | |
| Grout: BENTONITE from 0 to 45. | | |
| Size hole below casing: 5" | | |
| Water from hardpan at 138' to 145'. | | |
| Static level 30' below casing top which is 1' above GL | | |
| Pumping level 50' when pumping at 10 gpm for 1 hour | | |
| Permanent pump installed at 80' | | |
| on September 9, 1994, with a capacity of 10 gpm | | |
| Owner Address: 935 Sandpiper Bartlett, IL | | |
| Address of well: 8718 Hill Road | | |
| Marengo, IL | | |
| Add'l loc. info: Lot: 27 Subdivision: Bartletts Coral Wood | | |
| Location source: Aerial Photograph verified | | |
| Verified by: VJA on November 6, 2012. | | |

Permit Date: May 13, 1994

Permit #: 111-F84

COMPANY Efflandt, Robert

FARM Carter, Richard

DATE DRILLED September 2, 1994

NO.

ELEVATION

COUNTY NO. 44865

LOCATION SE NE SE

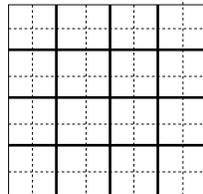
LATITUDE 42.20172

LONGITUDE -88.589767

COUNTY McHenry

API 121114486500

13 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| brown stoney clay | 0 | 62 |
| sand / gravel | 62 | 65 |
| brown stoney clay | 65 | 92 |
| gray clay | 92 | 151 |
| limestone | 151 | 363 |
| Total Depth | | 363 |
| Casing: 5" PVC from 0' to 141' 5" STEEL from 141' to 151' Grout: BENTONITE from 0 to 100. Water from limestone at 151' to 363'. Static level 94' below casing top which is 1' above GL Pumping level 180' when pumping at 20 gpm for 2 hours Permanent pump installed at 240' on June 6, 2014, with a capacity of 20 gpm Remarks: Driller's Estimated Well Yield 20 gpm Owner Address: 924 Brookside Ct. Marengo, IL Address of well: 8902 S. Hill Rd. Marengo Add'l loc. info: Lot: 25 Subdivision: Riley Creek Location source: Aerial Photograph verified Verified by: VJA on May 13, 2015. | | |

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Permit Date: October 15, 2013

Permit #: 111-023

COMPANY Keller, Larry

FARM Burns, Mike

DATE DRILLED June 4, 2014

NO.

ELEVATION

COUNTY NO. 45281

LOCATION NE SE SE

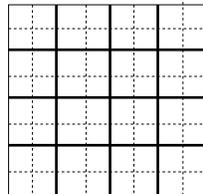
LATITUDE 42.199822

LONGITUDE -88.591302

COUNTY McHenry

API 121114528100

13 - 43N - 5E



SECTION 14

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|---|-----------|
| topsoil | 0 | 2 |
| gravel | 2 | 30 |
| sandy clay | 30 | 85 |
| broken limestone | 85 | 87 |
| Total Depth | | 87 |
| Casing: 5" STEEL from 0' to 87' | | |
| Grout: BENTONITE from 0 to 80. | | |
| Water from limestone at 85' to 87'. | | |
| Static level 10' below casing top which is 1' above GL | | |
| Pumping level 12' when pumping at 12 gpm for 2 hours | | |
| Permanent pump installed at 20' | | |
| on September 11, 2017, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20 gpm | | |
| Owner Address: 8 Prosper Ct. Lake in the Hills, IL | | |
| Address of well: 8920 Rt. 23 | | |
| Marengo, IL 60152 | | |
| Location source: Global Positioning System verified | Verified by: VJA on February 5, 2019. | |

Permit Date: May 22, 2017

Permit #: 111-199

COMPANY Nice, Mark E.

FARM Consolidated Material

DATE DRILLED June 19, 2017

NO.

ELEVATION

COUNTY NO. 45764

LOCATION NW SW NE

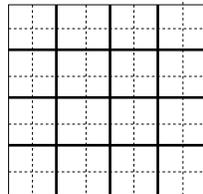
LATITUDE 42.20654

LONGITUDE -88.6129

COUNTY McHenry

API 121114576400

14 - 43N - 5E



| Water Well for Commercial Operation | Top | Bottom |
|--|-----|--|
| gravel | 0 | 3 |
| sandy clay | 3 | 11 |
| sand and gravel | 11 | 59 |
| gray clay w/ gravel seams | 59 | 87 |
| limestone | 87 | 100 |
| Total Depth | | 100 |
| Casing: 5" SDR 21 PVC from 0' to 88' | | |
| Grout: BENTONITE from 0 to 88. | | |
| Water from limestone bedrock at 88' to 100'. | | |
| Static level 20' below casing top which is 1' above GL | | |
| Pumping level 26' when pumping at 25 gpm for 2 hours | | |
| Permanent pump installed at 40' | | |
| on July 1, 2022, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 25 gpm | | |
| Owner Address: 8 Prosper Court Lake in the Hills, IL | | |
| Address of well: 8920 IL Route 23 | | |
| Marengo, IL | | |
| Location source: Global Positioning System verified | | Verified by: VJA on August 1, 2023. |

Permit Date: November 30, 2022

Permit #: 111-16-

COMPANY Smith, Allen E.

FARM Consolidated Materials

DATE DRILLED June 20, 2022

NO. 2

ELEVATION 836GL

COUNTY NO. 46482

LOCATION NW SW NE

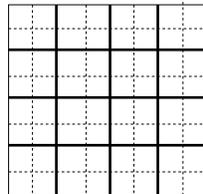
LATITUDE 42.206989

LONGITUDE -88.616761

COUNTY McHenry

API 121114648200

14 - 43N - 5E



| Water Well for Business | Top | Bottom |
|--|-----|-----------|
| black dirt | 0 | 2 |
| tan clay | 2 | 8 |
| sand & gravel | 8 | 48 |
| Total Depth | | 48 |
| Casing: 5" STEEL 15# from 0' to 40' | | |
| Screen: 8' of 5" diameter 20 slot | | |
| Grout: BENTONITE/SLRY from 0 to 40. | | |
| Water from gravel at 40' to 48'. | | |
| Static level 14' below casing top which is 1' above GL | | |
| Pumping level 25' when pumping at 44 gpm for 6 hours | | |
| Permanent pump installed at 40' | | |
| on November 7, 1993, with a capacity of 30 gpm | | |
| Owner Address: 8800 S. Rt. #23 Marengo, IL | | |
| Address of well: 8808 Rt. 23 | | |
| Marengo, IL | | |
| Location source: Tax record verified | | |

Permit Date: November 1, 1993

Permit #: 111-F75

COMPANY Keller, Larry

FARM Pork King

DATE DRILLED November 6, 1993

NO.

ELEVATION

COUNTY NO. 32771

LOCATION SW NW SE

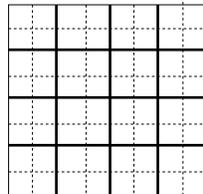
LATITUDE 42.201523

LONGITUDE -88.616935

COUNTY McHenry

API 121113277100

14 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Water Well for Commercial Operation | Top | Bottom |
|--|-----|-----------|
| topsoil | 0 | 2 |
| brown clay | 2 | 5 |
| sand - gravel | 5 | 60 |
| Total Depth | | 60 |
| Casing: 12" STEEL 49.6# ASTM from 0' to 40' | | |
| Screen: 20' of 12" diameter 60 slot | | |
| Grout: BENTONITE from 0 to 30. | | |
| Water from sand - gravel at 40' to 60'. | | |
| Static level 11' below casing top which is 1' above GL | | |
| Pumping level 30' when pumping at 600 gpm for 3 hours | | |
| Owner Address: 8800 Rt. 23 Marenco, IL | | |
| Address of well: same as above | | |
| Location source: Location from permit | | |

Permit Date: August 20, 1997

Permit #:

COMPANY Keller, Larry

FARM Pork King

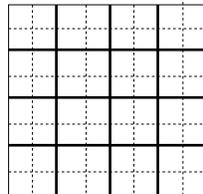
DATE DRILLED September 30, 1999 NO.

ELEVATION 0 COUNTY NO. 37343

LOCATION SW SW SE

LATITUDE 42.197916 LONGITUDE -88.616915

COUNTY McHenry API 121113734300 14 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Noncommunity - Public Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 5 |
| gravel | 5 | 60 |
| clay | 60 | 82 |
| limestone | 82 | 140 |
| shale & limestone | 140 | 250 |
| limestone | 250 | 410 |
| mix limestone & sandstone | 410 | 510 |
| sandstone | 510 | 540 |
| Total Depth | | 540 |
| Casing: 10" STEEL from 0' to 87' 8" STEEL from 0' to 400' | | |
| Grout: BAROID from 0 to 399. | | |
| Water from limestone at 82' to 540'. | | |
| Static level 100' below casing top which is 1' above GL | | |
| Pumping level 380' when pumping at 230 gpm for 2 hours | | |
| Permanent pump installed at 380' | | |
| on August 9, 2003, with a capacity of 230 gpm | | |
| Remarks: PICS 11104795, est. yield 400+ gpm | | |
| Owner Address: P.O. Box 253 8808 S Rt. 23 Marengo, IL | | |
| Address of well: same as above | | |
| Location source: Tax record verified | | |

Permit Date: June 10, 2003

Permit #: 111-049

COMPANY Nice, Mark E.

FARM Pork King Packing

DATE DRILLED July 14, 2003

NO.

ELEVATION

COUNTY NO. 42307

LOCATION SE NW SE

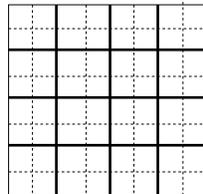
LATITUDE 42.201539

LONGITUDE -88.614511

COUNTY McHenry

API 121114230700

14 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Semi-Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 5 |
| gravel | 5 | 55 |
| clay | 55 | 70 |
| gravel | 70 | 74 |
| clay | 74 | 79 |
| limestone | 79 | 90 |
| dark shale | 90 | 155 |
| limestone | 155 | 340 |
| Total Depth | | 340 |
| Casing: 5" PVC F480 from 0' to 60' | | |
| 5" STEEL A53B from 60' to 81' | | |
| Grout: BAROID from 0 to 81. | | |
| Water from limestone at 79' to 340'. | | |
| Static level 60' below casing top which is 1' above GL | | |
| Pumping level 180' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 180' | | |
| on April 9, 2009, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 10-15 gpm | | |
| Owner Address: 602 Bauman St Marengo, IL | | |
| Address of well: 8910 S IL Route 23 | | |
| Marengo, IL | | |
| Add'l loc. info: FALSE | | |
| township office | | |
| Location source: Tax record verified Verified by: VJA on August 10, 2011. | | |
| <div style="border: 1px solid blue; padding: 2px; display: inline-block;"> Image viewing help: New users please read this. </div> <div style="border: 1px solid blue; padding: 2px; display: inline-block;"> GET FILE Related File - </div> | | |

Permit Date: August 1, 2008

Permit #: 111-025

COMPANY Nice, Mark E.

FARM Riley Township Rd District

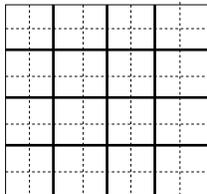
DATE DRILLED March 18, 2009 NO.

ELEVATION COUNTY NO. 43364

LOCATION NW SW SE

LATITUDE 42.199474 LONGITUDE -88.617252

COUNTY McHenry API 121114336400 14 - 43N - 5E



SECTION 18

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 95 |
| gravel | 95 | 105 |
| clay | 105 | 200 |
| limestone | 200 | 203 |
| Total Depth | | 203 |
| Casing: 5" PVC ASTM F480 from 0' to 180' | | |
| 5" STEEL ASTM 15#/FT from 180' to 201' | | |
| Grout: BENTONITE from 0 to 201. | | |
| Water from limestone at 200' to 203'. | | |
| Static level 40' below casing top which is 1' above GL | | |
| Pumping level 180' when pumping at 12 gpm for 10 hours | | |
| Owner Address: 711 Linden Ave. Elgin, IL | | |
| Address of well: 8211 S. Coral Rd. Marengo, IL | | |
| Location source: Aerial Photograph verified Verified by: VJA on August 23, 2010. | | |

Permit Date: July 19, 1996

Permit #: 111-G35

COMPANY Nice, Craig

FARM Kellenberg, Darryl Builders

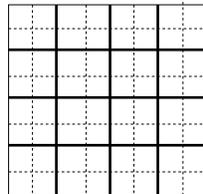
DATE DRILLED December 7, 1996 NO.

ELEVATION COUNTY NO. 34880

LOCATION SE NE NE

LATITUDE 42.209403 LONGITUDE -88.570286

COUNTY McHenry API 121113488000 18 - 43N - 6E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| sandy gray clay | 0 | 17 |
| gravel | 17 | 26 |
| sandy gray clay & gravel | 26 | 155 |
| gravel | 155 | 165 |
| soft shale | 165 | 186 |
| gravel | 186 | 192 |
| white rock | 192 | 225 |
| shale | 225 | 270 |
| gray shale rock | 270 | 300 |
| Total Depth | | 300 |
| Casing: 5" PVC 200 from 0' to 160' | | |
| 5" PVC 250 from 160' to 195' | | |
| Grout: BENTONITE from 0 to 195. | | |
| Water from rock at 270' to 300'. | | |
| Static level 90' below casing top which is 1' above GL | | |
| Pumping level 200' when pumping at 25 gpm for 1 hour | | |
| Permanent pump installed at 200' | | |
| on August 26, 2003, with a capacity of 12 gpm | | |
| Remarks: driller's est well yield 25 gpm | | |
| Owner Address: P.O. Box 760 Hampshire, IL | | |
| Address of well: 8902 Voss Road | | |
| Marengo, IL | | |
| Add'l loc. info: Lot: 4 | | |
| Location source: Aerial Photograph verified | | |
| Verified by: VJA on August 23, 2010. | | |

Permit Date: April 24, 2003

Permit #: 111-030

COMPANY Stinnett, David

FARM Embassy Builders, Inc.

DATE DRILLED August 22, 2003

NO.

ELEVATION

COUNTY NO. 41065

LOCATION NW SE SE

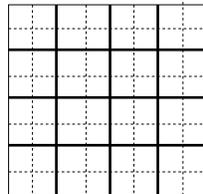
LATITUDE 42.199856

LONGITUDE -88.574178

COUNTY McHenry

API 121114106500

18 - 43N - 6E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 258 |
| shale | 258 | 280 |
| limestone | 280 | 380 |
| Total Depth | | 380 |
| Casing: 5" PVC F480 from 0' to 238' | | |
| 5" STEEL A53B from 238' to 259' | | |
| Grout: BAROID from 0 to 258. | | |
| Water from limestone at 280' to 380'. | | |
| Static level 50' below casing top which is 1' above GL | | |
| Pumping level 240' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 240' | | |
| on April 28, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 10 gpm | | |
| Owner Address: 8732 Deer Run Drive Belvidere, IL | | |
| Address of well: 9115 Voss Road | | |
| Marengo, IL | | |
| Location source: Aerial Photograph verified Verified by: VJA on August | | |
| 23, 2010. | | |

Permit Date: September 3, 2003

Permit #: 111-03-

COMPANY Nice, Mark E.

FARM Hall, Todd & Kelly

DATE DRILLED April 22, 2004

NO.

ELEVATION

COUNTY NO. 41420

LOCATION NE SW SE

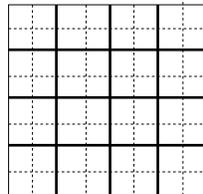
LATITUDE 42.199211

LONGITUDE -88.575176

COUNTY McHenry

API 121114142000

18 - 43N - 6E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|------------|
| brown stoney clay | 0 | 170 |
| gray stoney clay | 170 | 180 |
| brown stoney clay | 180 | 240 |
| sand/gravel | 240 | 252 |
| brown stoney clay | 252 | 275 |
| yellow/green clay | 275 | 285 |
| limestone | 285 | 460 |
| Total Depth | | 460 |
| Casing: 5" PVC from 0' to 264' 5" STEEL from 264' to 285' | | |
| Grout: BENTONITE from 0 to 285. | | |
| Water from limestone at 285' to 460'. | | |
| Static level 159' below casing top which is 1' above GL | | |
| Pumping level 180' when pumping at 20 gpm for 3 hours | | |
| Permanent pump installed at 240' on May 5, 2004, with a capacity of 20 gpm | | |
| Remarks: driller's est well yield 30 gpm | | |
| Owner Address: P.O. Box 734 Huntlev, IL | | |
| Address of well: 19463 Beck Road Marengo, IL | | |
| Location source: Aerial Photograph verified Verified by: VJA on August 23, 2010. | | |

Permit Date: October 27, 2003

Permit #: 111-094

COMPANY Keller, Larry

FARM Brettman, Derik & Gina

DATE DRILLED April 29, 2004

NO.

ELEVATION

COUNTY NO. 41565

LOCATION NW SW SE

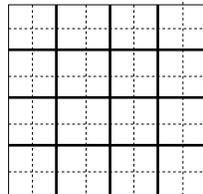
LATITUDE 42.198899

LONGITUDE -88.577753

COUNTY McHenry

API 121114156500

18 - 43N - 6E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 208 |
| limestone | 208 | 232 |
| shale | 232 | 235 |
| Total Depth | | 235 |
| Casing: 5" PVC F480 from 0' to 211' | | |
| 5" STEEL A53B from 211' to 232' | | |
| Grout: BAROID from 0 to 231. | | |
| Water from limestone at 208' to 235'. | | |
| Static level 55' below casing top which is 1' above GL | | |
| Pumping level 200' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 200' | | |
| on December 20, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 15-20 gpm | | |
| Owner Address: 525 Maple Street Marengo, IL | | |
| Address of well: 8610 Voss Road | | |
| Marengo, IL | | |
| Location source: Location from permit | | |

Permit Date: May 18, 2004

Permit #: 111-04-

COMPANY Nice, Mark E.

FARM Grismer, Michael

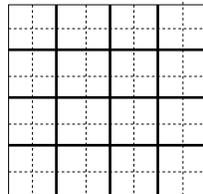
DATE DRILLED December 16, 2004 NO.

ELEVATION COUNTY NO. 41812

LOCATION SE SE SE

LATITUDE 42.197846 LONGITUDE -88.570985

COUNTY McHenry API 121114181200 18 - 43N - 6E



| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| sand/gravel | 2 | 25 |
| brown stoney clay | 25 | 90 |
| gray clay | 90 | 100 |
| sand/gravel | 100 | 110 |
| Total Depth | | 110 |
| Casing: 5" PVC from 0' to 101' 5" SS SCREEN from 101' to 105' Screen: 4' of 5" diameter 20 slot Grout: BENTONITE from 0 to 60. Water from sand/gravel at 101' to 105'. Static level 38' below casing top which is 1' above GL Pumping level 40' when pumping at 20 gpm for 3 hours Permanent pump installed at 80' on June 4, 2004, with a capacity of 20 gpm Remarks: driller's est well yield 40 gpm Owner Address: PO Box 1144 Huntley, IL Address of well: 19217 Beck Rd. Marengo, IL Add'l loc. info: Lot: 5 Location source: Aerial Photograph verified Verified by: VJA on August 23, 2010. | | |

Permit Date: December 22, 2003

Permit #: 111-112

COMPANY Keller, Larry

FARM Hennig, Jim

DATE DRILLED June 3, 2004

NO.

ELEVATION

COUNTY NO. 41878

LOCATION SW NE SE

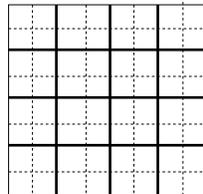
LATITUDE 42.201047

LONGITUDE -88.572487

COUNTY McHenry

API 121114187800

18 - 43N - 6E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 193 |
| limestone | 193 | 218 |
| shale | 218 | 220 |
| Total Depth | | 220 |
| Casing: 5" PVC F480 from 0' to 172' | | |
| 5" STEEL A53B from 172' to 193' | | |
| Grout: BAROID from 0 to 192. | | |
| Water from limestone at 193' to 220'. | | |
| Static level 50' below casing top which is 1' above GL | | |
| Pumping level 180' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 180' | | |
| on January 4, 2005, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 10-15 gpm | | |
| Owner Address: 185 Pauline Dr. Elgin, IL | | |
| Address of well: 8914 Voss Road | | |
| Marengo, IL | | |
| Location source: Aerial Photograph verified | | |
| Verified by: VJA on August 23, 2010. | | |

Permit Date: August 28, 2003

Permit #: 111-069

COMPANY Nice, Mark E.

FARM Osborn, David

DATE DRILLED December 28, 2004

NO.

ELEVATION

COUNTY NO. 41932

LOCATION NW SE SE

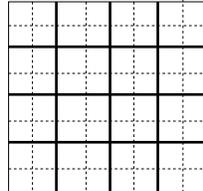
LATITUDE 42.199147

LONGITUDE -88.573881

COUNTY McHenry

API 121114193200

18 - 43N - 6E



SECTION 19

ILLINOIS STATE GEOLOGICAL SURVEY

| Irrigation Well | Top | Bottom |
|---|---|------------|
| topsoil | 0 | 2 |
| brown stoney clay | 2 | 92 |
| brown peat | 92 | 100 |
| gray clay | 100 | 107 |
| sand / gravel | 107 | 121 |
| Total Depth | | 121 |
| Casing: 5" PVC from 0' to 113' 5" STAINLESS STL SCREEN from 113' to 121' Screen: 8' of 5" diameter 20 slot Grout: BENTONITE from 0 to 60. Water from sand / gravel at 113' to 121'. Static level 65' below casing top which is 1' above GL Pumping level 80' when pumping at 30 gpm for 3 hours Permanent pump installed at 100' on January 24, 2007, with a capacity of 30 gpm Remarks: Driller's Estimated Well Yield 50 gpm Owner Address: PO Box 175 Marengo, IL Address of well: 9200 Voss Rd Marengo, IL Location source: Global Positioning System verified | | |
| | Verified by: VJA on October 4, 2012. | |

Permit Date: December 4, 2006

Permit #: 111-073

COMPANY Keller, Larry

FARM Parks, Martin

DATE DRILLED January 24, 2007

NO.

ELEVATION

COUNTY NO. 43781

LOCATION SE NE NW

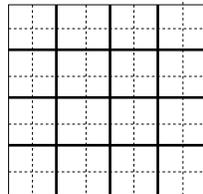
LATITUDE 42.1947

LONGITUDE -88.57845

COUNTY McHenry

API 121114378100

19 - 43N - 6E



SECTION 23

ILLINOIS STATE GEOLOGICAL SURVEY

| Semi-Private Water Well | Top | Bottom |
|--|-----|-----------|
| driveway base (broken brick, gravel) | 0 | 3 |
| black dirt | 3 | 6 |
| sand & gravel | 6 | 51 |
| sandy blue clay | 51 | 59 |
| Total Depth | | 59 |
| Casing: 8" BLACK STEEL from -1' to 41' | | |
| Screen: 20' of 6" diameter 20 slot | | |
| Grout: BENTONITE from 0 to 40. | | |
| Water from sand & gravel at 41' to 59'. | | |
| Static level 10' below casing top which is 1' above GL | | |
| Pumping level 0' when pumping at 400 gpm for 0 hours | | |
| | | |
| Owner Address: 580 Wolf Road Des Plaines, IL | | |
| Address of well: 9204 South IL Rte. 23 | | |
| Marengo, IL | | |
| Location source: Location from permit | | |

Permit Date: May 20, 1999

Permit #:

COMPANY Gaffke, George E.

FARM Meyer Material Company

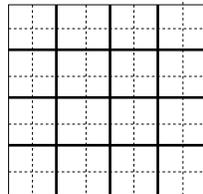
DATE DRILLED November 9, 1999 NO.

ELEVATION 0 COUNTY NO. 37550

LOCATION NW NE NE

LATITUDE 42.196132 LONGITUDE -88.612055

COUNTY McHenry API 121113755000 23 - 43N - 5E



SECTION 24

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|--------------------------|-----------|
| red clay | 0 | 8 |
| gravel | 8 | 32 |
| colored clay | 32 | 62 |
| blue clay | 62 | 68 |
| clay & gravel | 68 | 95 |
| fine gravel | 95 | 98 |
| Total Depth | | 98 |
| Casing: 5" PVC SDR 21 from -2' to 94' 5" SCREEN from 94' to 98' Screen: 4' of 5" diameter 30 slot Grout: 20% WYOBEN from 0 to 88. Water from gravel at 94' to 98'. Static level 20' below casing top which is 2' above GL Pumping level 60' when pumping at 15 gpm for 2 hours Permanent pump installed at 60' on July 12, 2019, with a capacity of 15 gpm Remarks: Drillers Estimated Well Yield 40 gpm Owner Address: 10402 Oakdale Dr Huntlev, IL Address of well: 20106 Beck Rd Marengo, IL Location source: Global Positioning System verified | | |
| | Verified by: VJA on . | |

Permit Date: January 29, 2018

Permit #: 111-012

COMPANY Binz, David Joseph

FARM Rock Creek Homes

DATE DRILLED August 3, 2018

NO.

ELEVATION

COUNTY NO. 45945

LOCATION NE NE NE

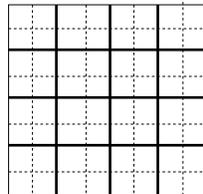
LATITUDE 42.196172

LONGITUDE -88.589514

COUNTY McHenry

API 121114594500

24 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|---|-----------|
| top soil | 0 | 1 |
| stoney brown clay | 1 | 7 |
| sand/gravel | 7 | 20 |
| gray clay | 20 | 47 |
| sand/gravel | 47 | 61 |
| Total Depth | | 61 |
| Casing: 5" PVC SDR 17 from 0' to 57' 5" SCREEN from 57' to 61' Screen: 4' of 5" diameter 20 slot Grout: BENTONITE from 0 to 50. Water from sand/gravel at 57' to 61'. Static level 10' below casing top which is 1' above GL Pumping level 14' when pumping at 2 gpm for 2 hours Permanent pump installed at 40' on February 17, 2022, with a capacity of 20 gpm Remarks: Driller's Estimated Well Yield 30 gpm Owner Address: 3521 Blue Ridge Ct C'ville, IL Address of well: 20318 Halverson Dr Marengo, IL Location source: Global Positioning System verified | | |
| | Verified by: VJA on October 1, 2022. | |

Permit Date: September 7, 2021

Permit #: 111-251

COMPANY Keller, Larry

FARM Noyalinski, D

DATE DRILLED February 8, 2022

NO.

ELEVATION

COUNTY NO. 46332

LOCATION NE NW NE

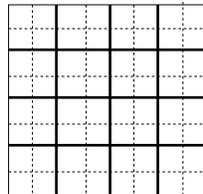
LATITUDE 42.195833

LONGITUDE -88.595

COUNTY McHenry

API 121114633200

24 - 43N - 5E



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|---------------------------------------|-----------|
| gravel | 0 | 1 |
| clay & gravel | 1 | 5 |
| gravel | 5 | 40 |
| clay & gravel | 40 | 59 |
| gravel | 59 | 70 |
| Total Depth | | 70 |
| Casing: 5" PVC SDR 21 from 0' to 66' 5" SCREEN/SS from 66' to 70' Screen: 4' of 5" diameter 20 slot Grout: BENTONITE/SLURRY from 0 to 66. Water from gravel at 66' to 70'. Static level 16' below casing top which is ' above GL Pumping level 18' when pumping at 25 gpm for 5 hours Permanent pump installed at 60' on October 19, 2022, with a capacity of 10 gpm Remarks: Driller's Estimated Well Yield 25 gpm Owner Address: 606 Blackhawk Lane Marengo, IL Address of well: 20218 Halverson Dr Marengo, IL Location source: Global Positioning System verified | | |
| | Verified by: VJA on April 2, 2023. | |

Permit Date: November 8, 2021

Permit #: 111-21-

COMPANY Huemann, Joseph J.

FARM Timke, Eric & Ally

DATE DRILLED October 11, 2022

NO.

ELEVATION

COUNTY NO. 46381

LOCATION NW NE NE

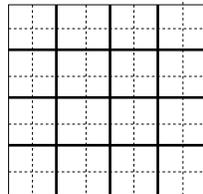
LATITUDE 42.196342

LONGITUDE -88.5919

COUNTY McHenry

API 121114638100

24 - 43N - 5E



APPENDIX B2

PRIVATE WATER WELL LOGS
ONE-MILE RADIUS
2014 CUP WELLS

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-------------------|------------|
| topsoil | 0 | 2 |
| brown stoney clay | 2 | 82 |
| sand gravel | 82 | 90 |
| brown stoney clay | 90 | 160 |
| black rock & shale | 160 | 180 |
| gray limestone | 180 | 260 |
| Total Depth | | 260 |
| Casing: 5" PVC from 0' to 159' 5" STEEL from 159' to 180' | | |
| Grout: BENTONITE from 0 to 100. | | |
| Water from limestone at 180' to 260'. | | |
| Static level 70' below casing top which is 1' above GL | | |
| Pumping level 140' when pumping at 10 gpm for 12 hours | | |
| Permanent pump installed at 200' | | |
| on February 15, 2002, with a capacity of 10 gpm | | |
| Remarks: driller's est. well yield 15 gpm | | |
| Additional Lot: 13 Subdivision: Coral Woods location info: | | |
| Address of well: 7612 Corral Oaks Lane Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 24, 2009. | | |
| Permit Date: July 19, 2001 | Permit #: 111-H63 | |

COMPANY Keller, Larry
FARM Weck, Daniel
DATE DRILLED February 14, 2002 **NO.**
ELEVATION **COUNTY NO.** 40115
LOCATION NE NW SE
LATITUDE 42.217861 **LONGITUDE** -88.615185
COUNTY McHenry **API** 121114011500

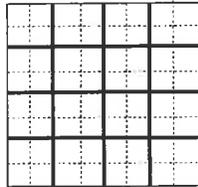
| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

11 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Water Well for Commercial Operation | Top | Bottom |
|--|-----|-------------------|
| topsoil | 0 | 2 |
| gravel | 2 | 5 |
| clay | 5 | 120 |
| shale & limestone | 120 | 175 |
| limestone | 175 | 220 |
| Total Depth | | 220 |
| Casing: 5" PVC F480 from 0' to 103' 5" STEEL A53B from 103' to 124' | | |
| Grout: BAROID from 0 to 124. | | |
| Water from limestone at 120' to 220'. | | |
| Static level 40' below casing top which is 1' above GL | | |
| Pumping level 100' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 100' | | |
| on July 9, 2009, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20 gpm | | |
| Address of well: 7515 S Rt 23 Marengo, IL | | |
| Location source: Location from permit | | |
| Permit Date: November 19, 2008 | | Permit #: 111-046 |

COMPANY Nice, Mark E.
FARM Pace Construction / Griebel
DATE DRILLED July 6, 2009 **NO.**
ELEVATION **COUNTY NO.** 43841
LOCATION NE SE SW
LATITUDE 42.213333 **LONGITUDE** -88.62
COUNTY McHenry **API** 121114384100



11 - 43N - 5E

MINERAL RESOURCES DIVISION
 PUBLIC HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 PROPERTY LOCAT

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed April 18, 1978

10. Property owner Edward Engel Sr. Well No. _____
 Address 404 Washington St. Yorkville Ill.
 Driller Paul Barker License No. 92-563

11. Permit No. 6 Date _____
 12. Water from Limestone 13. County A

at depth 172 to 225 ft.
 14. Screen: Diam. 4.31 in.
 Length: 5 ft. Slot _____
 Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | Blk. 15 per Ft. | 0 | 125 |
| | | | |
| | | | |

16. Size Hole below casing: 5 in.
 17. Static level 12 ft. below casing top which is 8 inches ft.
 above ground level. Pumping level 105 ft. when pumping at 6.8
 gpm for 3 hours. Sub pump @ 153'

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS TOP | DEPTH OF BOTTOM |
|--------------------------|------------------|--------------------|
| Topsoil | 0 | 2 |
| Sand and Gravel | 2 | 15 |
| Clay and Sandy | 15 | 60 |
| Gravel and Clay | 60 | 75 |
| Clay and some Gravel | 75 | 95 |
| Clay hard | 95 | 115 |
| Clay and Gravel | 115 | 125 |
| Shale | 125 | 172 |
| Limestone | 172 | 225 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE 6-1-78
 COUNTY No 23295

L MCHENRY 11-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Engel, Ed Well No. _____
 Address 8001 South Rt. #23 Marengo IL
 Driller Nice, Marvin R. License No. 102-002458

11. Permit No. 125262 Date 07/16/86
 12. Water from Limestone 13. County Mchenry

at depth 116 to 125 ft.
 14. Screen: Diam. 43 N in.
 Length: _____ ft. Slot _____
 Elev. 845

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 116 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 20 ft. below casing top which is 1 ft.
 above ground level. Pumping level 25 ft. when pumping at 10
 gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sand & gravel | 16 | 18 |
| clay | 35 | 53 |
| sand | 4 | 57 |
| clay | 59 | 116 |
| limestone | 9 | 125 |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

Mchenry 12-111-25276-00 11-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 10-24-74

1. Property owner Leo Higgins Well No. _____
 Address 7413 South Rt. 23, Marengo, Ill.
 Driller DuPage Pump, Inc. License No. 102-3
 Permit No. 30531 Date 6-13-74
 Water from Limestone 13. County McHenry

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at depth _____ to _____ ft.
 Screen: Diam. 4 3/4 in. Rge. 5E
 Length: _____ ft. Slot _____

5. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | Steel | 14.98 | 0 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
SW NW NE
 (permit)

16. Size Hole below casing: 5 in.
 17. Static level _____ ft. below casing top which is 8 ft. above ground level. Pumping level 80 ft. when pumping at _____ gpm for 2 hours. Sub. pump set at 140'

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Drift | 205' | 205' |
| Limestone | 50' | 255' |
| | | |
| | | |
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| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Thomas Thomas DATE 10-29-74
 COUNTY No. 23175

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 8-17-1979

Property owner Raymond M. Taylor Well No. _____
 Address 1111 Taylor
 Driller Raymond M. Taylor License No. _____
 Permit No. _____ Date 8/17/79
 Water from _____ 13. County _____

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at depth _____ to _____ ft.
 Screen: Diam. _____ in. Rge. _____
 Length: _____ ft. Slot _____

6. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 2" | Steel | 0 | 179 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
SW SE NW
 (permit)

6. Size Hole below casing: 5 in.
 7. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level 10 ft. when pumping at _____ gpm for _____ hours. Sub pump set at 100'.

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top Soil | 5 | 5 |
| Sand & Gravel | 15 | 20 |
| Clay & Gravel | 113 | 133 |
| Clay Soil | 11 | 179 |
| Limestone | 56 | 235 |
| | | |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Thomas Taylor DATE 10/17/79
 COUNTY No. 23535

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed December 1, 1978

10. Property owner Stephen Kostner Well No. _____
 Address 7905 Rt 23 Marengo, Illinois
 Driller Paul Barker License No. 92563
 Permit No. 74990 Date 6/1/78
 11. Water from Limestone 13. County McHenry
 at depth 172 to 295 ft. Sec. 11
 Screen: Diam. _____ in. Twp. 43N
 Length: _____ ft. Slot _____ in. Rge. 5E
 Elev. _____

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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | Black Steel | 0 | 171 |
| | 15 lbs per ft | | |

Formation _____
 SHOW LOCATION IN SECTION PLAT
 100' SL 110'
 WL SE
 (permit)

16. Size Hole below casing: 5 in. 123 ft.
 17. Static level 190 ft. below casing top which is 1 ft. above ground level. Pumping level 210 ft. when pumping at 10 gpm for 4 hours. Sub pump @ 231'

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|--------------------------|-----------|-----------------|
| Top Soil | 5 | 5 |
| Sand | 55 | 60 |
| Shale | 111 | 171 |
| Limestone | 124 | 295 |
| | | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE 2/6/79
 COUNTY No. 23297.
 McHENRY 11-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Landwehr, Dave Well No. _____
 Address 629 Maple St. Marengo IL
 Driller Stone, James R. License No. 102-2524
 11. Permit No. 98646 Date 03/09/81
 12. Water from gravel 13. County McHenry
 at depth _____ to _____ ft. Sec. 11
 Screen: Diam. .8 in. Twp. 43 N
 Length: 4 ft. Slot 15 in. Rge. 5 E
 Elev. _____

| | | | | |
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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | 200# PVC | -1 | 77 |
| | | | |

SE NW SE

16. Size hole below casing: _____ in.
 17. Static level 30 ft. below casing top which is 1 ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18. FORMATIONS PASSED THROUGH

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| no record | 77 | 77 |
| | | |
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GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 8/3/75

0. Property owner Robert Madonia Well No. _____
 Address 1339 N. Thatcher River Forest, Ill. 60905
 Driller Boetsch Water Supply License No. 92-436
 Permit No. 39067 Date 7/5/75
 Water from Limestone 13. County McHenry

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at depth 255 to 275 ft. Sec. 11
 Screen: Diam. 5 in. Twp. 43N
 Length: 4 ft. Slot 20 Rge. 5E
 Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| 5 | PVC | 1 | 255 | NW NW NW (permit) |
| | | | | |

16. Size Hole below casing: 5 in.
 17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 160 ft. when pumping at 12 gpm for 2 hours. Sub. pump set at 200'

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top soil | 1 | 1 |
| Red clay | 17 | 18 |
| Sand and gravel | 4 | 22 |
| Pink clay | 178 | 200 |
| Shell rock and shale | 55 | 255 |
| Limestone | 20 | 275+ |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Wm. Boetsch DATE 8/3/75

COUNTY No. 2574

MC HENRY

11-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Lopez, Angel Well No. _____
 Address 3731 W. Shakespear Chicago IL
 Driller Keller, Larry License No. 092-7210
 Permit No. 111-G1372-95 Date 08/03/95
 Water from sand / gravel 13. County McHenry

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at depth 112 to 116 ft. Sec. 11
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 20 Rge. 5 E
 Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) | SE SW SE |
|-------------|-----------------|-----------|---------|----------|
| 5 | PVC SDR 21 ASTM | 0 | 112 | |
| | | | | |

16. Size hole below casing: _____ in.
 17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 25 ft. when pumping at 10 gpm for 24 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| brown clay | 108 | 110 |
| sand & gravel | 6 | 116 |
| | | |
| | | |
| | | |
| | | |

Household - Private
 McHenry 12-111-34357-00 11-43N-05E

TOWN Marengo TOWNSHIP Riley
 COMPANY Lucy H. Van Hoozen NO. 43N
 FARM Markison, Henry
 DATE DRILLED 1943
 AUTHORITY Lucy H. Van Hoozen
 COLLECTOR 600' S. line, 1300' W. line, of NW
 ELEVATION 862 TM

SEC. 11

| Strata | Thickness | | Depth | |
|-------------------------------------|-----------|-----|-------|-----|
| | Feet | In. | Feet | In. |
| Gravel | 12 | | 12 | |
| Red clay | 8 | | 20 | |
| Hardpan | 11 | | 31 | |
| Red clay | 38 | | 69 | |
| Hardpan | 9 | | 78 | |
| Black sand | 5 | | 83 | |
| Sand | 17 | | 100 | |
| Sand, gravel | 18 | | 118 | |
| Blue clay | 14 | | 132 | |
| Sand | 9 | | 141 | |
| Blue clay | 17 | | 158 | |
| Black dirt | 11 | | 169 | |
| Rock | 23 | | 192 | |
| Finished in rock at 169' to 192' | | | | |
| 6" galv steel casing from 0 to 169' | | | | |
| Hole below casing 6" | | | | |
| Static level from surface 60' | | | | |
| Tested capacity 10 g.p.m. | | | | |
| Water not lowered | | | | |
| Test 4 hrs. | | | | |
| NO ENVELOPE | | | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Miller, Reggie Well No. _____
 Address 7719 Edwardville German Vly IL
 Driller Nice, Craig License No. 102-3191
 Permit No. 016538 Date 01/08/90

11. Water from Limestone 13. County McHenry
 at depth 182 to 280 ft. Sec. 11
 14. Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ Elev. _____

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15. Casing and Liner Pipe NW SE NW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 182 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 60 ft. below casing top which is 1 ft.
 above ground level. Pumping level 70 ft. when pumping at _____
 gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 2 | 2 |
| sand & gravel | 48 | 50 |
| clay | 132 | 182 |
| limestone | 98 | 280 |
| | | |
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| | | |

Household - Private

McHenry 12-111-29985-00 11-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner O'Brien, Dan Well No. _____
 Address 801 Clinton Palace River Forest IL
 Driller Grosch, Wayne A. License No. 102-2557
 11. Permit No. 123618 Date 05/12/86
 12. Water from _____ 13. County McHenry
 at depth _____ to _____ ft.
 14. Screen: Diam. 12 in. Sec. 11
 Length: 25 ft. Slot .05 Rge. 5 E
 Elev. _____

15. Casing and Liner Pipe SW NE SW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 12 | PLAIN STEEL | 0 | 52 |
| 12 | STEEL SCREEN | 52 | 77 |

16. Size hole below casing: _____ in.
 17. Static level 22 ft. below casing top which is 0 ft.
 above ground level. Pumping level _____ ft. when pumping at 823
 gpm for _____ hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| fine to crs gravel | 10 | 10 |
| brown clay | 5 | 15 |
| fine to crs gravel | 41 | 56 |
| brown clay | 2 | 58 |
| embedded clay | 19 | 77 |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Munro, Shane & Wendy Well No. _____
 Address 214 Adams St. Marengo IL
 Well address 7510 Oak Creek Dr. Marengo, IL
 Lot 7 Subd Coral Woods ISWS P# 322552
 Driller Binz, David Joseph License No. 102-2680
 Permit No. H1562 Date 09/24/1999
 Water from gravel County McHenry
 at depth 137 to 140 ft. Sec. 11
 Screen: Diam. 5 in. Twp. 43 N
 Length: 3 ft. Slot 25 Rge. 5 E
 Elev. _____

Casing and Liner Pipe SE NE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC | 0 | 137 |
| 5 | STAINLESS STL SCREEN | 137 | 140 |

Size hole below casing: _____ in.
 Static level 55 ft. below casing top which is 2 ft.
 above ground level. Pumping level 80 ft. when pumping at 15
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| red clay | 2 | 2 |
| gravel | 12 | 14 |
| gray clay | 31 | 45 |
| gravel | 5 | 50 |
| gray clay | 50 | 100 |
| gravel | 40 | 140 |

Household - Private

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Rudolph Schneider Well No. 17377
 Address Highway 102-146
 Driller L. L. Linn License No. 102-146
 Permit No. 60441 Date May 5-77
 11. Water from drift 13. County Wayne
 at depth 11 to 16.5 ft.
 14. Screen: Diam. 4.375 in.
 Length: 5.25 ft. Slot

| | | | | | |
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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| 5 | A-53 | 0 | 114 | SE SW SW (permit) |

16. Size Hole below casing: 1 in.
 17. Static level 40 ft. below casing top which is 1 ft. above ground level. Pumping level 73 ft. when pumping at 20 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH

| THICKNESS | DEPTH OF BOTTOM |
|------------------------------|-----------------|
| <u>top soil</u> | <u>2</u> |
| <u>red clay & gravel</u> | <u>40</u> |
| <u>" " 1/2" sand</u> | <u>60</u> |
| <u>sand & gravel</u> | <u>60</u> |
| <u>gravel</u> | <u>60</u> |
| | <u>114</u> |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Louise Linn DATE 10-10-77
 COUNTY NO. 23298

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed 4-30-69

0. Property owner William C. Peterson Well No. 92-135
 Address 2nd east st. Marquette MI
 Driller Charles Edginst License No. 92-135
 Permit No. NF5903 Date April 1969
 1. Water from ground 13. County Macomb
 at depth 121 to 165 ft.
 4. Screen: Diam. none in.
 Length: 45 ft. Slot

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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| 5 | greenstained | 0 | 123 | NE SE SW (Permit) |
| | 15 lb. per ft. | | | |

16. Size Hole below casing: 5 in.
 17. Static level 17 ft. below casing top which is 1 1/2 ft. above ground level. Pumping level 67 ft. when pumping at 16 gpm for 1 hours.

18. FORMATIONS PASSED THROUGH

| THICKNESS | DEPTH OF BOTTOM |
|------------------------------------|-----------------|
| <u>0 to 50 ft. pink sandy clay</u> | |
| <u>50 to 55 ft. gravel</u> | |
| <u>55 to 70 Black shale</u> | |
| <u>70 to 80 gray shale</u> | |
| <u>80 to 90 sand</u> | |
| <u>90 to 105 sand and shale</u> | |
| <u>105 to 118 shale</u> | |
| <u>118 to 121 limestone</u> | |
| <u>121 to 155 Brown limestone</u> | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Charles J. Edginst DATE 155 to 165
 COUNTY NO. 631

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Georgieff, Jim & Cathy Well No. _____
 Address 7702 N. Hill Rd. Marengo IL License No. 102-2458
 Driller Nice, Marvin R. Date 09/17/93
 11. Permit No. 111-F7099-93 13. County McHenry
 12. Water from limestone at depth 320 to 400 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot _____ Rge. 5 E
 Elev. _____

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| | | | |

15. Casing and Liner Pipe NE NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | BLACK STEEL | 0 | 330 |
| | | | |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 100 ft. below casing top which is 1 ft. above ground level. Pumping level 110 ft. when pumping at _____ gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 318 | 320 |
| limestone | 80 | 400 |
| | | |
| | | |
| | | |
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| | | |

Household - Private
 McHenry 12-111-32816-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Garza, Mario Well No. _____
 Address 4 N 830 Chaffield Dr. St. Charles IL License No. 102-3209
 Driller Nice, Mark E. Date 08/01/88
 11. Permit No. 004287 13. County McHenry
 12. Water from gravel at depth 210 to 215 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot _____ Rge. 5 E
 Elev. _____

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| | | | |

15. Casing and Liner Pipe NE SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 215 |
| | | | |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 60 ft. below casing top which is 1 ft. above ground level. Pumping level 70 ft. when pumping at _____ gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 8 | 10 |
| sandy clay | 199 | 209 |
| clay | 1 | 210 |
| gravel | 5 | 215 |
| | | |
| | | |
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Household - Private
 McHenry 12-111-27043-00 12-43N-05E

REQUESTED AND MAIL ORIGINAL TO STATE OF ENVIRONMENTAL HEALTH, 535 WEST DO NOT DETACH GEOLOGICAL/WATER PROPER LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed April 24, 1973

0. Property owner Larry Stankus Well No. _____
Address 5.3 Acres in the NE 1/4 of the SW 1/4 of the NE 1/4
Driller Boetsch Water Supply, Ingeense No. 92-436
1. Permit No. NF 16582 Date _____
2. Water from shale 13. County McHenry
Formation _____
at depth 200 to _____ ft.
4. Screen: Diam. 4 3/4 in. Twp. 42N
Length: _____ ft. Slot 5E Rge. 5E
Elev. 521

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| | | | | NE SW NE (permit) |

16. Size Hole below casing: 5 in.
17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|------------------------------|-----------|-----------------|
| top soil | 1 | 1 |
| light brown clay | 4 | 5 |
| light pink clay | 20 | 25 |
| pink clay | 10 | 35 |
| sand and gravel | 5 | 40 |
| pink clay | 20 | 60 |
| dark gray shale | 60 | 120 |
| green shale | 20 | 140 |
| broken rock & shale | 25 | 175 |
| soft br. dry rock | 5 | 180 |
| hd. green shale, rock, water | 20 | 200 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
SIGNED Butsch Water Supply DATE July 25, 1973
Mary A. Butsch COUNTY NO. 11-43N-5E

10. Property owner Unbehaun, Dennis Well No. _____
Address 5710 Marietta Crystal Lake IL
Driller Huemand, William F. License No. 102-1427

11. Permit No. 111-F7554-93 Date 11/01/93
12. Water from gravel 13. County McHenry
at depth 86 to 92 ft. Sec. 11
4. Screen: Diam. 5.62 in. Twp. 43 N
Length: 4 ft. Slot 15 Rge. 5 E
Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) | NE NW SE |
|-------------|-----------------|-----------|---------|----------|
| 5 | 200# PVC | 0 | 88 | |

16. Size hole below casing: 9 in.
17. Static level 35 ft. below casing top which is 1 ft. above ground level. Pumping level 47 ft. when pumping at _____ gpm for 5 hours.

