

AP - 001

**STAGE 1 & 2
WORKPLANS**

DATE:

June 16, 1994

June 16, 1994

REX77.LTR

RECEIVED

JUN 17 1994

Mr. Bill Olson
Oil Conservation Division
Land Office Building
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

OIL CONSERVATION DIV.
SANTA FE

RE: COMMENTS CONCERNING THE REMEDIAL INVESTIGATION WORK PLAN

Dear Mr. Olson:

This letter is to confirm our conversation of June 13, 1994 regarding your comments of June 10, 1994 concerning the Remedial Investigation Work Plan for the Brickland Refinery. We reached a consensus on all pertinent issues and this correspondence documents that consensus.

Comment:

1. As requested we are providing the following discussion regarding the vertical placement and/or adjustment of well points for the upcoming field investigation. I have also enclosed completion diagrams of the existing well points for your review.

The original purpose of well point installation was to identify areas where free-phase hydrocarbon might be floating on the water table. As the well points were installed, they were monitored to determine whether groundwater, product, or both were entering the well screen. Because the very fine-grained nature of the sediments often prevented a "real-time" determination of the water table some of the points were inadvertently completed with the top of the screen below the top of the water table. This did not detract from the objective of the investigation because free-product at the site can be floating on the water table or may occur in thin sand lenses slightly below the water table.

The objective of the current proposed remedial investigation is to use the well points to support the overall investigation by providing more data for the delineation of the shallow water table, which primarily controls the migration of light non-aqueous phase liquids beneath the site. This interpretation, in turn, will be critical for the evaluation of any remedial alternatives. The well points listed in the work plan that will be adjusted upward will be lifted up until the top of the screen is approximately one foot above the top of the water table. Data from these well points will be used in conjunction with

Mr. Bill Olson
June 16, 1994
Page 2

data from existing well points previously completed with the screen straddling the air/water interface and that were used in the delineation of the shallow water table (plate A of the Work Plan).

Several of the existing well points will also be adjusted downward. The adjustment of these well points will provide additional data for delineating groundwater flow based on data from the existing monitor wells. Although the design does not exactly coincide with that of the monitor wells, water levels will be reasonably comparable.

2. As specified, all monitor wells will be completed with a minimum of 5 feet of well screen above the water table and 10 feet of well screen below the water table.
3. As agreed, a soil sample will be collected from the interval with the highest field PID reading and analyzed for total petroleum hydrocarbons (TPH) using approved EPA methods. As we discussed, this sampling protocol may be varied based on visual observations of the recovered soil cores (e.g., gross hydrocarbon content).
4. Samples from all existing monitor wells and newly installed monitor wells will be analyzed for New Mexico Water Quality Control Commission (WQCC) metals. Other parameters also include BTEX, PAH's, and phenols. TPH analyses will be discontinued.
5. Cuttings, trench excavation soils, and discarded soil cores, will be stored on-site on plastic sheets pending receipt of analytical results. Wastewater will be drummed as it is generated. Composite samples will be collected from the soils as they are generated and analyzed for hazardous characteristics as specified in 40 CFR, Part 261, Sections 261.21 (ignitability), 261.22 (corrosivity), 261.23 (reactivity), and 261.24 (toxicity). A representative sample of wastewater will be collected from each drum and analyzed for the same characteristics.

If analytical results indicate that any of the materials generated during the investigation exhibit hazardous characteristics, Rexene Corporation will obtain a generator's identification number and arrange for transportation and disposal at a permitted facility within specified time schedules. Rexene will provide documentation to NMOCD that all subject materials have been properly disposed of and make recommendations to NMOCD for the management of any materials that do not meet 40 CFR characteristic waste criteria.

6. As tentatively agreed, Rexene Corporation will submit a report to NMOCD detailing the results of the proposed investigation on or about September 9, 1994. As I indicated, I will contact you in mid to late July to inform you of the sample result turn-around status so that any appropriate adjustments can be made to the schedules.

Mr. Bill Olson
June 16, 1994
Page 3

Comments 6.a through 6.d. will be fully addressed in this submission as requested.

7. Rexene will continue to provide 72 hours advance notification of any scheduled activities to provide NMOCD an opportunity to witness those activities and/or split samples.
8. Copies of the March 14, 1994 and May 6, 1994 reports as well as all future reports and correspondence will be forwarded to the NMOCD District Office in Artesia, New Mexico as requested.