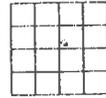
18. FORMATIONS PASSED THROUGH

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| frost | 2 | 2 |
| big boulders | 1 | 3 |
| clay | 2 | 5 |
| fine gravel & sand | 10 | 15 |
| fine gravel & clay | 5 | 20 |
| soft sandy clay | 30 | 50 |
| clay | 36 | 86 |
| fine gravel & sand | 6 | 92 |

Household - Private
McHenry 12-111-32768-00 11-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Weck, Daniel Well No. _____
 Address 119 S. Main St. Algonquin IL
 Well address 21508 Coral Rd. Marengo, IL
 Lot #1 Subd Coral Woods ISWS P# 309856
 Driller Huermann, John J. License No. 092-7780
 Permit No. G 8790 Date 08/25/1998 County McHenry
 Water from gravel
 at depth 76 to 84 ft.
 Screen: Diam. 5.62 in.
 Length: 4 ft. Slot 15



Casing and Liner Pipe NW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-------------------|-----------|---------|
| 5 | 200# PSI PVC 1120 | 0 | 80 |
| | | | |
| | | | |

Size hole below casing: _____ in.
 Static level 35 ft. below casing top which is 1 ft.
 above ground level. Pumping level 48 ft. when pumping at 25
 gpm for 8 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay & gravel | 1 | 1 |
| black dirt | 2 | 3 |
| clay | 73 | 76 |
| gravel | 8 | 84 |
| | | |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-36198-00 11-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Weck, John Well No. _____
 Address 609 West Main St. West Dundee IL
 Driller Nice, Marvin R. License No. 102-2458
 Permit No. 001864 Date 05/12/88
 12. Water from limestone 13. County McHenry
 at depth 152 to 380 ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____



Casing and Liner Pipe SE NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 152 |
| | | | |
| | | | |

15. Size hole below casing: 5 in.
 17. Static level 30 ft. below casing top which is 1 ft.
 above ground level. Pumping level 40 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sandy clay | 150 | 152 |
| hard shale | 18 | 170 |
| limestone | 210 | 380 |
| | | |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-26825-00 11-43N-05E

WATER HEALTH PROTECTION, 535 WEST
DO NOT DETACH GEOLOGICAL/WATER
RECORD FROM THIS LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed February 22, 1977

0. Property owner Richard E. Dana Well No. _____
Address Coral Oaks, Rd. Marengo, Ill.
Driller Paul Barker License No. 92-563
Permit No. 51528 Date August 27, 77
11. Water from Rock formation 13. County McHenry

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| | | | | |

14. at depth 120 to 126 ft. Sec. 11
Screen: Diam. _____ in. Twp. 13 N
Length: _____ ft. Slot _____ in. Rge. 5 E
Elev. _____

15. Casing and Liner Pipe

| Diam. (In.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | 15 # per ft. | 0 | 120 |
| | | | |
| | | | |

16. Size Hole below casing: 5 in.
17. Static level 30 ft. below casing top which is _____ ft.
above ground level. Pumping level 60 ft. when pumping at 10
gpm for 4 hours. Sub pump @ 84'

18. FORMATIONS PASSED THROUGH

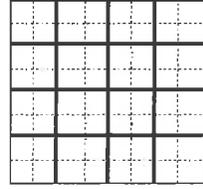
| FORMATIONS PASSED THROUGH | THICKNESS TAP | DEPTH OF BOTTOM |
|---------------------------|------------------|--------------------|
| Clay | 0 | 120 |
| Rock | 120 | 126 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
SIGNED Paul Barker DATE 3-21-77
COUNTY NO. 23294
MCHENRY 11-43N-5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 265 |
| shale | 265 | 270 |
| limestone | 270 | 380 |
| Total Depth | | 380 |
| Casing: 5" PVC F480 from 0' to 249' | | |
| 5" STEEL A53B from 249' to 270' | | |
| Grout: BAROID from 0 to 269. | | |
| Water from limestone at 270' to 380'. | | |
| Static level 90' below casing top which is 1' above GL | | |
| Pumping level 240' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 240' | | |
| on June 24, 2002, with a capacity of 10 gpm | | |
| Remarks: driller's est. well yield 15 gpm | | |
| Address of well: 8018 Maple St. | | |
| Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 28, | | |
| 2009. | | |
| Permit Date: April 2, 2002 | | |
| Permit #: 111-H80 | | |

COMPANY Nice, Mark E.
FARM Gallagher, Gary
DATE DRILLED June 21, 2002 **NO.**
ELEVATION **COUNTY NO.** 40151
LOCATION SW SW SE
LATITUDE 42.212139 **LONGITUDE** -88.597323
COUNTY McHenry **API** 121114015100



12 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 270 |
| limestone & shale | 270 | 340 |
| Total Depth | | 340 |
| Casing: 5" BLACK STEEL 15#/FT from 0' to 270' | | |
| Grout: CUTTINGS from 0 to 270. | | |
| Size hole below casing: 5" | | |
| Water from limestone & shale at 270' to 340'. | | |
| Static level 100' below casing top which is 1' above GL | | |
| Pumping level 110' when pumping at gpm for 4 hours | | |
| Permanent pump installed at 280' | | |
| on March 8, 1989, with a capacity of 20 gpm | | |
| Address of well: 7503 Hill Rd. Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 28, 2009. | | |
| Permit Date: November 10, 1988 | | |
| Permit #: 007685 | | |

COMPANY Nice, Craig
FARM Nazimek, Andrew
DATE DRILLED March 1, 1989 **NO.**
ELEVATION **COUNTY NO.** 27276
LOCATION SW SE NE
LATITUDE 42.219959 **LONGITUDE** -88.592691
COUNTY McHenry **API** 121112727600

| | | | | |
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| | | | | |

12 - 43N - 5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 7-20-73

0. Property owner _____ Well No. _____
 Address _____
 Driller _____ License No. _____
 1. Permit No. _____ Date _____
 2. Water from _____ 13. County _____

at depth _____ to _____ ft.
 4. Screen: Diam. _____ in. Sec. _____
 Length: _____ ft. Slot _____ in. Twp. _____
 Elev. _____ Rge. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 6 | 1 1/2" #10 | 105 | 280 |
| | | | |
| | | | |

16. Size Hole below casing: 6 in.
 17. Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours.

18. FORMATIONS PASSED THROUGH

| THICKNESS | DEPTH OF BOTTOM |
|-----------|-----------------|
| CLAY | 120 |
| SHALE | 200 |
| SHALE | 300 |
| LIMESTONE | 325 |
| | |
| | |
| | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED _____ DATE July 20, 73
 _____ COUNTY No. 1798
 MCHENRY 72 12-43N-5E

LOG OF WATER WELL

Property owner EARL WHITE Well No. _____
 Drilled by SILVUS BROS Year 66
 Formations passed through Permit #1366

| Formations passed through | Thickness | Depth of Bottom |
|---------------------------|-----------|-----------------|
| RED CLAY | 50 | 50 |
| SANDY CLAY | 140 | 190 |
| SANDY GRAVEL | 5 | 195 |
| GRAY CLAY | 105 | 300 |
| SHALE | 25 | 325 |
| LIMESTONE | 25 | 350 |

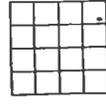
Received 4-3-67. [COUNTY No. 706...]

Finished in LIMESTONE at 325 to 350 ft.
 Cased with 5 inch _____ from 0 to 325 ft.
 and _____ inch _____ from _____ to _____ ft.
 Size hole below casing 5 inch. Static level from surf 140 ft.
 Tested capacity 24 gal. per min. Temperature _____ °F.
 Water lowered to 140 ft. in 3 hrs. _____ min.
 Length of test 3 hrs. _____ min. Screen _____
 Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.
 Township name RILEY Elev. _____
 Description of location 220'S 275'W Sec. 12
NEC SW NE SE Twp. 43N
 Rge. 5E
 Signed Dan Illinois County McHENRY 12-43N-5E
 Copy for Illinois State Geological Survey 73 Index:

| 18. Formations passed through (continued) | Thickness | Bottom |
|---|-----------|--------|
| broken limestone w/paste | 6 | 216 |
| soft shaley creviced limestone bedrock | 6 | 222 |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Waite Group, The Well No. #1
 Address 203 Meadow Ln Cary IL
 Driller Snelton, Stephen A. License No. 102-3167
 11. Permit No. 111-F-5136 Date 09/14/92
 12. Water from Limestone 13. County McHenry
 at depth 222 to 224 ft. Sec. 12
 14. Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 25 Elev.



15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | SW SE SE | |
|-------------|-----------------|-----------|---------|
| | | From (ft) | To (ft) |
| 5 | PVC | 22 | 201 |
| 5 | A53 BLK STL | 201 | 222 |

16. Size hole below casing: 5 in.
 17. Static level 60 ft. below casing top which is 1 ft. above ground level. Pumping level 60 ft. when pumping at gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| black dirt | 2 | 2 |
| yellow clay | 5 | 7 |
| sand & heavy gravel | 2 | 9 |
| red clay | 91 | 100 |
| blue-green shale | 15 | 115 |
| red sand | 12 | 127 |
| red clay | 73 | 200 |
| grey clay | 8 | 208 |
| red clay | 2 | 210 |

SUMMER HEALTH PROTECTION, 535 WEST
61. DO NOT DETACH GEOLOGICAL/WATER
E PROP --LL LOCA N.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed March 17, 1979

10. Property owner Leo R. Waeghe Well No. _____
Address 36 Sunnybrook Drive, Doylestown, PA
Driller William M. Boetsch License No. 92-436
Permit No. 80842 Date 10/17/78
12. Water from limestone 13. County McHenry

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at depth 360 to 420 ft. Sec. 12
Screen: Diam. _____ in. Twp. 43N
Length: _____ ft. Slot _____ Rge. 5E
Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5 | pvc | 1 | 318 |

SHOW LOCATION IN SECTION PLAT
L 5 Robert
Bartlett's
Coral Woods

16. Size Hole below casing: 5 in. Sd. 180' SL 80' WL SE NE
17. Static level 150 ft. below casing top which is 1 SE (permit);
above ground level. Pumping level 250 ft. when pumping at 10
gpm for 2 hours. Sub pump @ 300'

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| brown clay | 60 | 60 |
| pink clay | 210 | 270 |
| pink clay with gravel | 39 | 309 |
| broken rock and pink clay | 22 | 331 |
| green shale | 29 | 360 |
| limestone | 60 | 420 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED William M. Boetsch DATE 4/9/79

COUNTY NO. 23307

21 MCHENRY

12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Tracy Homes Well No. _____
Address % Gordon Schmabel 2793 Stone Quarry Belvidere IL
Well address N. Hill Rd. Marengo, IL
Lot 7 Subd Coral Woods ISNS P# 320291
Driller Nice, Mark E. License No. 102-3209
Permit No. H1117 Date 08/02/1999
Water from limestone County McHenry

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|--|--|--|--|--|--|
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at depth 343 to 350 ft. Sec. 12
Screen: Diam. _____ in. Twp. 43N
Length: _____ ft. Slot _____ Rge. 5E
Elev. _____

Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 322 |
| 5 | STEEL ASTM A53B | 322 | 343 |

SE NE SE

Size hole below casing: _____ in.
Static level 170 ft. below casing top which is 1 ft.
above ground level. Pumping level 240 ft. when pumping at 10
gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 341 | 343 |
| limestone | 7 | 350 |

Household - Private

McHenry 12-111-37256-00

12-43N-5E

ESTED AND MAIL ORIGINAL TO STATE DE-
STATE OFFICE BUILDING, SPRINGFIELD,
L/WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 7-26-72

10. Property owner Mabel M. Thomas Well No. 1
Address Hill Rd. Marengo, Ill.
Driller Paul Barker License No. 92-563
11. Permit No. 12942 Date June 8, 1971
12. Water from Limestone 13. County McHenry

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at depth 219 to 263 ft.
14. Screen: Diam. 4 3/4 in.
Length: 5E ft. Slot 5E in.
Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | Galv. 15# | 0 | 219 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
80' SL 80' WL of SE SE (permit)

16. Size Hole below casing: 5 1/2 in.
17. Static level 80 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at 20 gpm for 24 hours.

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top Soil | 0-5 | |
| Yellow Clay | 5-45 | |
| Red Clay | 45-55 | |
| Red Clay | 55-110 | |
| Blue Clay | 110-136 | |
| Fine Sand | 136-160 | |
| Gravel & Clay | 160-180 | |
| Gravel & Sand | 180-195 | |
| Hard Pan | 195-219 | |
| Rock | 219-262 | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE July 26, 1972

COUNTY No. 16.522...

20
MC HENRY

12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Iierney, Mike & Rebecca Well No.
Address 7712 N. Hill Rd. Marengo IL
Driller Huemann, John J. License No. 092-7780
11. Permit No. 111-G3879-96 Date 07/24/96
12. Water from Limestone 13. County McHenry
at depth 328 to 385 ft.
14. Screen: Diam. in.
Length: ft. Slot in.

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|--|--|--|--|--|--|
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| | | | | | |
| | | | | | |

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | 200# PVC SDR 21 ASTM | 0 | 328 |
| | | | |
| | | | |

NW NW SE

16. Size hole below casing: in.
17. Static level 140 ft. below casing top which is 1 ft. above ground level. Pumping level 190 ft. when pumping at 10 gpm for 6 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay | 68 | 68 |
| gravel | 5 | 73 |
| clay & gravel | 255 | 328 |
| limestone | 57 | 385 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-34708-00 12-43N-05E

12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 9-25-72

10. Property owner Martin Smith Well No. 1
 Address Ratfield Road & Maple St. Marengo
 Driller Paul Barker License No. 92-563
 11. Permit No. 15619 Date July 14, 1972
 12. Water from Rock 13. County McHenry
 at depth 299 to 399 ft. Sec. 12
 Screen: Diam. 4 3/4 in. Twp. 43N
 Length: 5 ft. Slot 5/8 in. Rge. 5 E
 Elev. 950

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5 | 15 # Per. Ft. | 0 | 299 |

SHOW LOCATION IN SECTION PLAT 80' N L 70' E L of NE NENNW (permit)

16. Size Hole below casing: 5 in.
 17. Static level 170 ft. below casing top which is 1 ft. above ground level. Pumping level 190 ft. when pumping at 15 gpm for 4 hours. Sub. pump set at 250'

18. FORMATIONS PASSED THROUGH

| THICKNESS (ft.) | DEPTH OF BOTTOM |
|-----------------|-----------------|
| 0 | 20 |
| 20 | 90 |
| 90 | 126 |
| 126 | 299 |
| 299 | 399 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE Sept, 30, 1972

COUNTY No. 8317

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Spears, John Well No. _____
 Address % Quality Construction 5118 Hill Rd. Marengo IL
 Driller Huemann, William F. License No. 102-1427
 11. Permit No. 127496 Date 10/23/86
 12. Water from gravel 13. County McHenry
 at depth 133 to 141 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 25 Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | 200# PVC | 0 | 137 |

NW SE SE

16. Size hole below casing: 7.87 in.
 17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at 15 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 3 | 3 |
| clay | 130 | 133 |
| gravel | 11 | 144 |

UNDER HEALTH PROTECTION, 535 WEST
 U. DO NOT DETACH GEOLOGICAL WATER
 WELL LOG. DN.

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed October 23, 1978

10. Property owner Scholl, John Well No. _____
 Address 9210 Conestoga Trail Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 132656 Date 06/15/87
 Water from gravel 13. County McHenry
 at depth 279 to 303 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: ft. Slot Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 303 |
| | | | |
| | | | |

16. size hole below casing: 5 in.
 17. static level 80 ft. below casing top which is 1 ft.
 above ground level. Pumping level 90 ft. when pumping at 10
 gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 277 | 279 |
| gravel | 24 | 303 |
| | | |
| | | |
| | | |
| | | |
| | | |

McHenry 12-111-26063-00 12-43N-05E

10. Property owner Howard Seedorf Well No. _____
 Address Beth Court Marengo, Ill
 Driller Paul Barker License No. 92 563
 Permit No. 75257 Date 6/8/78
 Water from Limestone 13. County McHenry
 at depth to ft. Sec. 12
 Screen: Diam. in. Twp. 43N
 Length: ft. Slot Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | Black Steel | 0 | 316 |
| | 15 lbs per ft | | |
| | | | |

16. Size Hole below casing: 5 in. EL NW NE (permit) _____ ft.
 17. Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours. Sub pump @ 280'

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top Soil | 4 | 4 |
| Clay & Sand | 216 | 220 |
| Shale | 96 | 316 |
| Limestone | 99 | 415 |
| | | |
| | | |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE 12/15/78
 COUNTY NO 23306
 McHENRY 12-43N-5E

CONSUMER HEALTH PROTECTION, 535 WEST
32761. DO NOT DETACH GEOLOGICAL/WATER
IDE PR "WELL LOC ON.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed August 27, 1979

10. Property owner W. O. Rizzo, Vince Well No. _____
 Address 1323 Sebring Cir. Elgin IL
 Driller Subd Bartlett's Coral Mds License No. ISWS P# 301579
 Permit No. 6-6299 Date 08/03/1997
 11. Water from limestone 13. County McHenry

at depth 237 to 320 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot 5/8 in. Rge. SE
 Elev. 445

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|----------------------|------------|----------|--|
| 5 | STEEL A538 15# | 0 | 226 | L 6 Little Creek Sd. NW NW NE (permit) |
| 5 | PVC SDR 17 ASTM F480 | 226 | 237 | |

16. Size Hole below casing: 5 in.
 17. Static level 120 ft. below casing top which is 1 ft. above ground level. Pumping level 200 ft. when pumping at 20 gpm for 4 hours. Sub pump @ 260'

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| limestone | 35 | 35 |
| brown stony - sandy clay | 5 | 40 |
| sand & gravel | 98 | 138 |
| brown stony - sandy clay | 5 | 143 |
| dark brown peat | 2 | 145 |
| dark gray sticky clay | 7 | 152 |
| gray - green stony - clay | 85 | 237 |
| brown stony clay | 83 | 320 |
| limestone | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED W. O. Rizzo DATE 8/31/79

COUNTY No. 23305

McHENRY

12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Rizzo, Vince Well No. _____
 Address 1323 Sebring Cir. Elgin IL
 Well address 20218 Coral Rd. Marengo, IL
 Lot 45 Subd Bartlett's Coral Mds ISWS P# 301579
 Driller Keller, Larry License No. 092-7210
 Permit No. 6-6299 Date 08/03/1997
 11. Water from limestone County McHenry

at depth 237 to 320 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot 5/8 in. Rge. SE
 Elev. 445

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) | NW SE SE |
|-------------|----------------------|-----------|---------|----------|
| 5 | STEEL ASTM A538 15# | 0 | 226 | |
| 5 | PVC SDR 17 ASTM F480 | 226 | 237 | |

Size hole below casing: 5 in.
 Static level 120 ft. below casing top which is 1 ft. above ground level. Pumping level 200 ft. when pumping at 20 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| brown stony - sandy clay | 35 | 35 |
| sand & gravel | 5 | 40 |
| brown stony - sandy clay | 98 | 138 |
| dark brown peat | 5 | 143 |
| dark gray sticky clay | 2 | 145 |
| gray - green stony - clay | 7 | 152 |
| brown stony clay | 85 | 237 |
| limestone | 83 | 320 |

Household - Private

McHenry 12-111-35403-00 12-43N-5E

17

HEALTH PROTECTION, 525 WEST
 61. DO NOT DETACH GEOLOGICAL/WATER
 EPRC WELL LOC ON.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed October 31, 1978

10. Property owner Anthony Bender Well No. _____
 Address 255 E. Palatine Rd Palatine, Ill
 Driller Paul Barker License No. 92 563
 Permit No. 78390 Date 8/21/78
 Water from Limestone 13. County McHenry
 at depth to ft.
 14. Screen: Diam. in.
 Length: ft. Slot in.

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| 5" | Black Steel | 0 | 295 | L 5 Little Creek Sd. |
| | 15 lbs per ft | | | 100'NL 75'EL |

16. Size Hole below casing: 5 in. NW NW NE (permit) ft.
 17. Static level 230 ft. below casing top which is 1 ft. above ground level. Pumping level 210 ft. when pumping at 10 gpm for 5 hours. Sub pump @ 200'

18. FORMATIONS PASSED THROUGH

| FORMATION | THICKNESS | DEPTH OF BOTTOM |
|---------------|-----------|-----------------|
| Top Soil | 4 | 4 |
| Clay & Gravel | 161 | 165 |
| Gravel | 8 | 173 |
| Clay & Gravel | 122 | 295 |
| Limestone | 128 | 307 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE 12/15/78
 COUNTY No. 23309
 McHENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Peck, Bill Well No. _____
 Address 605 E. Grant Hwy. Marengo IL
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-G4012-96 Date 08/21/96
 Water from Limestone 13. County McHenry
 at depth 240 to 260 ft.
 14. Screen: Diam. in.
 Length: ft. Slot in.

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |
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| | | | | |

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) | SE NE NE |
|-------------|----------------------|-----------|---------|----------|
| 5 | PVC ASTM F480 | 0 | 220 | |
| 5 | STL ASTM A53B 15#/FT | 220 | 241 | |

16. Size hole below casing: in.
 17. Static level 100 ft. below casing top which is 1 ft. above ground level. Pumping level 220 ft. when pumping at 12 gpm for 2 hours.

18. Formations passed through

| Formations | Thickness | Bottom |
|------------|-----------|--------|
| topsoil | 2 | 2 |
| sandy clay | 238 | 240 |
| limestone | 20 | 260 |

Household - Private
 McHenry 12-111-34918-00 12-43N-05E

FOR HEALTH PROTECTION, 535 WEST
DO NOT DETACH GEOLOGICAL/WATER
RECORD SHEET FROM WELL RECORD

Completed September 22, 1978

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property: Lot 1 Little Creek Sub, Marengo

10. Property owner Donald Nash Well No. _____
 Address 121 Aberdeen St., Hoffman Estates, IL
 Driller Jim Huemann License No. 102-142
 Permit No. 73598 Date 4/27/78
 11. Water from Limestone Formation Sec. X12
 at depth 353 to 438 ft. Twp. 43N
 12. Screen: Diam. _____ in. Rge. 5E
 Length: _____ ft. Slot _____ in. Elev. _____

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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SW SE NE |
|-------------|-----------------|------------|----------|----------|
| 5 | 200 lb P.V.C. | 0 | 353 | |
| 5 | Black | 353 | 438 | |

16. Size Hole below casing: 7-7/8 in.
 17. Static level 175 ft. below casing top which is 2 ft. above ground level. Pumping level 180 ft. when pumping at 10 gpm for 12 hours. Sub pump @ 320'

18. FORMATIONS PASSED THROUGH

| FORMATION | THICKNESS | DEPTH OF BOTTOM |
|---------------------|-----------|-----------------|
| Clay | 70ft | 70ft |
| Sand | 8ft | 78ft |
| Clay | 107ft | 185ft |
| Clay & Sand | 50ft | 235ft |
| Clay & Gravel | 105ft | 340ft |
| Gravel, Sand & Clay | 13ft | 353ft |
| Limestone | 85ft | 438ft |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED William J. Henry DATE 10-30-78
 COUNTY NO 23503
 MCHENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Nazimek, Andrew Well No. _____
 Address 203 Acorn Lane Lake in the Hills, IL
 Driller Nice, Craig License No. 102-3191
 Permit No. 007685 Date 11/10/88
 11. Water from Limestone & shale Sec. 12
 at depth 270 to 340 ft. Twp. 43 N
 12. Screen: Diam. _____ in. Rge. 5 E
 Length: _____ ft. Slot _____ in. Elev. _____

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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) | SW SE NE |
|-------------|--------------------|-----------|---------|----------|
| 5 | BLACK STEEL 15#/FT | 0 | 270 | |

16. Size hole below casing: 5 in.
 17. Static level 100 ft. below casing top which is 1 ft. above ground level. Pumping level 110 ft. when pumping at _____ gpm for 4 hours.

18. FORMATIONS PASSED THROUGH

| FORMATION | THICKNESS | DEPTH OF BOTTOM |
|-------------------|-----------|-----------------|
| top soil | 2 | 2 |
| clay | 268 | 270 |
| limestone & shale | 70 | 340 |

Household - Private
 MCHENRY 12-111-27276-00 12-43N-05E

REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF
 SUMMER HEALTH PROTECTION, 535 WEST
 61. DC ATTACH C LOGICAL/WATER
 E PROP. WELL LOC. ILL. 12-10-78

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed October 31, 1978
 Property owner Larry Mortimer Well No. 1
 Address Coral Rd., Marengo, Ill.

Driller Paul Barker License No. 92-563
 Permit No. 72707 Date April 7, 1978

Water from Limestone 13. County McHenry
 at depth 270 to 310 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43N
 Length: 5 ft. Slot 5 in. Rge. 5E
 Elev. 265

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SHOW LOCATION IN SECTION PLAT
 100' NL 75' WL
 SW NW SW
 (permit)

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5" | Galvanized | 0 | 248' |

16. Size Hole below casing: 5 in.
 17. Static level 100 ft. below casing top which is 8 ft. above ground level. Pumping level 110 ft. when pumping at 15 gpm for 1 hours. Sub pump @ 120'

| FORMATIONS PASSED THROUGH | THICKNESS | | DEPTH OF BOTTOM |
|---------------------------|-----------|--------|-----------------|
| | Top | Bottom | |
| Top Soil | 0 | 4' | |
| Clay | 4' | 36' | |
| Clay & Gravel | 36' | 65' | |
| Clay & Occa. Gravel | 65' | 120' | |
| Clay | 120' | 145' | |
| Clay & Fine Gravel | 145' | 198' | |
| Yellow Limestone | 198' | 230' | |
| Gray Limestone | 230' | 270' | |
| Yellow Limestone | 270' | 310' | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Gaul Barker DATE 12-10-78
 COUNTY NO. 3302

14 MCHENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Metcalfe, Ralph Well No. _____
 Address 20718 West Coral Rd. Marengo IL
 Well address same as above

Subd _____ ISWS P# 305967
 Driller Nice, Mark E. License No. 102-3209
 Permit No. G-8826 Date 08/31/1998

Water from Limestone County McHenry
 at depth 265 to 340 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 5 E
 Elev. _____

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| Casing and Liner Pipe | | | | SE SW SW | |
|-----------------------|-----------------|-----------|---------|-----------|--------|
| Diam. (in.) | Kind and Weight | From (ft) | To (ft) | Thickness | Bottom |
| 5 | PVC/ASTM F480 | 0 | 244 | 2 | |
| 5 | STEEL/ASTM A53B | 244 | 265 | 263 | 265 |
| | | | | 75 | 340 |

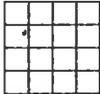
Size hole below casing: _____ in.
 Static level 80 ft. below casing top which is 1 ft. above ground level. Pumping level 200 ft. when pumping at _____ gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 263 | 265 |
| limestone | 75 | 340 |
| | | |
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Household - Private
 McHenry 12-111-35796-00 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Mein, Robert & Mary Well No. _____
 Address 1331 Portage Ln. Woodstock IL
 Well address 7310 N. Hill Rd. Marengo, IL
 Lot M/2.6 Subd Coral Woods ISWS P# 306082
 Driller Keller, Larry License No. 092-7210
 Permit No. G-7556 Date 03/31/1998
 Water from Limestone County McHenry
 at depth 357 to 380 ft.
 Screen: Diam. _____ in.
 Length: _____ ft. Slot _____



Casing and Liner Pipe SE NW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC SDR 17 ASTM F480 | 0 | 336 |
| 5 | STEEL ASTM A53B | 336 | 357 |

Size hole below casing: _____ in.
 Static level 165 ft. below casing top which is 1 ft.
 above ground level. Pumping level 175 ft. when pumping at 12
 gpm for 24 hours.

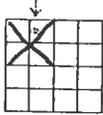
| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| brown stony clay | 200 | 200 |
| green stony clay | 25 | 225 |
| gray stony clay | 30 | 255 |
| brown stony clay | 25 | 280 |
| gray stony clay | 60 | 340 |
| blue clay | 11 | 351 |
| green clay | 3 | 354 |
| gravel & limestone | 3 | 357 |
| limestone | 23 | 380 |

Household - Private

McHenry 12-111-35795-00 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Merz, Ken Well No. _____
 Address 16 W 450 Honeysuckle Rose Hinsdale IL
 Driller Nice, Marvin R. License No. 102-002458
 11. Permit No. 138088 Date 12/08/87
 12. Water from Limestone 13. County McHenry
 at depth 282 to 350 ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____



15. Casing and Liner Pipe NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 282 |

16. Size hole below casing: 5 in.
 17. Static level 100 ft. below casing top which is 1 ft.
 above ground level. Pumping level 120 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay & sand | 280 | 282 |
| limestone | 68 | 350 |

McHenry 12-111-26537-00 12-43N-05E

REQUESTED AND MAIL ORIGINAL TO STATE
 SUMMER HEALTH PROTECTION, 535 WEST
 31. DR. DETACH GEOLOGICAL/WATER
 ENGINEERING WELL LOCALITY.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed August 8, 1978

10. Property owner Bob Martens Well No. 1
 Address Hill Rd. Robert Bartlette Coral Woods, Marengo
 Driller Paul Barker License No. 92-563
 11. Permit No. 70695 Date Jan. 11, 1978
 12. Water from Limestone 13. County McHenry
 at depth 400 to 415 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43N
 Length: 5 ft. Slot 5/8 in. Rge. 5E
 Elev. 955±

15. Casing and Liner Pipe 2 1/2" x 1/2" x 10' x 10'

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) | SE NE SE |
|-------------|-----------------|------------|----------|----------|
| 5" | Blacksteel | 0 | 320' | |
| | | | | |
| | | | | |

SHOW LOCATION IN SECTION PLAT
 L 15 Robert Bart. Cor. Woods Sd. 80'

16. Size Hole below casing: 5" in. NL 70' EL SE NE (permit)
 17. Static level 170.1 ft. below casing top which is 0.1 ft. above ground level. Pumping level 100 ft. when pumping at 8 gpm for 1 hours. Sub pump @ 375'

| FORMATIONS PASSED THROUGH | THICKNESS TBP | DEPTH OF BOTTOM |
|--------------------------------|---------------|-----------------|
| Top Soil | 0' | 3' |
| Clay & Sand & Gravel | 3' | 45' |
| Clay & Fine Gravel | 45' | 90' |
| Clay & Sand & Occ. Fine Gravel | 90' | 270' |
| White Limestone | 270' | 275' |
| Clay & Sand & Fine Gravel | 275' | 315' |
| White Limestone | 315' | 400' |
| Brown Limestone | 400' | 415' |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE 9-1-78
 COUNTY NO. 23301

MCHENRY

12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Mau, Carol & Pat Well No. _____
 Address 21704 Pleasant Grove Rd. Marengo IL
 Driller Nice, Marvin R. License No. 102-2458
 11. Permit No. 111-F6832-93 Date 07/21/93
 12. Water from Limestone 13. County McHenry
 at depth 340 to 420 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot _____ in. Rge. 5 E
 Elev. _____

15. Casing and Liner Pipe SE NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|---------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT. | 0 | 340 |
| | | | |
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16. Size hole below casing: 5 in.
 17. Static level 140 ft. below casing top which is 1 ft. above ground level. Pumping level 150 ft. when pumping at _____ gpm for 4 hours.

| FORMATIONS PASSED THROUGH | THICKNESS | BOTTOM |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 338 | 340 |
| Limestone | 80 | 420 |
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Household - Private

McHenry

12-111-32769-00

12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Kowalski, Shawn & Tamara Well No. _____
 Address % Real Log Homes 20217 W. Coral Rd. Marengo IL
 Well address same as above
 Lot 42 Subd Coral Woods ISWS P# 319612
 Driller Huemann, John J. License No. 092-7780
 Permit No. H0919 Date 07/15/1999 County McHenry
 Water from gravel & clay
 at depth 274 to 277 ft. Sec. 12
 Screen: Diam. 5.62 in. Twp. 43 N
 Length: 4 ft. Slot 25 Elev. _____

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Casing and Liner Pipe NW SE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC | 0 | 273 |
| 5.62 | STAINLESS STL SCREEN | 273 | 277 |

Size hole below casing: _____ in.
 Static level 90 ft. below casing top which is 1 ft.
 above ground level. Pumping level 105 ft. when pumping at 20
 gpm for 6 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay | 3 | 3 |
| sand & clay | 121 | 124 |
| dense clay | 149 | 273 |
| gravel & clay | 4 | 277 |
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Household - Private
 McHenry 12-111-37255-00 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Kunde, Daryle Well No. _____
 Address 446 Barbara Ct. Marengo IL
 Driller Nice, Marvin R. License No. 102-2458
 11. Permit No. 111-F6403-93 Date 06/03/93
 12. Water from Limestone 13. County McHenry
 at depth 250 to 260 ft. Sec. 12
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ Elev. _____

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15. Casing and Liner Pipe SW NW SW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|---------------------|-----------|---------|
| 5 | PLASTIC SCHEDULE 40 | 0 | 230 |
| 5 | BLK STEEL 15#/FT | 230 | 251 |

16. Size hole below casing: 5 in.
 17. Static level 80 ft. below casing top which is 1 ft.
 above ground level. Pumping level 90 ft. when pumping at _____
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 248 | 250 |
| limestone | 10 | 260 |
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Household - Private
 McHenry 12-111-32575-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 3-19-74

Property owner Herbert Kende Well No. _____
 Address Union, Illinois
 Driller Roetsch Water Supply, Inc. License No. 92-436
 Permit No. M19853 Date 13 County McHenry
 Water from Limestone Formation
 at depth 273 to _____ ft. Sec. 12
 Screen: Diam. _____ in. Twp. 43N
 Length: _____ ft. Slot _____ in. Rge. 5E
 Elev. _____

5. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| | | | |
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SHOW LOCATION IN SECTION PLAT
 SW SW SW (permit)

16. Size Hole below casing: _____ in.
 17. Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours. Submersible pump set at 120'.

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top soil | 2 | 2 |
| Brown clay | 10 | 12 |
| Pink clay | 138 | 150 |
| Broken rock and shale | 50 | 200 |
| Pink clay | 40 | 240 |
| Rock and shale streaks | 33 | 273 |
| Limestone | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Wm M. Roetsch DATE 3-26-74
 COUNTY No. 2002
 12
 McHENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Knisley, Darrell Well No. _____
 Address 511 E. Van Buren Marengo IL
 Well address 20315 Coral Marengo, IL
 Lot _____ Subd _____ ISWS P# 312570
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-H0540-99 Date 06/11/1999
 Water from Limestone County McHenry
 at depth 227 to 235 ft. Sec. 12
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 5 E
 Elev. _____

Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 206 |
| 5 | STEEL ASTM A53B | 206 | 227 |

Size hole below casing: _____ in.
 Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 225 | 227 |
| limestone | 8 | 235 |
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Household - Private
 McHenry 12-111-36815-00 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed November 20, 1978

1. Property owner Paul Holden Well No. _____
Address 20307 Coral RD Marengo, Ill
Driller Paul Barker License No. 92 563
Permit No. 77694 Date 8/1/78
2. Water from Gravel Formation _____ 13. County McHenry

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at depth _____ to _____ ft.
4. Screen: Diam. _____ in. Rge. 5E
Length: _____ ft. Slot _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5 | Black Steel | 0 | 270 |

SHOW LOCATION IN SECTION PLAT
L 43 Robert Bartlett's Coral Woods S.

16. Size Hole below casing: 5 in. 75' SL 80' EL NE SE SE
17. Static level _____ ft. below casing top which is _____ ft. when pumping at _____ gpm for _____ hours. Sub pump @ 100'

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top Soil | 6 | 6 |
| Sand & Gravel | 54 | 60 |
| Clay | 120 | 180 |
| Shale | 70 | 250 |
| Sand & Small Gravel | 20 | 270 |
| Big Gravel | 10 | 280 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
SIGNED Paul Barker DATE 12/15/78
COUNTY No. 23300
/s/ MCHENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Hughes, Dan & Julie Well No. _____
Address 4969 Christy Circle Rockford IL
Driller Nice, Mark E. License No. 102-3209
11. Permit No. 111-03587-96 Date 06/09/96
12. Water from Limestone 13. County McHenry
at depth 300 to 320 ft.
14. Screen: Diam. _____ in. Sec. 12
Length: _____ ft. Slot _____ Twp. 43 N
Rge. 5 E
Elev. _____

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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-------------------|-----------|---------|
| 5 | PVC/ASTM F480 | 0 | 272 |
| 5 | STEEL ASTM 15#/FT | 272 | 293 |

16. Size hole below casing: _____ in.
17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 140 ft. when pumping at _____ gpm for 2 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 288 | 290 |
| brown limestone | 2 | 292 |
| soft yellow shale | 8 | 300 |
| white limestone | 20 | 320 |

Household - Private
McHenry 12-111-33959-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 9-15-70

10. Property owner George Georgieff Well No. 1
Address Hill Rd. Marengo
Driller Paul Barker License No. 92-563
Permit No. NF 9024 Date 8/14/70
12. Water from Limestone 13. County McHenry

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at depth 286 to 311 ft.
14. Screen: Diam. 5 in. Rge. E
Length: 25 ft. Slot 3/16

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|--------------|-----------------|------------|----------|
| 5" 15# Galv. | | 0 | 286 |

SHOW LOCATION IN SECTION PLAT
80'SL 200'BL
of SE (permit)

16. Size Hole below casing: 5 in.
17. Static level 135 ft. below casing top which is 1 ft. above ground level. Pumping level 150 ft. when pumping at 20 gpm for 4 hours.

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Clay | 108 | |
| Sand & Gravel | 108-121 | |
| Clay | 121-265 | |
| Gravel | 265-286 | |
| Sandstone | 286-311 | 311 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul A. Barker DATE January 1, 1971

COUNTY NO. 1207

ER HEALTH PROTECTION, 535 WEST ...
DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION FROM ...
-L LOCA N. 10-12-251-004

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed November 9, 1976

1. Property owner Frank Grossen Well No. 92-563
Address W. Coral Road License No. 92-563
Driller Paul Barker Date August 3, 1976
Permit No. 50490 13. County McHenry

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2. Water from White Lime Rock Formation
at depth 250 to 315 ft.
14. Screen: Diam. 5 in. Rge. E
Length: 825 ft. Slot 3/16

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | 15# per ft. | 0 | 250 |

SHOW LOCATION IN SECTION PLAT
80'SL-60'WL
NW SW SW
(permit)

16. Size Hole below casing: 5 in.
17. Static level 80 ft. below casing top which is 1 ft. above ground level. Pumping level 180 ft. when pumping at 10 gpm for 1 hours. Sub pump @ 215'

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Clay | 0 | 10 |
| Clay and Gravel | 10 | 25 |
| Clay | 25 | 110 |
| Clay and Sand | 110 | 125 |
| Clay | 125 | 150 |
| Clay and Gravel | 150 | 235 |
| Clay | 235 | 250 |
| Shale | 250 | 315 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE Dec. 3 76

COUNTY NO. 23299

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6-7-73

1. Property owner Frank Giles Well No. 1
 Address Crest Hill Rd, Marion, Ill.
 Driller Paul Barker License No. 92-563
 Permit No. 32893 Date April 30, 1973
 2. Water from Shallow 13. County McHenry

at depth 33 to 298 ft.
 4. Screen: Diam. 5 in. Rge. SE
 Length: 2 ft. Slot 1/16 in. Elev. 926

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | Steel 15# | 0 | 233 |

16. Size hole below casing: 5 in.
 17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at 30 gpm for 3 hours. Sub. pump set at 147'

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Topsoil | 0 | 3 |
| Sand & Gravel | 3 | 21 |
| Blue Clay | 21 | 37 |
| Sand | 37 | 89 |
| Pink Clay | 89 | 197 |
| Blue Clay | 197 | 233 |
| Limestone | 233 | 298 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE July 1, 1973
 COUNTY No. 22259
 MC HENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Eunis, Ray & Charlotte Well No. _____
 Address 340 East St. Capron IL
 Well address North Hill Rd. Marengo, IL
 Lot 49 N1/2 Subd Coral Woods ISWS # 312649
 Driller Keller, Larry License No. 092-7210
 Permit No. 111-10493-99 Date 06/04/1999
 Water from limestone County McHenry

at depth 316 to 380 ft.
 4. Screen: Diam. 5 in. Rge. SE
 Length: _____ ft. Slot _____ in. Elev. _____

Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC SDR 17 ASTM F480 | 0 | 295 |
| 5 | STEEL 15# A53B | 295 | 316 |

Size hole below casing: _____ in.
 17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

FORMATIONS PASSED THROUGH

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 3 | 3 |
| brown stony clay | 157 | 160 |
| light green clay | 3 | 163 |
| dark brown clay | 8 | 171 |
| black clay | 2 | 173 |
| gray clay | 7 | 180 |
| sand/gravel | 12 | 192 |
| gray clay | 124 | 316 |
| limestone | 64 | 380 |

Household - Private
 McHenry 12-111-36814-00 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 4-21-71

Property owner Larry Ernesti Well No. 1
Address Coral West Road Marengo, Ill
Driller Paul Barker License No. 92-503
Permit No. 10178 Date Feb. 19, 1971
Water from McHenry 13. County

at depth 12 to 43N ft.
Screen: Diam. 5E in.
Length: X ft. Slot

5. Casing and Liner Pipe

| Diam. (In.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-----------------------------------|
| 5 | 15# Per Ft. | 0 | 268 | 30'SL 200'WL of NW NE SW (permit) |

6. Size Hole below casing: 5 in.
7. Static level 30 ft. below casing top which is 1 ft. above ground level. Pumping level 50 ft. when pumping at 20 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top Soil | 0-20 | 20 |
| Yellow Clay | 20-50 | 50 |
| Blue Clay | 50-80 | 80 |
| Red Clay | 80-100 | 100 |
| Hard Pan | 100-140 | 140 |
| Sand | 140-190 | 190 |
| Sand & Clay | 190-250 | 250 |
| Gravel | 250-268 | 268 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE 8-5-72
COUNTY NO. 1412

4- MC HENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 5-11-71

Property owner Larry Ernesti Well No. 2
Address E. Grant Hwy. Marengo, Ill
Driller Paul Barker License No. 92-563
Permit No. NF 10592 Date April 14, 1971
Water from Sand & Gravel 13. County McHenry

at depth 12 to 43N ft.
Screen: Diam. 5E in.
Length: X ft. Slot

5. Casing and Liner Pipe

| Diam. (In.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| 5 | 15# Galv | 0 | 210 | SW/c SE SE SE (permit) |

16. Size Hole below casing: 5 in.
17. Static level 89 ft. below casing top which is 1 ft. above ground level. Pumping level 100 ft. when pumping at 20 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Yellow Clay | 0-20 | 20 |
| Blue Clay | 20-40 | 40 |
| Red Clay | 40-115 | 115 |
| Sandy Clay | 115-125 | 125 |
| Hard Pan | 125-135 | 135 |
| Fine Sand | 135-180 | 180 |
| Sand & Gravel | 180-210 | 210 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE 8-5-72
COUNTY NO. 1413

5- MC HENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 10/27/76

Property owner Marie A. ... Well No. 1
 Address 415 S. ...
 Driller Paul Barker License No. 92-563
 Permit No. 41530 Date 10/23/76
 Water from Hand-dug 13. County McHenry
 at depth 31 to 33 ft.
 Screen: Diam. 5 in.
 Length: 5 ft. Slot 5E

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13. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | Black | 0 | 318 |

SHOW LOCATION IN SECTION PLAT
 Lot 10 Coral
 Was. Sd. 50' SL
 60' WL SW SE NE (permit)

6. Size Hole below casing: 5 in.
 7. Static level 184 ft. below casing top which is 15 ft. above ground level. Pumping level 215 ft. when pumping at 15 gpm for 2 hours. Sub. pump set at 215'

18. FORMATIONS PASSED THROUGH

| THICKNESS TOP | DEPTH OF BOTTOM |
|---------------|-----------------|
| Clay | 5 |
| Gravel | 95 |
| Clay & Gravel | 165 |
| Shale (Black) | 170 |
| Clay & Gravel | 180 |
| Summit | 317 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE 11-25-76
 COUNTY No. 20236

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 3-9-73

Property owner Jim Eornelly Well No. 1
 Address Coral Hill Rd, Marengo, Ill.
 Driller Paul Barker License No. 92-563
 Permit No. 17715 Date Jan. 23, 1973
 Water from Hand-dug Gravel 13. County McHenry
 at depth 225 to 283 ft.
 Screen: Diam. 5 in.
 Length: 5 ft. Slot 5E

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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | 15 # per ft. | 0 | 283 |

SHOW LOCATION IN SECTION PLAT
 75' NL 75' WL
 of SE SE SE (permit)

16. Size Hole below casing: 5 in.
 17. Static level 80 ft. below casing top which is 15 ft. above ground level. Pumping level 100 ft. when pumping at 15 gpm for 4 hours. Sub. pump set at 147'

18. FORMATIONS PASSED THROUGH

| THICKNESS TOP | DEPTH OF BOTTOM |
|---------------|-----------------|
| Top Soil | 0 |
| Yellow Clay | 5 |
| Sandy Clay | 40 |
| Blue Clay | 120 |
| Gravel | 225 |
| | 283 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE May 1, 1973
 COUNTY No. 22176

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Cypher, Lucien Well No. _____
 Address 3015 West Kenley McHenry IL
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 125429 Date 07/25/86
 Water from gravel 13. County McHenry
 at depth 293 to 295 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 2 ft. Slot 5 E Elev. 955

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15. Casing and Liner Pipe 950' N 100' W Sec Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 295 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 90 ft. below casing top which is 1 ft.
 above ground level. Pumping level 100 ft. when pumping at 10
 gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 291 | 293 |
| gravel | 2 | 295 |
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McHenry 12-111-25277-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Deal, William Well No. _____
 Address 17818 Meadow Lane Union IL
 Driller Senffner, Alan James License No. 102-2482
 Permit No. 001198 Date 04/15/88
 Water from limestone 13. County McHenry
 at depth to ft. Sec. 12
 Screen: Diam. in. Twp. 43 N
 Length: ft. Slot Elev.