If I can provide any additional information, please feel free to contact myself or Mr. Carver at (505) 842-0001 or (214) 450-9064 respectively.

Sincerely,
Geoscience Consultants, Ltd. (GCL)



Trent H. Thomas
Program Manager

54159/REX77.LTR

cc: Todd Carver, Rexene
Rob Sutphen, Rexene
Reggie Baker, Rexene
Ned Kendrick, Montgomery & Andrews
Mark Ashley, NMOCD-Artesia
Kerrie Neet, NMED

REXENE DOCUMENT

CONTROL # REX 41 MEM

MEMO

TO: Claude Schleyer/Trent Thomas

RECEIVED

FROM: Burt Schippers

JUN 17 1994

DATE: October 18, 1993

OIL CONSERVATION DIV
SANTA FE

SUBJ: TRIP REPORT - Preliminary Investigation at the old Brickland Refinery Site

REF: Field Book - Rexene Preliminary Site Investigation, 1993

Introduction

From September 27 through October 1, 1993 the old Brickland Refinery site in Sunland Park, New Mexico was visited by Rhonda Methvin, Burt Schippers and Kyle Summers (Sept. 27 and 28) for a preliminary site investigation. In addition, Kyle Summers returned to the site on October 6, 1993 for follow-up work. The main objective of the visit was to perform a well point investigation with the intent of probing the site for free-phase floating product to confirm the presence and occurrence of such product as concluded from a previous consultants investigation. Other objectives included performing water level and depth-to-product measurements in site monitor wells and well points, collection of free-phase product samples for analyses, installation of water level data loggers and installation of storm water samplers. It had been determined earlier that these tasks were necessary to support the design of a free-phase floating product recovery system that was being planned as an interim remedial action for the site. The following provides a daily summary and highlights of the investigation and field work that was performed as well as conclusions and recommendations.

Investigation/Field Work

September 27, 1993

Performed water level and depth-to-product measurements for site monitor wells. The data from these measurements are shown in Table 1. Approximately 5.4 feet of product was measured in MW-10, as well as a PID indication of 3 ppm. This product has a used motor oil appearance. A possible sheen may exist in three other monitor wells as a flicker of the product light on the oil/water interface probe was noted, as well as a distinct hydrocarbon odor. These hydrocarbon vapors, however, were either not detected or barely detected (0.4 ppm) on the PID. Additional work included the cutting and replacement of locks on the well caps. Vehicular access in the area of MW-10 was hampered due to the very sandy conditions at this end of the site.

Table 1
 Old Brickland Refinery
 Monitor Well Groundwater/Product Level Measurements
 (September 27, 1993)

| Monitor Well ID | DTW BTOC (ft) | WL AMSL (ft) | DTP BTOC (ft) | Product Thick (ft) | Remarks |
|-----------------|---------------|--------------|---------------|--------------------|---------------------------------------|
| MW-1 | 5.10 | 3725.78 | 0.00 | 0.00 | |
| MW-3S | 5.41 | 3725.29 | 0.00 | 0.00 | Possible Sheen |
| MW-3D | 5.49 | 3725.22 | 0.00 | 0.00 | Possible Sheen |
| MW-4 | 4.10 | 3725.21 | 0.00 | 0.00 | |
| MW-5 | 4.99 | 3725.11 | 0.00 | 0.00 | |
| MW-6S | 6.27 | 3725.08 | 0.00 | 0.00 | |
| MW-6D | 6.32 | 3725.00 | 0.00 | 0.00 | |
| MW-7 | 4.29 | 3725.16 | 0.00 | 0.00 | |
| MW-8 | 4.58 | 3725.10 | 0.00 | 0.00 | |
| MW-9S | 5.87 | 3724.84 | 0.00 | 0.00 | Possible Sheen |
| MW-9D | - | - | - | - | Silted in @ 3.9 ft BTOC |
| MW-10 | 12.42 | 3720.58 | 7.00 | 5.42 | Product has used motor oil appearance |
| MW-11 | 6.91 | 3724.91 | 0.00 | 0.00 | |
| MW-12 | 4.56 | 3726.09 | 0.00 | 0.00 | |
| MW-13 | 7.57 | - | 0.00 | 0.00 | |

DTW - Depth to groundwater
 DTP - Depth to product
 WL - Groundwater level
 BTOC - Below top of casing
 AMSL - Above mean sea level

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September 28, 1993

Installed and programmed water level data logger in MW-6S. The well cap was modified with a casing ring to lift the well cap for installation access of the data logger. In addition, Vortox storm water samplers were installed at the inlet side of outfalls 2 and 3. These locations are shown on Plate A and figure 1 shows a cross-section of the Vortox storm water sampler.