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15. Casing and Liner Pipe SW SE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | STEEL 14.98 | 0 | 334 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level ft. below casing top which is 1 ft.
 above ground level. Pumping level 250 ft. when pumping at 10
 gpm for 2 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| drift | 334 | 334 |
| limestone | 96 | 430 |
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Household - Private
 McHenry 12-111-26750-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 3-75

0. Property owner James Brockman Well No. _____
 Address 18604 Rt. #176 Marengo IL
 Driller Marvin R. Nice License No. 102-002458
 1. Permit No. 120122 Date 09/05/85
 2. Water from Limestone 13. County McHenry
 at depth 313 to 385 ft.
 14. Screen: Diam. 5 in.
 Length: 5 ft. Slot 5 E

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15. Casing and Liner Pipe 60' S 2600' W Nec Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|--------------------|------------|----------|
| 5 | BLACK STEEL 15#/FT | 0 | 313 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
 NE SE SE
 (permit)

16. Size hole below casing: 5 in.
 17. Static level 120 ft. below casing top which is 1 ft. above ground level. Pumping level 130 ft. when pumping at 10 gpm for 4 hours. Sub. pump set at 189'

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| top soil | 5 | 5 |
| clay | 260 | 265 |
| shale | 48 | 313 |
| Yellow limestone | 72 | 385 |
| | | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Marvin R. Nice DATE SEP. 2, 1975
 COUNTY NO. 12-43N-5E
 McHENRY 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Brockman, James Well No. _____
 Address 18604 Rt. #176 Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 11. Permit No. 120122 Date 09/05/85
 12. Water from Limestone 13. County McHenry
 at depth 313 to 385 ft.
 14. Screen: Diam. 5 in.
 Length: 5 ft. Slot 5 E

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15. Casing and Liner Pipe 60' S 2600' W Nec Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 313 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 120 ft. below casing top which is 1 ft. above ground level. Pumping level 130 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 5 | 5 |
| clay | 260 | 265 |
| shale | 48 | 313 |
| Yellow limestone | 72 | 385 |
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McHenry 12-111-24660-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Brittany Builders/Job 304 Well No. _____
 Address 7516 Hill Rd. Marengo IL
 Driller Huemann, William F. License No. 102-1427

11. Permit No. 000392 Date 03/01/88
 12. Water from gravel 13. County McHenry

at depth 295 to 303 ft. Sec. 12
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 30 Rge. 5 E
 Elev. _____

NW NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | 200# PVC | 0 | 299 |
| | | | |
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15. Casing and Liner Pipe
 16. Size hole below casing: 7.87 in.
 17. Static level 150 ft. below casing top which is 1 ft. above ground level. Pumping level 175 ft. when pumping at _____ gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay | 194 | 194 |
| gravel | 10 | 204 |
| clay | 91 | 295 |
| gravel | 8 | 303 |
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Household - Private
 McHenry 12-111-26634-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Brackmann, Craig Well No. _____
 Address 20912 Ratfield Rd. Marengo IL
 Well address 7918 Maple St. Marengo, IL

Lot _____ Subd _____ ISWS P# 319731
 Driller Nice, Mark E. License No. 102-3209
 Permit No. H1496 Date 10/04/1999

Water from gravel County McHenry
 at depth 120 to 126 ft. Sec. 12
 Screen: Diam. 4 in. Twp. 43 N
 Length: 4 ft. Slot 20 Rge. 5 E
 Elev. _____

SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC/ASTM F480 | 0 | 122 |
| | | | |
| | | | |

Size hole below casing: _____ in.
 Static level 50 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at _____ gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 118 | 120 |
| gravel | 6 | 126 |
| | | |
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Household - Private
 McHenry 12-111-37519-00 12-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Bittenbender, Dan L. Well No. _____
 Address S. Hill Rd. Marengo IL
 Driller Pilgard, Peter License No. 102-0940
 11. Permit No. 135920 Date 10/01/87
 12. Water from Limestone 13. County McHenry
 at depth 208 ft. Sec. 12
 14. Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot _____ Rge. 5 E
 Elev. _____

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15. Casing and Liner Pipe SE SE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC 2.87 | 0 | 165 |
| 5 | GALV. 15 | 165 | 208 |

16. Size hole below casing: 5 in.
 17. Static level 75 ft. below casing top which is 1 ft.
 above ground level. Pumping level 75 ft. when pumping at 10
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 6 | 6 |
| gravel, boulders, sand | 8 | 14 |
| clay | 162 | 176 |
| broken limestone | 32 | 208 |
| | | |
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McHenry 12-111-26341-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Babbitt, Kent & Virginia Well No. _____
 Address 307 Old Hunt Rd. Cary IL
 Driller Huemann, William F. License No. 102-1427
 11. Permit No. 111-F6623-93 Date 07/14/93
 12. Water from Limestone 13. County McHenry
 at depth 240 to 352 ft. Sec. 12
 14. Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot _____ Rge. 5 E
 Elev. _____

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15. Casing and Liner Pipe NW SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|------------------|-----------|---------|
| 6 | A53B 18.97# P.E. | -1 | 195 |

16. Size hole below casing: 6 in.
 17. Static level 60 ft. below casing top which is 1 ft.
 above ground level. Pumping level 75 ft. when pumping at 15
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay & stones | 120 | 120 |
| fine sand | 20 | 140 |
| clay & stones | 40 | 180 |
| gravel & clay | 5 | 185 |
| fine sand | 5 | 190 |
| shale | 50 | 240 |
| limestone | 112 | 352 |
| | | |
| | | |

Household - Private
 McHenry 12-111-32815-00 12-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Zecchin, Lou Well No. _____
 Address 281 E. Benoris Wood Dale IL
 Driller Knierim, Phil License No. 102-0841
 11. Permit No. 012765 Date 07/06/89
 12. Water from rock 13. County McHenry
 at depth 100 to 380 ft. Sec. 12
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 5 E
 Elev.

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15. Casing and Liner Pipe NW SE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PLASTIC | 0 | 240 |
| | | | |
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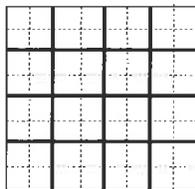
16. Size hole below casing: 5 in.
 17. Static level 100 ft. below casing top which is 1 ft. above ground level. Pumping level 336 ft. when pumping at _____ gpm for _____ hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 1 | 1 |
| clay | 79 | 80 |
| sand gravel | 155 | 235 |
| shale | 48 | 283 |
| rock | 97 | 380 |
| | | |
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ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------------|
| topsoil | 0 | 2 |
| sand & gravel | 2 | 35 |
| brown stony clay | 35 | 59 |
| sand & gravel | 59 | 90 |
| Total Depth | | 90 |
| Casing: 5" PVC from 0' to 84' 5" SS SCREEN from 84' to 88' | | |
| Screen: 4' of 5" diameter 25 slot | | |
| Grout: BENTONITE from 0 to 60. | | |
| Water from gravel at 84' to 88'. | | |
| Static level 8' below casing top which is 1' above GL | | |
| Pumping level 50' when pumping at 10 gpm for 3 hours | | |
| Remarks: driller's est well yield 12 gpm | | |
| Additional Lot: 6 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 20411 Demings Dr. Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 30, 2009. | | |
| Permit Date: February 11, 2002 | | Permit #: H-7845 |

COMPANY Keller, Larry
FARM Powers, Sarah
DATE DRILLED October 22, 2002 **NO.**
ELEVATION **COUNTY NO.** 40580
LOCATION NE NW SE
LATITUDE 42.203666 **LONGITUDE** -88.595814
COUNTY McHenry **API** 121114058000



13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-------------------------|-----------|
| topsoil | 0 | 2 |
| clay | 2 | 17 |
| gravel | 17 | 55 |
| clay | 55 | 76 |
| gravel | 76 | 84 |
| Total Depth | | 84 |
| Casing: 5" PVC F480 from 0' to 80' | | |
| 4" SS SCREEN from 80' to 84' | | |
| Screen: 4' of 4" diameter .02 slot | | |
| Grout: BAROID from 0 to 74. | | |
| Grout: BIRDSEYE from 80 to 84. | | |
| Water from gravel at 76' to 84'. | | |
| Static level 20' below casing top which is 1' above GL | | |
| Pumping level 60' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 60' | | |
| on May 17, 2003, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 20+ gpm | | |
| Additional Lot: 13 Subdivision: Maple Lake Estates | | |
| location info: | | |
| Address of well: 20306 Demings Dr. | | |
| Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 30, | | |
| 2009. | | |
| Permit Date: September 9, 2002 | Permit #: H-9501 | |

COMPANY Nice, Mark E.
FARM Flota, Alan & Paula
DATE DRILLED April 25, 2003 **NO.**
ELEVATION **COUNTY NO.** 40930
LOCATION NE NW SE
LATITUDE 42.204146 **LONGITUDE** -88.594508
COUNTY McHenry **API** 121114093000

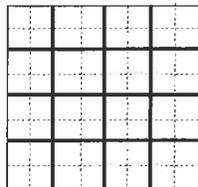
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13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-------------------------|-----------|
| topsoil | 0 | 2 |
| sand | 2 | 4 |
| gravel | 4 | 35 |
| clay | 35 | 63 |
| gravel | 63 | 79 |
| Total Depth | | 79 |
| Casing: 5" PVC F480 from 0' to 75' 4" SS SCREEN from 75' to 79' | | |
| Screen: 4' of 4" diameter .015 slot | | |
| Grout: BAROID from 0 to 69. | | |
| Grout: BIRDSEYE from 69 to 79. | | |
| Water from gravel at 63' to 79'. | | |
| Static level 10' below casing top which is 1' above GL | | |
| Pumping level 60' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 60' | | |
| on September 29, 2003, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 20 gpm | | |
| Additional Lot: 16 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 20410 Delks Dr. Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on October 1, 2009. | | |
| Permit Date: January 27, 2003 | Permit #: I-0732 | |

COMPANY Nice, Mark E.
FARM Wermes, David
DATE DRILLED September 25, 2003 **NO.**
ELEVATION **COUNTY NO.** 41063
LOCATION SE NW SE
LATITUDE 42.201717 **LONGITUDE** -88.595566
COUNTY McHenry **API** 121114106300

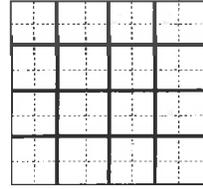


13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|--------------------------|--------|
| gravel | 0 | 27 |
| clay | 27 | 57 |
| gravel | 57 | 65 |
| Total Depth | | 65 |
| Casing: 5" PVC from 0' to 61' 5.625" SS SCREEN from 61' to 65' | | |
| Screen: 4' of 5.625" diameter 15 slot | | |
| Grout: WYOBEN 20% from 0 to 55. | | |
| Water from gravel at 57' to 65'. | | |
| Static level 3' below casing top which is 1' above GL | | |
| Pumping level 12' when pumping at 10 gpm for 6 hours | | |
| Permanent pump installed at 20' on May 3, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 25 gpm | | |
| Additional Lot: 21 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 20510 Delks Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on October 1, 2009. | | |
| Permit Date: December 1, 2003 | Permit #: 111-03- | |

COMPANY Huemann, Jeffrey
FARM Universal Homes
DATE DRILLED May 3, 2004 **NO.**
ELEVATION **COUNTY NO.** 41483
LOCATION SW NW SE
LATITUDE 42.201692 **LONGITUDE** -88.597922
COUNTY McHenry **API** 121114148300

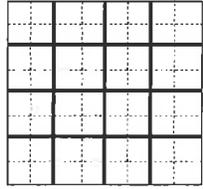


13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|--------------------------|-----------|
| topsoil | 0 | 2 |
| gravel & sand | 2 | 25 |
| clay | 25 | 60 |
| sandy gravel | 60 | 65 |
| clay | 65 | 71 |
| gravel | 71 | 78 |
| Total Depth | | 78 |
| Casing: 5" PVC F480 from 0' to 74' 4" SS SCREEN from 74' to 78' | | |
| Screen: 4' of 4" diameter .02 slot | | |
| Grout: BAROID from 0 to 68. | | |
| Grout: BIRDSEYE from 68 to 78. | | |
| Water from gravel at 71' to 78'. | | |
| Static level 10' below casing top which is 1' above GL | | |
| Pumping level 40' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 40' on July 7, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 20 gpm | | |
| Additional Lot: 23 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 8606 Maple Street Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 30, 2009. | | |
| Permit Date: April 7, 2004 | Permit #: 111-04- | |

COMPANY Nice, Mark E.
FARM Parchutz, Scott
DATE DRILLED June 22, 2004 **NO.**
ELEVATION **COUNTY NO.** 41563
LOCATION NW NW SE
LATITUDE 42.202946 **LONGITUDE** -88.597915
COUNTY McHenry **API** 121114156300

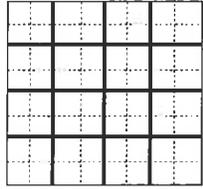


13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-------------------|------------|
| topsoil | 0 | 2 |
| clay | 2 | 91 |
| small gravel | 91 | 101 |
| Total Depth | | 101 |
| Casing: 5" PVC F480 from 0' to 97' 4" SS SCREEN from 97' to 101' Screen: 4' of 4" diameter .02 slot Grout: BIRDSEYE from 91 to 101. Grout: BAROID from 0 to 91. Water from gravel at 91' to 101'. Static level 38' below casing top which is 1' above GL Pumping level 80' when pumping at 10 gpm for 2 hours Permanent pump installed at 80' on October 19, 2004, with a capacity of 10 gpm Remarks: driller's est well yield 20 gpm Additional Lot: 35-N 1/2 Subdivision: Coral Woods location info: Address of well: 8321 South Hill Rd. Marengo, IL Location source: Digital Orthophoto Quad Verified by: VJA on September 30, 2009. | | |
| Permit Date: June 24, 2004 | Permit #: 111-04- | |

COMPANY Nice, Mark E.
FARM Elstrom, Arland Jr.
DATE DRILLED October 14, 2004 **NO.**
ELEVATION **COUNTY NO.** 41806
LOCATION NW SE NE
LATITUDE 42.20801 **LONGITUDE** -88.59214
COUNTY McHenry **API** 121114180600

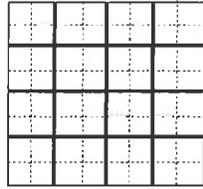


13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-------------------|
| clay | 0 | 3 |
| coarse gravel | 3 | 4 |
| gravel | 4 | 26 |
| clay & gravel | 26 | 65 |
| clay | 65 | 69 |
| gravel & sand | 69 | 75 |
| Total Depth | | 75 |
| Casing: 5" PVC from 0' to 71' 5.625" SS SCREEN from 71' to 75' | | |
| Screen: 4' of 5.625" diameter 20 slot | | |
| Grout: WYOBEN 20% from 0 to 60. | | |
| Water from gravel at 69' to 75'. | | |
| Static level 20' below casing top which is 1' above GL | | |
| Pumping level 25' when pumping at 10 gpm for 6 hours | | |
| Permanent pump installed at 30' on October 8, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 25+ gpm | | |
| Additional Lot: 11 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 20301 Demmings Dr. Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on October 1, 2009. | | |
| Permit Date: April 12, 2004 | | Permit #: 111-03- |

COMPANY Huemann, Joseph J.
 FARM Universal Homes
 DATE DRILLED October 8, 2004 NO.
 ELEVATION COUNTY NO. 41808
 LOCATION NE NW SE
 LATITUDE 42.203461 LONGITUDE -88.593973
 COUNTY McHenry API 121114180800



13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-------------------|
| topsoil | 0 | 4 |
| clay w/gravel | 4 | 6 |
| gravel coarse | 6 | 20 |
| gravel | 20 | 35 |
| sand | 35 | 40 |
| clay & stones | 40 | 50 |
| clay & gravel | 50 | 65 |
| fine gravel & sand | 65 | 80 |
| Total Depth | | 80 |
| Casing: 5" PVC from 0' to 76' 5.625" SS SCREEN from 76' to 80' | | |
| Screen: 4' of 5.625" diameter 15 slot | | |
| Grout: WYOBEN 20% from 0 to 40. | | |
| Water from gravel at 65' to 80'. | | |
| Static level 15' below casing top which is 1' above GL | | |
| Pumping level 22' when pumping at 10 gpm for 6 hours | | |
| Permanent pump installed at 30' | | |
| on October 7, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 25+ gpm | | |
| Additional Lot: 14 Subdivision: Maple Lake Shores | | |
| location info: | | |
| Address of well: 20402 Delk Dr. Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on October 1, 2009. | | |
| Permit Date: April 8, 2004 | | Permit #: 111-03- |

COMPANY Huemann, Joseph J.
FARM Universal Homes
DATE DRILLED October 7, 2004 **NO.**
ELEVATION **COUNTY NO.** 41807
LOCATION SE NW SE
LATITUDE 42.201097 **LONGITUDE** -88.594621
COUNTY McHenry **API** 121114180700

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13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-----------|
| topsoil | 0 | 2 |
| brown stoney clay | 2 | 8 |
| sand/gravel/boulders | 8 | 45 |
| brown stoney clay | 45 | 55 |
| brown peat | 55 | 62 |
| gray stoney clay | 62 | 64 |
| sand/gravel | 64 | 78 |
| Total Depth | | 78 |
| Casing: 5" PVC from 0' to 75' 5" SS SCREEN from 75' to 79' | | |
| Screen: 4' of 5" diameter 20 slot | | |
| Grout: BENTONITE from 0 to 60. | | |
| Water from sand/gravel at 75' to 79'. | | |
| Static level 28' below casing top which is 1' above GL | | |
| Pumping level 40' when pumping at 20 gpm for 2 hours | | |
| Permanent pump installed at 60' on August 29, 2005, with a capacity of 20 gpm | | |
| Remarks: driller's est well yield 20 gpm | | |
| Additional Lot: 10 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 20305 Demings Marengo, IL | | |
| Location source: Aerial Photograph verified by VJA on April 5, 2010. | | |
| Permit Date: January 31, 2005 Permit #: 111-05- | | |

COMPANY Keller, Larry
 FARM O'Brian Bldrs/O'Brien, Michael
 DATE DRILLED August 26, 2005 NO.
 ELEVATION COUNTY NO. 42496
 LOCATION NE NW SE
 LATITUDE 42.20311 LONGITUDE -88.594369
 COUNTY McHenry API 121114249600

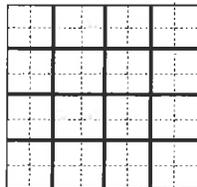
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13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-------------------|-----------|
| topsoil | 0 | 2 |
| clay | 2 | 5 |
| gravel | 5 | 30 |
| clay | 30 | 50 |
| sandy clay | 50 | 60 |
| clay | 60 | 70 |
| gravel | 70 | 77 |
| Total Depth | | 77 |
| Casing: 5" PVC F480 from 0' to 73' 4" SS SCREEN from 73' to 77' | | |
| Screen: 4' of 4" diameter .02 slot | | |
| Grout: BAROID from 0 to 67. | | |
| Grout: BIRDSEYE from 67 to 77. | | |
| Water from gravel at 70' to 77'. | | |
| Static level 20' below casing top which is 1' above GL | | |
| Pumping level 60' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 60' | | |
| on October 13, 2005, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 15-20+ gpm | | |
| Additional Lot: 1 Subdivision: Maple Lake Shores | | |
| location info: | | |
| Address of well: 20509 Demings Drive Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: WJA on October 1, 2009. | | |
| Permit Date: November 12, 2004 | Permit #: 111-096 | |

COMPANY Nice, Mark E.
 FARM Winchester Builders
 DATE DRILLED October 3, 2005 NO.
 ELEVATION COUNTY NO. 42497
 LOCATION NW NW SE
 LATITUDE 42.203364 LONGITUDE -88.598092
 COUNTY McHenry API 121114249700

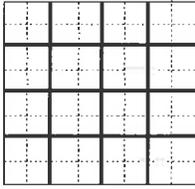


13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|-------------------|
| topsoil | 0 | 2 |
| clay | 2 | 45 |
| sand & gravel | 45 | 55 |
| clay | 55 | 93 |
| gravel | 93 | 97 |
| Total Depth | | 97 |
| Casing: 5" PVC F480 from 0' to 93' 4" SS SCREEN from 93' to 97' | | |
| Screen: 4' of 4" diameter .02 slot | | |
| Grout: BAROID from 0 to 87. | | |
| Grout: BIRDSEYE from 87 to 97. | | |
| Water from gravel at 93' to 97'. | | |
| Static level 25' below casing top which is 1' above GL | | |
| Pumping level 40' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 40' on May 3, 2006, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 20+ gpm | | |
| Additional Lot: 24 Subdivision: Riley Creek location info: | | |
| Address of well: 8908 South Hill Road Marengo, IL | | |
| Location source: Global Positioning System verified Verified by: VJA on April 5, 2010. | | |
| Permit Date: November 4, 2005 | | Permit #: 111-086 |

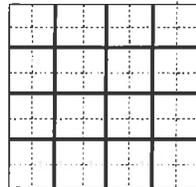
COMPANY Nice, Mark E.
FARM Pride DJ Builders
DATE DRILLED April 26, 2006 **NO.**
ELEVATION **COUNTY NO.** 42842
LOCATION SE SE SE
LATITUDE 42.198333 **LONGITUDE** -88.59
COUNTY McHenry **API** 121114284200 **13 - 43N - 5E**



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|-------------------|
| topsoil | 0 | 2 |
| gravel | 2 | 43 |
| sand | 43 | 65 |
| sandy clay | 65 | 132 |
| limestone | 132 | 150 |
| Total Depth | | 150 |
| Casing: 5" PVC F480 from 0' to 111' 5" STEEL A53B from 111' to 132' | | |
| Grout: BAROID from 0 to 131. | | |
| Water from limestone at 132' to 150'. | | |
| Static level 18' below casing top which is 1' above GL | | |
| Pumping level 120' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 120' on October 20, 2006, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 10-15 gpm | | |
| Additional Lot: 19 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 20502 Delk Dr. Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 30, 2009. | | |
| Permit Date: February 7, 2006 | | Permit #: 111-092 |

COMPANY Nice, Mark E.
FARM Garfield, Bryan & Carmen
DATE DRILLED October 16, 2006 **NO.**
ELEVATION **COUNTY NO.** 42928
LOCATION SW NW SE
LATITUDE 42.201456 **LONGITUDE** -88.597113
COUNTY McHenry **API** 121114292800

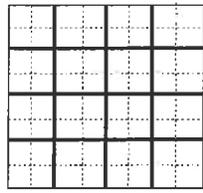


13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-----------|
| topsoil | 0 | 2 |
| clay and gravel | 2 | 10 |
| clay | 10 | 30 |
| gravel | 30 | 48 |
| clay | 48 | 88 |
| gravel | 88 | 98 |
| Total Depth | | 98 |
| Casing: 5" PVC F480 from 0' to 94' 4" SS SCREEN from 94' to 98' | | |
| Screen: 4' of 4" diameter .015 slot | | |
| Grout: BAROID from 0 to 88. | | |
| Grout: BIRDSEYE from 88 to 98. | | |
| Water from gravel at 88' to 98'. | | |
| Static level 20' below casing top which is 1' above GL | | |
| Pumping level 40' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 40' | | |
| on October 24, 2006, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20 gpm | | |
| Additional Lot: 23 Subdivision: Riley Creek | | |
| location info: | | |
| Address of well: 8914 S. Hill Road | | |
| Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on September 30, 2009. | | |
| Permit Date: June 5, 2006 | | |
| Permit #: 111-034 | | |

COMPANY Nice, Mark E.
 FARM Pride DJ Builders
 DATE DRILLED October 20, 2006 NO.
 ELEVATION COUNTY NO. 42996
 LOCATION SW SE SE
 LATITUDE 42.198382 LONGITUDE -88.591458
 COUNTY McHenry API 121114299600

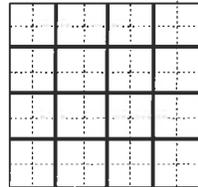


13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| gravel coarse | 0 | 75 |
| sand | 75 | 117 |
| clay | 117 | 118 |
| gravel | 118 | 173 |
| sand | 173 | 192 |
| gray shale, hard | 192 | 210 |
| limestone | 210 | 385 |
| Total Depth | | 385 |
| Casing: 6" STEEL from -4' to 193' | | |
| Grout: BENTONITE from 0 to 75. | | |
| Water from limestone at 210' to 385'. | | |
| Static level 140' below casing top which is 4' above GL | | |
| Permanent pump installed at 200' | | |
| on December 13, 2006, with a capacity of 12 gpm | | |
| Remarks: Driller's Estimated Well Yield 25 gpm | | |
| Additional Lot: 38 Subdivision: Riley Creek | | |
| location info: | | |
| Address of well: 20513 Delks Drive | | |
| Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VVA on September 30, 2009. | | |
| Permit Date: June 1, 2006 | | |
| Permit #: 111-020 | | |

COMPANY Jablonski, John A.
FARM Newman, Sam
DATE DRILLED November 12, 2006 **NO.**
ELEVATION **COUNTY NO.** 43025
LOCATION NW SW SE
LATITUDE 42.200542 **LONGITUDE** -88.598088
COUNTY McHenry **API** 121114302500



13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-------------------|------------|
| topsoil | 0 | 2 |
| clay | 2 | 5 |
| gravel | 5 | 29 |
| sandy clay | 29 | 55 |
| gravel | 55 | 70 |
| clay | 70 | 123 |
| limestone | 123 | 170 |
| shale | 170 | 180 |
| Total Depth | | 180 |
| Casing: 5" PVC F480 from 0' to 102' 5" STEEL A53B from 102' to 123' | | |
| Grout: BAROID from 0 to 122. | | |
| Water from limestone at 123' to 180'. | | |
| Static level 3' below casing top which is 1' above GL | | |
| Pumping level 140' when pumping at 15 gpm for 2 hours | | |
| Permanent pump installed at 140' | | |
| on August 31, 2007, with a capacity of 15 gpm | | |
| Remarks: Driller's Estimated Well Yield 15 gpm | | |
| Additional Lot: 17 Subdivision: Riley Creek location info: | | |
| Address of well: 9114 Hill Road Marengo, IL | | |
| Location source: Digital Orthophoto Quad Verified by: VJA on October 1, 2009. | | |
| Permit Date: December 13, 2006 | Permit #: 111-075 | |

COMPANY Nice, Mark E.
 FARM Vendegna, Mike
 DATE DRILLED July 12, 2007 NO.
 ELEVATION COUNTY NO. 43380
 LOCATION SE SW SE
 LATITUDE 42.198346 LONGITUDE -88.595999
 COUNTY McHenry API 121114338000

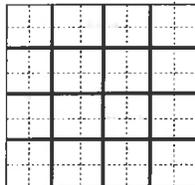
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13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|-----------|
| topsoil | 0 | 2 |
| clay | 2 | 45 |
| gravel & clay | 45 | 64 |
| clay | 64 | 82 |
| gravel | 82 | 90 |
| Total Depth | | 90 |
| Casing: 5" PVC F480 from 0' to 86' 4" STAINLESS STL SCREEN from 86' to 90' | | |
| Screen: 4' of 4" diameter .015 slot | | |
| Grout: BAROID from 0 to 80. | | |
| Grout: BIRDSEYE from 80 to 90. | | |
| Water from gravel at 82' to 90'. | | |
| Static level 20' below casing top which is 1' above GL | | |
| Pumping level 40' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 40' on July 19, 2007, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20+ gpm | | |
| Additional Lot: 29 Subdivision: Riley Creek location info: | | |
| Address of well: 8819 Hill Rd Marengo, IL 60052 | | |
| Location source: Global Positioning System verified Verified by: VJA on October 1, 2009. | | |
| Permit Date: June 13, 2006 Permit #: 111-036 | | |

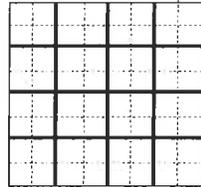
COMPANY Nice, Mark E.
FARM Wynstone Homes
DATE DRILLED July 10, 2007 **NO.**
ELEVATION **COUNTY NO.** 43381
LOCATION NE NW SE
LATITUDE 42.2 **LONGITUDE** -88.591667
COUNTY McHenry **API** 121114338100 **13 - 43N - 5E**



ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|-------------------|
| gravel, rocks, sand, clay | 0 | 10 |
| large rocks | 10 | 32 |
| clay | 32 | 47 |
| peat | 47 | 54 |
| gravel & sand | 54 | 67 |
| Total Depth | | 67 |
| Casing: 5" PVC from 0' to 63' | | |
| 5.625" STAINLESS STEEL from 63' to 67' | | |
| Grout: WYOBEN 20% from 0 to 56. | | |
| Water from gravel at 63' to 67'. | | |
| Static level 6' below casing top which is 1' above GL | | |
| Pumping level 10' when pumping at 10 gpm for 6 hours | | |
| Permanent pump installed at 20' | | |
| on July 18, 2007, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 30 gpm | | |
| Additional Lot: 7 Subdivision: Maple Lake Shores | | |
| location info: | | |
| Address of well: 20407 Demings Dr | | |
| Marengo, IL | | |
| Location source: Global Positioning System verified Verified by: VJA on April | | |
| 5, 2010. | | |
| Permit Date: April 7, 2005 | | Permit #: 111-021 |

COMPANY Huemann, Joseph J.
FARM Universal Homes
DATE DRILLED July 18, 2007 **NO.**
ELEVATION **COUNTY NO.** 43514
LOCATION NW NW SE
LATITUDE 42.203472 **LONGITUDE** -88.595611
COUNTY McHenry **API** 121114351400



13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 220 |
| limestone | 220 | 240 |
| Total Depth | | 240 |
| Casing: 5" PVC F480 from 0' to 199' | | |
| 5" STEEL A53B from 199' to 220' | | |
| Grout: BAROID from 0 to 220. | | |
| Water from limestone at 220' to 240'. | | |
| Static level 60' below casing top which is 1' above GL | | |
| Pumping level 120' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 120' | | |
| on October 1, 2008, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20+ gpm | | |
| Additional Lot: 17 Subdivision: Coral Woods | | |
| location info: | | |
| Address of well: 8114 S. Hill Rd. | | |
| Marengo, IL | | |
| Location source: Tax record verified Verified by: VJA on April 5, 2010. | | |
| Permit Date: May 28, 2008 | | |
| Permit #: 111-015 | | |

COMPANY Nice, Mark E.
FARM Pride DJ Builders
DATE DRILLED September 17, 2008 **NO.**
ELEVATION **COUNTY NO.** 43691
LOCATION NE NE NE
LATITUDE 42.210412 **LONGITUDE** -88.590768
COUNTY McHenry **API** 121114369100

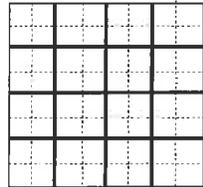
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13 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| gravel & sand | 2 | 32 |
| clay | 32 | 134 |
| limestone | 134 | 150 |
| Total Depth | | 150 |
| Casing: 5" PVC F480 from 0' to 113' 5" STEEL A53B from 113' to 134' | | |
| Grout: BAROID from 0 to 133. | | |
| Water from limestone at 134' to 150'. | | |
| Static level 6' below casing top which is 1' above GL | | |
| Pumping level 120' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 120' | | |
| on February 10, 2009, with a capacity of 10 gpm | | |
| Remarks: driller's est. well yield 10-15 gpm | | |
| Additional Lot: 20 Subdivision: Maple Lake Shores location info: | | |
| Address of well: 20506 Delks Dr. Marengo, IL | | |
| Location source: Aerial Photograph verified Verified by VJA on November 9, 2011. | | |
| Permit Date: June 19, 2008 Permit #: 111-019 | | |

COMPANY Nice, Mark E.
FARM Skylark Construction
DATE DRILLED February 9, 2009 **NO.**
ELEVATION **COUNTY NO.** 44094
LOCATION SW NW SE
LATITUDE 42.201318 **LONGITUDE** -88.597511
COUNTY McHenry **API** 121114409400



13 - 43N - 5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Alimovski, Kujtim Well No. _____
 Address 702 E. University Dr. Harvard IL
 Driller Knierim, James License No. 102-0270
 Permit No. 89551 Date 09/10/79 County McHenry
 11. Water from sand gravel 13. County McHenry
 at depth 30 to 220 ft.
 14. Screen: Diam. 4 in. Sec. 13
 Length: 4 ft. Slot 15 Twp. 43 N
 Rge. 5 E
 Elev. _____

15. Casing and Liner Pipe SE NW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PLASTIC | 0 | 220 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 30 ft. below casing top which is 1 ft.
 above ground level. Pumping level 120 ft. when pumping at _____
 gpm for _____ hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay | 170 | 170 |
| sand gravel | 10 | 180 |
| clay | 10 | 190 |
| sand gravel | 30 | 220 |
| | | |
| | | |
| | | |
| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Seeman, Guy Well No. _____
 Address 6103 Fairfield Dr. Union IL
 Well address 20419 Demings Dr. Marengo, IL
 Lot 4 Subd Maple Lake Shores ISWS P# 313122
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-G9946-99 Date 03/12/1999
 Water from gravel County McHenry
 at depth 63 to 67 ft. Sec. 13
 Screen: Diam. 4 in. Twp. 43 N
 Length: 4 ft. Slot 15 Rge. 5 E
 Elev. _____

Casing and Liner Pipe NW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 63 |
| | | | |
| | | | |

Size hole below casing: _____ in.
 Static level 12 ft. below casing top which is 1 ft.
 above ground level. Pumping level 20 ft. when pumping at 10
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel | 28 | 30 |
| clay | 33 | 63 |
| gravel | 4 | 67 |
| | | |
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| | | |

Household - Private

REGISTERED AND MAIL ORIGINAL TO STATE
 ENVIRONMENTAL HEALTH, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 DEPARTMENT WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed 7-18-73

Property owner B. K. BAKER Well No. _____
 Address 8116 MAPLE MARSH
 Driller FRANK H. MATTHEWS License No. 335
 Permit No. 42429 Date 7-26-73
 Water from LAKE 13. County MC HENRY

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Sec. 13
 Twp. 43 N
 Rge. 5 E
 Elev. _____

| Diam. (in.) | Kind and Weight | From (Ft.) To (Ft.) | | SHOW LOCATION IN SECTION PLAT (Permit) |
|-------------|---------------------|---------------------|--|--|
| | | | | |
| 5 1/4 | GRAVEL 540 7/8 157# | | | SW NW NE |

6. Size Hole below casing: 5 in.
 7. Static level 75 ft. below casing top which is _____ ft. above ground level. Pumping level 102 ft. when pumping at 15 gpm for _____ hours.

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| TOP SOIL | 1 | 1 |
| GRAVEL & CLAY | 3 | 4 |
| CLAY SAND GRAVEL | 244 | 248 |
| ROCK | 35 | 283 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Frank H. Matthews DATE 7-28-73
 McHENRY COUNTY WELL & PUMP CO.
 4913 W. McCULLOM LAKE RD.
 McHENRY, ILLINOIS 60050
 COUNTY No. 1255
 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Bauer, Mike & Nancy Well No. _____
 Address 677 Coral Bartlett IL
 Well address 20405 Demings Drive Marengo, IL
 Lot 8 Subd Maple Lake Shore ISMS P# 322491
 Driller Nice, Mark E. License No. 102-3209
 Permit No. H2116 Date 12/14/1999
 Water from gravel County McHenry

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Sec. 13
 Twp. 43 N
 Rge. 5 E
 Elev. _____

| Casing and Liner Pipe | | NE NW SE | |
|-----------------------|----------------------|-----------|---------|
| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
| 5 | PVC F480 | 0 | 63 |
| 4 | STAINLESS STL SCREEN | 63 | 67 |

Size hole below casing: _____ in.
 Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel | 33 | 35 |
| clay | 27 | 62 |
| gravel | 5 | 67 |

Household - Private
 McHenry 12-111-37464-00 13-43N-5E

REPRODUCED AND MAIL ORIGINAL TO STATE DEPARTMENT OF HEALTH PROTECTION, 535 WEST 12TH STREET, DENVER, COLORADO

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 9-13-1979

Property owner Warren Brokaw Well No.
Address Lot 8, Robt. Bartletts Coral Woods
Driller Wm. F. Huemann License No. 102-142
Permit No. 85626 Date 5/15/70
Water from Gravel Formation Sec. 13
at depth 50 to 75 ft. Twp. 43N
Screen: Diam. 5 in. Rge. 5E
Length: 4 ft. Slot 20

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| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT | |
|-------------|-----------------|------------|----------|-------------------------------|-------------|
| | | | | Lot# | Subd. |
| 5 | 200 lb P.V.C. | 0 | 71 | Lot#8, Coral | Woods Subd. |
| | | | | NE NE NE | |

5. Casing and Liner Pipe

6. Size Hole below casing: 7-7/8 in. (permit)

7. Static level 57 ft. below casing top which is 15 ft. above ground level. Pumping level 60 ft. when pumping at 15 gpm for 3 hours. Sub pump set at 71'.

| FORMATIONS PASSED THROUGH | THICKNESS | | DEPTH OF BOTTOM |
|---------------------------|-----------|--------|-----------------|
| | Top | Bottom | |
| Clay | 50 | 50 | |
| Gravel | 75 | 75 | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED William F. Huemann DATE 9-19-79
COUNTY No. 23536
MCHENRY

13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 9-2-72

Property owner Adam Brenner Well No. 1
Address Maple St. Rd. Marengo, Ill.
Driller Paul Barker License No. 92-563
Permit No. ME11361 Date April 21, 1972
Water from Rock Formation Sec. 13
at depth 158 to 206 ft. Twp. 43N
Screen: Diam. in. Rge. 5E
Length: ft. Slot

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| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT | |
|-------------|-----------------|------------|----------|-------------------------------|----------|
| | | | | Lot# | Subd. |
| 5" | Galv. 15# | 0 | 158 | 80'SL | 80'EL |
| | | | | of NW NW NW | (permit) |

6. Size Hole below casing: 5 in.

7. Static level 80 ft. below casing top which is 15 ft. above ground level. Pumping level ft. when pumping at 15 gpm for 2 hours.

| FORMATIONS PASSED THROUGH | THICKNESS | | DEPTH OF BOTTOM |
|---------------------------|-----------|--------|-----------------|
| | Top | Bottom | |
| Sand & Gravel | 2 | 36 | |
| Blue Clay | 36 | 104 | |
| Pink Clay | 104 | 158 | |
| Rock | 158 | 206 | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE April 10, 1972
COUNTY No. 281
MCHENRY

13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 6-14-73

0. Property owner James R. Barber, Chicago, Ill. Well No. 1
 Address 9571 S. Oak Ave., Chicago, Ill.
 Driller Paul Barber License No. 92-563
 Permit No. 23217 Date May 22, 1973
 1. Water from Sanitary 13. County McHenry
 2. Formation
 at depth 201 to 227 ft. Sec. 13
 14. Screen: Diam. 5 in. Twp. 43 N
 Length: 5 ft. Slot 5 in. Rge. 5 E
 Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5" | 15# steel | 0 | 201 |

16. Size hole below casing: 5 in.
 17. Static level 50 ft. below casing top which is 1 ft. above ground level. Pumping level 50 ft. when pumping at 30 gpm for 20 hours. Sub. pump set at 63

18. FORMATIONS PASSED THROUGH

| FORMATION | THICKNESS- TOP | DEPTH OF BOTTOM |
|---------------|----------------|-----------------|
| Topsoil | 0 | 2 |
| Sand & gravel | 2 | 23 |
| Gravel & clay | 23 | 78 |
| Blue clay | 78 | 122 |
| White sand | 122 | 201 |
| Limestone | 201 | 227 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barber DATE July 1, 1973
 COUNTY No. 27760
 MC HENRY 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Demings, Donald F. Well No.
 Address P.O. Box #172 Marengo IL
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-F-0363 Date 07/16/90
 11. Water from limestone 13. County McHenry
 12. Formation
 at depth 200 to 320 ft. Sec. 13
 14. Screen: Diam. 5 in. Twp. 43 N
 Length: ft. Slot 5 in. Rge. 5 E
 Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 188 |

16. size hole below casing: 5 in.
 17. Static level 35 ft. below casing top which is 1 ft. above ground level. Pumping level 45 ft. when pumping at gpm for 4 hours.

18. Formations passed through

| Formations | Thickness | Bottom |
|---------------|-----------|--------|
| top soil | 2 | 2 |
| sand & clay | 3 | 5 |
| gravel & sand | 29 | 34 |
| clay | 146 | 180 |
| dark shale | 20 | 200 |
| limestone | 120 | 320 |

Household - Private
 McHenry 12-111-31187-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Carmichael Const. Well No. _____
 Address 9220 Fairway Lane Marengo IL
 Driller Knierim, Phillip E. License No. 102-841
 11. Permit No. 106714 Date 04/08/83
 12. Water from rock 13. County McHenry
 at depth 70 to 260 ft. Sec. 13
 Screen: Diam. 4 in. Twp. 43 N
 Length: 4 ft. Slot .02 Elev. _____

15. Casing and Liner Pipe NW NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PLASTIC | 0 | 202 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 70 ft. below casing top which is 1 ft.
 above ground level. Pumping level 140 ft. when pumping at _____
 gpm for _____ hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay | 200 | 200 |
| shale | 5 | 205 |
| rock | 55 | 260 |
| | | |
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McHenry 12-111-23886-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Oberg, Ted & Donna Well No. _____
 Address % Brackman Construction 20425 Ridgeview Lane Marengo IL
 Well address 20415 Demings Drive Marengo, IL
 Lot 5 Subd Maple Lake Shores ISWS P# 334156
 Driller Nice, Mark E. License No. 102-3209
 Permit No. H-4762 Date 03/16/2001
 Water from gravel County McHenry
 at depth 50 to 67 ft. Sec. 13
 Screen: Diam. 4 in. Twp. 43 N
 Length: 4 ft. Slot .02 Elev. _____

Casing and Liner Pipe NW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC F480 | 0 | 63 |
| 4 | STAINLESS STL SCREEN | 63 | 67 |
| | | | |

Size hole below casing: _____ in.
 Static level 5 ft. below casing top which is 1 ft.
 above ground level. Pumping level 20 ft. when pumping at 10
 gpm for 2 hours.

Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel | 28 | 30 |
| clay | 20 | 50 |
| gravel | 17 | 67 |
| | | |
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| | | |

Household - Private
 McHenry 12-111-39314-00 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed September 30, 1977

10. Property owner Robert L. Bartlett Well No. _____
 Address 240 Robert L. Bartlett Dr. Mchenry, Ill.
 Driller Robert L. Bartlett License No. 102-002458
 Permit No. 6-8986 Date 5-19-78
 11. Water from Rock Formation McHenry
 at depth 200 to 200 ft.
 12. Water from Limestone License No. 102-002458
 at depth 156 to 185 ft. Sec. 13
 Screen: Diam. _____ in. Twp. 43N
 Length: _____ ft. Slot _____ in. Rge. 5E
 Elev. _____

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15. Casing and Liner Pipe
 Diam. (in.) Kind and Weight From (ft.) To (ft.)
5 Black Steel 15#/ft 0 140
 Formation Rock
 Location in Section Plat L 29 Robert Bartlett's Coral Woods

16. Size Hole below casing: 5 in. Sd. E/2 NE (permit)
 17. Static level 10 ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours. Sub pump @ 168'

| FORMATIONS PASSED THROUGH | THICKNESS TOP | DEPTH OF BOTTOM |
|---------------------------|---------------|-----------------|
| <u>Gravelly Sand</u> | <u>0</u> | <u>140</u> |
| <u>Rock Limestone</u> | <u>140</u> | <u>200</u> |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Max Krumm, Eng. DATE 5-19-78
 COUNTY NO. 3307
 MCHENRY 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Campbell, Harold Well No. _____
 Address RR #3 Hampshire IL
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 107252 Date 05/23/83
 12. Water from Limestone License No. 102-002458
 at depth 156 to 185 ft. Sec. 13
 Screen: Diam. _____ in. Twp. 43N
 Length: _____ ft. Slot _____ in. Rge. 5E
 Elev. _____

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15. Casing and Liner Pipe
 Diam. (in.) Kind and Weight From (ft.) To (ft.)
5 BLACK STEEL 15#/FT 0 156
 Formation Rock
 Location in Section Plat L 29 Robert Bartlett's Coral Woods

16. Size hole below casing: 5 in.
 17. Static level 35 ft. below casing top which is _____ ft.
 above ground level. Pumping level 20 ft. when pumping at _____
 gpm for _____ hours.

| FORMATIONS PASSED THROUGH | THICKNESS | BOTTOM |
|--------------------------------|------------|------------|
| <u>top soil</u> | <u>4</u> | <u>4</u> |
| <u>clay</u> | <u>133</u> | <u>137</u> |
| <u>sand, clay & gravel</u> | <u>19</u> | <u>156</u> |
| <u>limestone</u> | <u>29</u> | <u>185</u> |
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MCHENRY 12-111-27422-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Diversified Ent./Bussert Well No. _____
 Address Arlington Heights, IL
 Well address 8701 S. Hill Rd. Marengo, IL
 Lot 31 Subd Bartletts Coral Wood ISWS P# _____
 Driller Keller, Larry License No. 092-7210
 Permit No. G-4731-96 Date 11/16/1996
 Water from sand & gravel County McHenry
 at depth 84 to 87 ft. Sec. 13
 Screen: Diam. 5 in. Twp. 43 N
 Length: 3 ft. Slot 25 Elev. _____

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Casing and Liner Pipe NW NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC SDR 17 ASTM F480 | 0 | 84 |
| | | | |
| | | | |

Size hole below casing: _____ in.
 Static level 31 ft. below casing top which is 1 ft.
 above ground level. Pumping level 35 ft. when pumping at 12
 gpm for 3 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 1 | 1 |
| brown stony clay | 54 | 55 |
| gray stony clay | 8 | 63 |
| soft brown clay | 2 | 65 |
| dark brown peat | 10 | 75 |
| dark gray clay | 3 | 78 |
| green clay | 2 | 80 |
| sand & gravel | 7 | 87 |
| | | |
| | | |

Household - Private
 McHenry 12-111-35377-00 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Clark, Will Well No. _____
 Address % Timber Construction 1009 Masen Ln. Lake in The Hills IL
 Well address 8702 Maple St. Marengo, IL
 Lot 22 Subd Maple Lake Shores ISWS P# 312064
 Driller Keller, Larry License No. 092-7210
 Permit No. G-9400 Date 11/11/1998
 Water from sand & gravel County McHenry
 at depth 61 to 65 ft. Sec. 13
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 25 Elev. _____

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Casing and Liner Pipe SW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC SDR 17 ASTM F480 | 0 | 61 |
| | | | |
| | | | |

Size hole below casing: _____ in.
 Static level 2 ft. below casing top which is 1 ft.
 above ground level. Pumping level 3 ft. when pumping at 12
 gpm for 24 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| sand & gravel | 35 | 37 |
| brown stony clay | 12 | 49 |
| gray stony clay | 4 | 53 |
| sand & gravel | 17 | 70 |
| | | |
| | | |

Household - Private
 McHenry 12-111-36546-00 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Halimi, Shenazi Well No. _____
 Address 702 E. University Dr., Harvard IL
 Driller Knierim, James License No. 102-0270
 Permit No. 89552 Date 09/10/79
 12. Water from rock 13. County McHenry
 at depth to ft. Sec. 13
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 5 E
 Elev.

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15. Casing and Liner Pipe NW SW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PLASTIC | 0 | 223 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 45 ft. below casing top which is 1 ft.
 above ground level. Pumping level 160 ft. when pumping at _____
 gpm for _____ hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 1 | 1 |
| sand gravel | 2 | 3 |
| clay | 57 | 60 |
| sand gravel | 35 | 95 |
| clay | 35 | 130 |
| sand gravel | 12 | 142 |
| clay | 36 | 178 |
| sand gravel | 12 | 190 |
| clay | 33 | 223 |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Diversified Enterprises, Inc. Well No. _____
 Address 10314 Ridge Ln. Marengo IL
 Driller Nice, Marvin R. License No. 102-2458
 Permit No. 111-F9119-94 Date 07/27/94
 12. Water from gravel 13. County McHenry
 at depth 160 to 166 ft. Sec. 13
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 5 E
 Elev.

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15. Casing and Liner Pipe SW SE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 166 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level 30 ft. when pumping at _____
 gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| gray clay | 158 | 160 |
| gravel | 6 | 166 |
| | | |
| | | |
| | | |
| | | |

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of well
a. Dug _____ Bored _____ Hole Diam. _____ in. Depth 320 ft.

b. Driven _____ Drive Pipe Diam. _____ in. Depth _____ ft.
c. Drilled Finished in Drift _____ In Rock
Tubular _____ Gravel Packed _____

d. Grout:

| (Kind) | From (ft) | To(ft) |
|----------|-----------|--------|
| CUTTINGS | | |
| | | |
| | | |

2. Distance to Nearest:
Building _____ Ft. Seepage Tile Field _____
Cess Pool _____ Sewer (non Cast iron) _____
Privy _____ Sewer (Cast iron) _____
Septic Tank _____ Barnyard _____
Leaching Pit _____ Manure Pile _____
3. Well furnishes water for human consumption? Yes No _____
4. Date well completed _____ 11/14/79
5. Permanent Pump Installed? Yes Date 11/16/79 No _____

Capacity _____ gpm. Depth of Setting 160 Ft.
6. Well Top Sealed? Yes No _____ Type CAP _____
7. Pitless Adapter Installed? Yes _____ No

8. Well Disinfected? Yes _____ No
9. Pump and Equipment Disinfected? Yes No _____
10. Pressure Tank Size 82 gal. Type CON AIR _____

11. Water Sample Submitted? Yes _____ No

REMARKS: owner to sample, well chlorinated
No Envelope

JUL 25 1989

McHenry 12-111-23887-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Gavin, Jerry Well No. _____
Address 15316 South Walnut Oak Forest IL

Driller Nice, Marvin R. License No. 102-002458

11. Permit No. 120304 Date 09/13/85

12. Water from Limestone 13. County McHenry

at depth 173 to 175 ft. Sec. 13

14. Screen: Diam. 5 in. Twp. 43 N

Length: _____ ft. Slot _____ Elev. 892

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15. Casing and Liner Pipe 2250' S 550' W Nec Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 173 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.