September 29, 1993

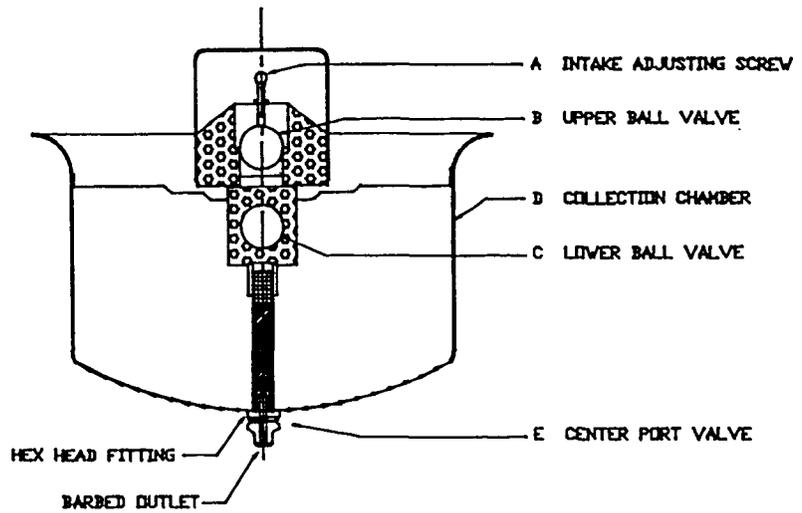
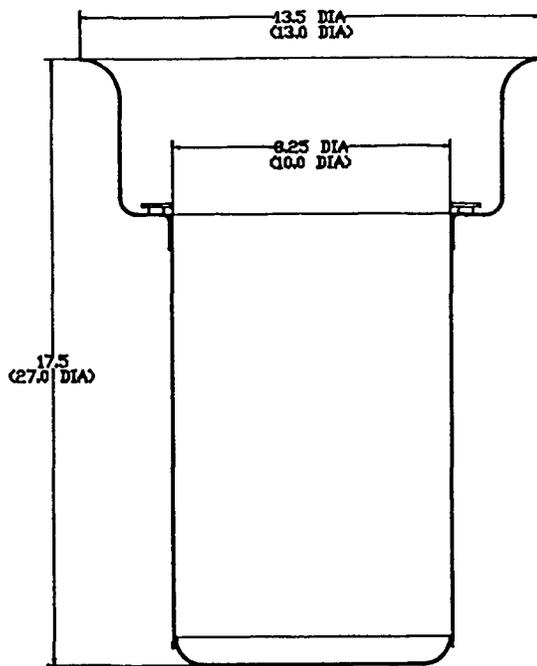
Conducted a health and safety tail gate meeting with the drill team from Precision Engineering, which had been retained for the installation of well points at the site. A 4WD cable rig was used to push the well points into the ground. Installation of well points was slow-going in the southern area of the site due to the rig's difficulty in traveling in the sandy conditions. Well points WP-1 through WP-6 were installed on this day. It was determined that artesian water table conditions are prevalent at the site. Upon well point installation, an attempt was made to measure the water level and check for floating product with an oil/water interface probe. An accurate water level measurement could not be obtained because the water level continued to rise. It was decided that it would be better to wait a few days after well point installation to allow the water level time to stabilize and for product to have an opportunity to seep into the well point screens before trying to take depth-to-water and product measurements. During installation of many of the well points, a distinct hydrocarbon odor was noted and in some cases an oil film was apparent on the oil/water interface probe. This information is documented in the well point construction diagrams included in Attachment A. One mishap did occur on this day when the driver of the cable rig inadvertently backed over WP-4 bending the top of casing at an angle of about 60 degrees from horizontal. It was verified that the water level in WP-4 could still be measured with the oil/water interface probe.