17. Static level 40 ft. below casing top which is 1 ft. above ground level. Pumping level 50 ft. when pumping at 10 gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 2 | 2 |
| gravel | 2 | 4 |
| dark clay | 121 | 125 |
| sand & gravel | 3 | 128 |
| gray clay & gravel | 45 | 173 |
| limestone, wh & blk | 2 | 175 |
| | | |
| | | |

McHenry 12-111-24680-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Holle, Bill & Marlene Well No. _____
 Address 16116 Harmony Rd. Huntley IL
 Well address 8508 S. Hill Marengo, IL
 Lot #23 Subd Bartlett Coral Woods ISWS P# 300355
 Driller Keller, Larry License No. 092-7210
 Permit No. 66525-97 Date 09/09/1997
 Water from sand/gravel County McHenry
 at depth 76 to 80 ft. Sec. 13
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 25 Elev. 5 E

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Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC SDR 17 ASTM F480 | 0 | 76 |
| | | | |
| | | | |

Size hole below casing: _____ in.
 Static level 11 ft. below casing top which is 1 ft. above ground level. Pumping level 15 ft. when pumping at 12 gpm for 24 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 1 | 1 |
| brown stony clay | 59 | 60 |
| sand/gravel | 28 | 88 |
| | | |
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| | | |
| | | |

Household - Private

McHenry 12-111-35251-00 13-43N-5E

| 18. Formations passed through (continued) | Thickness | Bottom |
|---|-----------|--------|
| rock | 97 | 321 |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Kosmicki, Monte Well No. _____
 Address 10314 Ridge Marengo IL
 Driller Nice, Craig License No. 102-3191
 Permit No. 111-G2251-95 Date 10/27/95
 Water from sand & gravel 13. County McHenry
 at depth 120 to 182 ft. Sec. 13
 Screen: Diam. 4 in. Twp. 43 N
 Length: 3 ft. Slot 20 Elev. 865

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15. Casing and Liner Pipe NW NE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | SDR 21 SCH 40 ASTM | 0 | 161 |
| 5 | BLK STEEL 15#/FT | 161 | 182 |

16. Size hole below casing: 4 in.
 17. Static level 40 ft. below casing top which is 1 ft.
 above ground level. Pumping level 50 ft. when pumping at _____
 gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| clay | 3 | 3 |
| sand & gravel | 12 | 15 |
| clay | 105 | 120 |
| sand & gravel | 62 | 182 |
| | | |
| | | |
| | | |
| | | |

Household - Private
 McHenry 12-111-34526-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Hazlerig, Terry Well No. _____
 Address 1600 Raymond St. S. Elgin IL License No. 102-0072
 Driller Hutchings, Clyde A. Date 07/08/93
 Permit No. 111-F6676-93 13. County McHenry
 Water from drift
 at depth 68 to 71 ft. Sec. 13
 Screen: Diam. 4 in. Twp. 43 N
 Length: 3 ft. Slot 20 Elev. 865

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15. Casing and Liner Pipe SW NE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | SDR 21 200# PVC | 0 | 68 |
| 4 | SCREEN | 65 | 71 |

16. Size hole below casing: 4 in.
 17. Static level 20 ft. below casing top which is 0 ft.
 above ground level. Pumping level 40 ft. when pumping at _____
 gpm for 24 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| clay | 12 | 12 |
| sand | 38 | 50 |
| sand & gravel | 21 | 71 |
| clay | 9 | 80 |
| | | |
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| | | |

Household - Private
 McHenry 12-111-33565-00 13-43N-05E

REGISTERED AND MAIL ORIGINAL TO STATE
 DEPARTMENT OF HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 ROPEY COUNTY LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 7-28-77

0. Property owner _____ Well No. _____

Address _____ License No. _____
 Driller _____ Date _____

1. Permit No. _____ 13. County _____

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at depth _____ to _____ ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| | | | |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT

16. Size Hole below casing: _____ in.
 17. Static level _____ ft. below casing top which is _____ (permit)
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours. Sub. pump set at 100'

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|-------------------------------|-----------|-----------------|
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED _____ DATE _____

COUNTY No. 23310

6.5 MCHENRY

13-43N-5E

REGISTERED AND MAIL ORIGINAL TO STATE
 DEPARTMENT OF HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 ROPEY COUNTY LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 11-10-1979

1. Property owner _____ Well No. _____

Address _____ License No. _____
 Driller _____ Date _____

1. Permit No. _____ 13. County _____

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at depth _____ to _____ ft.
 4. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____

5. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| | | | |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT

Lot#32, Coral Woods Subd. E/2 NE (permit)

16. Size Hole below casing: _____ in.
 17. Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours. Sub pump set at 60'.

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|-------------------------------|-----------|-----------------|
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED _____ DATE _____

COUNTY No. 23337

MCHENRY

13-43N-5E

ER HEALTH PROTECTION, 535 WEST
DO NOT DETACH GEOLOGICAL/WATER
PROPERTY LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 7-1-1979

Property owner Paul Barker Well No. 13-43N-5E
 Address 1001 S. Grand St.
 Driller McHenry License No. 102-002458
 Permit No. 70231 Date 01/16/87
 Water from limestone 13. County McHenry
 at depth 148 to 151 ft. Sec. 13
 4. Screen: Diam. 5 in. Twp. 43 N
 Length: 3 ft. Slot 5 E Elev. 862

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5. Casing and Liner Pipe
 Diam. (in.) Kind and Weight From (ft.) To (ft.)
 5" BLACK STEEL 15#/FT 0 148
 15" BLACK STEEL 25 0 148
 SHOW LOCATION IN SECTION PLAT
 Lot#27, Coral Woods Subd. 100' S line, 90' W line, SW SE NE ft.

16. Size Hole below casing: 5 in.
 17. Static level 10 ft. below casing top which is 1 ft. above ground level. Pumping level 15 ft. when pumping at 1 gpm for 4 hours. Sub pump set at 20'.

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| TOP SOIL | 4 | 7 |
| CLAY | 15 | 20 |
| SAND & GRAVEL | 20 | 40 |
| CLAY | 10 | 50 |
| SAND & GRAVEL | 10 | 60 |
| CLAY | 50 | 110 |
| SAND | 5 | 115 |
| CLAY | 10 | 125 |
| LARGE GRAVEL | 3 | 128 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE 10/16/79
 COUNTY No. 23538
 MCHENRY 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Kunde, Doug Well No. 13-43N-5E
 Address 572 E. Grant Hwy. Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 129231 Date 01/16/87
 Water from limestone 13. County McHenry
 at depth 148 to 151 ft. Sec. 13
 14. Screen: Diam. 5 in. Twp. 43 N
 Length: 3 ft. Slot 5 E Elev. 862

15. Casing and Liner Pipe
 Diam. (in.) Kind and Weight From (ft.) To (ft.)
 5" BLACK STEEL 15#/FT 0 148
 SHOW LOCATION IN SECTION PLAT

16. Size hole below casing: 5 in.
 17. Static level 10 ft. below casing top which is 1 ft. above ground level. Pumping level 15 ft. when pumping at 1 gpm for 4 hours.

| FORMATIONS PASSED THROUGH | THICKNESS | Bottom |
|---------------------------|-----------|--------|
| top soil | 4 | 4 |
| yellow clay | 30 | 34 |
| gray c w/gvl shelves | 114 | 148 |
| broken limestone | 3 | 151 |

McHenry 12-1111-25597-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Moed, Roger Well No. _____
 Address 5815 Willow Ct. Crystal Lake IL
 Driller Howe, Robert E. Jr. License No. 102-0809
 11. Permit No. 111-64379-96 Date 10/09/96
 12. Water from sand & gravel 13. County McHenry
 at depth 72 to 75 ft. Sec. 13
 14. Screen: Diam. 4 in. Twp. 43 N
 Length: 3 ft. Slot 15 in. Rge. 5 E
 Elev. _____

| | | | |
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15. Casing and Liner Pipe NE NW SE 900' S 500' W NEC Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-------------------|-----------|---------|
| 5 | BLK 15# ASTM A53B | -3 | 72 |
| | | | |
| | | | |

16. Size hole below casing: _____ in.
 17. Static level 25 ft. below casing top which is 3 ft. above ground level. Pumping level 43 ft. when pumping at _____ gpm for _____ hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| clay sand gravel | 10 | 10 |
| sand gravel | 30 | 40 |
| clay | 22 | 62 |
| black dirt | 2 | 64 |
| sand gravel | 11 | 75 |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-34919-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Lau, Keith Well No. _____
 Address 756 Sandy Lane Des Plaines IL
 Driller Nice, Marvin R. License No. 102-002458
 11. Permit No. 111593 Date 03/19/84
 12. Water from gravel 13. County McHenry
 at depth 187 to 189 ft. Sec. 13
 14. Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 5 E
 Elev. _____

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15. Casing and Liner Pipe 900' S 500' W NEC Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 185 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 90 ft. below casing top which is 1 ft. above ground level. Pumping level 100 ft. when pumping at 10 gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 2 | 2 |
| yellow clay | 80 | 82 |
| sand & gravel | 47 | 129 |
| sand, clay & gravel | 54 | 183 |
| large gravel | 2 | 185 |
| | | |
| | | |
| | | |

McHenry 12-111-27423-00 13-43N-05E

10. Property owner Mulasmajic, Dzemal Well No. _____

Address 1611 Deerpath Rd. Marengo IL

Driller Knierim, James License No. 102-0270

Permit No. 81322 Date 10/27/78

Water from rock 13. County McHenry

at depth 35 to 320 ft. Sec. 13

Screen: Diam. 4 in. Twp. 43 N

Length: 4 ft. Slot .015 Rge. 5 E

Elev. _____

15. Casing and Liner Pipe NW NW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PLASTIC (NSF) | | |
| | | | |
| | | | |

16. Size hole below casing: 5 in.

17. Static level 35 ft. below casing top which is 1 ft.

above ground level. Pumping level 147 ft. when pumping at _____

gpm for _____ hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 3 | 3 |
| clay | 69 | 72 |
| sand gravel | 32 | 104 |
| clay | 81 | 185 |
| sand gravel | 7 | 192 |
| clay | 33 | 225 |
| shale | 5 | 230 |
| rock | 90 | 320 |
| | | |
| | | |

11. Property owner Mardock, Geoff Well No. _____

Address % Christine Naras 149 E. Columbia Des Plaines IL

Well address 20418 Deiks Dr. Marengo, IL

Lot 18 Subd Maple Lake Shores ISWS P# 322484

Driller Nice, Mark E. License No. 102-3209

Permit No. H1623 Date 10/04/1999

Water from gravel County McHenry

at depth 60 to 80 ft. Sec. 13

Screen: Diam. 4 in. Twp. 43 N

Length: 4 ft. Slot .015 Rge. 5 E

Elev. _____

15. Casing and Liner Pipe SW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC F480 | 0 | 76 |
| 4 | STAINLESS STL SCREEN | 76 | 80 |
| | | | |

Size hole below casing: _____ in.

Static level 10 ft. below casing top which is 1 ft.

above ground level. Pumping level 20 ft. when pumping at _____

gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel & sand | 33 | 35 |
| clay | 25 | 60 |
| gravel | 20 | 80 |
| | | |
| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 1-28-73

10. Property owner Truman Moore Well No. 1
Address Bartletts Coral Woods, Marengo
Driller Paul Parker License No. 92-563
Permit No. 20915 Date Nov. 14, 1972
11. Water from Limestone 13. County McHenry
at depth 202 to 205 ft. Sec. 13
Screen: Diam. 5 in. Twp. 43N
Length: 5 ft. Slot 5E Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | Galv. 15# | 0 | 202 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
100' NL 80' WL of
NW NE NE
(permit)

16. Size Hole below casing: 5 in.
17. Static level 75 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at 15 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top Soil & Gravel | 0-40 | |
| Blue Clay | 40-202 | |
| Limestone | 202-205 | |
| | | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Parker DATE July 9, 1973

COUNTY No. 16663

13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Overstreet, Dolores Well No.
Address 16220 Harmony Rd, Huntley IL
Driller Nice, Mark E. License No. 102-3209
Permit No. 111-64217-96 Date 09/27/96
11. Water from Limestone 13. County McHenry
at depth 201 to 205 ft. Sec. 13
Screen: Diam. 5 in. Twp. 43 N
Length: 5 ft. Slot 5 E Elev.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC/ASTM F480 | 0 | 182 |
| 5 | STL ASTM 15#/FT A538 | 182 | 203 |
| | | | |
| | | | |

NW NE NE

16. Size hole below casing: in.
17. Static level 50 ft. below casing top which is 1 ft. above ground level. Pumping level 140 ft. when pumping at 10 gpm for 2 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| sandy clay | 118 | 120 |
| gravel & sand | 5 | 125 |
| clay | 76 | 201 |
| limestone | 4 | 205 |
| | | |
| | | |
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| | | |

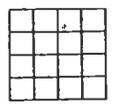
Household - Private

McHenry 12-111-34920-00 13-43N-05E

MC HENRY

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Pleva, Craig Well No. _____
 Address P.O. Box 444 Marengo IL
 Well address 8618 S. Hill Marengo, IL
 Lot 30 Subd Bartlett Coral Woods ISWS P# 339051
 Driller Keller, Larry License No. 092-7210
 Permit No. H-6119 Date 07/24/2001 County McHenry
 Water from sand/gravel Sec. 13
 at depth 72 to 76 ft. Twp. 43 N
 Screen: Diam. 5 in. Rge. 5 E
 Length: 4 ft. Slot 20 Elev. _____



Casing and Liner Pipe NW NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC | 0 | 72 |
| 5 | STAINLESS STL SCREEN | 72 | 76 |

Size hole below casing: _____ in.
 Static level 10 ft. below casing top which is 1 ft.
 above ground level. Pumping level 15 ft. when pumping at 10
 gpm for 3 hours.

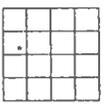
| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| sand/gravel | 8 | 10 |
| light brown clay | 25 | 35 |
| sand/gravel/boulders | 6 | 41 |
| brown stony clay | 11 | 52 |
| dark brown peat | 3 | 55 |
| gray stony clay | 15 | 70 |
| sand/gravel | 11 | 81 |

Household - Private

McHenry 12-111-39721-00 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner MulasmaJic, Jemal Well No. _____
 Address 1611 Deerpass Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 135842 Date 10/01/87
 Water from Limestone 13. County McHenry
 at depth 193 to 210 ft. Sec. 13
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ Elev. _____



Casing and Liner Pipe SW NW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|---------------------|-----------|---------|
| 5 | BLACK STEEL 15 #/FT | 0 | 193 |

Size hole below casing: 5 in.
 Static level 25 ft. below casing top which is 1 ft.
 above ground level. Pumping level 35 ft. when pumping at _____
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sand & clay | 191 | 193 |
| limestone | 17 | 210 |

McHenry 12-111-26343-00 13-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

1. Property owner James Barker Completed 10/10/75
Address Coral Wood Sub. Marengo, Ill.
Driller James Baierm License No. 102-2458
Permit No. 39458 Date 7-18-75
2. Water from Limestone 13. County McHenry
at depth 40 to 220 ft. Sec. 13
4. Screen: Diam. 5E in. Twp. 43N
Length: 5E ft. Slot 5E in. Elev.

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5. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5" | Plastic | 0 | 178 |

SHOW LOCATION IN SECTION PLAT
Coral Wood Subd.
SE NW SE
(permit)

16. Size Hole below casing: 5 in.
17. Static level 40 ft. below casing top which is 15 ft. above ground level. Pumping level 105 ft. when pumping at 15 gpm for 4 hours. Sub. pump set at 105'

| FORMATIONS PASSED THROUGH | THICKNESS TOP | DEPTH OF BOTTOM |
|---------------------------|---------------|-----------------|
| Appxibily | 0 | 5 |
| sand gravel | 5 | 80 |
| clay | 80 | 140 |
| sand gravel | 140 | 178 |
| Rock | 178 | 220 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James Baierm DATE 10-24-75
COUNTY No. 22545

MC HENRY

13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Reschke, Mike Well No.
Address 145 Lee Ann Lane Woodstock IL
Driller Nice, Marvin R. License No. 102-2458
Permit No. 010890 Date 04/27/89
12. Water from Limestone 13. County McHenry
at depth 139 to 156 ft. Sec. 13
14. Screen: Diam. in. Twp. 43 N
Length: ft. Slot in. Elev.

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15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 139 |

NW NE SE

16. Size hole below casing: 5 in.
17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 25 ft. when pumping at gpm for 4 hours.

| FORMATIONS PASSED THROUGH | THICKNESS | BOTTOM |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sand & gravel | 33 | 35 |
| sand & clay | 104 | 139 |
| limestone | 17 | 156 |

Household - Private

McHenry 12-111-29987-00 13-43N-05E

DIVISION OF HEALTH PROTECTION, 535 WEST
 1. DO NOT DETACH GEOLOGICAL/WATER
 PROTECTIVE WELL LOG/ RECORD

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed January 31, 1978

10. Property owner Jim Sarko Well No. _____
 Address 4176 E 223rd Avenue, Ill
 Driller James Kaurian License No. 102-37
 Permit No. 166932 Date Sept 1977
 11. Water from Stale 13. County McHenry
 at depth 40 to 140 ft. Sec. 13
 14. Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 5 E
 Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | Plastic (PSE) | 0 | 150' |

SHOW LOCATION IN SECTION PLAT
 L 25 Robert Bartlett's Coral Woods Sd. NW SE NE (permit) ft.

16. Size Hole below casing: 5 in.
 17. Static level 40 ft. below casing top which is _____ ft.
 above ground level. Pumping level 126 ft. when pumping at _____
 gpm for _____ hours. Sub pump @ 126'

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS TOP | DEPTH OF BOTTOM |
|--------------------------|---------------|-----------------|
| TOP SOIL | 0 | 3' |
| CLAY | 3 | 18 |
| SAND GRAVEL | 18 | 50 |
| CLAY | 50 | 70 |
| SAND GRAVEL | 70 | 90 |
| CLAY | 90 | 150 |
| ROCK | 150 | 180 |
| SHALE | 180 | 200 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James Kaurian DATE May 3, 1978
 COUNTY NO. 22211
 MCHENRY 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Rosenorn, Craig Well No. _____
 Address 42 W 600 Hummingbird Hampshire IL
 Driller Nice, Marvin R. License No. 102-002458
 11. Permit No. 123231 Date 04/18/86
 12. Water from Limestone 13. County McHenry
 at depth 140 to 145 ft. Sec. 13
 14. Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 5 E
 Elev. 868

15. Casing and Liner Pipe 1850' N 400' W Sec Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|--------------------|------------|----------|
| 5 | BLACK STEEL 15#/FT | 0 | 140 |

16. Size hole below casing: 5 in.
 17. Static level 20 ft. below casing top which is _____ ft.
 above ground level. Pumping level 25 ft. when pumping at _____
 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sand & gravel | 21 | 23 |
| clay | 117 | 140 |
| limestone | 5 | 145 |

MCHENRY 12-111-24995-00 13-43N-05E

STATE OF ILLINOIS
 DEPARTMENT OF HEALTH
 DIVISION OF HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 PROPER WELL LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed 4-20-76

10. Property owner James Barlett Well No. _____
 Address Lot #43 Barlett Coral Woods Pkwy, Ill
 Driller James Harrison License No. 102-3209
 Permit No. 41824 Date 10-6-75
 Water from Shale 13. County McHenry

at depth 50 to 220 ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | Plastic Case | 0 | 190 |
| | | | |
| | | | |

16. Size Hole below casing: 5 in.
 17. Static level 50 ft. below casing top which is _____ ft.
 above ground level. Pumping level 147 ft. when pumping at _____
 gpm for 4 hours. Sub. pump set at 147

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS TOP TO BOTTOM | DEPTH OF BOTTOM |
|--------------------------|-------------------------|-----------------|
| Topsoil | 0 | 2 |
| Clay Gravel | 2 | 17 |
| Sand Gravel | 17 | 24 |
| Clay | 24 | 110 |
| Sand Gravel | 110 | 135 |
| Clay Gravel | 135 | 170 |
| Sand Gravel | 170 | 190 |
| Rock | 190 | 208 |
| Shale | 208 | 220 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James Harrison DATE 6-8-76
 COUNTY NO. 22761
 MC HENRY 13-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Taylor, Randy Well No. _____
 Address 8122 S. Grant Highway Marengo IL
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-FB100-94 Date 03/14/94
 Water from Limestone 13. County McHenry

at depth 187 to 190 ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 190 |
| | | | |
| | | | |

16. Size hole below casing: _____ in.
 17. Static level 50 ft. below casing top which is 1 ft.
 above ground level. Pumping level 60 ft. when pumping at _____
 gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sand & clay | 168 | 170 |
| sand & gravel | 17 | 187 |
| limestone | 3 | 190 |
| | | |
| | | |
| | | |

Household - Private
 McHenry 12-111-33405-00 13-43N-05E

STATE OFFICE BUILDING, SPRINGFIELD, ILL.
WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6-20-71 Well No. 1

10. Property owner Ted Urban Well No. 1
 Address Hill Road, Marengo, Ill
 Driller PAUL Barker License No. 924563
 Permit No. NF 11220 Date June 9, 1971
 11. Water from Sand & Gravel 13. County McHenry

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12. Formation _____
 at depth _____ to _____ ft.
 14. Screen: Diam. 4.3 in. Rge. SE
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|------------------------|------------|----------|
| 5 | 15 per, FT. | 0 | 159 |

SHOW LOCATION IN SECTION PLAT
80'SL 100'EL of NW SE (permit)

16. Size Hole below casing: 5 in.
 17. Static level 25 ft. below casing top which is 1 ft. above ground level. Pumping level 25 ft. when pumping at 20 gpm for 3 hours.

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Fill | 0-25 | 25 |
| Hard Pan | 25-40 | 40 |
| Dry Sand | 40-45 | 45 |
| Sand | 40-75 | 75 |
| Dry Sand & Mud | 75-105 | 105 |
| Hard Pan | 105-130 | 130 |
| Mud Sand & Gravel | 130-150 | 150 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barber DATE 8-5-72

COUNTY No. 1414

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Schmidt, Gavin/Ierrance, Lisa Well No. _____
 Address 6211 Maple St. Unit #503 Marengo IL
 Well address 20401 Demings Circle Marengo, IL
 Lot 9 Subd Maple Lake Shores ISWS P# 340322
 Driller Keller, Larry License No. 092-7210
 Permit No. H-6577 Date 09/17/2001
 Water from sand/gravel County McHenry
 at depth 71 to 75 ft. Sec. 13
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 25 Elev. _____

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Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC | 0 | 71 |
| 5 | STAINLESS STL SCREEN | 71 | 75 |

Size hole below casing: _____ in.
 Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 1 | 1 |
| sand/gravel | 29 | 30 |
| brown stony clay | 10 | 40 |
| sand/gravel | 40 | 80 |

Household - Private

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Mulasmajic, Jemal Well No. _____
 Address 1611 Deerpass Rd. Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 135841 Date 10/01/87
 11. Water from limestone 13. County McHenry
 at depth 213 to 350 ft.
 12. Screen: Diam. 4 in.
 14. Length: 4 ft. Slot .015

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15. Casing and Liner Pipe SW SW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-------------------|-----------|---------|
| 5 | BLACK PIPE 15#/FT | 0 | 213 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 40 ft. below casing top which is 1 ft.
 above ground level. Pumping level 50 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sand & clay | 211 | 213 |
| limestone | 137 | 350 |
| | | |
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GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Iodd, Terry & Jeanette Well No. _____
 Address 920 Patricia Dr. Elgin IL
 Well address Delks Dr. Marengo, IL
 Lot 17 Subd Maple Lake Shores ISWS P# 322486
 Driller Nice, Mark E. License No. 102-3209
 Permit No. H2096 Date 01/04/1999
 Water from gravel County McHenry
 at depth 60 to 80 ft.
 12. Screen: Diam. 4 in.
 14. Length: 4 ft. Slot .015

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Casing and Liner Pipe SE NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC F480 | 0 | 76 |
| 4 | STAINLESS STL SCREEN | 76 | 80 |
| | | | |

Size hole below casing: _____ in.
 Static level 10 ft. below casing top which is 1 ft.
 above ground level. Pumping level 20 ft. when pumping at 10
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel & sand | 28 | 30 |
| clay | 30 | 60 |
| gravel | 20 | 80 |
| | | |
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GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 5-9-71

10. Property owner Jess Winters Well No. 1
 Address 16820 E. Coral Road Union Ill
 Driller Paul Barker License No. 92-563
 Permit No. 87-10424 Date March 29, 1971
 Water from Sand & Gravel 13. County McHenry

| Diam. (in.) | Kind and Weight | SHOW LOCATION IN SECTION PLAT | |
|-------------|-----------------|-------------------------------|----------|
| | | From (Ft.) | To (Ft.) |
| 5 | 15# Per FT. | 0 | 250 |

14. Screen: Diam. 4 3/8 in. Rge. 5E
 Length: 5 ft. Slot 5E
 Formation 13
 at depth 13 to 43 3/8 ft. Sec. 13
 Twp. 43N
 Elev. 5E

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| Top Clay | 0-5 | 5 |
| Sand & Clay | 5-75 | 75 |
| Hard Pan | 75-105 | 105 |
| Fine Sand & Gravel | 105-175 | 175 |
| Sand & Rock | 175-210 | 210 |
| Sand & Gravel | 210-250 | 250 |

15. Casing and Liner Pipe 13
 16. Size Hole below casing: 5 in.
 17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 70 ft. when pumping at 15 gpm for 2 hours.

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE 8-5-71
 COUNTY NO. 1415

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 6-26-75

1. Property owner WESTHAVEN (ROCKE) Well No. 1
 Address 101 SHARON DR. DUNDEE ILL.
 Driller MARTIN SLUS & SON License No. 123-7
 Permit No. 36-431 Date MARCH 13, 1975
 Water from Limestone 13. County McHenry

| Diam. (in.) | Kind and Weight | SHOW LOCATION IN SECTION PLAT | |
|-------------|-----------------|-------------------------------|----------|
| | | From (Ft.) | To (Ft.) |
| 4 | 4 PERV | 0 | 204 |

14. Screen: Diam. 4 3/8 in. Rge. 5E
 Length: 5 ft. Slot 5E
 Formation 13
 at depth 204 to 225 ft. Sec. 13
 Twp. 43N
 Elev. 5E

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|-----------|-----------------|
| BLACK LOAM | 0-4 | 4 |
| Brown Clay & Sand | 4-18 | 18 |
| Brown Clay & Gravel | 18-70 | 70 |
| SAND & RED CLAY | 70-120 | 120 |
| GREY SAND & GREY CLAY | 120-180 | 180 |
| Brown Clay | 180-195 | 195 |
| Brown Clay & Gravel | 195-204 | 204 |
| White Limestone | 204-225 | 225 |

15. Casing and Liner Pipe Robt. Bartlett's Coral Woods Subd.
 16. Size Hole below casing: 3 7/8 in.
 17. Static level 70 ft. below casing top which is 2 ft. above ground level. Pumping level 105 ft. when pumping at 10 gpm for 1 hours. Sub. pump set at 105 ft.

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED James H. ... DATE 11/17/75
 COUNTY NO. 1415

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Timber Construction, LTD Well No. _____
 Address 8702 Maple St., Marengo, IL
 Well address 20505 Demming Marengo, IL
 Lot 2 Subd Maple Lake Shores ISWS P# 330053
 Driller Keller, Larry License No. 092-7210
 Permit No. H-4610 Date 12/20/2000
 Water from sand/gravel County McHenry
 at depth 72 to 76 ft. Sec. 13
 Screen: Diam. 5 in. Twp. 43 N
 Length: 4 ft. Slot 15 Elev. _____
 Rge. 5 E

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Casing and Liner Pipe NW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC | 0 | 72 |
| 5 | STAINLESS STL SCREEN | 72 | 76 |

Size hole below casing: _____ in.
 Static level 6 ft. below casing top which is 1 ft. above ground level. Pumping level 40 ft. when pumping at 10 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| sand/gravel | 35 | 35 |
| brown stony clay | 20 | 55 |
| brown peat | 5 | 60 |
| gray stony clay | 9 | 69 |
| sand/gravel | 16 | 85 |
| | | |
| | | |
| | | |
| | | |

Household - Private

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|------------|
| topsoil | 0 | 2 |
| gravel | 2 | 57 |
| clay | 57 | 85 |
| limestone (salt & pepper) | 85 | 95 |
| shale | 95 | 100 |
| Total Depth | | 100 |
| Casing: 5" PVC F480 from 0' to 65' | | |
| 5" STEEL A53B from 65' to 86' | | |
| Grout: BAROID from 0 to 85. | | |
| Water from limestone at 95' to 100'. | | |
| Static level 15' below casing top which is 1' above GL | | |
| Pumping level 80' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 80' | | |
| on November 2, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 10 gpm | | |
| Address of well: 8707 Rt. 23 | | |
| Marengo, IL | | |
| Location source: Tax record verified Verified by: VJA on April 5, 2010. | | |
| Permit Date: August 17, 2004 | | |
| Permit #: 111-066 | | |

COMPANY Nice, Mark E.
FARM Dahlman, Howard
DATE DRILLED October 27, 2004 **NO.**
ELEVATION **COUNTY NO.** 41809
LOCATION SW NW SE
LATITUDE 42.202195 **LONGITUDE** -88.616944
COUNTY McHenry **API** 121114180900

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14 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-----------|
| topsoil | 0 | 2 |
| clay | 2 | 4 |
| gravel | 4 | 65 |
| clay | 65 | 82 |
| limestone | 82 | 85 |
| Total Depth | | 85 |
| Casing: 5" PVC F480 from 0' to 61' 5" STEEL A53B from 61' to 82' | | |
| Grout: BAROID from 0 to 82. | | |
| Water from limestone at 82' to 85'. | | |
| Static level 9' below casing top which is 1' above GL | | |
| Pumping level 20' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 20' | | |
| on June 24, 2009, with a capacity of 10 gpm | | |
| Remarks: Driller's Estimated Well Yield 20+ gpm | | |
| Address of well: same as above | | |
| Location source: Aerial Photograph verified Verified by: VJA on October 4, 2012. | | |
| Permit Date: June 1, 2009 | | |
| Permit #: 111-008 | | |

COMPANY Nice, Mark E.
FARM Solis, Urbano
DATE DRILLED June 4, 2009 **NO.**
ELEVATION **COUNTY NO.** 43819
LOCATION NE NE SW
LATITUDE 42.203814 **LONGITUDE** -88.618754
COUNTY McHenry **API** 121114381900

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14 - 43N - 5E

GEOLOGICAL AND WATER SURVEYS WELLS RECORD

Completed May 9, 1977

10. Property owner Rolley Bray Well No. _____
 Address 335 W. Green Meadow Blvd. Streamwood Ill.
 Driller Paul Barker License No. 92-562
 11. Permit No. 55106 Date November 23, 1976
 12. Water from rock 13. County McHenry

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- at depth 71 to 120 ft.
 14. Screen: Diam. _____ in.
 Length: 1/2 ft. Slot _____

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5 | 15# per ft. | 0 | 71 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
100-51-80'
EL-SE-NW
SW (permit)

15. Casing and Liner Pipe
 16. Size Hole below casing: 5 in.
 17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 60 ft. when pumping at 20 gpm for 2 hours. Sub pump @ 84'

| FORMATIONS PASSED THROUGH | THICKNESS TOP | DEPTH OF BOTTOM |
|---------------------------|---------------|-----------------|
| Gravel | 0 | 40 |
| Clay | 40 | 71 |
| Rock | 71 | 120 |
| | | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE June 10, 1977
 COUNTY NO. 2332...

1 MCHENRY 14-43N-5E

GEOLOGICAL AND WATER SURVEYS WELLS RECORD

- Property owner Messman, Peter Well No. _____
 Address 22022 Grange Rd. Marengo IL
 Well address same as above
 Lot _____ Subd _____ ISWS P# 325022
 Driller Keller, Larry License No. 092-7210
 Permit No. H-2863 Date 04/24/2000
 Water from limestone County McHenry
 at depth 70 to 260 ft. Sec. 14
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ Rge. 5 E
 Elev. _____

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| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC SDR 17 ASTM F480 | 0 | 49 |
| 5 | STL 15#/FT ASTM A53B | 49 | 70 |
| | | | |

- Size hole below casing: _____ in.
 Static level 140 ft. below casing top which is 1 ft. above ground level. Pumping level 200 ft. when pumping at 20 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| sand & gravel | 26 | 28 |
| brown peat | 3 | 31 |
| gray stony clay | 29 | 60 |
| brown stony clay | 10 | 70 |
| limestone | 190 | 260 |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-37593-00 14-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Paveloc Industries Well No. _____
 Address 842 W. Algonquin Rd. Algonquin IL
 Driller Howe, Robert E. Jr. License No. 102-0809
 11. Permit No. 111-F4398 Date 08/20/92
 12. Water from gravel 13. County McHenry
 at depth 71 to 74 ft. Sec. 14
 Screen: Diam. 5 in. Twp. 43 N
 Length: 3 ft. Slot 20 Rge. 5 E
 Elev. _____

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15. Casing and Liner Pipe NW NW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | GALV. T/C 15# | -1 | 74 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 17 ft. below casing top which is 1 ft. above ground level. Pumping level 21 ft. when pumping at 20 gpm for _____ hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil & fill | 6 | 6 |
| gravel & clay mix | 44 | 50 |
| gravel & sand | 24 | 74 |
| | | |
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| | | |

Semi-Private

McHenry 12-111-32576-00 14-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Poulin, M. & Eriksen, D. Well No. _____
 Address 8618 So. Rt. #23 Marengo IL
 Driller Nice, Marvin R. License No. 102-2458
 11. Permit No. 111-F6642-93 Date 07/02/93
 12. Water from broken Limestone 13. County McHenry
 at depth 57 to 60 ft. Sec. 14
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ Rge. 5 E
 Elev. _____

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15. Casing and Liner Pipe NW NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|---------------------|-----------|---------|
| 5 | PLASTIC SCHEDULE 40 | 0 | 40 |
| 5 | BLK STEEL 15#/FT. | 40 | 60 |
| | | | |

16. Size hole below casing: _____ in.
 17. Static level 15 ft. below casing top which is 1 ft. above ground level. Pumping level 25 ft. when pumping at _____ gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 5 | 7 |
| gravel | 48 | 55 |
| clay | 2 | 57 |
| broken limestone | 3 | 60 |
| | | |
| | | |
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| | | |

Household - Private

McHenry 12-111-32577-00 14-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Preston, Larry & Sandra Well No. _____
 Address P.O. Box #209 Algonquin IL
 Driller Nice, Mark E. License No. 102-3209
 11. Permit No. 003521 Date 07/13/88
 12. Water from gravel 13. County McHenry
 at depth 95 to 98 ft. Sec. 14
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 5 E
 Elev.



15. Casing and Liner Pipe SE NE NW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 98 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 10 ft. below casing top which is 1 ft.
 above ground level. Pumping level 15 ft. when pumping at 10
 gpm for 4 hours.

18. Formations passed through Thickness Bottom

| | | |
|---------------|----|----|
| top soil | 2 | 2 |
| sand & clay | 8 | 10 |
| sand & gravel | 45 | 55 |
| clay | 40 | 95 |
| gravel | 3 | 98 |
| | | |
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Household - Private

McHenry 12-111-26979-00 14-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Ziegler, Wolfgang Well No. _____
 Address 8517 S. R.R. #23 Marengo IL
 Driller Nice, Craig License No. 102-3191
 11. Permit No. 017380 Date 04/02/90
 12. Water from limestone 13. County McHenry
 at depth 82 to 90 ft. Sec. 14
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 5 E
 Elev.



15. Casing and Liner Pipe SE SE NW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 83 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 15 ft. below casing top which is 1 ft.
 above ground level. Pumping level 25 ft. when pumping at _____
 gpm for 4 hours.

18. Formations passed through Thickness Bottom

| | | |
|---------------|----|----|
| top soil | 2 | 2 |
| clay | 8 | 10 |
| sand & gravel | 50 | 60 |
| clay | 22 | 82 |
| limestone | 8 | 90 |
| | | |
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| | | |

Household - Private

McHenry 12-111-29988-00 14-43N-05E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Butenschoen, James Well No. _____
 Address 21313 Anthony Rd. Marengo IL
 Driller owner _____ License No. none
 11. Permit No. 78228 Date 08/16/78
 12. Water from _____ 13. County McHenry
 at depth _____ to _____ ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____ in.
 Sec. 23 Twp. 43 N
 Rge. 5 E Elev. _____

| | | | | |
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15. Casing and Liner Pipe NE NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| | | | |
| | | | |
| | | | |

16. Size hole below casing: _____ in.
 17. Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| no record | 32 | 32 |
| | | |
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GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Babcock, Lowell Well No. _____
 Address 22014 Anthony Rd. Marengo IL
 Driller Nice, Marvin R. License No. 102-2458
 11. Permit No. 94223 Date 06/04/80
 12. Water from gravel 13. County McHenry
 at depth 61 to 63 ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____ in.
 Sec. 23 Twp. 43 N
 Rge. 5 E Elev. _____

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15. Casing and Liner Pipe NW SW NW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | SCH 80 PLASTIC | 0 | 63 |
| | | | |
| | | | |

16. Size hole below casing: _____ in.
 17. Static level _____ ft. below casing top which is _____ ft.
 above ground level. Pumping level _____ ft. when pumping at _____
 gpm for _____ hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| top soil | 3 | 3 |
| sand & gravel | 15 | 18 |
| gray clay | 43 | 61 |
| gravel | 2 | 63 |
| | | |
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| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Butenschoen, Walter Well No. _____
 Address 21516 Harmony Rd. Marengo IL

Driller Nice, Marvin R. License No. 102-002458
 Permit No. 138084 Date 12/08/87

12. Water from limestone 13. County McHenry
 at depth 76 to 160 ft.

14. Screen: Diam. 4 in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe NE SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 76 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 4 ft. below casing top which is 1 ft.
 above ground level. Pumping level 10 ft. when pumping at 10
 gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| blue clay | 74 | 76 |
| limestone | 84 | 160 |
| | | |
| | | |
| | | |
| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Boomgarden, Les Well No. _____
 Address 21108 Anthony Rd. Marengo IL

Well address same as above
 Lot _____ Subd _____ ISMS P# 322506

Driller Nice, Mark E. License No. 102-3209
 Permit No. H2959 Date 05/02/2000

Water from gravel County McHenry
 at depth 10 to 52 ft.

Screen: Diam. 4 in.
 Length: 4 ft. Slot .015

Casing and Liner Pipe SE SE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC F480 | 0 | 48 |
| 4 | STAINLESS STL SCREEN | 48 | 52 |
| | | | |

Size hole below casing: _____ in.
 Static level 10 ft. below casing top which is 1 ft.
 above ground level. Pumping level 20 ft. when pumping at 10
 gpm for 2 hours.

Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 8 | 10 |
| gravel | 42 | 52 |
| | | |
| | | |
| | | |
| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

1. Property owner Sam J. Kauler Completed 8-8-79
 Address 5011 1/2 N. 1st St., Mpls., MN Well No. _____
 Driller Paul Barber License No. 92563
 Permit No. 39988 Date Aug. 8, 1975
 2. Water from Limestone 13. County McHenry
 at depth 74 to 130 ft. Sec. 23
 4. Screen: Diam. _____ in. Twp. 43N
 Length: _____ ft. Slot _____ in. Rge. 5E
 Elev. _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5 | Blank | 0 | 74 |

SHOW LOCATION IN SECTION PLAT
 90'SL, 70'EL
 SW SW NW
 (permit)

16. Size Hole below casing: 5 in.
 17. Static level 50 ft. below casing top which is 1 ft. above ground level. Pumping level 105 ft. when pumping at 8 gpm for 2 hours. Sub. pump set at 105'

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS - FT. | DEPTH OF BOTTOM |
|------------------------------|-----------------|-----------------|
| <u>Topsoil</u> | <u>0</u> | <u>2</u> |
| <u>Shovel</u> | <u>2</u> | <u>10</u> |
| <u>Clay & gravel</u> | <u>10</u> | <u>25</u> |
| <u>Clay</u> | <u>25</u> | <u>45</u> |
| <u>Clay & gravel</u> | <u>45</u> | <u>73</u> |
| <u>Limestone & shale</u> | <u>73</u> | <u>120</u> |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barber DATE Sept 1, 1975

COUNTY No. 22763

MC HENRY

23-43N-5E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Butenschoen, Walter Well No. _____
 Address 21516 Harmony Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 11. Permit No. 127110 Date 09/23/86
 12. Water from Limestone 13. County McHenry
 at depth 72 to 80 ft. Sec. 23
 14. Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 5 E
 Elev. 823

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|--------------------|------------|----------|
| 5 | BLACK STEEL 15#/FT | 0 | 72 |

100' N 2500' W SEC

16. Size hole below casing: 5 in.
 17. Static level 10 ft. below casing top which is 1 ft. above ground level. Pumping level 15 ft. when pumping at _____ gpm for _____ hours.

18. FORMATIONS PASSED THROUGH

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|-----------|
| <u>top soil</u> | <u>2</u> | <u>2</u> |
| <u>clay</u> | <u>70</u> | <u>72</u> |
| <u>limestone</u> | <u>8</u> | <u>80</u> |

McHenry 12-111-25413-00 23-43N-05E

MAILED AND MAIL ORIGINAL TO STATE
STATE OFFICE BUILDING SPRINGFIELD
/WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6-1-70

0. Property owner Loy While Well No. 1
 Address Anthony Rd. Marengo
 Driller George Fowler License No. 92-23
 Permit No. 8016 Date 4/15/70
 2. Water from Sand Formation McHenry 13. County McHenry

at depth 23 to 43N ft.
 14. Screen: Diam. 5E in.
 Length: 5E ft. Slot _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| 5" | 15# Galv. | 0 | 80 | 200' SL 200'WL of NW (permit) |

16. Size Hole below casing: 5" in.
 17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 22 ft. when pumping at 15 gpm for 6 hours.

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|-------------------------------|-----------|-----------------|
| Clay | 20 | 20 |
| Sand and Gravel | 20 | 40 |
| Gravel | 40 | 80 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED George Fowler DATE 7/1/70

COUNTY No. 695

MAILED AND MAIL ORIGINAL TO STATE
 HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 ROPEY

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 12-22-76

0. Property owner Harold Kelly Well No. _____
 Address Lincoln - Altimore Rd., Marshall, Ia.
 Driller Samuel Kinnis License No. 103-47
 Permit No. 55866 Date 12-22-76
 2. Water from floor Formation McHenry 13. County McHenry

at depth 55 to 260 ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) | SHOW LOCATION IN SECTION PLAT |
|-------------|-----------------|------------|----------|-------------------------------|
| 5" | Plastic (A5F) | 0 | 42 | SW SW SW (permit) |

16. Size Hole below casing: 5 in.
 17. Static level 55 ft. below casing top which is 1 ft. above ground level. Pumping level 136 ft. when pumping at 12 gpm for 4 hours. Sub. pump set at 126'

| 18. FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|-------------------------------|-----------|-----------------|
| SP Sand | 0 | 5 |
| Clay | 3 | 22 |
| Sand & Gravel | 22 | 34 |
| Rock | 34 | 42 |
| Shale | 42 | 105 |
| Rock | 105 | 260 |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James J. McHenry DATE 2-9-77

COUNTY No. 23030

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed June 15, 1970

10. Property owner Clark White Well No. 1
Address Anthony Rd. Marengo
Driller Paul Barker License No. 92-563
Permit No. NF 08351 Date 5/27/70
12. Water from Gravel 13. County McHenry
Formation
at depth 60 to 70 ft.
14. Screen: Diam. 4 3/8 in.
Length: 5 ft. Slot 5 in.

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | 1 1/2" Galv. | 0 | 70 |
| | | | |
| | | | |

16. Size Hole below casing: 1 in.
17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 22 ft. when pumping at 10 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM. |
|--------------------------|-----------|------------------|
| Sandy Clay | 60 | 70 |
| Gravel | 10 | |
| | | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)
SIGNED Paul A. Barker DATE 9/1/70

2657

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Meyer Material Company Well No. _____
Address 580 Wolf Road Des. Plains IL
Well address 9204 South IL Rte. 23 Marengo, IL
Lot _____ Subd _____ ISWS # 324677
Driller Gaffke, George E. License No. 102-2342
Permit No. H-0610 Date 05/20/1999
Water from sand & gravel County McHenry
at depth 41 to 59 ft. Sec. 23
Screen: Diam. 6 in. Twp. 43 N
Length: 20 ft. Slot 20 Rge. 5 E
Elev. _____

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|--|--|--|--|--|--|
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Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 8 | BLACK STEEL | -1 | 41 |
| | | | |
| | | | |

Size hole below casing: _____ in.
Static level: 10 ft. below casing top which is 1 ft. above ground level. Pumping level 0 ft. when pumping at 400 gpm for _____ hours.

Formations passed through

| Formations passed through | Thickness | Bottom |
|--------------------------------------|-----------|--------|
| driveway base (broken brick, gravel) | 3 | 3 |
| black dirt | 3 | 6 |
| sand & gravel | 45 | 51 |
| sandy blue clay | 8 | 59 |
| | | |
| | | |
| | | |
| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed September 4, 1976

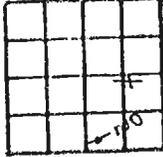
10. Property owner Erwin Behrens Well No. _____
 Address Anthony Road Marengo Ill.
 Driller Paul Barker License No. 92-563
 Permit No. 19261 Date July 2 1976

11. Water from Rock 13. County McHenry
 at depth 80 to 120 ft. Sec. 23
 14. Screen: Diam. _____ in. Twp. 43N
 Length: _____ ft. Slot _____ Rge. 5E
 Elev. _____

15. Casing and Liner Pipe 2 1/2" x 10' galv. pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | 15# per ft. | 0 | 60 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT NW NW SW (permit)



16. Size Hole below casing: 5 in.
 17. Static level 10 ft. below casing top which is 10 inches ft. above ground level. Pumping level 60 ft. when pumping at 10 gpm for 3 hours. Sub pump @ 84'

| FORMATIONS PASSED THROUGH | THICKNESS (ft.) | DEPTH OF BOTTOM |
|---------------------------|-----------------|-----------------|
| clay | 0 | 15 |
| clay and sand | 15 | 42 |
| | 42 | 60 |

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|-----------|
| topsoil | 0 | 2 |
| clay | 2 | 4 |
| gravel | 4 | 35 |
| sandy clay | 35 | 45 |
| small gravel | 45 | 56 |
| Total Depth | | 56 |
| Casing: 5" PVC F480 from 0' to 52' 4" SS SCREEN from 52' to 56' | | |
| Screen: 4' of 4" diameter .02 slot | | |
| Grout: BAROID from 0 to 46. | | |
| Grout: BIRDSEYE from 46 to 56. | | |
| Water from gravel at 45' to 56'. | | |
| Static level 20' below casing top which is 1' above GL | | |
| Pumping level 40' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 40' on February 24, 2003, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 20 gpm | | |
| Address of well: 20806 Anthony Rd. Marengo, IL | | |
| Location source: Aerial Photograph verified Verified by: VJA on October 7, 2009. | | |
| Permit Date: January 29, 2003 | | |
| Permit #: I-0756- | | |

COMPANY Nice, Mark E.
 FARM Faulkner, Barbara
 DATE DRILLED February 19, 2003 NO.
 ELEVATION COUNTY NO. 40696
 LOCATION SW SE NW
 LATITUDE 42.190115 LONGITUDE -88.603069
 COUNTY McHenry API 121114069600

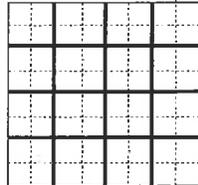
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24 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|-----------|
| topsoil | 0 | 2 |
| brown sandy clay | 2 | 4 |
| sand/gravel | 4 | 58 |
| limestone at | 58 | 58 |
| Total Depth | | 58 |
| Casing: 5" PVC from 0' to 54' 5" SS SCREEN from 54' to 58' | | |
| Screen: 4' of 5" diameter 20 slot | | |
| Grout: BENTONITE from 0 to 40. | | |
| Water from sand/gravel at 54' to 58'. | | |
| Static level 17' below casing top which is 1' above GL | | |
| Pumping level 18' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 40' on December 11, 2004, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 75 gpm | | |
| Address of well: same as above | | |
| Location source: Aerial Photograph verified Verified by: VJA on October 7, 2009. | | |
| Permit Date: December 14, 2004 Permit #: 111-106 | | |

COMPANY Keller, Larry
FARM Kellner, Cheryl
DATE DRILLED December 11, 2004 **NO.**
ELEVATION **COUNTY NO.** 41811
LOCATION SW SW NW
LATITUDE 42.189941 **LONGITUDE** -88.607155
COUNTY McHenry **API** 121114181100

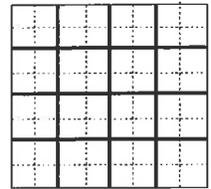


24 - 43N - 5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|-----------|
| topsoil | 0 | 1 |
| brown stoney clay | 1 | 4 |
| sand/gravel | 4 | 60 |
| Total Depth | | 60 |
| Casing: 5" PVC from 0' to 55' 5" SS SCREEN from 55' to 59' | | |
| Screen: 4' of 5" diameter 20 slot | | |
| Grout: BENTONITE from 0 to 45. | | |
| Water from sand/gravel at 55' to 59'. | | |
| Static level 17' below casing top which is 1' above GL | | |
| Pumping level 20' when pumping at 10 gpm for 2 hours | | |
| Permanent pump installed at 40' on November 23, 2005, with a capacity of 10 gpm | | |
| Remarks: driller's est well yield 50 gpm | | |
| Address of well: same as above | | |
| Location source: Aerial Photograph verified Verified by: VJA on October 7, 2009. | | |
| Permit Date: December 1, 2005 Permit #: 111-097 | | |

COMPANY Keller, Larry
FARM Ferris, Harry R.
DATE DRILLED November 23, 2005 **NO.**
ELEVATION **COUNTY NO.** 42600
LOCATION NE NW SW
LATITUDE 42.189183 **LONGITUDE** -88.603756
COUNTY McHenry **API** 121114260000



24 - 43N - 5E

WILSON COUNTY HEALTH DEPARTMENT
 PUBLIC HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 OPERATOR'S OFFICE

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed 9-1-1979

Property owner _____ Well No. _____
 Address _____
 Driller _____ License No. _____
 Permit No. _____ Date _____
 Water from _____ 13. County _____

at depth _____ to _____ ft. Sec. _____
 Screen: Diam. _____ in. Twp. _____
 Length: _____ ft. Slot _____ Rge. _____
 Location of well _____ Elev. _____

5. Casing and Liner Pipe From (ft.) To (ft.)

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5" | | | |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
 SW NE NE
 (permit)

16. Size Hole below casing: _____ in.
 17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours. Sub pump set at 60'.

18. FORMATIONS PASSED THROUGH

| FORMATION PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|--------------------------|-----------|-----------------|
| CLAY | 1 | 1 |
| CLAY | 2 | 3 |
| CLAY | 2 | 5 |
| CLAY | 2 | 7 |
| CLAY | 2 | 9 |
| CLAY | 2 | 11 |
| CLAY | 2 | 13 |
| CLAY | 2 | 15 |
| CLAY | 2 | 17 |
| CLAY | 2 | 19 |
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| CLAY | 2 | 525 |
| CLAY | 2 | 527 |
| CLAY | 2 | 529 |
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| CLAY | 2 | 603 |
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| CLAY | 2 | 697 |
| CLAY | 2 | 699 |
| CLAY | 2 | 701 |
| CLAY | 2 | 703 |
| CLAY | 2 | 705 |
| CLAY | 2 | 707 |
| CLAY | 2 | 709 |
| CLAY | 2 | 711 |
| CLAY | 2 | 713 |
| CLAY | 2 | 715 |
| CLAY | 2 | 717 |
| CLAY | 2 | 719 |
| CLAY | 2 | 721 |
| CLAY | 2 | 723 |
| CLAY | 2 | 725 |
| CLAY | 2 | 727 |
| CLAY | 2 | 729 |
| CLAY | 2 | 731 |
| CLAY | 2 | 733 |
| CLAY | 2 | 735 |
| CLAY | 2 | 737 |
| CLAY | 2 | 739 |
| CLAY | 2 | 741 |
| CLAY | 2 | 743 |
| CLAY | 2 | 745 |
| CLAY | 2 | 747 |
| CLAY | 2 | 749 |
| CLAY | 2 | 751 |
| CLAY</ | | |



ILLINOIS GEOLOGICAL SURVEY, URBANA

page 1

| Thickness | Top | Bottom |
|-----------|-----|--------|
| | | |

Samples from 0 - 250'
 Received 3-13-39
 S.S.# 3292

Property owner Salemi, Joe Well No. _____
 Address 9307 Harmony Hill Rd. Marengo IL
 Well address 20704 Anthony Rd. Marengo, IL

Lot _____ Subd _____ ISWS P# 325697
 Driller Nice, Mark E. License No. 102-3209
 Permit No. H 3362 Date 06/22/2000
 Water from gravel County McHenry
 at depth 40 to 47 ft. Sec. 24
 Screen: Diam. 4 in. Twp. 43 N
 Length: 4 ft. Slot .015 Rge. 5 E
 Elev. _____

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| Casing and Liner Pipe | | | | SW SE NW | |
|-----------------------|----------------------|-----------|---------|----------|--|
| Diam. (in.) | Kind and Weight | From (ft) | To (ft) | | |
| 5 | PVC F480 | 0 | 43 | | |
| 4 | STAINLESS STL SCREEN | 43 | 47 | | |

Size hole below casing: _____ in.
 Static level 10 ft. below casing top which is 1 ft.
 above ground level. Pumping level 20 ft. when pumping at 10
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 1 | 3 |
| gravel | 27 | 30 |
| clay | 10 | 40 |
| gravel | 7 | 47 |
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NO. _____
 COUNTY NO. 35947

COMPANY Rieke Bros.
 FARM Prud. Ins. Co.

DATE DRILLED _____
 AUTHORITY _____
 ELEVATION _____
 LOCATION SW SW SW
 COUNTY MC HENRY

Household - Private
 McHenry 12-111-37781-00 24-43N-5E

24-43N-5E

TESTED AND MAIL ORIGINAL TO STATE
 HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 ROPEI - LOCATIC

10025-200, 003-000
 012-000
 000-000

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Bohlander, James Well No. _____
 Address 10006 Maple Marengo, IL
 Driller Nice, Marvin R. License No. 102-2458
 Permit No. 93294 Date 04/08/80
 12. Water from Limestone 13. County McHenry
 at depth 119 to 190 ft. Sec. 24
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 5 E
 Elev.

15. Casing and Liner Pipe SW SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 118 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 7 ft. below casing top which is 1 ft.
 above ground level. Pumping level 30 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 3 | 3 |
| sand & gravel | 59 | 62 |
| clay | 56 | 118 |
| limestone | 72 | 190 |
| | | |
| | | |
| | | |
| | | |

McHenry 12-111-23892-00 24-43N-05E

0. Property owner Joseph Lasota Well No. _____
 Address 427 Robin Hood Rd., Streamwood, Ill.
 Driller K&K Well Drilling License No. 102-28
 Permit No. 45169 Date 5-14-76
 2. Water from Rock 13. County McHenry
 Formation

at depth to 180 ft. Sec. 24
 4. Screen: Diam. in. Twp. 43N
 Length: ft. Slot in. Rge. 5E
 Elev. 555

5. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5 | 15# Black | 0 | 105 |
| | | | |
| | | | |

6. Size Hole below casing: 5 in.
 7. Static level 45 ft. below casing top which is 1 1/2 ft.
 above ground level. Pumping level ft. when pumping at
 gpm for hours. Sub. pump set at 84' TOP

| FORMATIONS PASSED THROUGH | DEPTH OF BOTTOM |
|---------------------------|-----------------|
| Glacial Drift. | 0 105 |
| Rock Formation. | 105 180 |
| | |
| | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

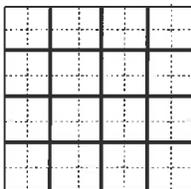
SIGNED Max K... .. DATE 5-14-76
 COUNTY No. 24-43N-05E

24-43N-5E

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|---|-----|------------|
| topsoil | 0 | 2 |
| clay | 2 | 347 |
| limestone | 347 | 460 |
| Total Depth | | 460 |
| Casing: 5" PVC F480 from 0' to 326' | | |
| 5" STEEL A53B from 326' to 347' | | |
| Grout: BAROID from 0 to 346. | | |
| Water from limestone at 347' to 460'. | | |
| Static level 120' below casing top which is 1' above GL | | |
| Pumping level 300' when pumping at 25 gpm for 2 hours | | |
| Permanent pump installed at 300' | | |
| on September 26, 2001, with a capacity of 25 gpm | | |
| Remarks: driller's est well yield 25 gpm | | |
| Address of well: 20016 W. Coral Rd. Marengo, IL | | |
| Location source: Tax record verified Verified by: VJA on August 16, 2010. | | |
| Permit Date: September 27, 2000 | | |
| Permit #: H-4207 | | |

COMPANY Nice, Mark E.
FARM Sebert, Jeff/Grace Nursery
DATE DRILLED September 17, 2001 **NO.**
ELEVATION **COUNTY NO.** 39536
LOCATION NW NW SW
LATITUDE 42.218201 **LONGITUDE** -88.588072
COUNTY McHenry **API** 121113953600



7 - 43N - 6E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Anderson, Kerry Well No. _____
 Address 1334 North Yale Ave. Arlington Hts. IL
 Driller Nice, Craig License No. 102-3191
 11. Permit No. 003085 Date 06/23/88
 12. Water from gravel 13. County McHenry
 at depth 240 to 255 ft. Sec. 7
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

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15. Casing and Liner Pipe NE SW SE 800' N 2200' W Sec Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 255 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 60 ft. below casing top which is 1 ft.
 above ground level. Pumping level 70 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| sandy clay | 18 | 20 |
| gravel | 10 | 30 |
| clay | 210 | 240 |
| gravel | 15 | 255 |
| | | |
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| | | |

Household - Private
 McHenry 12-111-26914-00 07-43N-06E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Groll, Richard Well No. _____
 Address 19508 Coral East Rd. Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 11. Permit No. 120756 Date 10/07/85
 12. Water from gravel 13. County McHenry
 at depth 265 to 272 ft. Sec. 7
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev. 929

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15. Casing and Liner Pipe 800' N 2200' W Sec Fld Verifd

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 272 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 70 ft. below casing top which is 1 ft.
 above ground level. Pumping level 80 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 3 | 3 |
| clay | 262 | 265 |
| gravel | 7 | 272 |
| | | |
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| | | |

McHenry 12-111-24723-00 07-43N-06E



TOWN TOWNSHIP CORSEL
 COMPANY L. Abraham
 FARM A.S. Hatch
 AUTHORITY H.J. Abraham
 ELEVATION
 COLLECTOR
 CONFIDENTIAL

Map No. 14

R. 6E

| | | | | | |
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No. No.
 DATE DRILLED 1926 N
 3 miles southeast of Marengo

| No. | STRATA | Thickness Feet | In. | Depth Feet | In. |
|-----|---|----------------|-----|------------|-----|
| 78 | Clay, yellow | 15 | | 15 | |
| | Clay, stony, blue | 107 | | 122 | |
| | Quicksand, yellow, no pebbles, very fine | 30 | | 152 | |
| | Clay, stony, blue | 16 | | 168 | |
| | Shale, dark yellow, very rotten, all cased | 8 | | 176 | |
| | Granite, light, soft; 2 1/2 gal. water p.m. | 34 | | 210 | |
| | Shale, dark, streaked with hard slate | 58 | | 268 | |
| | Lime, light, very close grained | 312 | | 580 | |
| | St. Peter sand rock, very fine-grained, full of lime increase to 6 1/2 gallon | 250 | | 830 | |
| | Marl, red, very sharp | 130 | | 960 | |
| | Magnesia lime, streaked with red marl and sand | 48 | | 1008 | |
| | Pottsdam sand rock very clear, sharp and hollow | 12 | | 1020 | |
| | 885' of water, soft and clear, casing 176', 6" Water 2 1/2 gal. at 210, 4 gal. at 580, main supply 1020. Water to 137' below surface. | | | | |

Property owner Heinberg, Harold Well No. _____
 Address 2201 River Rd. Marengo IL
 Well address 19147 W. Coral Marengo, IL

Lot _____ Subd _____ ISWS P# 304888
 Driller Keller, Larry License No. 092-7210
 Permit No. G-8703 Date 08/15/1998
 Water from Limestone County McHenry
 at depth 257 to 260 ft. Sec. 7
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 6 E
 Elev. _____

Casing and Liner Pipe SE SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|---------------------|-----------|---------|
| 5 | PVC SDR 17 ASTM 480 | 0 | 236 |
| 5 | STEEL 14.90# A53B | 236 | 257 |

Size hole below casing: _____ in.
 Static level 82 ft. below casing top which is 1 ft. above ground level. Pumping level 140 ft. when pumping at 12 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| brown stony clay | 18 | 20 |
| sand & gravel | 15 | 35 |
| brown stony clay | 95 | 130 |
| sand & gravel | 10 | 140 |
| brown stony clay | 48 | 188 |
| broken limestone & gravel | 10 | 198 |
| gray stony sandy clay | 28 | 226 |
| broken limestone & gravel | 15 | 241 |

Household - Private

McHenry 12-111-35577-00 7-43N-6E

County MCHENRY Index No. 140
 T.-DRILL RECORD 7-43N-6E
 (81082-3m-1-28)

| Formations passed through (continued) | Thickness | Bottom |
|---------------------------------------|-----------|--------|
| brown stony clay | 16 | 257 |
| limestone | 3 | 260 |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Hill, Paul Well No. _____
 Address 7611 Somerset Dr. Marengo IL
 Well address _____

Lot # 6 Subd Somerset ISWS P# _____
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 127839 Date 10/31/1986

Water from gravel County McHenry
 at depth 264 to 275 ft. Sec. 7
 Screen: Diam. in. Twp. 43 N
 Length: ft. slot _____ Rge. 6 E
 Elev. 960

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Casing and Liner Pipe N2 NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 275 |
| | | | |
| | | | |

Size hole below casing: 5 in.
 Static level 60 ft. below casing top which is 1 ft.
 above ground level. Pumping level 70 ft. when pumping at 10
 gpm for 4 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 3 | 3 |
| red clay | 42 | 45 |
| gray clay | 105 | 150 |
| gravel | 8 | 158 |
| gray clay | 67 | 225 |
| gravel | 10 | 235 |
| gray clay | 29 | 264 |
| gravel | 11 | 275 |

Household - Private

McHenry 12-111-35577-00 7-43N-6E

Household - Private

McHenry 12-111-25489-00 7-43N-6E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Jarosinski, Michael Well No. _____
 Address 5820 Wild Plum Crystal Lake IL
 Driller Nice, Craig License No. 102-3191
 11. Permit No. 111-64208-96 Date 10/14/96
 12. Water from limestone 13. County McHenry
 at depth 240 to 245 ft. Sec. 7
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

15. Casing and Liner Pipe NW SE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 225 |
| 5 | STL ASTM A53B 15#/FT | 225 | 245 |

16. Size hole below casing: in.
 17. Static level 70 ft. below casing top which is 1 ft.
 above ground level. Pumping level 180 ft. when pumping at 10
 gpm for 2 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay & sand | 123 | 125 |
| sand & gravel | 15 | 140 |
| gravel & clay | 90 | 230 |
| gravel & rocks | 10 | 240 |
| limestone | 5 | 245 |

Household - Private

McHenry 12-111-34926-00 07-43N-06E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Naylor, Roger & Wanda Well No. _____
 Address P.O. Box #328 Huntley IL
 Driller Nice, Mark E. License No. 102-3209
 11. Permit No. 111-F6981-93 Date 08/03/93
 12. Water from gravel 13. County McHenry
 at depth 240 to 247 ft. Sec. 7
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

15. Casing and Liner Pipe NW NE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|------------------|-----------|---------|
| 5 | BLK STEEL 15#/FT | 0 | 247 |

16. Size hole below casing: 5 in.
 17. Static level 60 ft. below casing top which is 1 ft.
 above ground level. Pumping level 70 ft. when pumping at
 gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 238 | 240 |
| gravel | 7 | 247 |

Household - Private

McHenry 12-111-32804-00 07-43N-06E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner O'Brien, Russell Well No. _____
 Address 7015 S. Grant Hwy. Marengo IL

Driller Rosenquist, Gerald Wilbur License No. 092-2146
 Permit No. 110059 Date 10/24/83

12. Water from dolomite 13. County McHenry

at depth 180 to 240 ft. Sec. 7

Screen: Diam. in. Twp. 43 N

Length: ft. Slot in. Rge. 6 E

Elev.

| 15. Casing and Liner Pipe | | NE NE NE | |
|---------------------------|-------------------|-----------|---------|
| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
| 5 | A53 BLK STEEL 15# | -2 | 182 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.

17. Static level 59 ft. below casing top which is 2 ft. above ground level. Pumping level 124 ft. when pumping at 4 gpm for 3 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| clay | 95 | 95 |
| dirty sand & gravel | 2 | 97 |
| clay | 64 | 161 |
| shale | 19 | 180 |
| dolomite & shale | 60 | 240 |
| shale, some dolomite | 13 | 253 |
| | | |
| | | |
| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Overstreet, Dolores Well No. _____
 Address 16220 Harmony Rd. Huntley IL

Driller Nice, Marvin R. License No. 102-2458
 Permit No. 111-G2303-95 Date 11/01/95

12. Water from Limestone 13. County McHenry

at depth 305 to 340 ft. Sec. 7

Screen: Diam. in. Twp. 43 N

Length: ft. Slot in. Rge. 6 E

Elev.

| 15. Casing and Liner Pipe | | SE SW SE | |
|---------------------------|-------------------|-----------|---------|
| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
| 5 | PVC SDR 17 SCH 40 | 0 | 243 |
| 5 | BLK STL 15#/FT. | 243 | 264 |
| | | | |

16. Size hole below casing: 5 in.

17. Static level 80 ft. below casing top which is 1 ft. above ground level. Pumping level 90 ft. when pumping at gpm for 4 hours.

| 18. Formations passed through | Thickness | Bottom |
|-------------------------------|-----------|--------|
| clay | 140 | 140 |
| gravel | 45 | 185 |
| clay | 78 | 263 |
| shale | 42 | 305 |
| limestone | 35 | 340 |
| | | |
| | | |
| | | |

LOG OF WATER WELL

SS COUNTY No. 284

Property owner Arthur Kempton Well No. _____
 Drilled by Don Collins Year 1959

| Formations passed through | Thickness | Depth of Bottom |
|---------------------------|------------|-----------------|
| <u>Unconsolidated</u> | <u>256</u> | <u>256</u> |
| <u>Rock (green shale)</u> | <u>163</u> | <u>419</u> |
| <u>SS # 75326</u> | | |

COUNTY No. 284

Collected by John P. Kempton from 1959-1961.

[Continue on back if necessary]
 Finished in _____ at _____ to _____ ft.
 Cased with _____ inch _____ from 0 to _____ ft.
 and _____ inch _____ from _____ to _____ ft.
 Size hole below casing _____ inch. Static level from surf. 99 ft.
 Tested capacity 900 gal. per hr. Temperature _____ °F.
 Water lowered to _____ ft. in _____ hrs. _____ min.
 Length of test _____ hrs. _____ min. Screen _____
 Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.
 [Show location in Section Plat]
 Township name _____ Elev. 950 Sec. 7
 Description of location _____ Twp. 43N
 _____ Rge. 6E
 Signed _____ County _____ Index: _____
 MCHENRY
 Copy for Illinois State Water Survey

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Sebert, Jeff/Grace Nursery Well No. _____
 Address 19812 W. Coral Rd. Marengo IL
 Well address 20016 W. Coral Rd. Marengo, IL
 Lot _____ Subd _____ ISWS P# 337512
 Driller Nice, Mark E. License No. 102-3209
 Permit No. H-4207 Date 09/27/2000
 Water from Limestone County McHenry
 at depth 347 to 460 ft. Sec. 7
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ Rge. 6 E
 Elev. _____

Casing and Liner Pipe NW SW SW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC F480 | 0 | 326 |
| 5 | STEEL A53B | 326 | 347 |

Size hole below casing: _____ in.
 Static level 120 ft. below casing top which is 1 ft. above ground level. Pumping level 300 ft. when pumping at 25 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 345 | 347 |
| limestone | 113 | 460 |

Household - Private
 McHenry 12-111-39536-00 7-43N-6E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Stains, Emmett Well No.
 Address 101098 S. Milwaukee Ave. Wheeling IL
 Driller Nice, Marvin R. License No. 102-2458
 Permit No. 93467 Date 04/21/80
 11. Water from gravel 13. County McHenry
 at depth 242 to 244 ft. Sec. 7
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

15. Casing and Liner Pipe NW NW NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-------------------|-----------|---------|
| 5 | GALV STEEL 15#/FT | 0 | 244 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 80 ft. below casing top which is 1 ft.
 above ground level. Pumping level 90 ft. when pumping at 10
 gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 240 | 242 |
| limestone | 2 | 244 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Iafel, Ken Well No.
 Address 649 Jull Dr. South Elgin IL
 Well address 7782 Somerset Dr. Marengo, IL
 Lot 5 Subd Somerset ISWS P# 314609
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-H0278-99 Date 04/29/1999
 Water from limestone County McHenry
 at depth 298 to 460 ft. Sec. 7
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

Casing and Liner Pipe NE SE SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 277 |
| 5 | STEEL ASTM A53B | 277 | 298 |
| | | | |

Size hole below casing: in.
 Static level 200 ft. below casing top which is 1 ft.
 above ground level. Pumping level 400 ft. when pumping at 10
 gpm for 2 hours.

Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 296 | 298 |
| limestone | 162 | 460 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

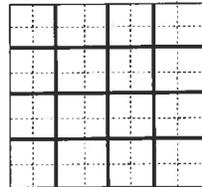
Household - Private

ILLINOIS STATE GEOLOGICAL SURVEY

| Private Water Well | Top | Bottom |
|--|-----|------------|
| topsoil | 0 | 2 |
| gravel | 2 | 20 |
| clay | 20 | 40 |
| gravel | 40 | 43 |
| clay | 43 | 153 |
| limestone | 153 | 200 |
| Total Depth | | 200 |
| Casing: 5" PVC F480 from 0' to 133' | | |
| 5" STEEL A53B from 133' to 154' | | |
| Grout: BAROID from 0 to 153. | | |
| Water from limestone at 153' to 200'. | | |
| Static level 40' below casing top which is 1' above GL | | |
| Pumping level 140' when pumping at 22 gpm for 2 hours | | |
| Permanent pump installed at 140' | | |
| on August 16, 2002, with a capacity of 22 gpm | | |
| Remarks: driller's est well yield 20+ gpm | | |
| Address of well: same as above | | |
| Location source: Aerial Photograph verified Verified by: VJA on August 23, 2010. | | |
| Permit Date: May 23, 2002 | | |
| Permit #: H-8704 | | |

COMPANY Nice, Mark E.
 FARM Miller, Matthew
 DATE DRILLED July 15, 2002
 ELEVATION
 LOCATION NW SE SW
 LATITUDE 42.199557
 COUNTY McHenry

NO.
 COUNTY NO. 40182
 LONGITUDE -88.582462
 API 121114018200



18 - 43N - 6E

10. Property owner Brumm, Dan Well No. _____

Address 941 S. Brockway Palatine IL
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 017202 Date 03/19/90
 Water from gravel 13. County McHenry

at depth 160 to 170 ft.
 Screen: Diam. 6 in.
 Length: 10 ft. Slot _____

15. Casing and Liner Pipe NE SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 170 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 40 ft. below casing top which is 1 ft. above ground level. Pumping level 50 ft. when pumping at _____ gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 8 | 10 |
| gravel | 20 | 30 |
| clay | 130 | 160 |
| gravel | 10 | 170 |
| | | |
| | | |
| | | |
| | | |

Household - Private
 McHenry 12-111-30005-00 18-43N-06E

Property owner Felgar, Ken Well No. _____

Address 101 Quail Run Lake in the Hills IL
 Well address W. Coral Rd. Marengo, IL
 Lot _____ Subd _____ ISWS P# 300357
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 111-66456-97 Date 08/27/1997
 Water from dark brown shale County McHenry
 at depth 239 to 240 ft.
 Screen: Diam. 6 in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe NE NE NW

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|----------------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 210 |
| 5 | STL ASTM A53B 15#/FT | 210 | 231 |
| | | | |

Size hole below casing: _____ in.
 Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 180 ft. when pumping at _____ gpm for 2 hours.

Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 228 | 230 |
| limestone | 9 | 239 |
| dark brown shale | 1 | 240 |
| | | |
| | | |
| | | |
| | | |

Household - Private
 McHenry 12-111-35256-00 18-43N-6E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Gidcumb, Don Well No. _____
 Address P.O. Box #539 Marengo IL
 Driller Nice, Mark E. License No. 102-3209
 11. Permit No. 111-G2680-96 Date 01/12/96
 12. Water from Limestone 13. County McHenry
 at depth 197 to 200 ft. Sec. 18
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

15. Casing and Liner Pipe NE NE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|---------------------|-----------|---------|
| 5 | SDR 17 SCH 40 ASTM | 0 | 177 |
| 5 | BLK STL 15#/FT ASTM | 177 | 197 |

16. Size hole below casing: 5 in.
 17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at _____ gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel | 28 | 30 |
| clay & sand | 167 | 197 |
| limestone | 3 | 200 |

Household - Private

McHenry 12-111-34554-00

18-43N-06E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Gidcumb, Don Well No. _____
 Address P.O. Box #539 Marengo IL
 Driller Nice, Mark E. License No. 102-3209
 11. Permit No. 111-G2680-96 Date 01/12/96
 12. Water from Limestone 13. County McHenry
 at depth 197 to 200 ft. Sec. 18
 14. Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

15. Casing and Liner Pipe NE NE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|---------------------|-----------|---------|
| 5 | SDR 17 SCH 40 ASTM | 0 | 177 |
| 5 | BLK STL 15#/FT ASTM | 177 | 197 |

16. Size hole below casing: 5 in.
 17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at _____ gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| gravel | 28 | 30 |
| clay & sand | 167 | 197 |
| limestone | 3 | 200 |

Household - Private

McHenry 12-111-34554-00

18-43N-06E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Grismer, Jeff Well No. _____
 Address 8105 Leach Rd. Union IL
 Well address 19109 Beck Rd. Marengo, IL
 Lot _____ Subd _____ ISHS P# 325707
 Driller Nice, Mark E. License No. 102-3209
 Permit No. H 3599 Date 07/25/2000
 Water from Limestone County McHenry
 at depth 182 to 190 ft. Sec. 18
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 6 E
 Elev. _____

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |
| | | | |

Casing and Liner Pipe NE SE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | PVC F480 | 0 | 163 |
| 5 | STEEL A53B | 163 | 184 |

Size hole below casing: _____ in.
 Static level 60 ft. below casing top which is 1 ft.
 above ground level. Pumping level 120 ft. when pumping at _____ 10
 gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 180 | 182 |
| limestone | 8 | 190 |
| | | |
| | | |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-37683-00 18-43N-6E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Property owner Kellenberg, Darryl Builders Well No. _____
 Address 711 Linden Ave. Elgin IL
 Driller Nice, Craig License No. 102-3191
 Permit No. 111-G3547-96 Date 07/19/96
 Water from Limestone County McHenry
 at depth 200 to 203 ft. Sec. 18
 Screen: Diam. _____ in. Twp. 43 N
 Length: _____ ft. Slot _____ in. Rge. 6 E
 Elev. _____

| | | | |
|--|--|--|--|
| | | | |
| | | | |
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| | | | |

Casing and Liner Pipe SE NE NE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-------------------|-----------|---------|
| 5 | PVC ASTM F480 | 0 | 180 |
| 5 | STEEL ASTM 15#/FT | 180 | 201 |

Size hole below casing: _____ in.
 Static level 40 ft. below casing top which is 1 ft.
 above ground level. Pumping level 180 ft. when pumping at _____ 12
 gpm for 10 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| topsoil | 2 | 2 |
| clay | 93 | 95 |
| gravel | 10 | 105 |
| clay | 95 | 200 |
| limestone | 3 | 203 |
| | | |
| | | |
| | | |
| | | |

Household - Private

McHenry 12-111-34880-00 18-43N-06E

FOR USE BY THE PUBLIC IN CONNECTION WITH THE ILLINOIS DEPARTMENT OF ENVIRONMENTAL PROTECTION, 535 WEST
 61. DO NOT DETACH GEOLOGICAL WATER
 E PROPER LOCAL

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed December 1, 1977

10. Property owner DEANIS L. MILLER Well No. _____
 Address #3 HICKORY LANE ALCOR, ILL.
 Driller MARVIN NICE & SON License No. 40257
 Permit No. 58550 Date April 4, 1977
 Water from Limestone 13. County McHenry

| | | | | |
|--|--|--|--|--|
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at depth _____ to _____ ft.
 14. Screen: Diam. None in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe by permit

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|---------------------|------------|----------|
| 5 | PIPE BLK | 0 | 196 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
 180' SL 80' EL
 NW SE
 (permit)

16. Size Hole below casing: _____ in. 190 ft. below casing top which is _____ ft.
 17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level 220 ft. when pumping at 7 gpm for _____ hours. Sub pump @ 220'

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Kimball, John Well No. _____
 Address 19413 Beck Rd. Marengo IL
 Driller Nice, Marvin R. License No. 102-002458
 Permit No. 132544 Date 06/15/87
 Water from gravel 13. County McHenry

| | | | | |
|--|--|--|--|--|
| | | | | |
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| | | | | |
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| | | | | |

at depth 232 to 238 ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____

15. Casing and Liner Pipe SE NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 238 |
| | | | |
| | | | |

16. Size hole below casing: _____ in. 5
 17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 230 | 232 |
| gravel | 6 | 238 |
| | | |
| | | |
| | | |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James Huthavage DATE 12/16/77

COUNTY No. 23332

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner McFadden, Tom Well No. _____
 Address 1593 Walnut Ave. Hanover Park IL
 Driller Nice, Mark E. License No. 102-3209
 Permit No. 012545 Date 06/26/89
 Water from shale 13. County McHenry
 at depth 260 to 300 ft. Sec. 19
 Screen: Diam. 6 in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

| | | | | |
|--|--|--|--|--|
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| | | | | |

15. Casing and Liner Pipe SE SW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|--------------------|-----------|---------|
| 5 | BLACK STEEL 15#/FT | 0 | 215 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 50 ft. below casing top which is 1 ft. above ground level. Pumping level 60 ft. when pumping at gpm for 4 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| top soil | 2 | 2 |
| clay | 8 | 10 |
| sand & gravel | 20 | 30 |
| clay | 185 | 215 |
| limestone | 45 | 260 |
| shale | 40 | 300 |
| | | |
| | | |

Household - Private
 McHenry 12-111-30007-00 19-43N-06E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Bandel, Frank Well No. _____
 Address 9615 Voss Rd. Marengo IL
 Driller Rosenquist, Gerald Wilbur License No. 092-2146
 Permit No. 133934 Date 07/27/87
 Water from limestone 13. County McHenry
 at depth 197 to 230 ft. Sec. 19
 Screen: Diam. in. Twp. 43 N
 Length: ft. Slot in. Rge. 6 E
 Elev.

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

15. Casing and Liner Pipe NE NW SE

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-------------------|-----------|---------|
| 5 | A53# 15.00# T & C | -1 | 197 |
| | | | |
| | | | |

16. Size hole below casing: 5 in.
 17. Static level 80 ft. below casing top which is 1 ft. above ground level. Pumping level 85 ft. when pumping at 20 gpm for 3 hours.

18. Formations passed through

| Formations passed through | Thickness | Bottom |
|---------------------------|-----------|--------|
| clay & stones | 195 | 195 |
| limestone | 35 | 230 |
| | | |
| | | |
| | | |
| | | |
| | | |

McHenry 12-111-26206-00 19-43N-06E

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed 6-74

10. Property owner Inging Bohmer Well No. 19
 Address 13. Carrington, IL.
 Driller McKell Milling License No. 102-24
 Permit No. 20295 Date June 22, 1974
 12. Water from Formation 13. County McHenry

at depth 250 ft.
 14. Screen: Diam. 6E in.
 Length: 540 ft. Slot X

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5 | 1 1/2" BIF | 0 | 255 |
| | | | |
| | | | |

16. Size Hole below casing: 5 in. below casing top which is 1 1/2 ft.
 17. Static level 10 ft. below casing top which is 10 ft. when pumping at
 above ground level. Pumping level 10 ft. when pumping at 10
 gpm for hours. Submersible pump set at 252'

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS TOP | DEPTH OF BOTTOM |
|---------------------------|---------------|-----------------|
| Glacial drift | 0 | 255 |
| Soil | 255 | 380 |
| | | |
| | | |
| | | |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Max Bohmer DATE June 18, 1974

COUNTY No. 2-2-109

GEOLOGICAL AND WATER SURVEYS WELL RECORD
 Completed June 15, 1978

10. Property owner Joe Macaluso Well No. 1
 Address Voss Road, Marengo, Ill.
 Driller FAYL Barker License No. 92-563
 Permit No. 75941 Date June 22, 1978
 12. Water from Formation 13. County McHenry

at depth 215 to 280 ft.
 14. Screen: Diam. in.
 Length: ft. Slot

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (Ft.) | To (Ft.) |
|-------------|-----------------|------------|----------|
| 5" | Blacksteel | 0 | 213' |
| | | | |
| | | | |

16. Size Hole below casing: 5 in. below casing top which is 8" ft.
 17. Static level 75 ft. below casing top which is 15 ft. when pumping at
 above ground level. Pumping level 110 ft. when pumping at 15
 gpm for 1 hours. Sub pump @ 175'

18. FORMATIONS PASSED THROUGH

| FORMATIONS PASSED THROUGH | THICKNESS TOP | DEPTH OF BOTTOM |
|----------------------------------|---------------|-----------------|
| Top Soil | 0 | 3' |
| Gravel | 3' | 15' |
| Brown Clay and Larger Gravel | 15' | 60' |
| Brown Clay and Fine Gravel | 60' | 120' |
| Brown Clay and occasional Gravel | 120' | 215' |
| Yellow Limestone | 215' | 280' |
| | | |
| | | |

(CONTINUE ON SEPARATE SHEET IF NECESSARY)
 SIGNED Paul Barker DATE 7-15-78

COUNTY No. 2-3-333

REGISTERED AND MAIL ORIGINAL TO STATE
 PUBLIC HEALTH PROTECTION, 535 WEST
 DO NOT DETACH GEOLOGICAL/WATER
 REPRODUCTION LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD

0. Property owner James Sarker Completed 7/11/75
 Well No. _____

Address 102 N. Marengo, Ill.
 Driller James Senffner License No. 102-27

1. Permit No. 37599 Date 5-12-75
 2. Water from Rock 13. County McHenry

at depth 208 to 398 ft.
 4. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____ Elev. _____

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft.) | To (ft.) |
|-------------|-----------------|------------|----------|
| 5 1/2 | Black 15# | 0 | 230 |
| | | | |
| | | | |

SHOW LOCATION IN SECTION PLAT
 NE NE NE
 (permit)

16. Size Hole below casing: 5 in.
 17. Static level 208 ft. below casing top which is 1 ft. above ground level. Pumping level 273 ft. when pumping at 12 gpm for 4 hours. Sub. pump set at 273'

| FORMATIONS PASSED THROUGH | THICKNESS | DEPTH OF BOTTOM |
|---------------------------|------------|-----------------|
| <u>Quartzite</u> | <u>0</u> | <u>230</u> |
| <u>Rock Formation</u> | <u>230</u> | <u>398</u> |
| | | |
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(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James Sarker DATE Dec. 16, 1975

COUNTY No. 22546

MC HENRY

19-43N-6E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Schmidt, Jude Well No. _____
 Address 22204 River Rd. Marengo IL

Driller Senffner, Alan James License No. 102-2482
 Date 09/06/88

11. Permit No. 005464 13. County McHenry
 12. Water from limestone
 at depth 265 to _____ ft.
 14. Screen: Diam. _____ in.
 Length: _____ ft. Slot _____ Elev. _____

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

15. Casing and Liner Pipe

| Diam. (in.) | Kind and Weight | From (ft) | To (ft) |
|-------------|-----------------|-----------|---------|
| 5 | STEEL 14.98 | 0 | 190 |
| | | | |
| | | | |

SE NW SE

16. Size hole below casing: 5 in.
 17. Static level _____ ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at _____ gpm for 2 hours.

| Formations passed through | Thickness | Bottom |
|---------------------------|------------|------------|
| <u>drift</u> | <u>190</u> | <u>190</u> |
| <u>limestone</u> | <u>75</u> | <u>265</u> |
| | | |
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| | | |

Household - Private

McHenry 12-111-27115-00 19-43N-06E

APPENDIX C

TRAFFIC ASSESSMENT REPORT

Traffic Assessment For:

Proposed Gravel Pit Maple Street Marengo, Illinois

Prepared For:

Maple Valley Materials

August 28, 2024

PATRICK ENGINEERING, INC.



A handwritten signature in blue ink, appearing to read "Alethya".

ALETHYA W. YU-JANICKI, P.E.
NO. 062-063040
EXP. DATE: 11/30/25

PREPARED BY:



2150 Western Court, Suite 100
Lisle, Illinois 60532

I. Introduction and Key Findings

Patrick Engineering, Inc. (Patrick) was retained by Maple Valley Materials to determine the impacts of traffic generated by the proposed Maple Street Gravel Pit located south of Coral Road along Maple Street in Marengo, Illinois.

The main questions addressed in this report are: 1) how will the amount of traffic expected to be generated by the proposed development impact existing traffic operations, and 2) what improvements (if any) to the existing transportation system are needed as a result of the additional traffic attributed to the development.

Key facts and findings are as follows:

- Access to the proposed development will be from an existing entrance located along Maple Street approximately 3,000 feet south of Coral Road.
- The total number of trips expected to be generated per day is 60 truck trips inbound and 60 truck trips outbound, as well as 7 employee trips inbound and outbound.
- The peak hour volumes generated by the gravel pit were applied to the existing P.M. peak hour to represent the worst-case scenario. For the purposes of this study, this development will generate a total of 19 trips (6 entering and 13 exiting) during the P.M. peak hour.
- 24-Hour Traffic Counts were taken during October of 2023, and the existing ADT volume is 1,549 vehicles per day along Maple Street and 1,612 along Coral Road. Average Daily Traffic volumes can be found in Appendix A. Maple Street is classified as an arterial per the MCDOT.
- No improvements along Maple Street would be required at the existing entrance as a result of this development or at the intersection of Maple Street and Coral Road. The Highway Capacity Software shows that the current roadway geometry is adequate to accommodate the existing background traffic plus the proposed site-generated traffic through the 5-year planning horizon.

II. Development Characteristics

This section identifies the project location, study area roadways, existing roadway characteristics, and the proposed development access.

Proposed Development

Currently, Valley Aggregates operates two facilities in Woodstock (an aggregate mine and a concrete patch plant). The new facilities in Marengo are expected to mimic the

operations of this existing facility. The location of the proposed development is along the west side of Maple Street, just to the south of Coral Road.

Site Accessibility

Direct access to the development will be via an existing driveway that is located along the west side of Maple Street. Maple Street is under the jurisdiction of the McHenry County Division of Transportation and consists of two lanes of travel (one in each direction) in the vicinity of the existing driveway. The speed limit along Maple Street is 55 mph. The surrounding land use of the subject site includes mining operations owned and operated by other companies, farmland, and scattered residential homes. Coral Road, located approximately 3,000 feet north of the existing driveway, is an east-west route under the jurisdiction of the Illinois Department of Transportation that consists of two lanes of travel. Coral Road serves traffic from IL Route 23 on the west and US Route 20 on the east. At the intersection of Maple Street and Coral Road, Maple Street is under stop sign control.

III. Traffic

This section discusses existing background traffic in the vicinity of the development as well as the characteristics of traffic expected to be generated by the development.

Existing Traffic

Traffic counts were taken over a 24-hour period from October 24 to October 25, 2023. The Average Daily Traffic (ADT) volume from this count was determined to be 1,549 vehicles per day along Maple Street and 1,612 vehicles per day along Coral Rd. In addition, peak hour counts were taken on October 24, 2023, at the intersection of Maple Street at Coral Road. The peak hour is from 3:30 P.M. to 4:30 P.M. Existing PM peak hour traffic volumes can be found in Exhibit 1.

Trip Generation

For the gravel pit operation, trip generation data was provided by Gavers Asphalt Paving & Excavating for the expected additional truck and employee traffic. It was determined that 60 truck trips (30 concrete trucks and 30 semi-trucks) inbound and 60 truck trips (30 concrete trucks and 30 semi-trucks) outbound could be generated by the mining and concrete batching operations per day, arriving with uniform distribution. To be conservative, it was assumed that 12 of these trips (entering and exiting) would take place during the P.M. peak hour. In addition, it is expected that 7 employee trips will enter during the A.M. peak hour, and 7 employee trips will exit during the P.M. peak hour. The peak hour volumes by the gravel pit were applied to the existing P.M. peak hour to present the worst-case scenario. For the purposes of this study, this development will generate a total of 19 trips (6 entering and 13 exiting) during the P.M. peak hour.

Trip generation data is summarized below:

| Option | PM PEAK HOUR | | |
|------------|--------------|-----|-------|
| | IN | OUT | TOTAL |
| Gravel Pit | 6 | 13 | 19 |

Trip Distribution and Assignment

The trips generated by the proposed development were assigned to the adjacent street system. The trip routing distribution for the development is based on existing area travel patterns and the destination of the traffic coming from and going to the site. It was assumed that 85% of the site-generated traffic would utilize Coral Road to the east from US Route 20 and 5% will utilize Coral Road to the west from Illinois Route 23. The other 10% of the site-generated traffic will utilize Maple Street to the south. See Exhibit 2 for trip % distributions. Exhibit 3 shows entering and exiting site-generated vehicles for the PM peak hour for the gravel mining operation.

IV. Traffic Safety and Operational Assessment

Level of Service Descriptions

An assessment of traffic operations with and without the proposed development was made for the roadway network surrounding the project site. The operations of an intersection are qualified by assessing overall delay and often depicted by assigning a *Level of Service* (LOS) associated with that delay. LOS is a measure which refers to the overall quality of flow at an intersection based on average vehicle seconds of delay ranging from very good, represented by LOS A, to very poor, represented by LOS F.

LOS A is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. Average vehicle delays are less than 10 seconds for both signalized and unsignalized intersections.

LOS B is representative of stable operation. At signalized intersections, average vehicle delays are greater than 10 and less than or equal to 20 seconds. For unsignalized intersections average vehicle delays are greater than 10 and less than or equal to 15 seconds.

LOS C is still representative of stable operation, although periodic backups may develop behind turning vehicles. At signalized intersections, average vehicle delays are greater than 20 and less than or equal to 35 seconds. For unsignalized intersections, average vehicle delays are greater than 15 and less than or equal to 25 seconds.

At **LOS D** delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups. At signalized intersections, average vehicle delays are greater than 35 and less

than or equal to 55 seconds. For unsignalized intersections, average vehicle delays are greater than 25 and less than or equal to 35 seconds.

LOS E represents the capacity of the intersection where there are likely to be long lines of vehicles waiting upstream of the intersection and delays may be great. At signalized intersections, average vehicle delays are greater than 55 and less than or equal to 80 seconds. For unsignalized intersections average vehicle delays are greater than 35 and less than or equal to 50 seconds.

LOS F represents jammed conditions. Backups from locations downstream or on a cross street may restrict or prevent movement of vehicles out of an intersection approach under consideration. At signalized intersections, average vehicle delays are greater than 80 seconds. For unsignalized intersections average vehicle delays are greater than 50 seconds.

In order to analyze the LOS at each intersection, a computer analysis program named Highway Capacity Software (HCS) is utilized. HCS determines the LOS and delay of each intersection and individual movement based upon traffic volumes, number of lanes, lane widths, characteristics of the study area, and many other inputs.

Operational Analysis Results and Comparison

Existing traffic counts were taken during October 2023 at the intersection of Maple Street and Coral Road. These were the baseline volumes utilized for the 2023 Existing Turning Movements, which are located in Appendix A.

The anticipated site-generated traffic was added to the baseline volumes for 2023 to determine the projected traffic volumes once the gravel pit is in operation. After adding the projected site-generated traffic to the existing counts, the need for additional improvements along Maple Street was evaluated. Exhibit 4 shows the total traffic volumes for 2023, which includes the existing background traffic and the proposed site-generated traffic for each option.

In addition, the existing background traffic volumes were increased by 3% per year over a 5-year period to the year 2028 (15.9% total) to determine the impacts of this development at the 5-year planning horizon, as stated in the MCDOT requirements. Exhibit 5 shows the no-build traffic volumes for 2028, while Exhibit 6 shows the total traffic volumes for 2028 plus the site-generated traffic volumes.

Appendix B contains the printouts from the Highway Capacity Software (HCS) trials that were performed. The results are summarized below:

| Maple St. & Coral Rd. Option | Max Intersection Leg Delay |
|---|-----------------------------------|
| 2023 Existing | 11.5/B |
| 2023 Existing + Site | 11.7/B |
| 2028 No-Build | 12.2/B |
| 2028 Projected + Site | 12.4/B |

| Maple St. & Site Access Option | NB LT Delay | NB LT 95% Queue Length | EB Delay | EB 95% Queue Length |
|---|--------------------|-------------------------------|-----------------|----------------------------|
| 2023 Total | 8.4/A | 0.00 Vehicles | 10.2/A | 0.10 Vehicles |
| 2028 Total | 8.5/A | 0.00 Vehicles | 10.6/A | 0.10 Vehicles |

As the data above shows, no capacity improvements are required along Maple Street as a result of this study to accommodate traffic volumes for 2023 or 2028. The low amount of proposed site-generated traffic can easily be accommodated by the existing lane configurations along Maple Street.

At the site access, there is no need for a separate left-turn or right-turn lane according to the MCDOT left-turn lane and right-turn lane requirement charts. The maximum anticipated northbound left-turn volume is two vehicles while the maximum anticipated southbound right-turn volume is eleven vehicles during the A.M. peak hour, causing these volumes to be much less than the required volumes for separate turn lanes.

Traffic signal warrants were not conducted for this study, since the traffic volumes are well beneath the conditions that would be required to warrant a signal for the proposed driveway entrance.

Additionally, the McHenry County Access Management Ordinance requires that sight distance be analyzed. Two separate sight distance investigations are outlined for analysis, stopping sight distance (SSD) and intersection sight distance (ISD). Proper sight distance must be provided to allow safe entry and exit of traffic utilizing the gravel pit entrance. The existing sight distance, for both SSD and ISD, were investigated and found to meet all of the applicable requirements. Maple Street lacks any drastic changes to horizontal or vertical geometry, and sight distances were measured at greater than 1,000 feet through field observations. Design stopping sight distance at 60 mph is 570 feet.