September 30, 1993

Installed and programmed water level data loggers in MW-7 and MW-8. The cap on MW-8 was replaced with a new cap to provide access for installation of the data logger. Only three well points were installed on this day since WP-7 and WP-25 had to be driven by hand due the cable rig's inaccessibility in this area. For WP-7, a pilot hole was hand augured. Soil cuttings from this operation revealed what appeared to be product-saturated clay (black in color with a strong hydrocarbon odor) initiating at about 6 feet below grade and continuing down to approximately 12-13 feet where groundwater was encountered. This observation, as well as that of artesian water table conditions, leads the field team to believe that a confining clay layer is prevalent across the site. WP-25 was hand driven with a slide hammer. WP-8 was also installed on this day.

October 1, 1993

Installed well points WP-9 through WP-24 on this day. Based on observations of the previous day and after discussion with the home office, an attempt was made to install the well points such that the bottom of the apparent clay layer was just barely penetrated. It



FOR ATTACHING LAB TUBING
TO ELIMINATE AERATION OF
A SAMPLE

FIGURE 1



CLIENT: REXENE

DATE: 10-14-93

AUTHOR: BKL

CK'D BY:

REV. NO.: 1

DRAWN BY: HCC

FILE: VORTOX.DWG

VORTOX
STORMWATER SUMP
AND SAMPLER ASSEMBLY

was believed that this would provide the greatest opportunity for product to seep into the well points. Additional work included measuring well point locations so they could be plotted on a site map.

October 6, 1993

Kyle Summers returned to the site to perform a round of water level and depth to product measurements for all the well points installed during the previous week. Results of these measurements are shown in Table 2. In addition, a product sample was collected from MW-10 for analyses. The analyses to be performed includes viscosity, flash point, BTU, carbon range, specific gravity and total lead. As of this writing, these analysis results are not yet available from the laboratory.

Related Follow-On Activities

Four major follow-on activities remain as a result of this preliminary investigation:

- (1) Prior to well point removal, check for product accumulation that may have seeped into the well point screens over time.
- (2) Remove well points and plug and abandon well point holes to prevent aquifer cross contamination.
- (3) Down load data from water level data loggers installed in monitor wells MW-6S, 7 and 8 in the Spring of 1994. Remove loggers or continue logging as project needs dictate.
- (4) Collect storm water outfall samples and ship to the appropriate lab for analyses as soon as possible after a significant rainfall event at the site.

Conclusions

As a result of this investigation several conclusions can be drawn:

- (1) The occurrence of free-phase floating product is not as wide spread as previously thought.
- (2) It appears as if the majority of petroleum product at the site is adsorbed in a shallow clay layer beneath the site.
- (3) The shallow clay layer seems to serve as an aquitard causing artesian water table conditions to prevail at the site.
- (4) Implementation of a free-phase floating product recovery system as an interim remedial action for the site is not warranted at this time.

- (5) The low detection of hydrocarbon vapors with the PID could mean that heavier and less volatile petroleum product is prevalent at the site.
- (6) Based on (2) and (3) above, this may explain why relatively low levels of groundwater contamination have been detected.

Recommendations

It is recommended that some additional activities be performed at the site to ensure that the appropriate remedial action is taken. These activities include:

- (1) Perform related follow-on activities as previously described.
- (2) Conduct a remedial site investigation that has the objective of collecting specific data needed for the selection and design of the ultimate remedial action that may be implemented for the site.

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Table 2
 Old Brickland Refinery
 Well Point Groundwater/Product Level Measurements
 (October 6, 1993)