V. Conclusions

The traffic analyses results are as follows:

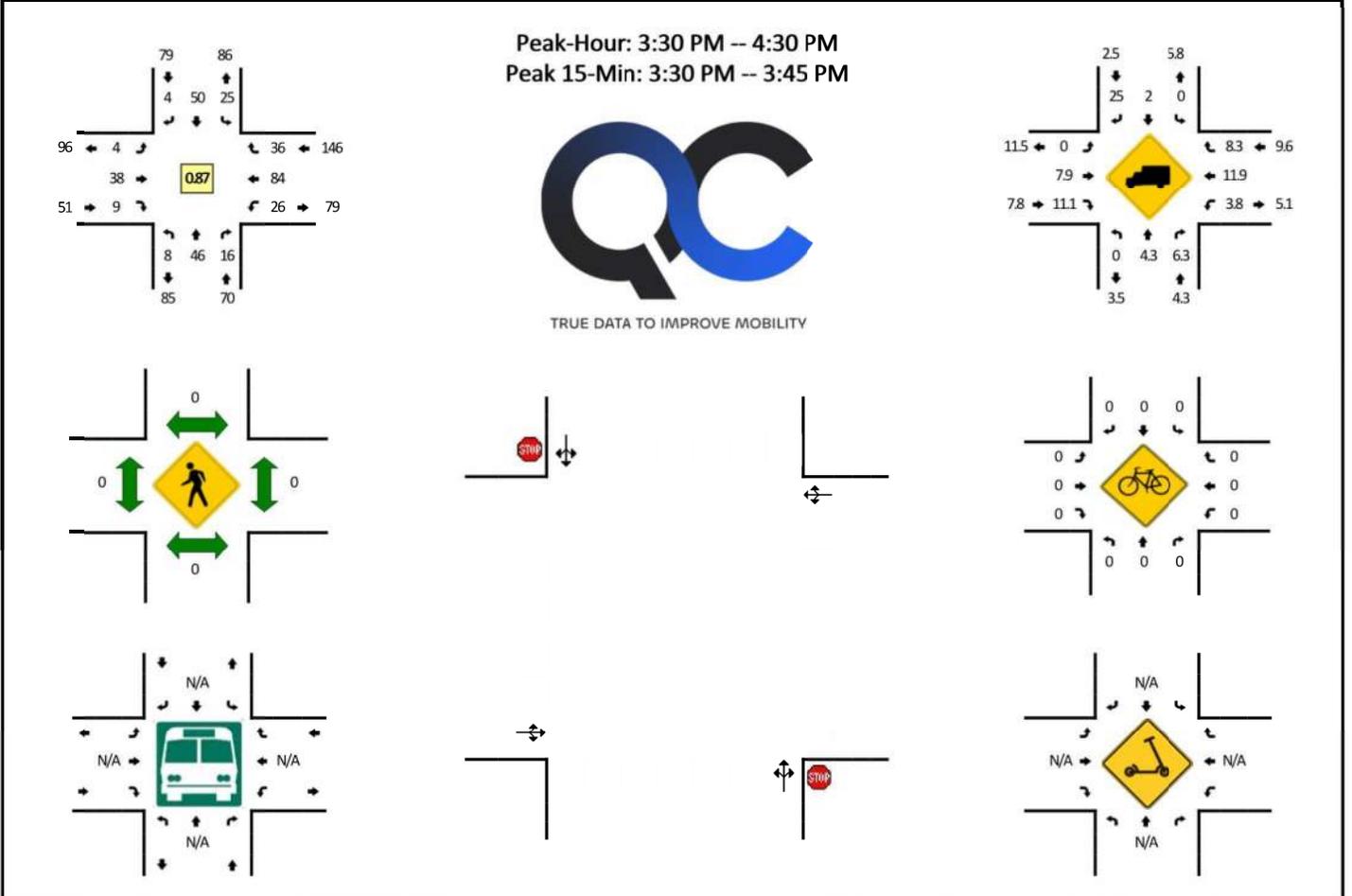
- The proposed development will add minimal delay to the intersection of Coral Road and Maple Street.
- Turn lanes at the are not warranted at the gravel pit entrance along Maple Street.

- Sufficient stopping sight distance, over 1,000 feet (570 feet required), and intersection sight distance, over 1,000 feet, is provided at the proposed gravel pit entrance.
- No improvements along Maple Street would be required at the Maple Street and Coral Road intersection as a result of the Maple Street Gravel Pit development. The peak hour volumes generated by the gravel pit were applied to the existing P.M. peak hour to present the worst-case scenario. For the purposes of this study, this development is anticipated to generate a total of 19 trips (6 entering and 13 exiting) during the P.M. peak hour.

APPENDIX A

LOCATION: Maple St -- W Coral Rd
CITY/STATE: McHenry, IL

QC JOB #: 16349301
DATE: Tue, Oct 24 2023



| 15-Min Count Period Beginning At | Maple St (Northbound) | | | | Maple St (Southbound) | | | | W Coral Rd (Eastbound) | | | | W Coral Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|-----------------------|------|-------|---|-----------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 12:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | |
| 12:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | |
| 12:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 12:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 9 |
| 1:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 |
| 1:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 5 |
| 1:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 6 |
| 1:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 2:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 |
| 2:15 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 |
| 2:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 2:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 3:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 3:15 AM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 3:30 AM | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 |
| 3:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 8 |
| 4:00 AM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 13 |
| 4:15 AM | 0 | 1 | 2 | 0 | 3 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 13 | 23 |
| 4:30 AM | 0 | 4 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 7 | 1 | 0 | 1 | 1 | 0 | 0 | 19 | 39 |
| 4:45 AM | 0 | 1 | 1 | 0 | 3 | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 14 | 51 |
| 5:00 AM | 0 | 3 | 2 | 0 | 2 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 18 | 64 |
| 5:15 AM | 0 | 0 | 2 | 0 | 6 | 4 | 0 | 0 | 0 | 5 | 3 | 0 | 2 | 2 | 0 | 0 | 24 | 75 |
| 5:30 AM | 0 | 0 | 6 | 0 | 5 | 11 | 0 | 0 | 0 | 6 | 2 | 0 | 1 | 5 | 0 | 0 | 36 | 92 |
| 5:45 AM | 0 | 2 | 5 | 0 | 3 | 12 | 0 | 0 | 0 | 6 | 1 | 0 | 1 | 4 | 1 | 0 | 35 | 113 |
| 6:00 AM | 0 | 2 | 3 | 0 | 6 | 14 | 0 | 0 | 0 | 9 | 1 | 0 | 2 | 4 | 2 | 0 | 43 | 138 |
| 6:15 AM | 1 | 4 | 2 | 0 | 7 | 17 | 0 | 0 | 1 | 12 | 1 | 0 | 3 | 4 | 0 | 0 | 52 | 166 |
| 6:30 AM | 0 | 3 | 10 | 0 | 7 | 10 | 0 | 0 | 2 | 16 | 0 | 0 | 1 | 5 | 0 | 0 | 54 | 184 |
| 6:45 AM | 0 | 9 | 9 | 0 | 10 | 11 | 1 | 0 | 0 | 21 | 4 | 0 | 2 | 9 | 4 | 0 | 80 | 229 |
| 7:00 AM | 1 | 8 | 4 | 0 | 8 | 9 | 1 | 0 | 0 | 10 | 0 | 0 | 2 | 9 | 8 | 0 | 60 | 246 |
| 7:15 AM | 0 | 14 | 3 | 0 | 8 | 13 | 0 | 0 | 0 | 6 | 0 | 0 | 3 | 9 | 0 | 0 | 56 | 250 |
| 7:30 AM | 3 | 9 | 8 | 0 | 7 | 22 | 1 | 0 | 2 | 7 | 1 | 0 | 7 | 8 | 10 | 0 | 85 | 281 |
| 7:45 AM | 0 | 15 | 5 | 0 | 5 | 14 | 3 | 0 | 3 | 12 | 3 | 0 | 2 | 10 | 6 | 0 | 78 | 279 |
| 8:00 AM | 0 | 10 | 2 | 0 | 2 | 5 | 2 | 0 | 1 | 11 | 0 | 0 | 0 | 7 | 4 | 0 | 44 | 263 |
| 8:15 AM | 1 | 5 | 1 | 0 | 4 | 10 | 2 | 0 | 0 | 6 | 1 | 0 | 3 | 7 | 2 | 0 | 42 | 249 |
| 8:30 AM | 0 | 1 | 5 | 0 | 10 | 10 | 0 | 0 | 0 | 6 | 1 | 0 | 5 | 4 | 4 | 0 | 46 | 210 |
| 8:45 AM | 0 | 7 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 9 | 0 | 0 | 5 | 9 | 4 | 0 | 40 | 172 |
| 9:00 AM | 0 | 5 | 3 | 0 | 2 | 4 | 0 | 0 | 1 | 7 | 1 | 0 | 1 | 3 | 1 | 0 | 28 | 156 |
| 9:15 AM | 0 | 9 | 2 | 0 | 4 | 3 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | 2 | 3 | 0 | 30 | 144 |

| 15-Min Count Period Beginning At | Maple St (Northbound) | | | | Maple St (Southbound) | | | | W Coral Rd (Eastbound) | | | | W Coral Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|-----------------------|------|-------|---|-----------------------|------|-------|---|------------------------|------|-------|---|------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 9:30 AM | 0 | 3 | 1 | 0 | 4 | 5 | 1 | 0 | 2 | 5 | 1 | 0 | 1 | 6 | 4 | 0 | 33 | 131 |
| 9:45 AM | 0 | 5 | 1 | 0 | 5 | 2 | 0 | 0 | 1 | 4 | 1 | 0 | 2 | 5 | 4 | 0 | 30 | 121 |
| 10:00 AM | 0 | 1 | 2 | 0 | 3 | 2 | 2 | 0 | 2 | 4 | 1 | 0 | 1 | 5 | 2 | 0 | 25 | 118 |
| 10:15 AM | 1 | 5 | 3 | 0 | 2 | 7 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 5 | 2 | 0 | 29 | 117 |
| 10:30 AM | 2 | 5 | 4 | 0 | 2 | 9 | 1 | 0 | 2 | 9 | 2 | 0 | 1 | 4 | 1 | 0 | 42 | 126 |
| 10:45 AM | 0 | 1 | 2 | 0 | 2 | 7 | 0 | 0 | 2 | 9 | 1 | 0 | 0 | 0 | 2 | 0 | 26 | 122 |
| 11:00 AM | 1 | 2 | 1 | 0 | 4 | 2 | 1 | 0 | 0 | 3 | 2 | 0 | 0 | 3 | 3 | 0 | 22 | 119 |
| 11:15 AM | 1 | 3 | 0 | 0 | 3 | 6 | 2 | 0 | 0 | 5 | 1 | 0 | 1 | 5 | 4 | 0 | 31 | 121 |
| 11:30 AM | 1 | 7 | 4 | 0 | 4 | 4 | 0 | 0 | 0 | 6 | 2 | 0 | 2 | 6 | 3 | 0 | 39 | 118 |
| 11:45 AM | 0 | 6 | 0 | 0 | 3 | 6 | 0 | 0 | 0 | 4 | 1 | 0 | 1 | 5 | 3 | 0 | 29 | 121 |
| 12:00 PM | 0 | 6 | 0 | 0 | 5 | 8 | 1 | 0 | 0 | 9 | 0 | 0 | 1 | 10 | 8 | 0 | 48 | 147 |
| 12:15 PM | 0 | 2 | 2 | 0 | 3 | 4 | 1 | 0 | 0 | 5 | 1 | 0 | 1 | 7 | 4 | 0 | 30 | 146 |
| 12:30 PM | 0 | 4 | 1 | 0 | 5 | 4 | 0 | 0 | 0 | 8 | 1 | 0 | 2 | 9 | 5 | 0 | 39 | 146 |
| 12:45 PM | 0 | 2 | 1 | 0 | 4 | 5 | 1 | 0 | 0 | 11 | 0 | 0 | 1 | 4 | 5 | 0 | 34 | 151 |
| 1:00 PM | 1 | 5 | 2 | 0 | 6 | 3 | 0 | 0 | 0 | 11 | 0 | 0 | 2 | 4 | 6 | 0 | 40 | 143 |
| 1:15 PM | 1 | 3 | 4 | 0 | 3 | 6 | 1 | 0 | 0 | 5 | 1 | 0 | 1 | 9 | 2 | 0 | 36 | 149 |
| 1:30 PM | 0 | 5 | 1 | 0 | 3 | 4 | 0 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 4 | 0 | 34 | 144 |
| 1:45 PM | 2 | 1 | 4 | 0 | 1 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 2 | 9 | 7 | 0 | 34 | 144 |
| 2:00 PM | 2 | 2 | 5 | 0 | 4 | 9 | 0 | 0 | 1 | 6 | 0 | 0 | 2 | 8 | 4 | 1 | 44 | 148 |
| 2:15 PM | 0 | 9 | 6 | 0 | 4 | 7 | 1 | 0 | 1 | 2 | 0 | 0 | 5 | 15 | 7 | 0 | 57 | 169 |
| 2:30 PM | 1 | 8 | 7 | 0 | 8 | 4 | 1 | 0 | 0 | 4 | 2 | 0 | 7 | 13 | 5 | 0 | 60 | 195 |
| 2:45 PM | 1 | 10 | 1 | 0 | 4 | 8 | 0 | 0 | 1 | 10 | 2 | 0 | 4 | 7 | 5 | 0 | 53 | 214 |
| 3:00 PM | 5 | 7 | 5 | 0 | 5 | 16 | 3 | 0 | 1 | 6 | 1 | 0 | 7 | 9 | 8 | 0 | 73 | 243 |
| 3:15 PM | 3 | 9 | 6 | 0 | 4 | 6 | 0 | 0 | 3 | 12 | 0 | 0 | 5 | 10 | 7 | 0 | 65 | 251 |
| 3:30 PM | 2 | 10 | 2 | 0 | 7 | 9 | 1 | 0 | 0 | 10 | 4 | 0 | 10 | 34 | 10 | 0 | 99 | 290 |
| 3:45 PM | 2 | 14 | 8 | 0 | 4 | 15 | 1 | 0 | 1 | 12 | 1 | 0 | 6 | 12 | 9 | 0 | 85 | 322 |
| 4:00 PM | 2 | 14 | 2 | 0 | 6 | 18 | 0 | 0 | 3 | 9 | 1 | 0 | 3 | 22 | 10 | 0 | 90 | 339 |
| 4:15 PM | 2 | 8 | 4 | 0 | 8 | 8 | 2 | 0 | 0 | 7 | 3 | 0 | 7 | 16 | 7 | 0 | 72 | 346 |
| 4:30 PM | 1 | 21 | 3 | 0 | 7 | 6 | 3 | 0 | 3 | 12 | 1 | 0 | 4 | 10 | 12 | 0 | 83 | 330 |
| 4:45 PM | 0 | 18 | 4 | 0 | 6 | 8 | 1 | 0 | 1 | 6 | 3 | 0 | 7 | 18 | 14 | 0 | 86 | 331 |
| 5:00 PM | 0 | 14 | 2 | 0 | 7 | 8 | 1 | 0 | 1 | 8 | 0 | 0 | 6 | 17 | 17 | 0 | 81 | 322 |
| 5:15 PM | 1 | 17 | 4 | 0 | 6 | 13 | 2 | 0 | 1 | 7 | 2 | 0 | 10 | 11 | 10 | 0 | 84 | 334 |
| 5:30 PM | 1 | 17 | 1 | 0 | 3 | 8 | 0 | 0 | 1 | 10 | 2 | 0 | 2 | 14 | 10 | 0 | 69 | 320 |
| 5:45 PM | 0 | 12 | 2 | 0 | 7 | 9 | 1 | 0 | 1 | 4 | 0 | 0 | 6 | 7 | 9 | 0 | 58 | 292 |
| 6:00 PM | 1 | 12 | 1 | 0 | 4 | 11 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 8 | 6 | 0 | 46 | 257 |
| 6:15 PM | 2 | 14 | 5 | 0 | 2 | 7 | 0 | 0 | 3 | 5 | 0 | 0 | 5 | 10 | 13 | 0 | 66 | 239 |
| 6:30 PM | 0 | 14 | 1 | 0 | 2 | 4 | 2 | 0 | 0 | 6 | 0 | 0 | 2 | 11 | 9 | 0 | 51 | 221 |
| 6:45 PM | 1 | 4 | 5 | 0 | 3 | 7 | 1 | 0 | 1 | 1 | 1 | 0 | 5 | 5 | 6 | 0 | 40 | 203 |
| 7:00 PM | 0 | 6 | 1 | 0 | 6 | 3 | 1 | 0 | 1 | 5 | 1 | 0 | 4 | 2 | 12 | 0 | 42 | 199 |
| 7:15 PM | 1 | 9 | 1 | 0 | 3 | 4 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 5 | 6 | 0 | 36 | 169 |
| 7:30 PM | 1 | 3 | 3 | 0 | 3 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 4 | 5 | 0 | 28 | 146 |
| 7:45 PM | 0 | 5 | 2 | 0 | 1 | 2 | 1 | 0 | 1 | 3 | 0 | 0 | 1 | 3 | 5 | 0 | 24 | 130 |
| 8:00 PM | 0 | 2 | 2 | 0 | 3 | 6 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 4 | 5 | 0 | 27 | 115 |
| 8:15 PM | 0 | 7 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 2 | 0 | 22 | 101 |
| 8:30 PM | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 3 | 2 | 0 | 13 | 86 |
| 8:45 PM | 0 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 0 | 12 | 74 |
| 9:00 PM | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 11 | 58 |
| 9:15 PM | 1 | 2 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 15 | 51 |
| 9:30 PM | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 42 |
| 9:45 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 8 | 38 |
| 10:00 PM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 7 | 34 |
| 10:15 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 7 | 26 |
| 10:30 PM | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 28 |
| 10:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 22 |
| 11:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 17 |
| 11:15 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 13 |
| 11:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 9 |
| 11:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| All Vehicles | 8 | 40 | 8 | 0 | 28 | 36 | 4 | 0 | 0 | 40 | 16 | 0 | 40 | 136 | 40 | 0 | 396 | |
| Heavy Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 4 | 0 | 0 | 8 | 8 | 0 | 28 | |
| Buses | | | | | | | | | | | | | | | | | | |
| Pedestrians | | 0 | | | | 0 | | | | 0 | | | | 0 | | | 0 | |
| Bicycles | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | |
| Scoters | | | | | | | | | | | | | | | | | | |

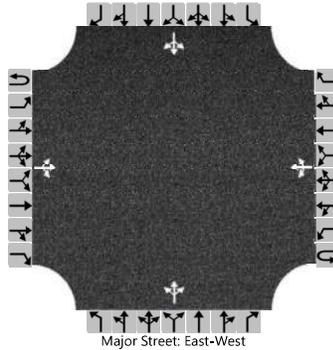
Comments:

APPENDIX B

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|--|--|--|----------------------------|-----------------------|--|--|
| Analyst | AYJ | | | Intersection | Maple St and Coral Rd | | |
| Agency/Co. | PEI | | | Jurisdiction | McHenry | | |
| Date Performed | 11/1/2023 | | | East/West Street | Coral Road | | |
| Analysis Year | 2023 | | | North/South Street | Maple Street | | |
| Time Analyzed | 3:30-4:30 PM | | | Peak Hour Factor | 0.87 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Maple Street at Coral Road Existing PM | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|---|-----------|----|-----|----|------------|---|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 4 | 38 | 9 | | 26 | 84 | 36 | | 8 | 46 | 16 | | 25 | 50 | 4 |
| Percent Heavy Vehicles (%) | | 0 | | | | 4 | | | | 0 | 4 | 6 | | 0 | 2 | 25 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.14 | | | | 7.10 | 6.54 | 6.26 | | 7.10 | 6.52 | 6.45 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.24 | | | | 3.50 | 4.04 | 3.35 | | 3.50 | 4.02 | 3.53 |

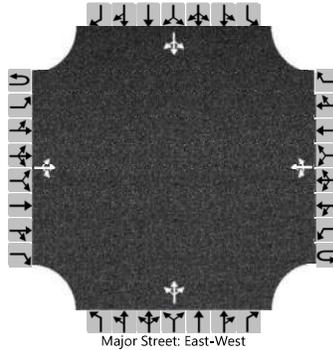
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|--|------|--|
| Flow Rate, v (veh/h) | | 5 | | | | 30 | | | | | 80 | | | | | 91 | |
| Capacity, c (veh/h) | | 1458 | | | | 1539 | | | | | 688 | | | | | 645 | |
| v/c Ratio | | 0.00 | | | | 0.02 | | | | | 0.12 | | | | | 0.14 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.1 | | | | | 0.4 | | | | | 0.5 | |
| Control Delay (s/veh) | | 7.5 | | | | 7.4 | | | | | 10.9 | | | | | 11.5 | |
| Level of Service (LOS) | | A | | | | A | | | | | B | | | | | B | |
| Approach Delay (s/veh) | 0.6 | | | | 1.4 | | | | 10.9 | | | | 11.5 | | | | |
| Approach LOS | | | | | | | | | B | | | | B | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|---|--|--|----------------------------|-----------------------|--|--|
| Analyst | AYJ | | | Intersection | Maple St and Coral Rd | | |
| Agency/Co. | PEI | | | Jurisdiction | McHenry | | |
| Date Performed | 11/1/2023 | | | East/West Street | Coral Road | | |
| Analysis Year | 2023 | | | North/South Street | Maple Street | | |
| Time Analyzed | 3:30-4:30 PM | | | Peak Hour Factor | 0.87 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Maple St at Coral Rd Post-Development Existing PM | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 4 | 38 | 10 | | 30 | 84 | 36 | | 10 | 46 | 24 | | 25 | 50 | 4 |
| Percent Heavy Vehicles (%) | | 0 | | | | 17 | | | | 0 | 4 | 20 | | 0 | 2 | 25 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.27 | | | | 7.10 | 6.54 | 6.40 | | 7.10 | 6.52 | 6.45 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.35 | | | | 3.50 | 4.04 | 3.48 | | 3.50 | 4.02 | 3.53 |

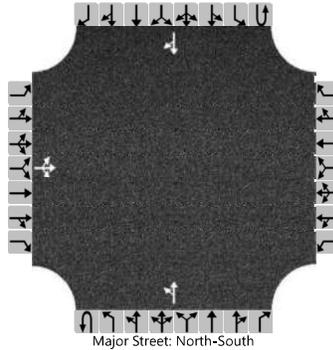
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|--|------|--|
| Flow Rate, v (veh/h) | | 5 | | | | 34 | | | | | 92 | | | | | 91 | |
| Capacity, c (veh/h) | | 1458 | | | | 1459 | | | | | 693 | | | | | 630 | |
| v/c Ratio | | 0.00 | | | | 0.02 | | | | | 0.13 | | | | | 0.14 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.1 | | | | | 0.5 | | | | | 0.5 | |
| Control Delay (s/veh) | | 7.5 | | | | 7.5 | | | | | 11.0 | | | | | 11.7 | |
| Level of Service (LOS) | | A | | | | A | | | | | B | | | | | B | |
| Approach Delay (s/veh) | 0.6 | | | | 1.7 | | | | 11.0 | | | | 11.7 | | | | |
| Approach LOS | A | | | | A | | | | B | | | | B | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|--|--|--|----------------------------|---------------------------|--|--|
| Analyst | AYJ | | | Intersection | Maple Valley and Maple St | | |
| Agency/Co. | PEI | | | Jurisdiction | McHenry | | |
| Date Performed | 11/1/2023 | | | East/West Street | Maple Valley Entrance | | |
| Analysis Year | 2023 | | | North/South Street | Maple Street | | |
| Time Analyzed | 3:30-4:30 PM | | | Peak Hour Factor | 0.87 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Maple Valley at Maple Street Existing PM | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|-----|----|-----------|---|---|---|------------|-----|----|---|------------|---|----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | | | | LT | | | | | | TR | |
| Volume (veh/h) | | 10 | 0 | 1 | | | | | | 1 | 70 | | | | 85 | 5 | |
| Percent Heavy Vehicles (%) | | 50 | 3 | 3 | | | | | | 100 | | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|--|--|--|--|------|--|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | | | | | 4.1 | | | | | | | |
| Critical Headway (sec) | | 7.60 | 6.53 | 6.23 | | | | | | 5.10 | | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | | | | | 2.2 | | | | | | | |
| Follow-Up Headway (sec) | | 3.95 | 4.03 | 3.33 | | | | | | 3.10 | | | | | | | |

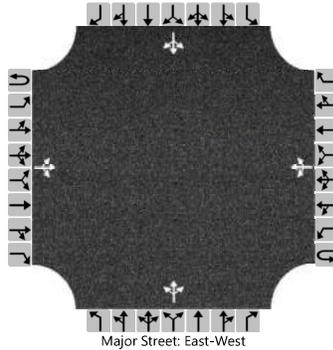
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 13 | | | | | | | 1 | | | | | | | | |
| Capacity, c (veh/h) | | | 701 | | | | | | | 1048 | | | | | | | | |
| v/c Ratio | | | 0.02 | | | | | | | 0.00 | | | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.1 | | | | | | | 0.0 | | | | | | | | |
| Control Delay (s/veh) | | | 10.2 | | | | | | | 8.4 | | | | | | | | |
| Level of Service (LOS) | | | B | | | | | | | A | | | | | | | | |
| Approach Delay (s/veh) | | 10.2 | | | | | | | | 0.1 | | | | | | | | |
| Approach LOS | | B | | | | | | | | | | | | | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|--|--|--|----------------------------|-----------------------|--|--|
| Analyst | AYJ | | | Intersection | Maple St and Coral Rd | | |
| Agency/Co. | PEI | | | Jurisdiction | McHenry | | |
| Date Performed | 11/1/2023 | | | East/West Street | Coral Road | | |
| Analysis Year | 2028 | | | North/South Street | Maple Street | | |
| Time Analyzed | 3:30-4:30 PM | | | Peak Hour Factor | 0.87 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Maple Street at Coral Road Post-Development PM | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 5 | 44 | 11 | | 34 | 97 | 42 | | 11 | 54 | 28 | | 29 | 58 | 5 |
| Percent Heavy Vehicles (%) | | 8 | | | | 15 | | | | 10 | 4 | 19 | | 0 | 2 | 25 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.18 | | | | 4.25 | | | | 7.20 | 6.54 | 6.39 | | 7.10 | 6.52 | 6.45 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.27 | | | | 2.34 | | | | 3.59 | 4.04 | 3.47 | | 3.50 | 4.02 | 3.53 |

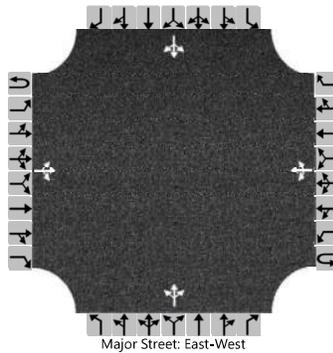
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|--|--|--|------|--|--|--|------|------|--|--|------|------|--|--|
| Flow Rate, v (veh/h) | | 6 | | | | 39 | | | | | 107 | | | | 106 | | |
| Capacity, c (veh/h) | | 1384 | | | | 1460 | | | | | 657 | | | | 590 | | |
| v/c Ratio | | 0.00 | | | | 0.03 | | | | | 0.16 | | | | 0.18 | | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.1 | | | | | 0.6 | | | | 0.6 | | |
| Control Delay (s/veh) | | 7.6 | | | | 7.5 | | | | | 11.5 | | | | 12.4 | | |
| Level of Service (LOS) | | A | | | | A | | | | | B | | | | B | | |
| Approach Delay (s/veh) | | 0.7 | | | | 1.7 | | | | 11.5 | | | | 12.4 | | | |
| Approach LOS | | | | | | | | | | B | | | | B | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|--|--|--|----------------------------|-----------------------|--|--|
| Analyst | AYJ | | | Intersection | Maple St and Coral Rd | | |
| Agency/Co. | PEI | | | Jurisdiction | McHenry | | |
| Date Performed | 11/1/2023 | | | East/West Street | Coral Road | | |
| Analysis Year | 2028 | | | North/South Street | Maple Street | | |
| Time Analyzed | 3:30-4:30 PM | | | Peak Hour Factor | 0.87 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Maple Street at Coral Road No Build PM | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|----|-----------|----|-----|----|------------|---|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 5 | 44 | 10 | | 30 | 97 | 42 | | 9 | 53 | 19 | | 29 | 58 | 5 |
| Percent Heavy Vehicles (%) | | 0 | | | | 4 | | | | 0 | 4 | 6 | | 0 | 2 | 25 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.14 | | | | 7.10 | 6.54 | 6.26 | | 7.10 | 6.52 | 6.45 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.24 | | | | 3.50 | 4.04 | 3.35 | | 3.50 | 4.02 | 3.53 |

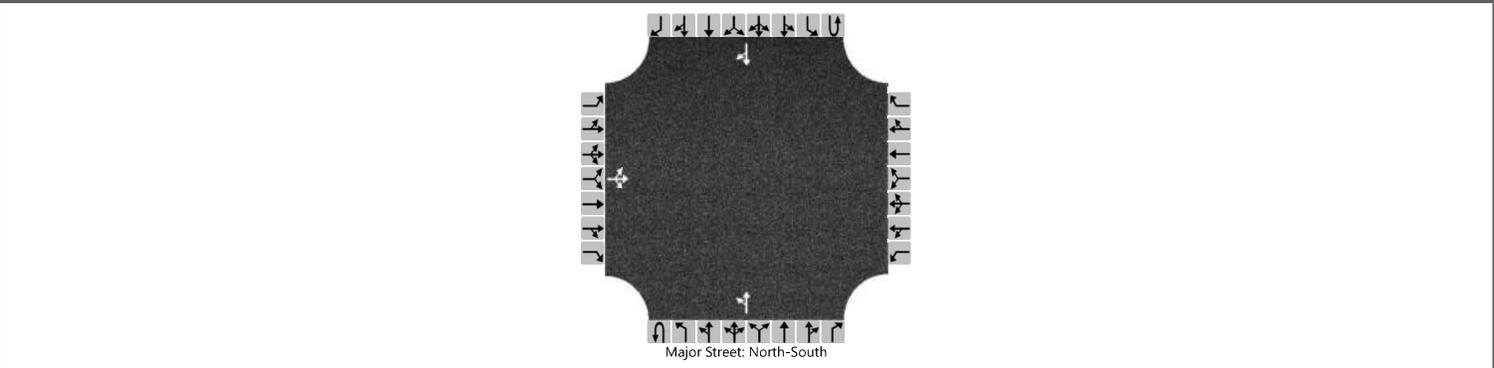
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|--|------|--|
| Flow Rate, v (veh/h) | | 6 | | | | 34 | | | | | 93 | | | | | 106 | |
| Capacity, c (veh/h) | | 1432 | | | | 1528 | | | | | 654 | | | | | 606 | |
| v/c Ratio | | 0.00 | | | | 0.02 | | | | | 0.14 | | | | | 0.17 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.1 | | | | | 0.5 | | | | | 0.6 | |
| Control Delay (s/veh) | | 7.5 | | | | 7.4 | | | | | 11.4 | | | | | 12.2 | |
| Level of Service (LOS) | | A | | | | A | | | | | B | | | | | B | |
| Approach Delay (s/veh) | 0.7 | | | | 1.5 | | | | 11.4 | | | | 12.2 | | | | |
| Approach LOS | | | | | | | | | B | | | | B | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|--------------------------------------|--|--|----------------------------|---------------------------|--|--|
| Analyst | AYJ | | | Intersection | Maple Valley and Maple St | | |
| Agency/Co. | PEI | | | Jurisdiction | McHenry | | |
| Date Performed | 11/1/2023 | | | East/West Street | Maple Valley Entrance | | |
| Analysis Year | 2023 | | | North/South Street | Maple Street | | |
| Time Analyzed | 3:30-4:30 PM | | | Peak Hour Factor | 0.87 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Maple Valley at Maple Street 2028 PM | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|-----------|-----|-----|-----------|---|---|---|------------|-----|----|---|------------|---|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LTR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 12 | 0 | 1 | | | | | | 1 | 81 | | | | 98 | 5 |
| Percent Heavy Vehicles (%) | | 50 | 0 | 100 | | | | | | 100 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | |

Critical and Follow-up Headways

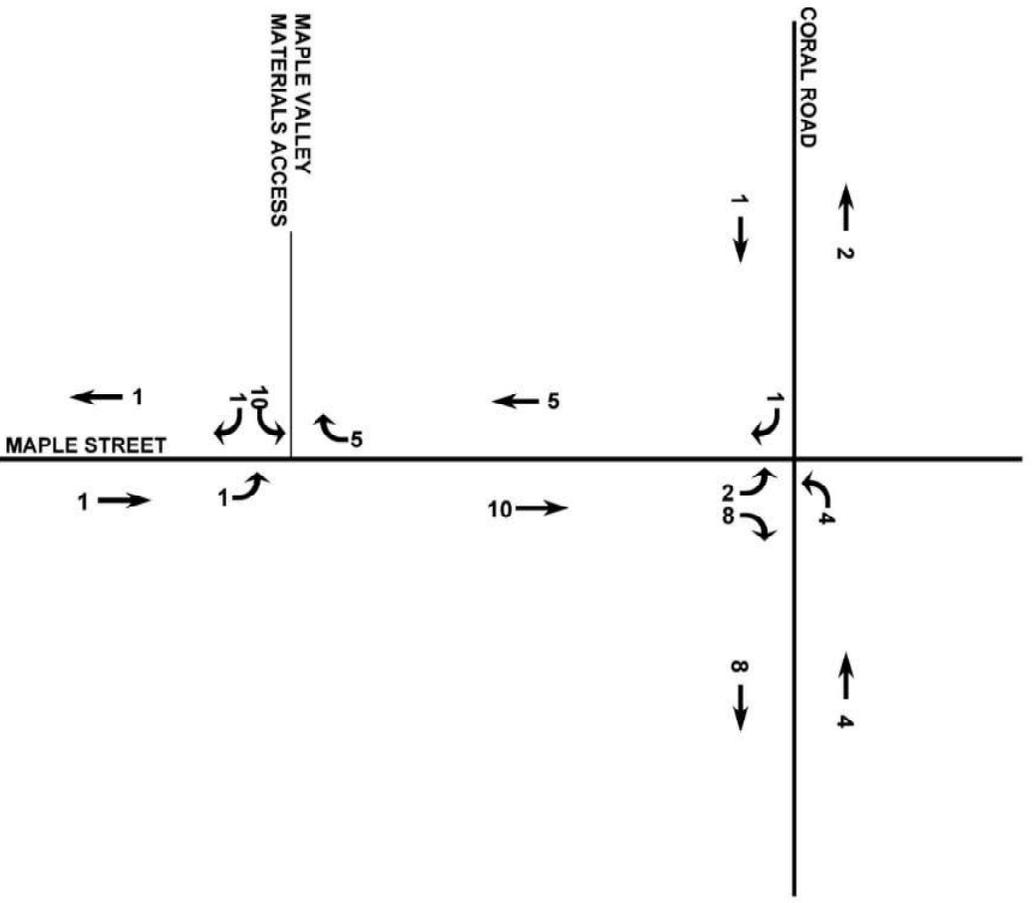
| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|------|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 7.60 | 6.50 | 7.20 | | | | | | 5.10 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.95 | 4.00 | 4.20 | | | | | | 3.10 | | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|------|------|--|--|--|--|--|--|------|--|--|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 15 | | | | | | | 1 | | | | | | | |
| Capacity, c (veh/h) | | | 659 | | | | | | | 1033 | | | | | | | |
| v/c Ratio | | | 0.02 | | | | | | | 0.00 | | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.1 | | | | | | | 0.0 | | | | | | | |
| Control Delay (s/veh) | | | 10.6 | | | | | | | 8.5 | | | | | | | |
| Level of Service (LOS) | | | B | | | | | | | A | | | | | | | |
| Approach Delay (s/veh) | | 10.6 | | | | | | | | 0.1 | | | | | | | |
| Approach LOS | | B | | | | | | | | | | | | | | | |

LEGEND:

→ = DIRECTIONAL HOURLY VOLUME



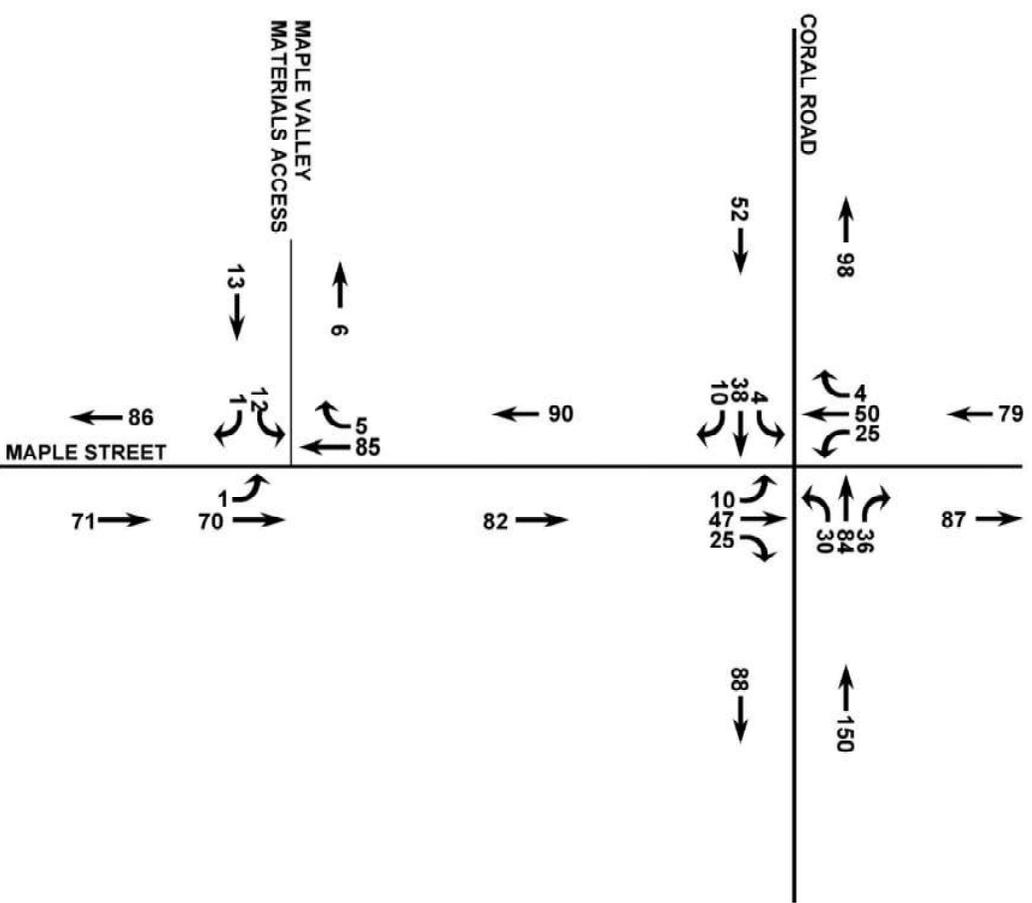
SITE-GENERATED VOLUMES

P.M. PEAK HOUR - 3:30 - 4:30

EXHIBIT 3

LEGEND:

→ = DIRECTIONAL HOURLY VOLUME



2023 VOLUMES W/SITE GENERATED TRAFFIC

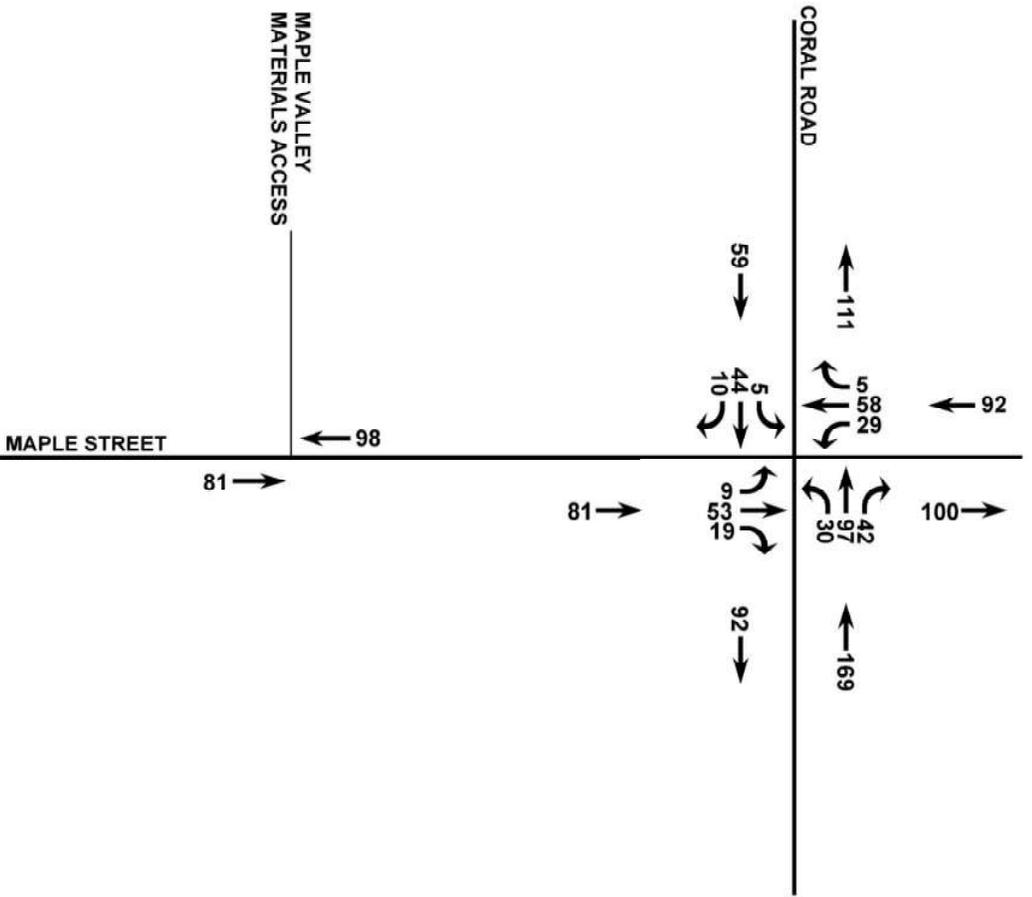
P.M. PEAK HOUR - 3:30 - 4:30

EXHIBIT 4

Maple Valley Materials
Existing and Projected Traffic Volumes

LEGEND:

→ = DIRECTIONAL HOURLY VOLUME



2028 NO BUILD VOLUMES

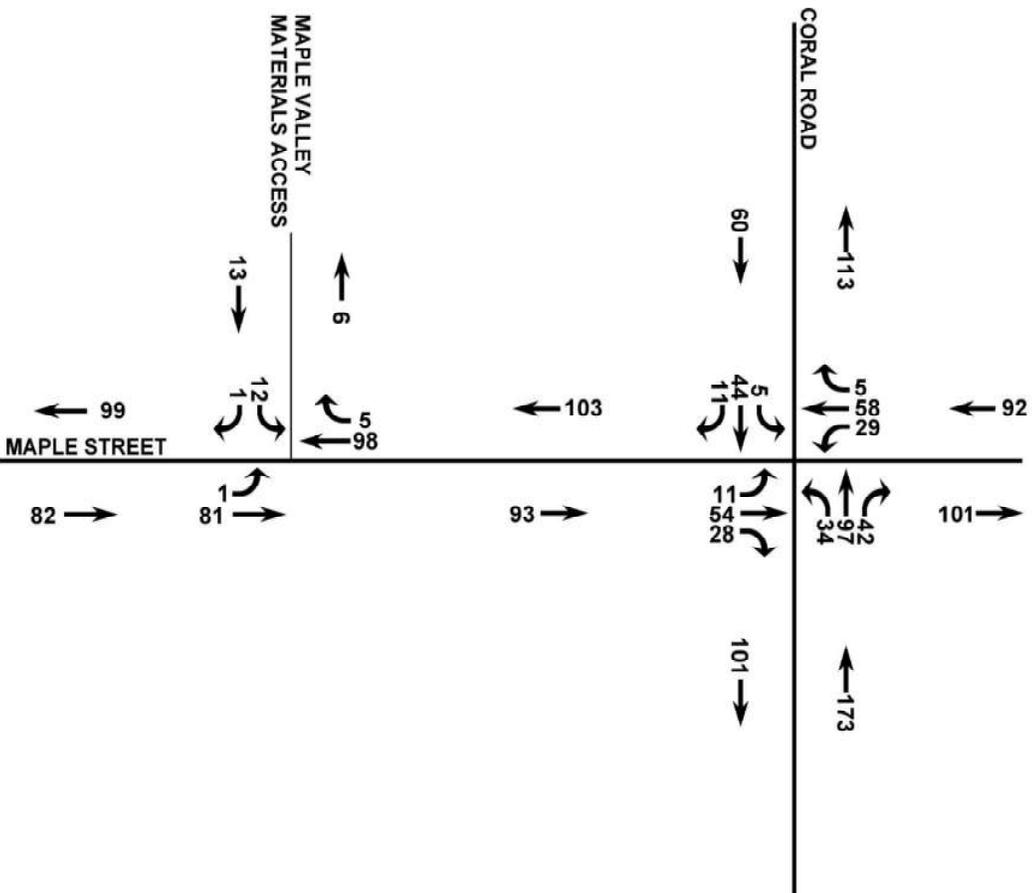
P.M. PEAK HOUR - 3:30 - 4:30

EXHIBIT 5

**Maple Valley Materials
Existing and Projected Traffic Volumes**

LEGEND:

→ = DIRECTIONAL HOURLY VOLUME



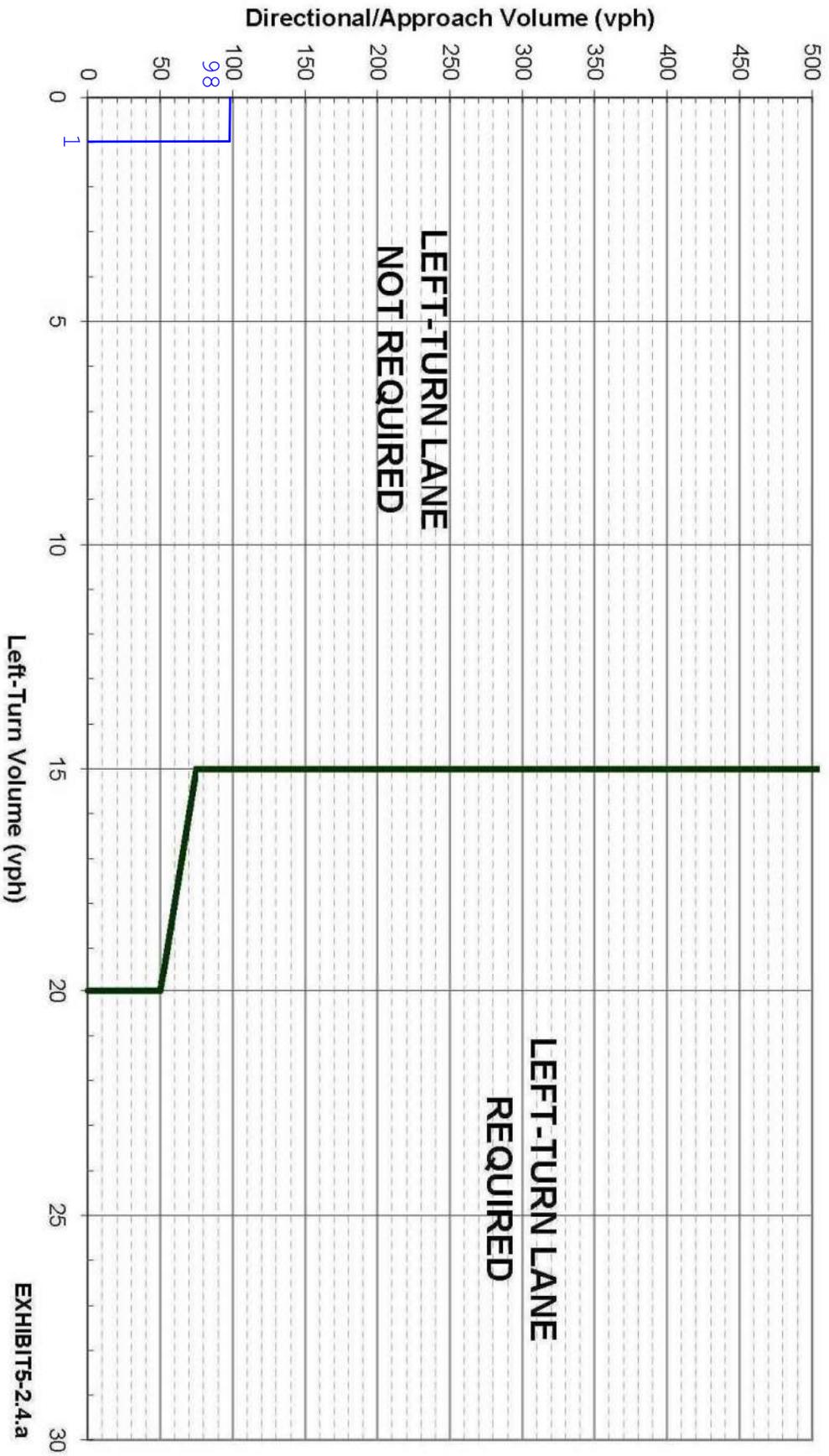
2028 TOTAL VOLUMES

P.M. PEAK HOUR - 3:30 - 4:30

EXHIBIT 6

LEFT-TURN LANE REQUIREMENTS

(Applies to "Arterial" and "Other" County Highway Classifications)



EXHIBITS-2.4.a

RIGHT-TURN LANE REQUIREMENTS

(Applies to "Arterial" and "Other" County Highway Classifications)

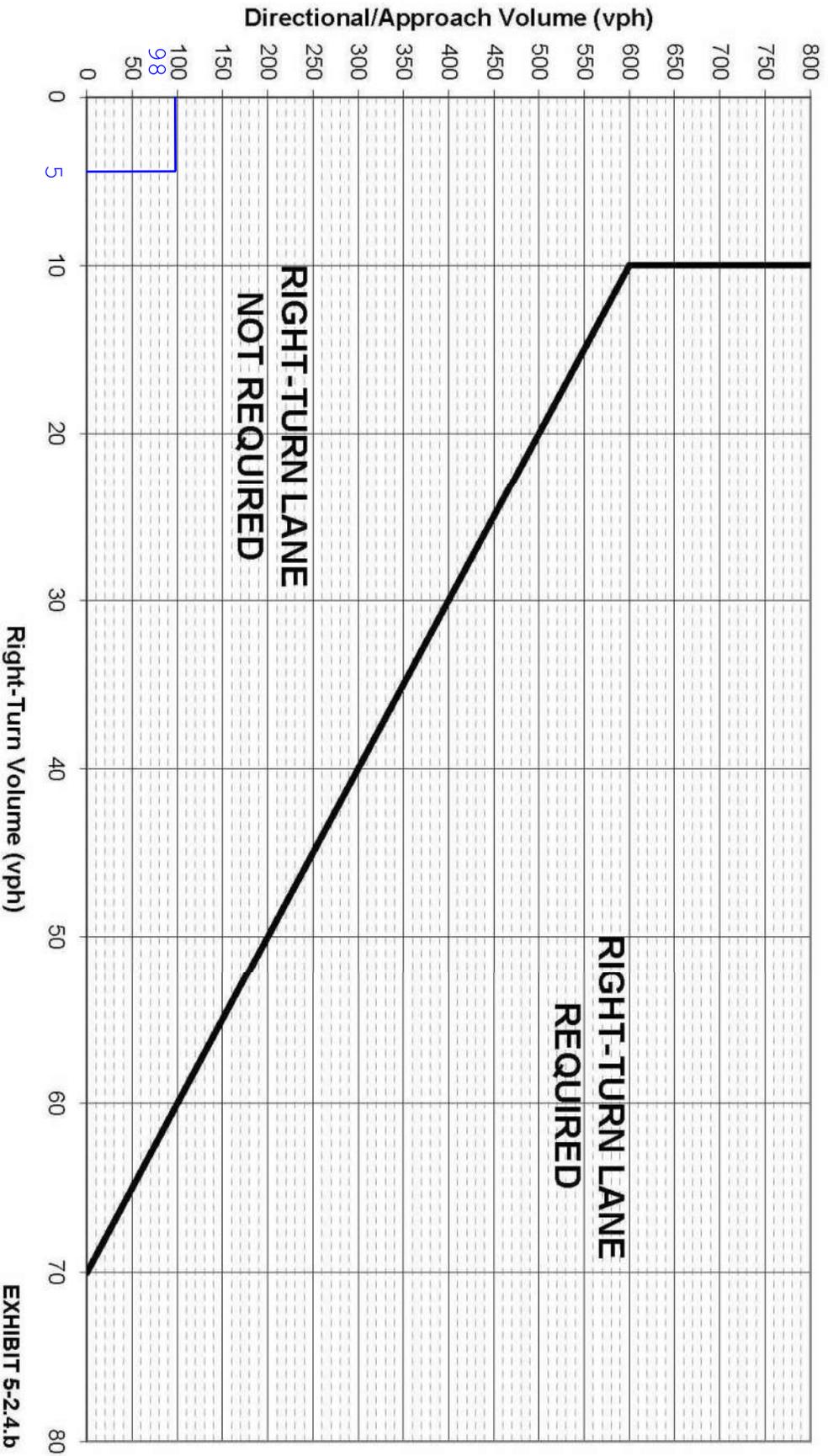
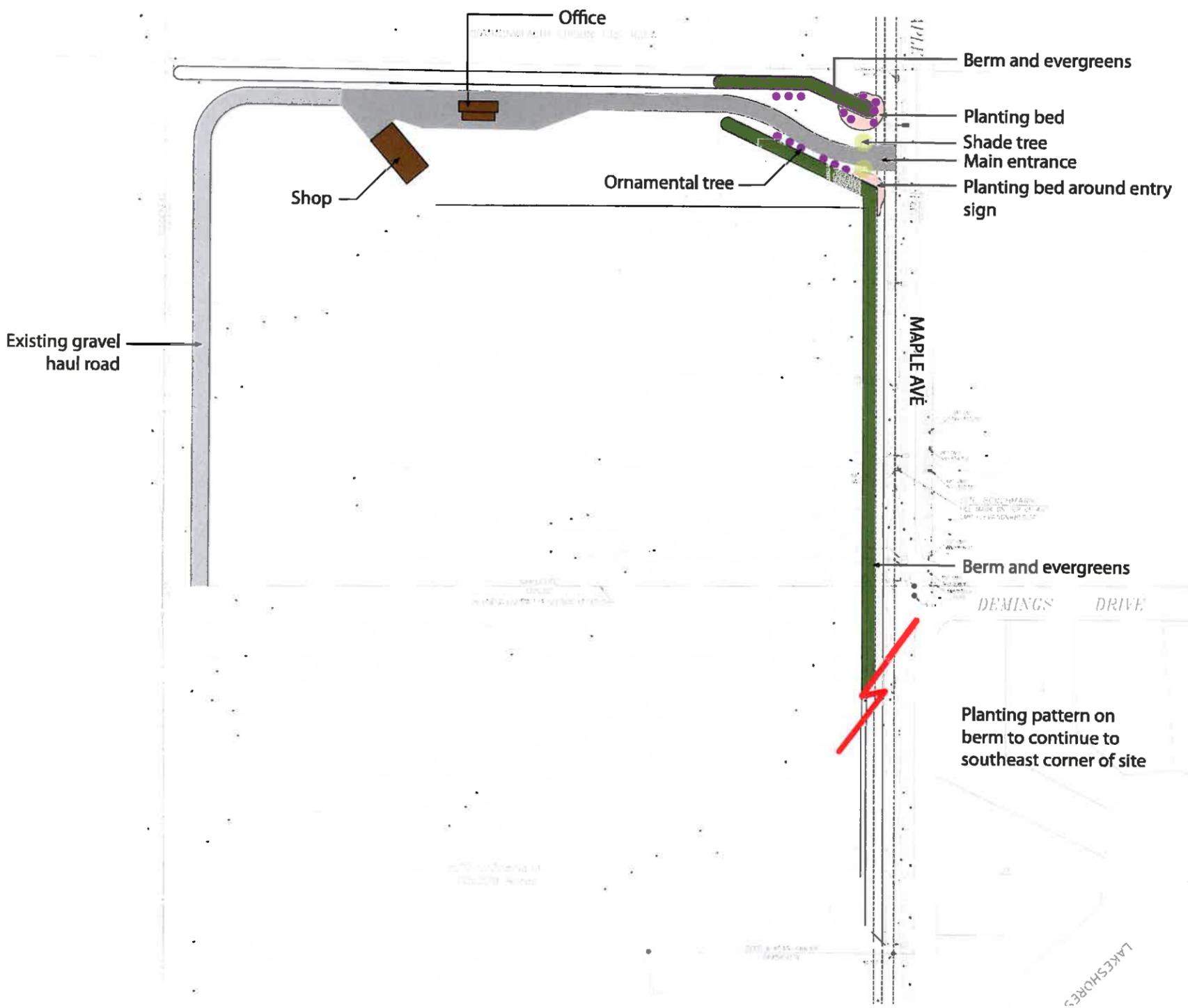
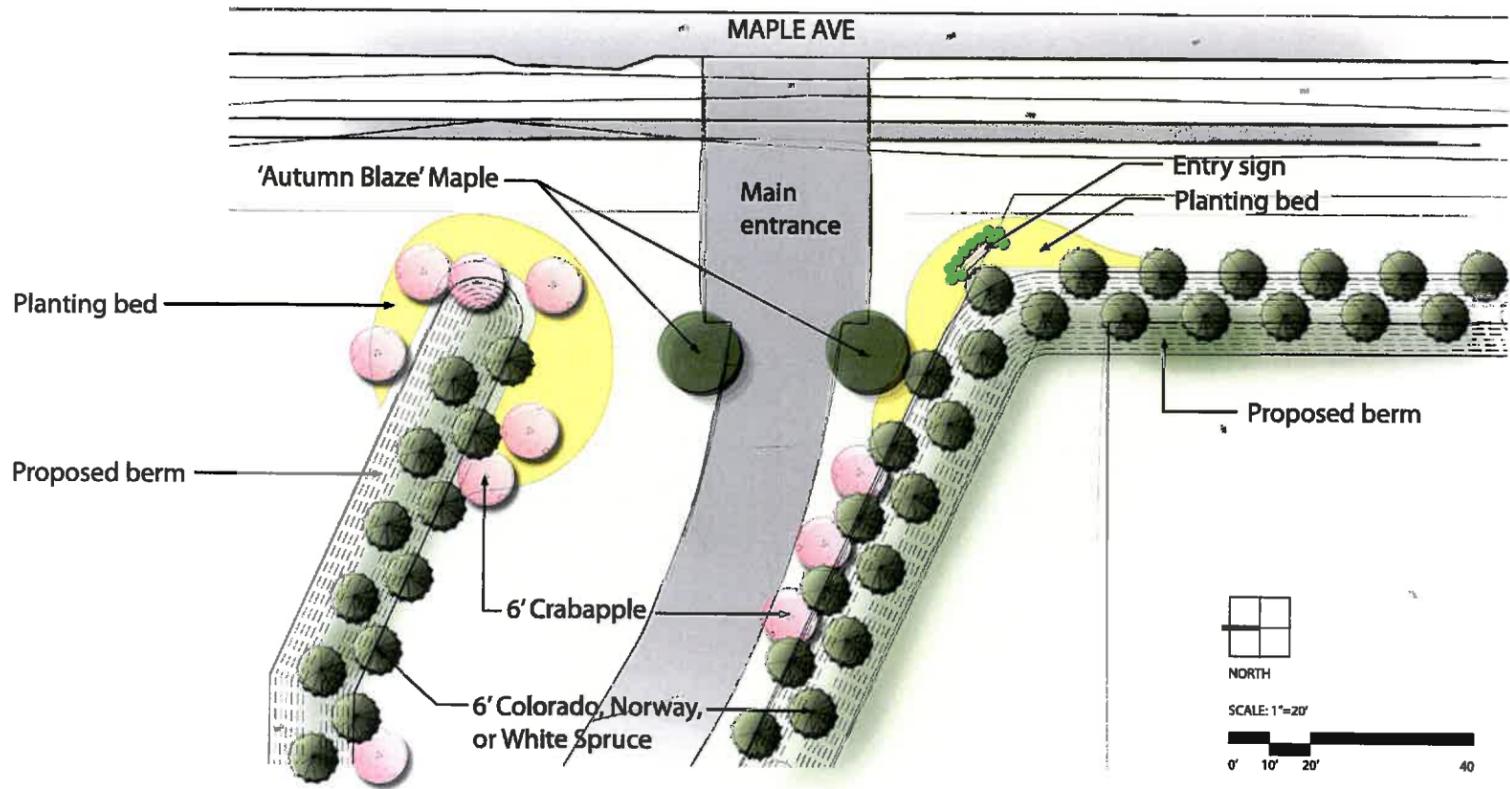


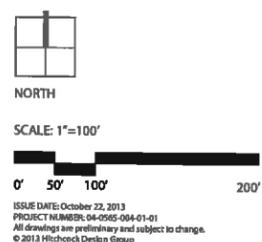
EXHIBIT 5-2.4.b

APPENDIX D

LANDSCAPE PLAN

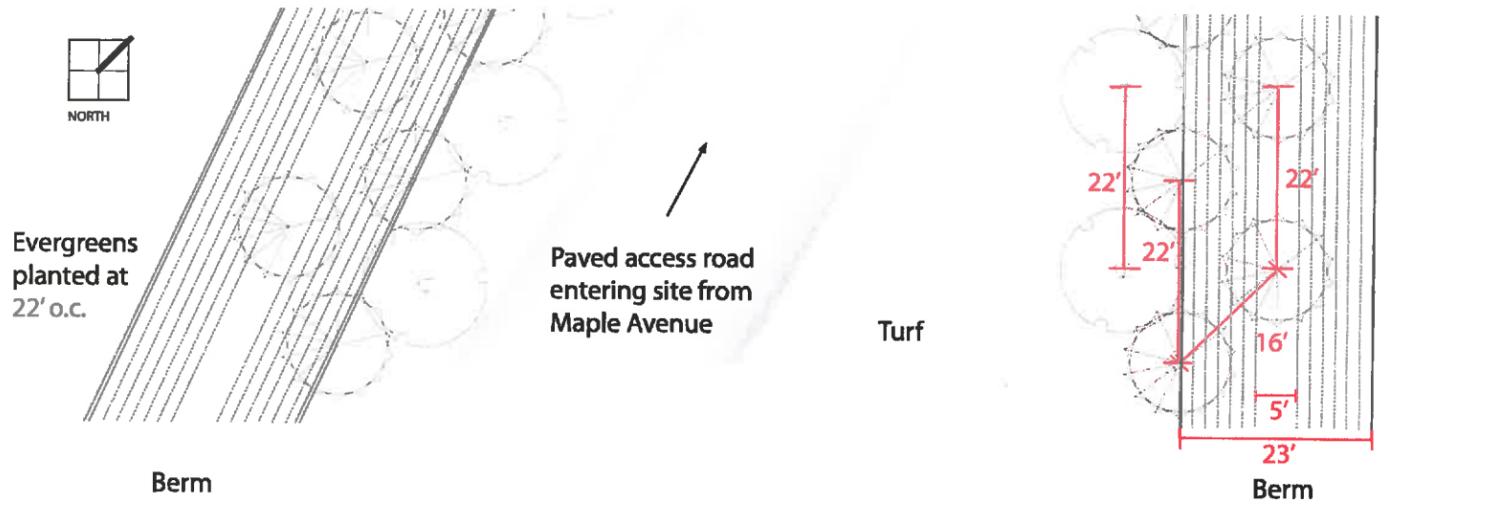


Landscape Plan
Maple Valley Materials
 Marengo, Illinois



PREPARED FOR:
Maple Valley Materials
 IN ASSOCIATION WITH:
Patrick Engineering

ISSUE DATE: October 22, 2013
 PROJECT NUMBER: 04-0505-004-01-01
 All drawings are preliminary and subject to change.
 © 2013 Hitchcock Design Group



View looking north on Maple Avenue approximately five years after installment



View of entry sign approximately five years after installment



Cross Section & Perspectives

Maple Valley Materials

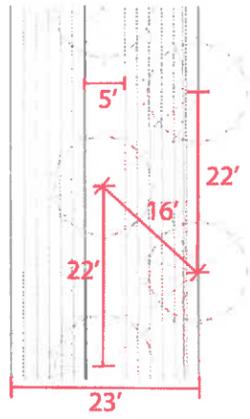
Marengo, Illinois

PREPARED FOR:
Maple Valley Materials
 IN ASSOCIATION WITH:
Patrick Engineering

ISSUE DATE: October 22, 2013
 PROJECT NUMBER: 04-0565-004-01-01
 All drawings are preliminary and subject to change.
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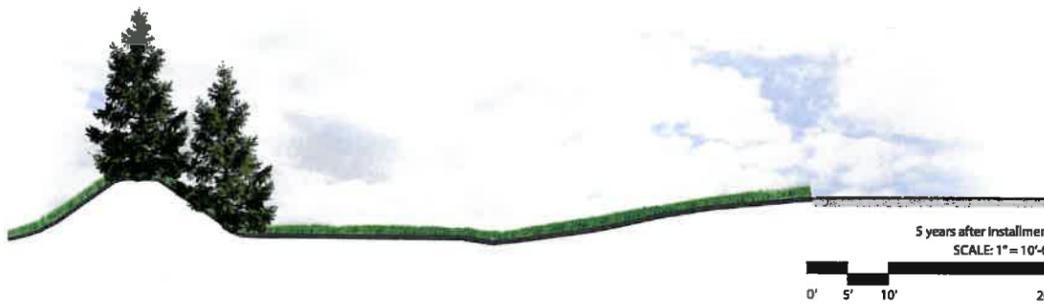
Evergreens
planted at
22' o.c.



Berm

55' Setback

Maple Avenue



View looking north on Maple Avenue at maturity



View of entry sign at maturity



Cross Section & Perspectives

Maple Valley Materials

Marengo, Illinois

PREPARED FOR:
**Maple Valley
Materials**
IN ASSOCIATION WITH:
Patrick Engineering

ISSUE DATE: October 22, 2013
PROJECT NUMBER: 04-0565-004-01-01
All drawings are preliminary and subject to change.
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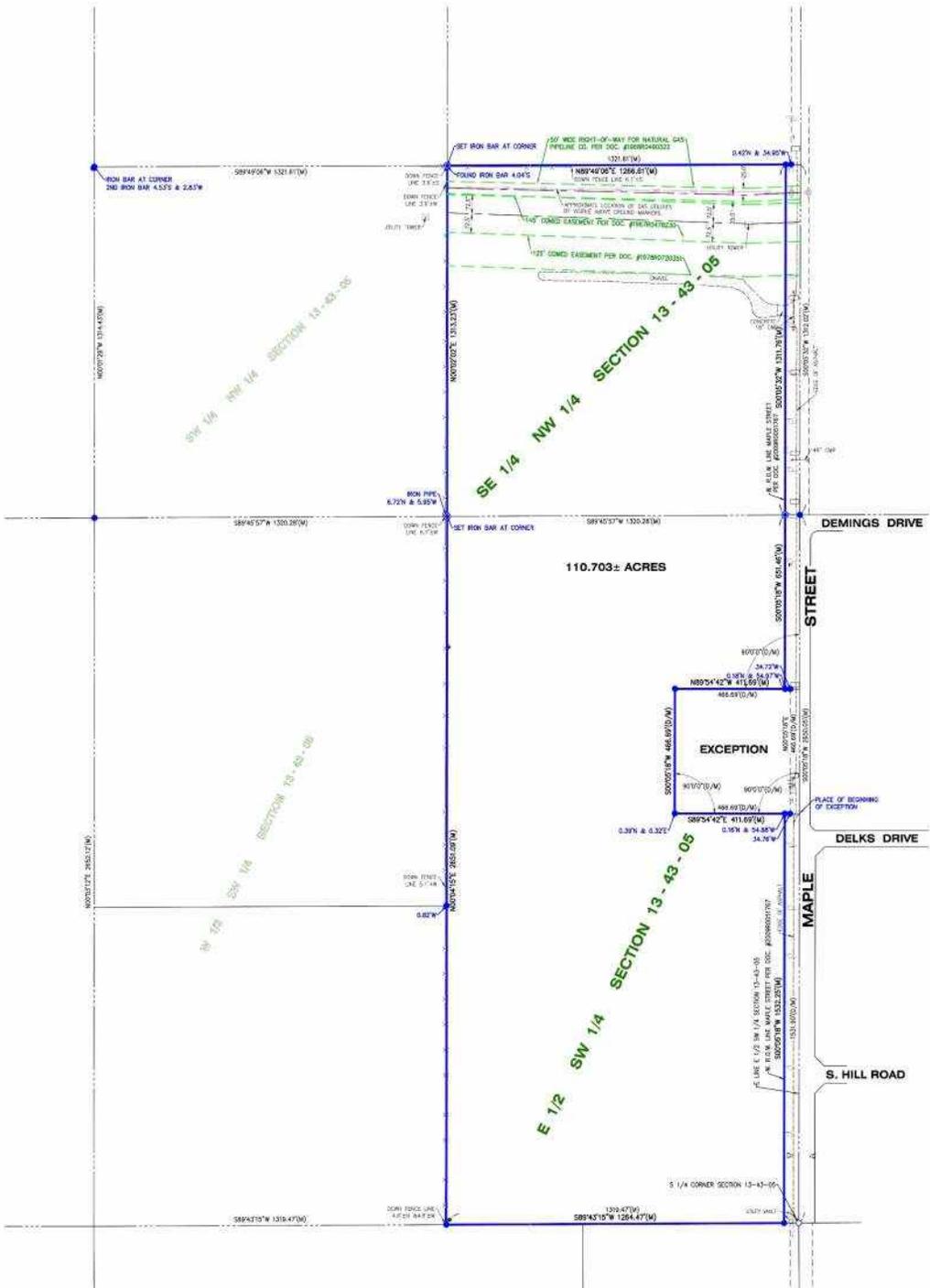
APPENDIX E

ALTA SURVEY (1/18/2024)
AND
WELL SURVEY (REVISED 6/24/24)

FULL SIZE SURVEYS SUBMITTED UNDER SEPARATE COVER

PLAT OF SURVEY

The East half of the Southwest Quarter of Section 13 lying West of the Right-of-Way of Maple Street as dedicated by Document No. 2009R0051767; ALSO the Southwest Quarter of the Northwest Quarter of said Section 13, lying West of the Right-of-Way of Maple Street as dedicated by Document No. 2009R0051767, all in Township 43 North, Range 5 East of the Third Principal Meridian (except that part of the West half of Section 13, Township 43 North, Range 5 East of the Third Principal Meridian, described as follows: Commencing at the South Quarter corner of said Section 13; thence Northerly, along the East line of the West half of said Section 13, a distance of 1531.17 feet for the Place of Beginning; thence continuing Northerly along the East line of said West half, a distance of 456.69 feet; thence Westerly at right angles to the East line of said West half, a distance of 456.69 feet; thence Southerly, parallel with the East line of said West half, a distance of 456.69 feet; thence Easterly, at right angles to the last described course, a distance of 456.69 feet to the Place of Beginning), in McHenry County, Illinois.



| LEGEND | |
|--------|---------------------|
| + | DOWN GUY |
| ▢ | FLARED END SECTION |
| ● | FOUND IRON BAR |
| ○ | FOUND IRON PIPE |
| ⊕ | GAS METER |
| ⊕ | GAS PIPELINE MARKER |
| □ | MAIL BOX |
| ⊕ | MONITORING WELL |
| ● | SET IRON BAR |
| + | SIGN |
| ⊕ | UTILITY POLE |
| ⊕ | R.O.W. RIGHT-OF-WAY |
| (D) | DEED |
| (M) | MEASURE |

CLIENT: ZANCK COEN WRIGHT & SALADIN, P.C.
DRAWN BY: SES CHECKED BY: APC
SCALE: 1"=200' SEC. 13 T. 43 R. 05 E.
BASIS OF BEARING: EAST ZONE NAD83 (2011)
F.A.S.: 16-15-300-000
JOB NO.: 231079 I.D. UPD
FIELDWORK COMP.: 12/22/23 BK. PG.
ALL DISTANCES SHOWN IN FEET UNLESS NOTED OTHERWISE.
PARTS MARKED CORRECTED TO 47

NOTE: Only those Building Line Restrictions or Easements shown on a Recorded Subdivision Plat are shown herein unless the description referred to be surveyed contains a proper description of the required building lines or easements.
* No distance should be assumed by scaling.
* No underground improvements have been located unless shown and noted.
* No representation as to ownership, use, or possession should be herein implied.
* This Survey and Plat of Survey are void without original embossed or colored seal and signature affixed.
Compare your description and site markings with this plat and AT ONCE report any discrepancies which you may find.



STATE OF ILLINOIS) S.S.
COUNTY OF McHENRY)
I, **Robert J. Grotzinger**,
Professional Land Surveyor,
State of Illinois,
Design Firm No. 184-00782
In my professional opinion, and based on my observations, I hereby certify that we have surveyed the premises above described, and that the plat herein is a true representation of the said survey. This professional service conforms to the current Illinois minimum standards for a boundary survey.
Dated at Woodstock, McHenry County, Illinois, 01/18, A.D., 2025.
Vanderstappen Land Surveying, Inc.
By: *Robert J. Grotzinger*
Illinois Professional Land Surveyor No. 3857

APPENDIX F

ECOCAT CORRESPONDENCE



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

JB Pritzker, Governor

Natalie Phelps Finnie, Director

September 22, 2023

Steve Gavers
Maple Valley Materials, LLC
1100 Borden Lane
Woodstock, IL 60098 2320

RE: Maple Valley Materials, LLC Sand & Gravel Mine
Project Number(s): 2404970 [2404958]
County: McHenry

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Adam Rawe
Division of Ecosystems and Environment
217-785-5500

Applicant: Patrick Engineering
Contact: Luying Li
Address: 55 East Monroe St, Suite 3450
Chicago, IL 60603

IDNR Project Number: 2404958
Date: 09/22/2023

Project: Maple Valley Materials, LLC Sand & Gravel Mine
Address: 1100 Borden Lane, Woodstock

Description: Maple Valley Materials, LLC will be petitioning McHenry County for a Conditional Use Permit renewal for the existing operation of a commercial sand and gravel mine on the property of concern. The property is located in Riley Township on the west side of Maple Street, approximately 1/2-mile south of the intersection of Maple Street and Coral West Road about 1-mile south of the City of Marengo, IL in McHenry County.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Swainson's Hawk (*Buteo swainsoni*)
Swainson's Hawk (*Buteo swainsoni*)

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

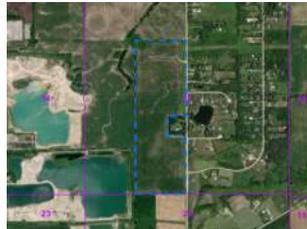
Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: McHenry

Township, Range, Section:

43N, 5E, 13
43N, 5E, 24



IL Department of Natural Resources

Contact

Bradley Hayes
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction

McHenry County Department of
Planning & Development
Adam Wallen
2200 North Seminary Ave
Woodstock, Illinois 60098

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.



| | |
|-----------------------|-----------------------------|
| EcoCAT Receipt | Project Code 2404958 |
|-----------------------|-----------------------------|

| APPLICANT | DATE |
|------------------|-------------|
|------------------|-------------|

Patrick Engineering
Luying Li
55 East Monroe St, Suite 3450
Chicago, IL 60603

9/22/2023

| DESCRIPTION | FEE | CONVENIENCE FEE | TOTAL PAID |
|--------------------|------------|------------------------|-------------------|
|--------------------|------------|------------------------|-------------------|

| | | | |
|---------------------|-----------|---------|-----------|
| EcoCAT Consultation | \$ 125.00 | \$ 2.81 | \$ 127.81 |
|---------------------|-----------|---------|-----------|

| | |
|------------|-----------|
| TOTAL PAID | \$ 127.81 |
|------------|-----------|

Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
217-785-5500
dnr.ecocat@illinois.gov

APPENDIX G

GROUNDWATER QUALITY DATA

SUBURBAN LABORATORIES, Inc.



1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134
Tel. (708) 544-3260 • Toll Free (800) 783-LABS
Fax (708) 544-8587
www.suburbanlabs.com

December 21, 2023

Brandon Raleigh
Patrick Engineering
4970 Varsity Drive
Lisle, IL 60532

Workorder: 2312B79

TEL:

FAX:

RE: Maple Valley Materials

Dear Brandon Raleigh:

Suburban Laboratories, Inc. received 3 sample(s) on 12/14/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,



Dan Galeher
Project Manager
708-544-3260 ext 216
dan@SuburbanLabs.com





Client: Patrick Engineering

Date: December 21, 2023

Project: Maple Valley Materials

PO #:

WorkOrder: 2312B79

QC Level: LEVEL I

Temperature of samples upon receipt at SLI: 2.3 C

Chain of Custody #:

General Comments:

- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All radiological results are reported to the 95% confidence level.

Abbreviations:

- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS: (Surrogate Standard): Quality control compound added to the sample by the lab.
- LA: Lab Accident - No valid data to report.
- VO: Insufficient Volume provided
- BR: Received broken
- IP: Invalid Sampling

Method References:

For a complete list of method references please contact us.

- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

Workorder Specific Comments:



Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: Patrick Engineering

Report Date: December 21, 2023

Project Name: Maple Valley Materials

Workorder: 2312B79

Client Sample ID: MW-1

Matrix: GROUNDWATER

Lab ID: 2312B79-001

Date Received: 12/14/2023 3:40 PM

Collection Date: 12/14/2023 12:45 PM

| Parameter | Result | Report Limit | Qual. | Units | Dilution Factor | Date Analyzed | Batch ID |
|---|-----------|-----------------------------------|-------|-------|-----------------|--------------------|----------|
| VOLATILE ORGANIC COMPOUNDS | | Method: EPA-SW8260B-Rev 2, Dec-96 | | | Analyst: RWM | | |
| Benzene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 2:37 PM | R171215 |
| Ethylbenzene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 2:37 PM | R171215 |
| m,p-Xylene | ND | 0.00200 | | mg/L | 1 | 12/15/2023 2:37 PM | R171215 |
| o-Xylene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 2:37 PM | R171215 |
| Total Xylenes | ND | 0.00200 | | mg/L | 1 | 12/15/2023 2:37 PM | R171215 |
| Toluene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 2:37 PM | R171215 |
| <u>Internal Quality Control Compounds</u> | | | | | | | |
| SS: 4-Bromofluorobenzene | 103 | 76-119 | | %Rec | 1 | 12/15/2023 2:37 PM | R171215 |
| SS: Dibromofluoromethane | 74.6 | 66-137 | | %Rec | 1 | 12/15/2023 2:37 PM | R171215 |
| SS: Toluene-d8 | 101 | 80-120 | | %Rec | 1 | 12/15/2023 2:37 PM | R171215 |
| SEMIVOLATILE ORGANICS, BY GCMS SIM | | Method: EPA-8270C-Rev 3, Dec-96 | | | Analyst: BM | | |
| Acenaphthene | ND | 0.0000770 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Acenaphthylene | ND | 0.0000370 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Anthracene | ND | 0.0000340 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Benzo(a)anthracene | 0.000120 | 0.0000810 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Benzo(a)pyrene | 0.000153 | 0.0000660 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Benzo(b)fluoranthene | 0.000160 | 0.0000390 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Benzo(g,h,i)perylene | 0.000238 | 0.0000460 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Benzo(k)fluoranthene | 0.0000677 | 0.0000480 | J | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Chrysene | 0.000266 | 0.0000360 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Dibenzo(a,h)anthracene | ND | 0.0000470 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Fluoranthene | 0.000231 | 0.0000350 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Fluorene | 0.0000460 | 0.0000350 | J | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Indeno(1,2,3-cd)pyrene | 0.000117 | 0.0000360 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Naphthalene | ND | 0.0000480 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Phenanthrene | 0.000152 | 0.0000840 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| Pyrene | 0.000257 | 0.0000860 | | mg/L | 1 | 12/15/2023 7:34 PM | 94371 |
| <u>Internal Quality Control Compounds</u> | | | | | | | |
| SS: 2-Fluorobiphenyl | 42.8 | 34-130 | | %Rec | 1 | 12/15/2023 7:34 PM | 94371 |
| SS: 4-Terphenyl-d14 | 16.7 | 10-168 | | %Rec | 1 | 12/15/2023 7:34 PM | 94371 |
| SS: Nitrobenzene-d5 | 75.7 | 39-144 | | %Rec | 1 | 12/15/2023 7:34 PM | 94371 |
| CHLORIDE | | Method: SM-4500Cl-E--Rev 1997 | | | Analyst: EM | | |
| Chloride | 116 | 6.70 | c | mg/L | 1 | 12/14/2023 5:22 PM | R171126 |
| CONDUCTIVITY AT 25 DEGREES C. | | Method: SM-2510B-Rev 1997 | | | Analyst: ESI | | |



Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: Patrick Engineering

Report Date: December 21, 2023

Project Name: Maple Valley Materials

Workorder: 2312B79

Client Sample ID: MW-1

Matrix: GROUNDWATER

Lab ID: 2312B79-001

Date Received: 12/14/2023 3:40 PM

Collection Date: 12/14/2023 12:45 PM

| Parameter | Result | Report Limit | Qual. | Units | Dilution Factor | Date Analyzed | Batch ID |
|---------------------------------------|--------|--------------|-------|---|-----------------|---------------------|----------|
| CONDUCTIVITY AT 25 DEGREES C. | | | | Method: SM-2510B-Rev 1997 | | Analyst: ESI | |
| Specific Conductivity | 998 | 1.00 | | µmhos/cm | 1 | 12/15/2023 10:48 AM | R171141 |
| AMMONIA | | | | Method: SM-4500NH3 G-Rev 1997 | | Analyst: EM | |
| Nitrogen, Ammonia (As N) | 4.11 | 0.18 | c | mg/L | 1 | 12/19/2023 2:14 PM | R171273 |
| TOTAL NITRATES | | | | Method: MCAWW-E353.2-Rev 2.0, August 1993 | | Analyst: EM | |
| Total Nitrates (Nitrate+Nitrite) | 0.293 | 0.093 | | mg/L | 1 | 12/14/2023 5:34 PM | R171128 |
| PH (IN LABORATORY) <ATC> | | | | Method: EPA-SW9040B-Rev 3, Jan-95 | | Analyst: ESI | |
| pH | 7.45 | 1.00 | V c | pH Units | 1 | 12/15/2023 12:42 PM | R171158 |
| Temperature | 23.1 | 0 | | °C | 1 | 12/15/2023 12:42 PM | R171158 |



Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: Patrick Engineering

Report Date: December 21, 2023

Project Name: Maple Valley Materials

Workorder: 2312B79

Client Sample ID: MW-2

Matrix: GROUNDWATER

Lab ID: 2312B79-002

Date Received: 12/14/2023 3:40 PM

Collection Date: 12/14/2023 1:40 PM

| Parameter | Result | Report Limit | Qual. | Units | Dilution Factor | Date Analyzed | Batch ID |
|---|--------|-----------------------------------|-------|-------|-----------------|--------------------|----------|
| VOLATILE ORGANIC COMPOUNDS | | Method: EPA-SW8260B-Rev 2, Dec-96 | | | Analyst: RWM | | |
| Benzene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:03 PM | R171215 |
| Ethylbenzene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:03 PM | R171215 |
| m,p-Xylene | ND | 0.00200 | | mg/L | 1 | 12/15/2023 3:03 PM | R171215 |
| o-Xylene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:03 PM | R171215 |
| Total Xylenes | ND | 0.00200 | | mg/L | 1 | 12/15/2023 3:03 PM | R171215 |
| Toluene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:03 PM | R171215 |
| <u>Internal Quality Control Compounds</u> | | | | | | | |
| SS: 4-Bromofluorobenzene | 103 | 76-119 | | %Rec | 1 | 12/15/2023 3:03 PM | R171215 |
| SS: Dibromofluoromethane | 75.4 | 66-137 | | %Rec | 1 | 12/15/2023 3:03 PM | R171215 |
| SS: Toluene-d8 | 101 | 80-120 | | %Rec | 1 | 12/15/2023 3:03 PM | R171215 |
| SEMIVOLATILE ORGANICS, BY GCMS SIM | | Method: EPA-8270C-Rev 3, Dec-96 | | | Analyst: BM | | |
| Acenaphthene | ND | 0.0000770 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Acenaphthylene | ND | 0.0000370 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Anthracene | ND | 0.0000340 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Benzo(a)anthracene | ND | 0.0000810 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Benzo(a)pyrene | ND | 0.0000660 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Benzo(b)fluoranthene | ND | 0.0000390 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Benzo(g,h,i)perylene | ND | 0.0000460 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Benzo(k)fluoranthene | ND | 0.0000480 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Chrysene | ND | 0.0000360 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Dibenzo(a,h)anthracene | ND | 0.0000470 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Fluoranthene | ND | 0.0000350 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Fluorene | ND | 0.0000350 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Indeno(1,2,3-cd)pyrene | ND | 0.0000360 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Naphthalene | ND | 0.0000480 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Phenanthrene | ND | 0.0000840 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| Pyrene | ND | 0.0000860 | | mg/L | 1 | 12/15/2023 8:07 PM | 94371 |
| <u>Internal Quality Control Compounds</u> | | | | | | | |
| SS: 2-Fluorobiphenyl | 67.1 | 34-130 | | %Rec | 1 | 12/15/2023 8:07 PM | 94371 |
| SS: 4-Terphenyl-d14 | 52.0 | 10-168 | | %Rec | 1 | 12/15/2023 8:07 PM | 94371 |
| SS: Nitrobenzene-d5 | 75.1 | 39-144 | | %Rec | 1 | 12/15/2023 8:07 PM | 94371 |
| CHLORIDE | | Method: SM-4500Cl-E--Rev 1997 | | | Analyst: EM | | |
| Chloride | 67.0 | 6.70 | c | mg/L | 1 | 12/14/2023 5:23 PM | R171126 |
| CONDUCTIVITY AT 25 DEGREES C. | | Method: SM-2510B-Rev 1997 | | | Analyst: ESI | | |



Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: Patrick Engineering

Report Date: December 21, 2023

Project Name: Maple Valley Materials

Workorder: 2312B79

Client Sample ID: MW-2

Matrix: GROUNDWATER

Lab ID: 2312B79-002

Date Received: 12/14/2023 3:40 PM

Collection Date: 12/14/2023 1:40 PM

| Parameter | Result | Report Limit | Qual. | Units | Dilution Factor | Date Analyzed | Batch ID |
|---------------------------------------|--------|--------------|-------|---|-----------------|---------------------|----------|
| CONDUCTIVITY AT 25 DEGREES C. | | | | Method: SM-2510B-Rev 1997 | | Analyst: ESI | |
| Specific Conductivity | 947 | 1.00 | | µmhos/cm | 1 | 12/15/2023 10:48 AM | R171141 |
| AMMONIA | | | | Method: SM-4500NH3 G-Rev 1997 | | Analyst: EM | |
| Nitrogen, Ammonia (As N) | ND | 0.18 | c | mg/L | 1 | 12/19/2023 2:16 PM | R171273 |
| TOTAL NITRATES | | | | Method: MCAWW-E353.2-Rev 2.0, August 1993 | | Analyst: EM | |
| Total Nitrates (Nitrate+Nitrite) | 12.8 | 0.465 | | mg/L | 5 | 12/14/2023 6:36 PM | R171128 |
| PH (IN LABORATORY) <ATC> | | | | Method: EPA-SW9040B-Rev 3, Jan-95 | | Analyst: ESI | |
| pH | 7.74 | 1.00 | V c | pH Units | 1 | 12/15/2023 12:52 PM | R171158 |
| Temperature | 22.7 | 0 | | °C | 1 | 12/15/2023 12:52 PM | R171158 |



Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: Patrick Engineering

Report Date: December 21, 2023

Project Name: Maple Valley Materials

Workorder: 2312B79

Client Sample ID: MW-3

Matrix: GROUNDWATER

Lab ID: 2312B79-003

Date Received: 12/14/2023 3:40 PM

Collection Date: 12/14/2023 2:25 PM

| Parameter | Result | Report Limit | Qual. | Units | Dilution Factor | Date Analyzed | Batch ID |
|---|--------|-----------------------------------|-------|-------|-----------------|--------------------|----------|
| VOLATILE ORGANIC COMPOUNDS | | Method: EPA-SW8260B-Rev 2, Dec-96 | | | Analyst: RWM | | |
| Benzene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:29 PM | R171215 |
| Ethylbenzene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:29 PM | R171215 |
| m,p-Xylene | ND | 0.00200 | | mg/L | 1 | 12/15/2023 3:29 PM | R171215 |
| o-Xylene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:29 PM | R171215 |
| Total Xylenes | ND | 0.00200 | | mg/L | 1 | 12/15/2023 3:29 PM | R171215 |
| Toluene | ND | 0.00100 | | mg/L | 1 | 12/15/2023 3:29 PM | R171215 |
| <u>Internal Quality Control Compounds</u> | | | | | | | |
| SS: 4-Bromofluorobenzene | 103 | 76-119 | | %Rec | 1 | 12/15/2023 3:29 PM | R171215 |
| SS: Dibromofluoromethane | 75.0 | 66-137 | | %Rec | 1 | 12/15/2023 3:29 PM | R171215 |
| SS: Toluene-d8 | 102 | 80-120 | | %Rec | 1 | 12/15/2023 3:29 PM | R171215 |
| SEMIVOLATILE ORGANICS, BY GCMS SIM | | Method: EPA-8270C-Rev 3, Dec-96 | | | Analyst: BM | | |
| Acenaphthene | ND | 0.0000770 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Acenaphthylene | ND | 0.0000370 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Anthracene | ND | 0.0000340 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Benzo(a)anthracene | ND | 0.0000810 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Benzo(a)pyrene | ND | 0.0000660 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Benzo(b)fluoranthene | ND | 0.0000390 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Benzo(g,h,i)perylene | ND | 0.0000460 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Benzo(k)fluoranthene | ND | 0.0000480 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Chrysene | ND | 0.0000360 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Dibenzo(a,h)anthracene | ND | 0.0000470 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Fluoranthene | ND | 0.0000350 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Fluorene | ND | 0.0000350 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Indeno(1,2,3-cd)pyrene | ND | 0.0000360 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Naphthalene | ND | 0.0000480 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Phenanthrene | ND | 0.0000840 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| Pyrene | ND | 0.0000860 | | mg/L | 1 | 12/15/2023 8:40 PM | 94371 |
| <u>Internal Quality Control Compounds</u> | | | | | | | |
| SS: 2-Fluorobiphenyl | 68.5 | 34-130 | | %Rec | 1 | 12/15/2023 8:40 PM | 94371 |
| SS: 4-Terphenyl-d14 | 61.3 | 10-168 | | %Rec | 1 | 12/15/2023 8:40 PM | 94371 |
| SS: Nitrobenzene-d5 | 75.3 | 39-144 | | %Rec | 1 | 12/15/2023 8:40 PM | 94371 |
| CHLORIDE | | Method: SM-4500Cl-E--Rev 1997 | | | Analyst: EM | | |
| Chloride | 22.9 | 6.70 | c | mg/L | 1 | 12/14/2023 5:25 PM | R171126 |
| CONDUCTIVITY AT 25 DEGREES C. | | Method: SM-2510B-Rev 1997 | | | Analyst: ESI | | |



Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: Patrick Engineering

Report Date: December 21, 2023

Project Name: Maple Valley Materials

Workorder: 2312B79

Client Sample ID: MW-3

Matrix: GROUNDWATER

Lab ID: 2312B79-003

Date Received: 12/14/2023 3:40 PM

Collection Date: 12/14/2023 2:25 PM

| Parameter | Result | Report Limit | Qual. | Units | Dilution Factor | Date Analyzed | Batch ID |
|---------------------------------------|--------|--------------|-------|---|-----------------|---------------------|----------|
| CONDUCTIVITY AT 25 DEGREES C. | | | | Method: SM-2510B-Rev 1997 | | Analyst: ESI | |
| Specific Conductivity | 701 | 1.00 | | µmhos/cm | 1 | 12/15/2023 10:48 AM | R171141 |
| AMMONIA | | | | Method: SM-4500NH3 G-Rev 1997 | | Analyst: EM | |
| Nitrogen, Ammonia (As N) | ND | 0.18 | c | mg/L | 1 | 12/19/2023 2:17 PM | R171273 |
| TOTAL NITRATES | | | | Method: MCAWW-E353.2-Rev 2.0, August 1993 | | Analyst: EM | |
| Total Nitrates (Nitrate+Nitrite) | 0.135 | 0.093 | | mg/L | 1 | 12/14/2023 5:37 PM | R171128 |
| PH (IN LABORATORY) <ATC> | | | | Method: EPA-SW9040B-Rev 3, Jan-95 | | Analyst: ESI | |
| pH | 7.27 | 1.00 | V c | pH Units | 1 | 12/15/2023 12:39 PM | R171158 |
| Temperature | 24.0 | 0 | | °C | 1 | 12/15/2023 12:39 PM | R171158 |



Suburban Laboratories, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

PREP DATES REPORT

Client: Patrick Engineering, Inc.
Project: Maple Valley Materials

Report Date: December 21, 2023
Lab Order: 2312B79

| Sample ID | Collection Date | Batch ID | Prep Test Name | TCLP Date | Prep Date |
|--------------|------------------------|----------|---------------------------------|-----------|------------|
| 2312B79-001D | 12/14/2023 12:45:00 PM | 94371 | AQUEOUS PREP SEP FUNNEL: BNA | | 12/15/2023 |
| 2312B79-002D | 12/14/2023 1:40:00 PM | 94371 | AQUEOUS PREP SEP FUNNEL: BNA | | 12/15/2023 |
| 2312B79-003D | 12/14/2023 2:25:00 PM | 94371 | AQUEOUS PREP SEP FUNNEL: BNA | | 12/15/2023 |



Qualifiers:

| | |
|-----|--|
| */x | Value exceeds Maximum Contaminant Level |
| B | Analyte detected in the associated Method Blank |
| C | Value is below Minimum Concentration Limit |
| c | Analyte not in TNI/NELAC scope of accreditation |
| E | Estimated, detected above quantitation range |
| G | Refer to case narrative page for specific comments |
| H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limit (QL) |
| N | Tentatively identified compounds |
| ND | Not Detected at the Reporting Limit |
| P | Present |
| Q | Accreditation is not available from Wisconsin |
| R | RPD outside accepted recovery limits |
| S | Spike Recovery outside accepted recovery limits |
| T | Analyte detected in sample trip blank |
| V | EPA requires field analysis/filtration. Lab analysis would be considered past hold time. |
| WI | This sample was ran at the Wisconsin Laboratory, WI DNR Certified #246179890 |

Company Name: **Patrick Engineering**
 Company Address: **55 East Monroe St. Suite 3450**

City: **Chicago** State: **IL** Zip: **60603**
 Office: **312-301-7900** Mobile: **60603** Fax:

Email Address: **brandon@patrickco.com**

Project ID/Location: **Maple Valley Materials**

Project Manager (Report to): **Brandon Rabeck**

Sample Collector(s): **Brandon Rabeck**

TURNAROUND TIME REQUESTED
 Normal RUSH*
 * Must be pre-approved and surcharges apply. Checking this box indicates your approval of surcharges.
 Date and Time Report Needed:

Specify Regulatory Program:
 None/Info Only
 LUST SRP SDWA
 503 Sludge NPDES MWRDGC
 Disposal CCDD OTHER - Specify Below

ANALYSIS & METHOD REQUESTED
 Enter an "X" in box below for request

Chloride, Nitrate, pH
 Ammonium Nitrogen, Conductivity
 BTEX, PNA's

Page 1 of 1
 PO # 11

Report Type: Normal Expedited*
 * Additional charges apply for QC reports and raw data. Specify in comments section

Shipping Method

LAB USE ONLY
 Work Order #: **2312879**

Temperature of Received Samples: **2.3** °C
 Received within 24 hours of collection? No Yes

Lab Comment: **19/14**

| SAMPLE IDENTIFICATION (Use 1 line per container type) | COLLECTION | | MATRIX | GRAB/COMP. | CONTAINERS Qty, SIZE & TYPE | PRESERVATIVE | ANALYSIS | METHOD |
|--|------------|-------|--------|------------|--------------------------------|-----------------------|----------|--------|
| | DATE | TIME | | | | | | |
| 1 MW-1 | 12/14/23 | 13:45 | GW | G | 5 250ml/ 1L | NI/MSOW/ None/None | X | X |
| 2 MW-2 | 12/14/23 | 13:40 | | | | | X | X |
| 3 MW-3 | 12/14/23 | 14:25 | | | | | X | X |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |

COMMENTS & SPECIAL INSTRUCTIONS:

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water (SW), Ground Water (GW), Solid Waste (WA), Sludge (L), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Lier (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H₂SO₄, HCl, HNO₃, Methanol (MeOH), NaOH, Sodium Bisulfate (NaB), NaTHIO

1. Relinquished By: **Brandon Rabeck** Date: **12/14/23** Time: **15:40**
 2. Relinquished By: _____ Date: _____ Time: _____
 3. Relinquished By: _____ Date: _____ Time: _____
 4. Relinquished By: _____ Date: _____ Time: _____

Received By: **Brandon Rabeck** Ice
 Received By: _____ Ice
 Received By: _____ Ice
 Received By: _____ Ice

THIS FORM MUST BE FILLED OUT COMPLETELY BY THE SAMPLE COLLECTOR OR SUBMITTER AND ORIGINAL FORM MUST ACCOMPANY SAMPLES AT ALL TIMES. Rev 2/17

APPENDIX H

SEPTIC STUDY REPORT



John A. Raber and Associates, Inc.