| Well Point ID | DTW BTOC (ft) | DTW BG (ft) | DTP BTOC (ft) | Product Thick (in) | Remarks |
|---------------|---------------|-------------|---------------|--------------------|--------------------------|
| WP-1 | 6.97 | 5.97 | 0.00 | 0.00 | |
| WP-2 | 8.08 | 7.08 | 0.00 | 0.00 | |
| WP-3 | 5.66 | 4.46 | 0.00 | 0.00 | |
| WP-4 | - | - | - | - | Cap could not be removed |
| WP-5 | 4.71 | 3.51 | 0.00 | 0.00 | |
| WP-6 | 6.50 | 5.15 | 0.00 | 0.00 | |
| WP-7 | 8.26 | 5.76 | 0.00 | 0.00 | |
| WP-8 | 4.17 | 2.67 | 0.00 | 0.00 | |
| WP-9 | 4.44 | 2.94 | 4.43 | 0.12 | Product Detected |
| WP-10 | 4.32 | 2.87 | 0.00 | 0.00 | |
| WP-11 | 4.67 | 3.07 | 4.66 | 0.12 | Product Detected |
| WP-12 | 4.29 | 2.79 | 0.00 | 0.00 | |
| WP-13 | 3.80 | 2.20 | 0.00 | 0.00 | Possible Sheen |
| WP-14 | 3.84 | 2.64 | 0.00 | 0.00 | |
| WP-15 | 6.13 | 4.93 | 0.00 | 0.00 | |
| WP-16 | 6.32 | 4.02 | 0.00 | 0.00 | |
| WP-17 | 4.90 | 3.40 | 0.00 | 0.00 | |
| WP-18 | 4.18 | 2.88 | 0.00 | 0.00 | |
| WP-19 | 5.16 | 3.76 | 0.00 | 0.00 | |
| WP-20 | 4.34 | 3.04 | 0.00 | 0.00 | Possible Sheen |
| WP-21 | 4.69 | 2.99 | 0.00 | 0.00 | |
| WP-22 | 5.00 | 3.10 | 0.00 | 0.00 | |
| WP-23 | 5.38 | 4.18 | 0.00 | 0.00 | |
| WP-24 | 4.70 | 3.10 | 0.00 | 0.00 | |
| WP-25 | 9.99 | 6.79 | 9.94 | 0.60 | Product Detected |

DTW - Depth to groundwater
 DTP - Depth to product
 BG - Below grade
 BTOC - Below top of casing

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ATTACHMENT A

Well Point Construction Diagrams

Well Point Construction Information

Client REXENE

Date 9-29-93

Chg. Code 54159.20

Well Point Id. WP-1

Site Location OLD BRICKLAND REFINERY

Drilling Contractor PRECISION ENGR. (PEI)

Screen Type STAINLESS

Slotted Length 5'7" = 5.58'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 8.78'

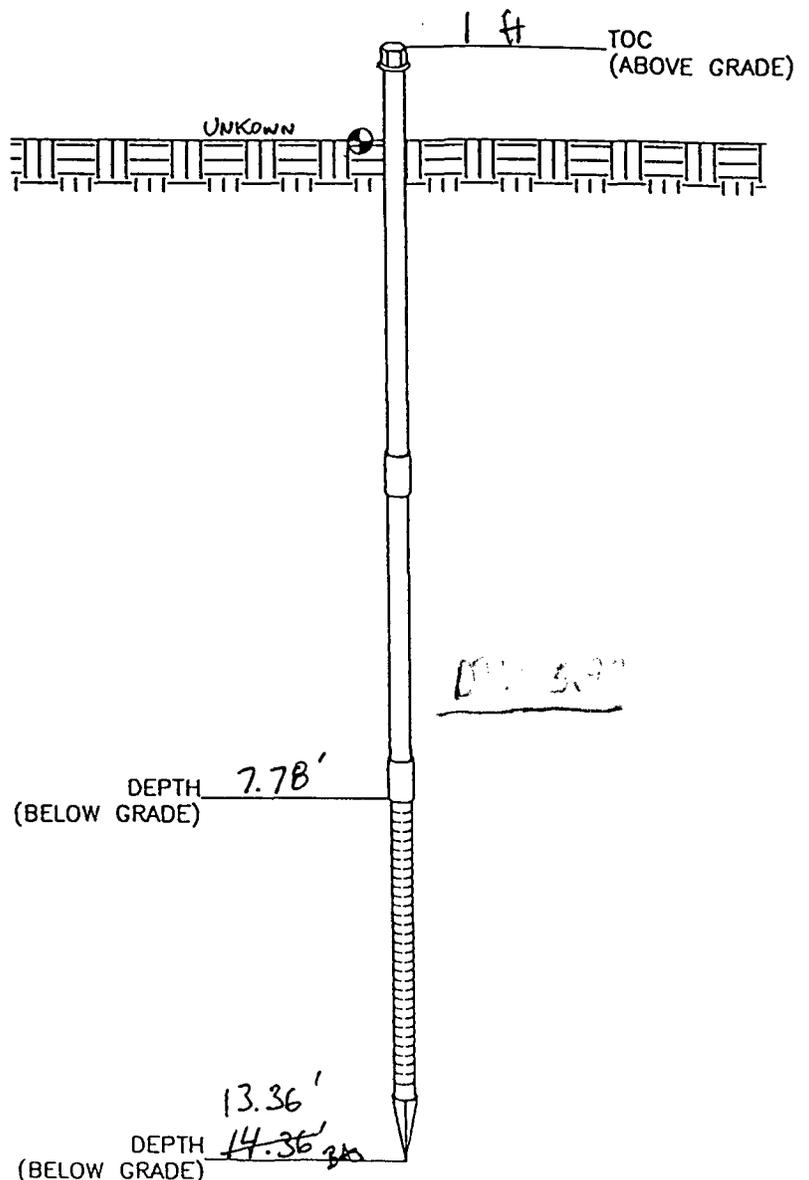
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks OILY FILM NOTED ON OIL/WATER INTERFACE PROBE BUT NO PROBE READING.