4310-G W. Crystal Lake Rd., McHenry, IL 60050 • 815 344-4020 • FAX 1-815 331-0800

"Serving northern Illinois for over 30 years."

August 28, 2024

Jeff Schuh
Rina North America
55 E. Monroe St., Ste. 3450
Chicago, IL. 60603

RE: Maple Street, Marengo

Dear Mr. Schuh:

The soil analysis for septic suitability on the above referenced property has been completed.

Six (6) borings were made at the proposed septic location.

The slope at Boring #1 was 2%, Boring #2, 2%, Boring #3, 1%, Boring #4, 1%, Boring #5, 1% and Boring #6, 1%.

Depth to seasonally high water table was 24 inches at Boring #1, 20 inches at Boring #2, 58 inches at Boring #3, 50 inches at Boring #4, 59 inches at Boring #5 and 50 inches at Boring #6.

This is the depth at which the fluctuating water table reaches during the wettest season of the year.

No limiting permeability was found at Boring #1, Boring #2, Boring #3, Boring #4, Boring #5 or Boring #6.

No wells were found within 75 feet of the boring locations.

The soil profiles taken by John A. Raber & Assoc., Inc., indicate only the soil characteristics present in the area reviewed at the time it was made. These soil profile descriptions are intended solely to permit evaluation by an engineer or local governmental authority to determine the suitability of the site for construction of an on-site wastewater disposal system. John A. Raber & Assoc. Inc. does not evaluate the suitability of the soils and makes no representation as to the suitability of the site.

Sincerely,

JOHN A. RABER & ASSOC., INC.

Bob Oja, C.P.S.S./S.C.
Soil Scientist/Classifier

js/enc.

LOCATION: Maple Street, Marengo

PIN # 16-13-300-006

TOWNSHIP: Riley

NEW CONSTRUCTION: REPAIR:

PROPERTY ALTERATION:

COUNTY: McHenry

FILE # 1434-24

BORING # 1

SOIL SERIES: Kane

OBSERVED WATER: None

DEPTH TO SEASONALLY HIGH WATERTABLE: 24"

DEPTH TO LIMITING LOADING RATE: >60"

ASPECT/SLOPE

E 2%

| HORIZON | DEPTH | DMNT COLOR | REBOX | COATINGS | STRUCTURE | TEXTURE | CONSISTENCE | PERMEABILITY | LOADING RATE | SOIL DESIGN GROUP |
|---------|-------|------------|--------------------|-------------|-----------|---------|-------------|----------------|--------------|-------------------|
| A | 0-7 | 10yr2/1 | | | 1 vf-msbk | sil | Friable | Lower Moderate | | |
| Ab | 7-14 | 10yr2/1 | | | 2 f&msbk | sicl | Friable | Lower Moderate | | |
| Bt | 14-21 | 10yr5/4 | c2d 10yr6/2 At 24" | 3 fl10yr4/3 | 3 f&msbk | cl | Friable | Upper Moderate | | |
| C | 21-60 | 10yr5/4 | c2d 10yr6/2 | | sg | grs&s | Loose | Rapid | | |

INTERNAL DRAINAGE: Somewhat Poorly

DEPTH OF COMPACTED LAYERS: 0-14 Slight

BORING # 2

SOIL SERIES: Kane

OBSERVED WATER: None

DEPTH TO SEASONALLY HIGH WATERTABLE: 20"

DEPTH TO LIMITING LOADING RATE: >60"

ASPECT/SLOPE: SE 2%

| HORIZON | DEPTH | DMNT COLOR | REBOX | COATINGS | STRUCTURE | TEXTURE | CONSISTENCE | PERMEABILITY | LOADING RATE | SOIL DESIGN GROUP |
|---------|-------|------------|--------------------|----------|-----------|---------|-------------|----------------|--------------|-------------------|
| A | 0-10 | 10yr2/1 | | | 1 vf-msbk | sil-l | Friable | Lower Moderate | | |
| Bt | 10-18 | 10yr5/4 | | | 2 f&msbk | sicl-cl | Friable | Upper Moderate | | |
| C | 18-60 | 10yr5/4 | c2d 10yr6/2 At 20" | | sg | grs&s | Loose | Rapid | | |

INTERNAL DRAINAGE: Somewhat Poorly

DEPTH OF COMPACTED LAYERS: 0-10 Slight

Bob Oja

JOHN A. RABER & ASSOCIATES, INC.
4310-G CRYSTAL LAKE ROAD
MCHEMERY, ILLINOIS 60050
(815) 344-4020
TEST DATE: 08/28/2024

Bob Oja, C.P.S.S./S.C.
ISCA No. 65

BORING # 3 SOIL SERIES: Warsaw OBSERVED WATER: None

DEPTH TO SEASONALLY HIGH WATERTABLE: 58" DEPTH TO LIMITING LOADING RATE: >60" ASPECT/SLOPE S 1%

| HORIZON | DEPTH | DMNT/COLOR | REDOX | COATINGS | STRUCTURE | TEXTURE | CONSISTENCE | PERMEABILITY | LOADING RATE | SOIL DESIGN GROUP |
|---------|-------|------------|-------|-------------|-----------|---------|-------------|----------------|--------------|-------------------|
| A | 0-8 | 10yr2/2 | | | 1 vf&fsbk | l | Friable | Upper Moderate | | |
| Ab | 8-13 | 10yr2/2 | | | 2 fsbk | cl | Friable | Upper Moderate | | |
| Bt | 13-21 | 10yr5/4 | | 4 fl10yr4/3 | 2 f&msbk | cl | Friable | Upper Moderate | | |
| C | 21-60 | 10yr5/4 | | | sg | grs&s | Loose | Rapid | | |

INTERNAL DRAINAGE: Moderately Well DEPTH OF COMPACTED LAYERS: None

BORING # 4 SOIL SERIES: Lorenzo OBSERVED WATER: None

DEPTH TO SEASONALLY HIGH WATERTABLE: 50" DEPTH TO LIMITING LOADING RATE: >60" ASPECT/SLOPE: S 1%

| HORIZON | DEPTH | DMNT/COLOR | REDOX | COATINGS | STRUCTURE | TEXTURE | CONSISTENCE | PERMEABILITY | LOADING RATE | SOIL DESIGN GROUP |
|---------|-------|------------|-------|-------------|-----------|---------|-------------|----------------|--------------|-------------------|
| A | 0-8 | 10yr2/2 | | | 1 vf&fsbk | l | Friable | Upper Moderate | | |
| Ab | 8-12 | 10yr3/2 | | | 2 fsbk | cl | Friable | Upper Moderate | | |
| Bt | 17-19 | 10yr5/4 | | 4 fl10yr4/3 | 2 f&msbk | cl | Friable | Upper Moderate | | |
| C | 19-60 | 10yr5/4 | | | sg | grs&s | Loose | Rapid | | |

INTERNAL DRAINAGE: Moderately Well DEPTH OF COMPACTED LAYERS: None

Bob Oja

JOHN A. RABER & ASSOCIATES, INC.
 4310-G CRYSTAL LAKE ROAD
 MCHENRY, ILLINOIS
 (815) 344-4020

Bob Oja, C.P.S.S./S.C.
 ISCA No. 65

TEST DATE: 08/28/2024

BORING # 5 SOIL SERIES: Warsaw OBSERVED WATER: None

DEPTH TO SEASONALLY HIGH WATERTABLE: 59" DEPTH TO LIMITING LOADING RATE: >60" ASPECT/SLOPE S 1%

| HORIZON | DEPTH | DMNT/COLOR | REDOX | COATINGS | STRUCTURE | TEXTURE | CONSISTENCE | PERMEABILITY | LOADING RATE | SOIL DESIGN GROUP |
|---------|-------|------------|--------------------|-------------|-----------|---------|-------------|----------------|--------------|-------------------|
| A | 0-13 | 10yr2/2 | | | 1 vf-msbk | l | Friable | Upper Moderate | | |
| Bt | 13-21 | 10yr5/4 | | 3 fl10yr4/3 | 2 f&msbk | cl | Friable | Upper Moderate | | |
| C | 21-60 | 10yr5/4 | c2d 10yr6/2 At 59" | | sg | grs&s | Loose | Rapid | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

INTERNAL DRAINAGE: Moderately Well DEPTH OF COMPACTED LAYERS: None

BORING # 6 SOIL SERIES: Lorenzo OBSERVED WATER: None

DEPTH TO SEASONALLY HIGH WATERTABLE: 50" DEPTH TO LIMITING LOADING RATE: >60" ASPECT/SLOPE: S 1%

| HORIZON | DEPTH | DMNT/COLOR | REDOX | COATINGS | STRUCTURE | TEXTURE | CONSISTENCE | PERMEABILITY | LOADING RATE | SOIL DESIGN GROUP |
|---------|-------|------------|--------------------|-------------|-----------|---------|-------------|----------------|--------------|-------------------|
| A | 0-10 | 10yr2/2 | | | 1 vf-msbk | l | Friable | Upper Moderate | | |
| Bt | 10-15 | 10yr5/4 | | 3 fl10yr4/3 | 2 f&msbk | cl | Friable | Upper Moderate | | |
| C | 15-60 | 10yr5/4 | c2d 10yr6/2 At 50" | | sg | grs&s | Loose | Rapid | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

INTERNAL DRAINAGE: Moderately Well DEPTH OF COMPACTED LAYERS: None

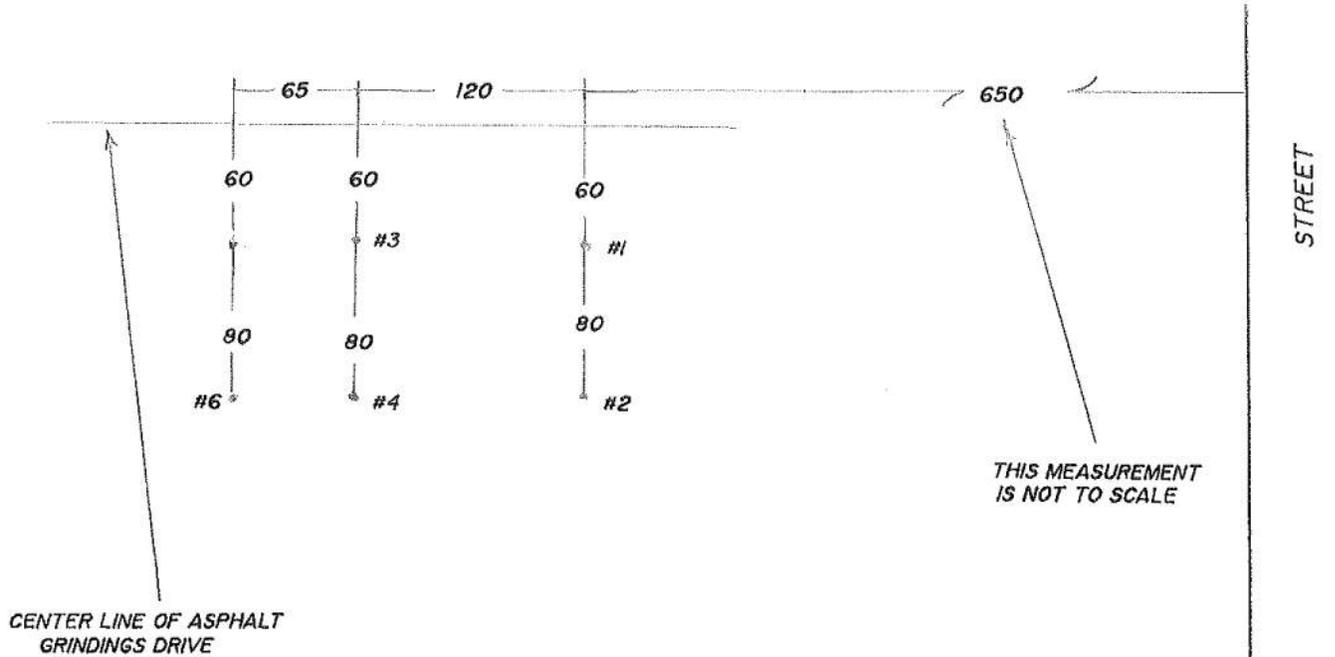
Bob Oja

JOHN A. RABER & ASSOCIATES, INC.
 4310-G CRYSTAL LAKE ROAD
 MCHENRY, ILLINOIS
 (815) 344-4020

Bob Oja, C.P.S.S./S.C.
 ISCA No. 65

TEST DATE: 08/28/2024

MAPLE STREET, MARENGO
16-13-300-006



1" = 100'

JOHN A. RABER & ASSOC. INC.
4310-G CRYSTAL LAKE ROAD
MCHENRY, IL. 60050
815-344-4020
soils@johnraber.com

PREPARED BY BOB OJA
CERTIFIED PROFESSIONAL
SOIL CLASSIFIER
ISCA No. 65

APPENDIX I

SPCC PLAN

Tier I Qualified Facility SPCC Plan

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

Facility Description

| | | | |
|---------------------------|---|-------------|--------------------|
| Facility Name | Maple Valley Materials | | |
| Facility Address | Maple Street (Address to be determined prior to site development) | | |
| City | Marengo | State | Illinois ZIP _____ |
| County | McHenry | Tel. Number | (815) 338-0831 |
| Owner or Operator Name | Steve Gavers | | |
| Owner or Operator Address | 1100 Borden Lane | | |
| City | Woodstock | State | Illinois ZIP 60098 |
| County | McHenry | Tel. Number | (815) 338-0831 |

I. Self-Certification Statement (§112.6(a)(1))

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

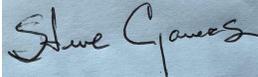
I, Steve Gavers certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
 - a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
 - b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
 - c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.

I also understand my other obligations relating to the storage of oil at this facility, including, among others:

1. To report any oil discharge to navigable waters or adjoining shorelines to the appropriate authorities. Notification information is included in this Plan.
2. To review and amend this Plan whenever there is a material change at the facility that affects the potential for an oil discharge, and at least once every five years. Reviews and amendments are recorded in an attached log [See Five Year Review Log and Technical Amendment Log in Attachments 1.1 and 1.2.]
3. Optional use of a contingency plan. A contingency plan:
 - a. May be used in lieu of secondary containment for qualified oil-filled operational equipment, in accordance with the requirements under §112.7(k), and;
 - b. Must be prepared for flowlines and/or intra-facility gathering lines which do not have secondary containment at an oil production facility, and;
 - c. Must include an established and documented inspection or monitoring program; must follow the provisions of 40 CFR part 109; and must include a written commitment of manpower, equipment and materials to expeditiously remove any quantity of oil discharged that may be harmful. If applicable, a copy of the contingency plan and any additional documentation will be attached to this Plan as Attachment 2.

I certify that I have satisfied the requirement to prepare and implement a Plan under §112.3 and all of the requirements under §112.6(a). I certify that the information contained in this Plan is true.

Signature  Title: President
 Name Steve Gavers Date: 09 /18 / 20 24

II. Record of Plan Review and Amendments

Five Year Review (§112.5(b)):

Complete a review and evaluation of this SPCC Plan at least once every five years. As a result of the review, amend this Plan within six months to include more effective prevention and control measures for the facility, if applicable. Implement any SPCC Plan amendment as soon as possible, but no later than six months following Plan amendment. Document completion of the review and evaluation, and complete the Five Year Review Log in Attachment 1.1. If the facility no longer meets Tier I qualified facility eligibility, the owner or operator must revise the Plan to meet Tier II qualified facility requirements, or complete a full PE certified Plan.

| Table G-1 Technical Amendments (§§112.5(a), (c) and 112.6(a)(2)) | |
|---|-------------------------------------|
| This SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects the potential for a discharge to navigable waters or adjoining shorelines. Examples include adding or removing containers, reconstruction, replacement, or installation of piping systems, changes to secondary containment systems, changes in product stored at this facility, or revisions to standard operating procedures. | <input checked="" type="checkbox"/> |
| Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template. [§112.6(a)(2)] [See Technical Amendment Log in Attachment 1.2] | <input checked="" type="checkbox"/> |

Table G-4 below identifies the tanks and containers at the facility with the potential for an oil discharge; the mode of failure; the flow direction and potential quantity of the discharge; and the secondary containment method and containment capacity that is provided.

| Table G-4 Containers with Potential for an Oil Discharge | | | | | |
|---|--------------------------------------|--------------------------------------|---|---|--|
| Area | Type of failure (discharge scenario) | Potential discharge volume (gallons) | Direction of flow for uncontained discharge | Secondary containment method ^a | Secondary containment capacity (gallons) |
| <i>Bulk Storage Containers and Mobile/Portable Containers^b</i> | | | | | |
| Fuel AST (1,200 gal) | Tank failure | 0 | contained | concrete containment or Double Wall Tank | 1750 gallons if not DW tank |
| Fuel Truck (200 gal) | Hose or handle failure | 3 - 5 | | sorbent materials | 5 gallons |
| Motor Oil drum (55 gal) | transfer operation | .3 gal | | sorbent materials | 1 gallon |
| Hydraulic Oil drum (55 gal) | transfer operation | .3 gal | | sorbent materials | 1 gallon |
| | | | | | |
| | | | | | |
| <i>Oil-filled Operational Equipment (e.g., hydraulic equipment, transformers)^c</i> | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| <i>Piping, Valves, etc.</i> | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| <i>Product Transfer Areas (location where oil is loaded to or from a container, pipe or other piece of equipment.)</i> | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| <i>Other Oil-Handling Areas or Oil-Filled Equipment (e.g. flow-through process vessels at an oil production facility)</i> | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

^a Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

^b For storage tanks and bulk storage containers, the secondary containment capacity must be at least the capacity of the largest container plus additional capacity to contain rainfall or other precipitation.

^c For oil-filled operational equipment: Document in the table above if alternative measures to secondary containment (as described in §112.7(k)) are implemented at the facility.

3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

| Table G-5 Inspections, Testing, Recordkeeping and Personnel Training | |
|--|-------------------------------------|
| An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. [§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)] | <input checked="" type="checkbox"/> |
| <p>The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility:</p> <p>The aboveground fuel storage tank will be inspected weekly while the mine is operating. The tank will be emptied when the mine is not in operation for a period longer than one month. No underground piping will be used at the mine.</p> | |
| Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. [§112.7(e)] | <input checked="" type="checkbox"/> |
| A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. [§112.7(e)] [See Inspection Log and Schedule in Attachment 3.1] | <input checked="" type="checkbox"/> |
| Inspections and tests are signed by the appropriate supervisor or inspector. [§112.7(e)] | <input checked="" type="checkbox"/> |
| Personnel, training, and discharge prevention procedures [§112.7(f)] | |
| Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. [§112.7(f)] | <input checked="" type="checkbox"/> |
| A person who reports to facility management is designated and accountable for discharge prevention. [§112.7(f)] Name/Title: <u>Steve Gavers / President</u> | <input checked="" type="checkbox"/> |
| Discharge prevention briefings are conducted for oil-handling personnel annually to assure adequate understanding of the SPCC Plan for that facility. Such briefings highlight and describe past reportable discharges or failures, malfunctioning components, and any recently developed precautionary measures. [§112.7(f)] [See Oil-handling Personnel Training and Briefing Log in Attachment 3.4] | <input checked="" type="checkbox"/> |

4. Security (excluding oil production facilities) §112.7(g):**Table G-6 Implementation and Description of Security Measures**

Security measures are implemented at this facility to prevent unauthorized access to oil handling, processing, and storage area.



The following is a description of how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges:

All petroleum products are stored in vehicles or buildings that are locked as are pumps/nozzles that pump fuel from trucks to equipment. The AST will have a locked nozzle.

5. Emergency Procedures and Notifications (§112.7(a)(3)(iv) and 112.7(a)(5)):**Table G-7 Description of Emergency Procedures and Notifications**

The following is a description of the immediate actions to be taken by facility personnel in the event of a discharge to navigable waters or adjoining shorelines [§112.7(a)(3)(iv) and 112.7(a)(5)]:

Place sorbent materials to prevent movement of product off site.

Place earth material as needed to prevent movement of product off site.

Excavate any soil impacted by release and transfer to a suitable on-site location for future disposal at an off-site location.

Contact the appropriate agencies for assistance.

7. NRC Notification Procedure (§112.7(a)(4) and (a)(5)):

| Table G-9 NRC Notification Procedure | |
|--|--|
| In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information identified in Attachment 4 will be provided to the National Response Center immediately following identification of a discharge to navigable waters or adjoining shorelines [See Discharge Notification Form in Attachment 4]: [§112.7(a)(4)] | <input checked="" type="checkbox"/> |
| <ul style="list-style-type: none"> • The exact address or location and phone number of the facility; • Date and time of the discharge; • Type of material discharged; • Estimate of the total quantity discharged; • Estimate of the quantity discharged to navigable waters; • Source of the discharge; | <ul style="list-style-type: none"> • Description of all affected media; • Cause of the discharge; • Any damages or injuries caused by the discharge; • Actions being used to stop, remove, and mitigate the effects of the discharge; • Whether an evacuation may be needed; and • Names of individuals and/or organizations who have also been contacted. |

8. SPCC Spill Reporting Requirements (Report within 60 days) (§112.4):

Submit information to the EPA Regional Administrator (RA) and the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located within 60 days from one of the following discharge events:

- A single discharge of more than 1,000 U.S. gallons of oil to navigable waters or adjoining shorelines or
- Two discharges to navigable waters or adjoining shorelines each more than 42 U.S. gallons of oil occurring within any twelve month period

You must submit the following information to the RA:

- (1) Name of the facility;
- (2) Your name;
- (3) Location of the facility;
- (4) Maximum storage or handling capacity of the facility and normal daily throughput;
- (5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
- (6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- (7) The cause of the reportable discharge, including a failure analysis of the system or subsystem in which the failure occurred; and
- (8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
- (9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

* * * * *

NOTE: Complete one of the following sections (A, B or C) as appropriate for the facility type.

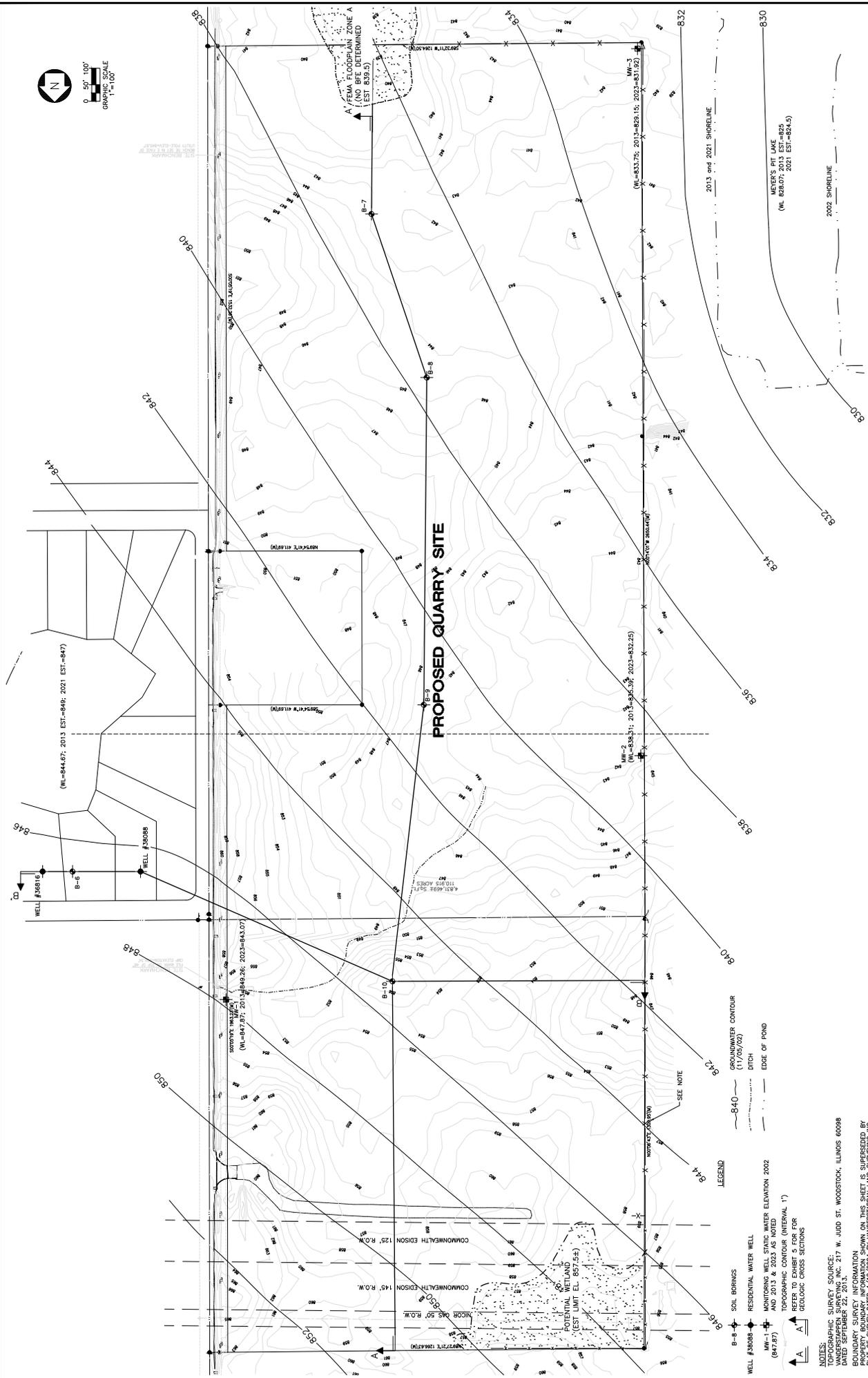
A. Onshore Facilities (excluding production) (§§112.8(b) through (d), 112.12(b) through (d)):

The owner or operator must meet the general rule requirements as well as requirements under this section. Note that not all provisions may be applicable to all owners/operators. For example, a facility may not maintain completely buried metallic storage tanks installed after January 10, 1974, and thus would not have to abide by requirements in §§112.8(c)(4) and 112.12(c)(4), listed below. **In cases where a provision is not applicable, write "N/A".**

| Table G-10 General Rule Requirements for Onshore Facilities | N/A |
|---|--|
| Drainage from diked storage areas is restrained by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. Diked areas may be emptied by pumps or ejectors that must be manually activated after inspecting the condition of the accumulation to ensure no oil will be discharged. [§§112.8(b)(1) and 112.12(b)(1)] | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| Valves of manual, open-and-closed design are used for the drainage of diked areas. [§§112.8(b)(2) and 112.12(b)(2)] | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| The containers at the facility are compatible with materials stored and conditions of storage such as pressure and temperature. [§§112.8(c)(1) and 112.12(c)(1)] | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Secondary containment for the bulk storage containers (including mobile/portable oil storage containers) holds the capacity of the largest container plus additional capacity to contain precipitation. Mobile or portable oil storage containers are positioned to prevent a discharge as described in §112.1(b). [§112.6(a)(3)(ii)] | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| If uncontaminated rainwater from diked areas drains into a storm drain or open watercourse the following procedures will be implemented at the facility: [§§112.8(c)(3) and 112.12(c)(3)] <ul style="list-style-type: none"> • Bypass valve is normally sealed closed • Retained rainwater is inspected to ensure that its presence will not cause a discharge to navigable waters or adjoining shorelines • Bypass valve is opened and resealed under responsible supervision • Adequate records of drainage are kept [See Dike Drainage Log in Attachment 3.3] | <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> |
| For completely buried metallic tanks installed on or after January 10, 1974 at this facility [§§112.8(c)(4) and 112.12(c)(4)]: <ul style="list-style-type: none"> • Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions. • Regular leak testing is conducted. | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |
| For partially buried or bunkered metallic tanks [§112.8(c)(5) and §112.12(c)(5)]: <ul style="list-style-type: none"> • Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions. | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| Each aboveground bulk container is tested or inspected for integrity on a regular schedule and whenever material repairs are made. Scope and frequency of the inspections and inspector qualifications are in accordance with industry standards. Container supports and foundations are regularly inspected. [See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2] [§112.8(c)(6) and §112.12(c)(6)(i)] | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Outsides of bulk storage containers are frequently inspected for signs of deterioration, discharges, or accumulation of oil inside diked areas. [See Inspection Log and Schedule in Attachment 3.1] [§§112.8(c)(6) and 112.12(c)(6)] | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| For bulk storage containers that are subject to 21 CFR part 110 which are shop-fabricated, constructed of austenitic stainless steel, elevated and have no external insulation, formal visual inspection is conducted on a regular schedule. Appropriate qualifications for personnel performing tests and inspections are documented. [See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2] [§112.12(c)(6)(ii)] | <input type="checkbox"/> <input checked="" type="checkbox"/> |

| Table G-10 General Rule Requirements for Onshore Facilities | | N/A |
|--|-------------------------------------|-------------------------------------|
| Each container is provided with a system or documented procedure to prevent overfills for the container. Describe: A sight glass / float is used to check tank contents. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Liquid level sensing devices are regularly tested to ensure proper operation [See Inspection Log and Schedule in Attachment 3.1]. <i>[\$112.6(a)(3)(iii)]</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts are promptly corrected and oil in diked areas is promptly removed. <i>[\$112.8(c)(10) and 112.12(c)(10)]</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Aboveground valves, piping, and appurtenances such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces are inspected regularly. [See Inspection Log and Schedule in Attachment 3.1] <i>[\$112.8(d)(4) and 112.12(d)(4)]</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Integrity and leak testing are conducted on buried piping at the time of installation, modification, construction, relocation, or replacement. [See Inspection Log and Schedule in Attachment 3.1] <i>[\$112.8(d)(4) and 112.12(d)(4)]</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

EXHIBITS 1 - 8



PROPOSED QUARRY SITE

LEGEND
 B-B SOIL BORINGS
 WELL #35088 RESIDENTIAL WATER WELL
 MW-1 MONITORING WELL STATIC WATER ELEVATION 2002 (847.87)
 AND 2013 & 2023 AS NOTED
 TOPOGRAPHIC CONTOUR (INTERVAL 1')
 REFER TO EXHIBIT 5 FOR GEOLGIC CROSS SECTIONS
 GROUNDWATER CONTOUR (11/20/02)
 DITCH
 EDGE OF POND
 SEE NOTE

NOTES:
 TOPOGRAPHIC SURVEY SOURCE: JACOBS ENGINEERING GROUP, INC. 217 W. JUDO ST. WOODSTOCK, ILLINOIS 60098
 DATED SEPTEMBER 2011
 BOUNDARY SURVEY INFORMATION SHOWN ON THIS SHEET IS SUPERSEDED BY PROPERTY BOUNDARY INFORMATION SHOWN ON THIS SHEET IS SUPERSEDED BY PART OF SURVEY DATED 1/19/2024 BY WADSWORTH LAND SURVEYING, INC.

| | | | |
|---|--|-----------------|-----------------------|
| BORING LOCATION AND WATER TABLE MAP (CIRCA 2002; UPDATED 2013 AND 2023) | | SCALE: 1"=100' | DATE: MARCH 2024 |
| PROPOSED MARENGO QUARRY, MAPLE VALLEY MATERIALS, L.L.C., MARENGO, ILLINOIS | | RECORD BY: JCS | PROJECT NO.: 22353443 |
| EATF E.K. | | DRAWN BY: EJB | APPROVED BY: JCS |
| JACOBS ENGINEERING GROUP, INC. CHICAGO, IL 60606 UNLICENSED PROFESSIONAL ENGINEER LICENSE NO. 120100001014 www.jacobs.com | | CHECKED BY: JCS | APPROVED BY: JCS |
| 3 OF 8 EXHIBITS | | EXHIBIT 3 | |



LEGEND

TOPOGRAPHIC CONTOUR (INTERVAL 1')

PROPOSED FENCE

REFER TO THIS SHEET FOR TYPICAL SECTIONS

NOTES:

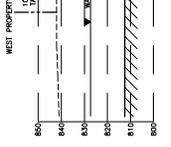
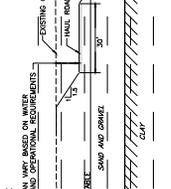
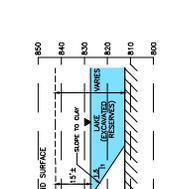
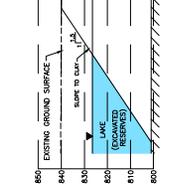
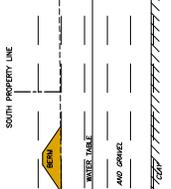
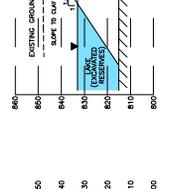
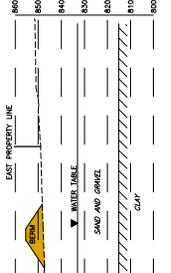
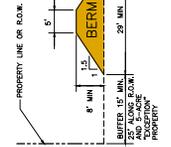
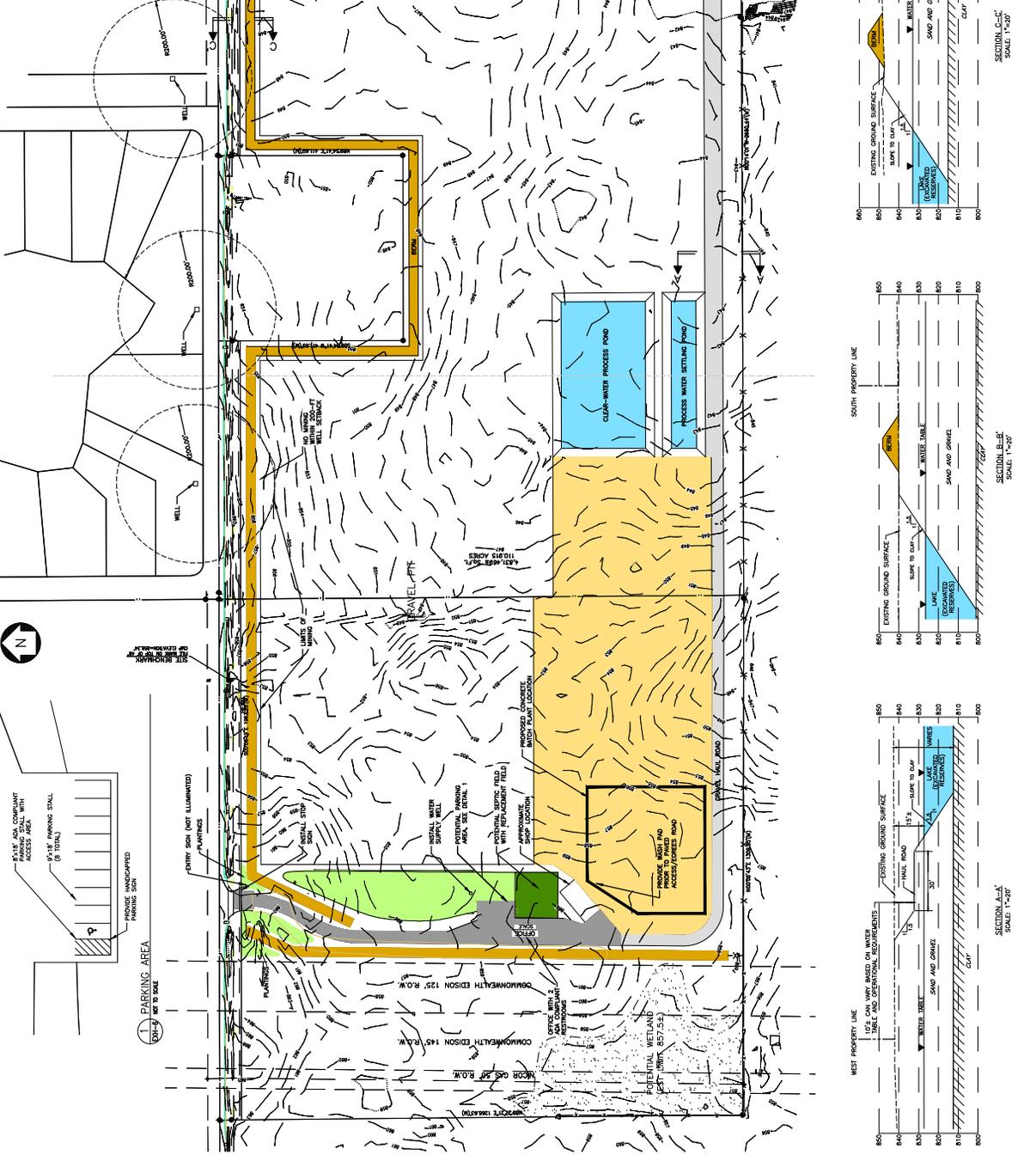
TOPOGRAPHIC SURVEY SOURCE: JCS SURVEYING INC. PROJECT DATED SEPTEMBER 22, 2023. 17 W. JUDO ST. WOODSTOCK, ILLINOIS 62458

PROPERTY BOUNDARY INFORMATION SHOWN ON THIS SHEET IS SUPERSEDED BY THE SURVEY BOUNDARY INFORMATION SHOWN ON THE SURVEY PLAT DATED 7/19/2024 BY WASHINGTON LAND SURVEYING INC.

THE WELL SYMBOL FOR THE PRIVATE WELLS SHOWN ON THIS SHEET ARE CENTERED ON THE MAIN STREET ARE CENTERED ON THE MAIN STREET. THE WELL LOCATION ADVISORY SOURCE THAT IS CLOSEST TO THE WELLS.

WELL LOCATION SURVEY SOURCE

WELL LOCATIONS ARE BASED ON PLAT SURVEYING INC. REVISION DATED JULY 2023. THE WELL SYMBOL FOR THE PRIVATE WELLS SHOWN ON THIS SHEET ARE CENTERED ON THE MAIN STREET. THE WELL LOCATION ADVISORY SOURCE THAT IS CLOSEST TO THE WELLS.



TYPICAL BERM SECTION
SCALE: 1"=10'

SECTION C-C
SCALE: 1"=20'

SECTION D-D
SCALE: 1"=20'

SECTION G-G
SCALE: 1"=20'

SECTION H-H
SCALE: 1"=20'

| | |
|--------------|------------|
| DATE: | MARCH 2024 |
| SCALE: | 1"=100' |
| PROJECT NO.: | 22583.043 |
| DESIGNED BY: | JCS |
| DRAWN BY: | EAB |
| CHECKED BY: | JCS |
| INCHARGE BY: | JCS |

MINING PLAN

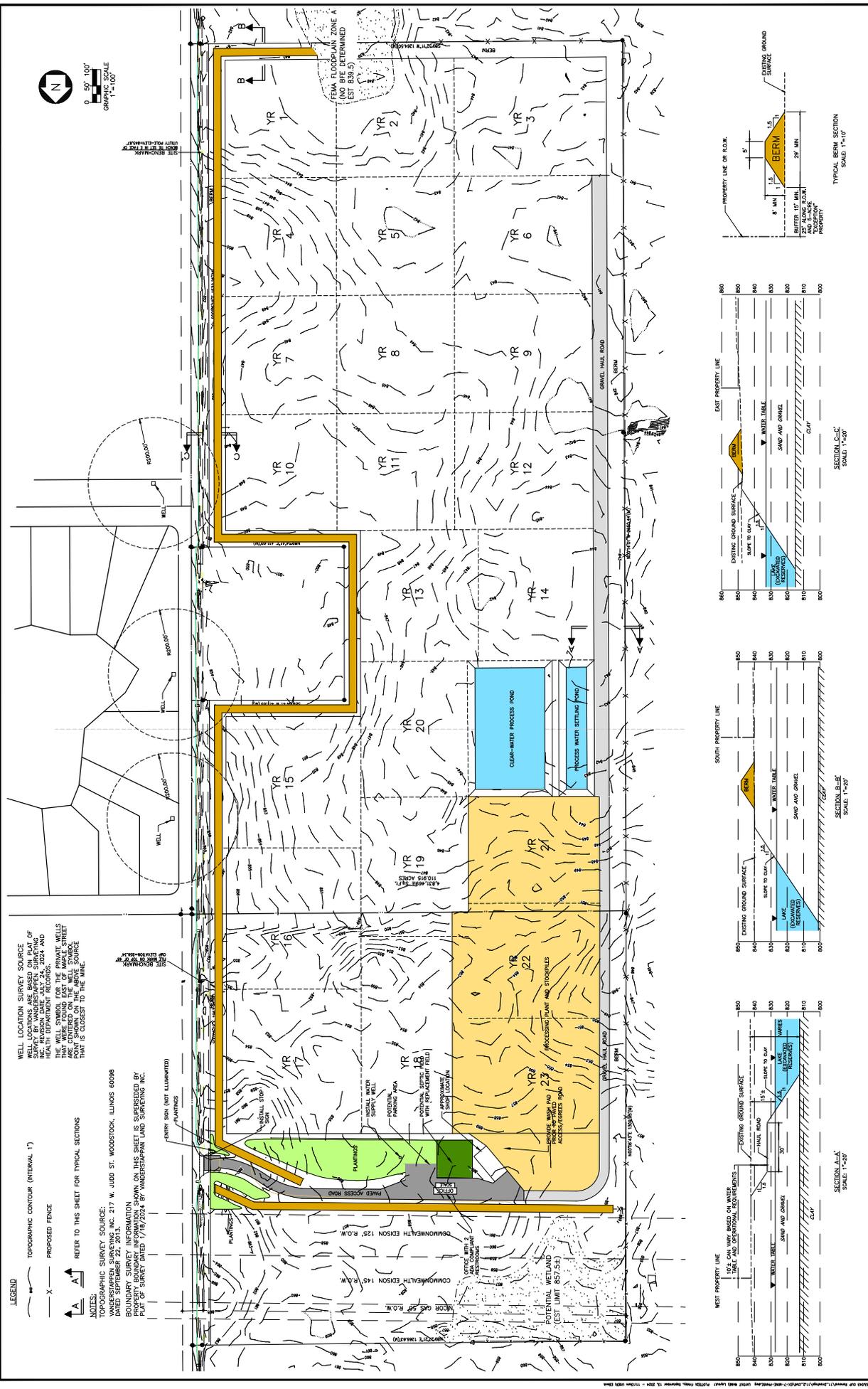
PROPOSED MARENGO QUARRY
MAPLE VALLEY MATERIALS, L.L.C.
MARENGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES
LAND SURVEYING DIVISION
LICENSE NO. 184-000-0014

STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES
LAND SURVEYING DIVISION
LICENSE NO. 184-000-0014

STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES
LAND SURVEYING DIVISION
LICENSE NO. 184-000-0014

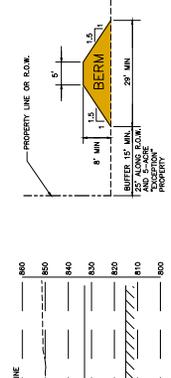
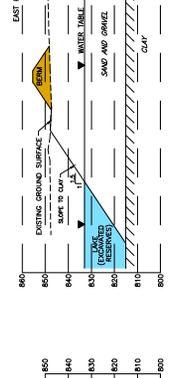
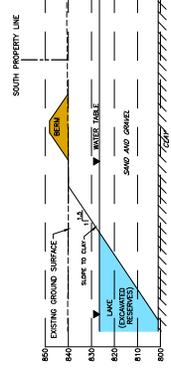
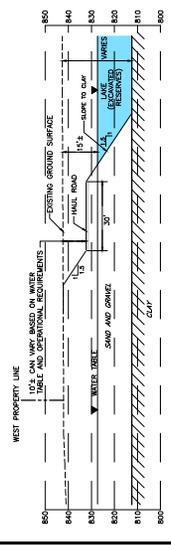
| | | |
|-----|---------|--|
| NO. | DATE | DESCRIPTION |
| 1 | 4/23/24 | REVISION TO ADDRESS COUNTY COMMENTS AND ROAD OFFICE WALL LOCATIONS |



WELL LOCATIONS SURVEY SOURCE WELL LOCATIONS ARE BASED ON DATA OF THE ILLINOIS GEOLOGICAL SURVEY AND HEALTH DEPARTMENT RECORDS. THESE WELLS ARE NOT NEARLY AS RECENT AS THE WELLS SHOWN ON THIS SHEET. THE WELL SYMBOLS ARE CENTERED ON THE WELL SYMBOL THAT IS CLOSEST TO THE NAME.

LEGEND
 --- TOPOGRAPHIC CONTOUR (INTERVAL 1')
 --- PROPOSED FENCE
 A REFER TO THIS SHEET FOR TYPICAL SECTIONS

NOTES:
 TOPOGRAPHIC SURVEY SOURCE: ILLINOIS GEOLOGICAL SURVEY, 2013, 1:25,000 SCALE, 217' N. JUD ST. WOODSTOCK, ILLINOIS 60998 DATED SEPTEMBER 27, 2013.
 BOUNDARY SURVEY INFORMATION: THIS SURVEY IS SUPERSEDED BY THE BOUNDARY SURVEY INFORMATION FOR THE MINE PHASING PLAN OF SURVEY DATED 1/19/2024 BY WOODSTOCK LAND SURVEYING, INC.



SECTION A-A' TYPICAL SECTION SCALE: 1"=20'

SECTION B-B' TYPICAL SECTION SCALE: 1"=20'

SECTION C-C' TYPICAL SECTION SCALE: 1"=20'

SECTION D-D' TYPICAL SECTION SCALE: 1"=20'

| | |
|---|---|
| DATE: MARCH 2024 | SCALE: 1"=100' |
| PROJECT NO.: 22433.043 | DRAWN BY: EAB |
| DESIGNED BY: JCS | CHECKED BY: JCS |
| APPROVED BY: JCS | DATE: MARCH 2024 |
| MINE PHASING PLAN | |
| PROPOSED MARENGO QUARRY | |
| MAPLE VALLEY MATERIALS, L.L.C. | |
| MARENGO, ILLINOIS | |
| ILLINOIS PROFESSIONAL SURVEYOR LICENSE NO. 184300000001 | |
| ILLINOIS PROFESSIONAL ENGINEER LICENSE NO. 184300000001 | |
| NO. DATE | DESCRIPTION |
| 1 4/23/24 | REVISION TO ADDRESS COUNTY ORDINANCE AND ROAD OFFICE WALL LOCATIONS |