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 9-29-93

Chg. Code 54159.20

Well Point Id. WP-2

Site Location BRECKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 5.58'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 12.76'

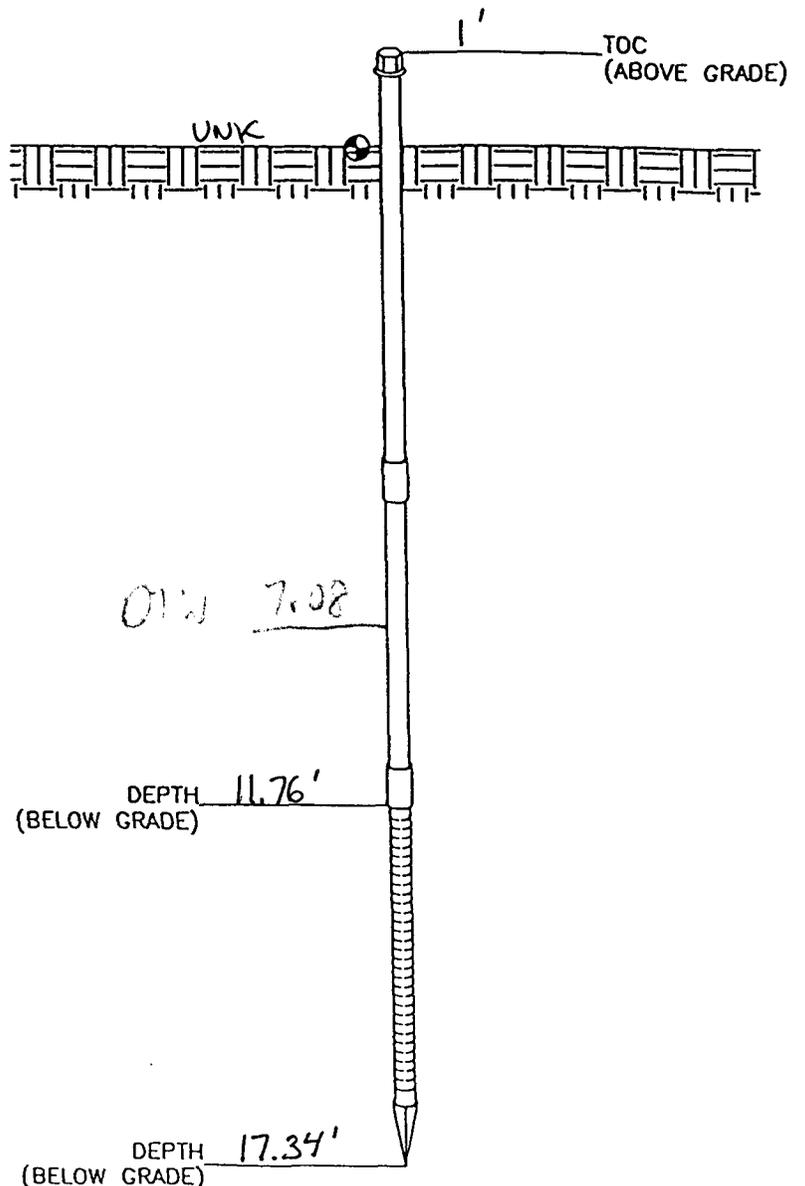
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 9-29-93

Chg. Code 54159.20

Well Point Id. WP-3

Site Location BRICKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 6.02'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 9.43'

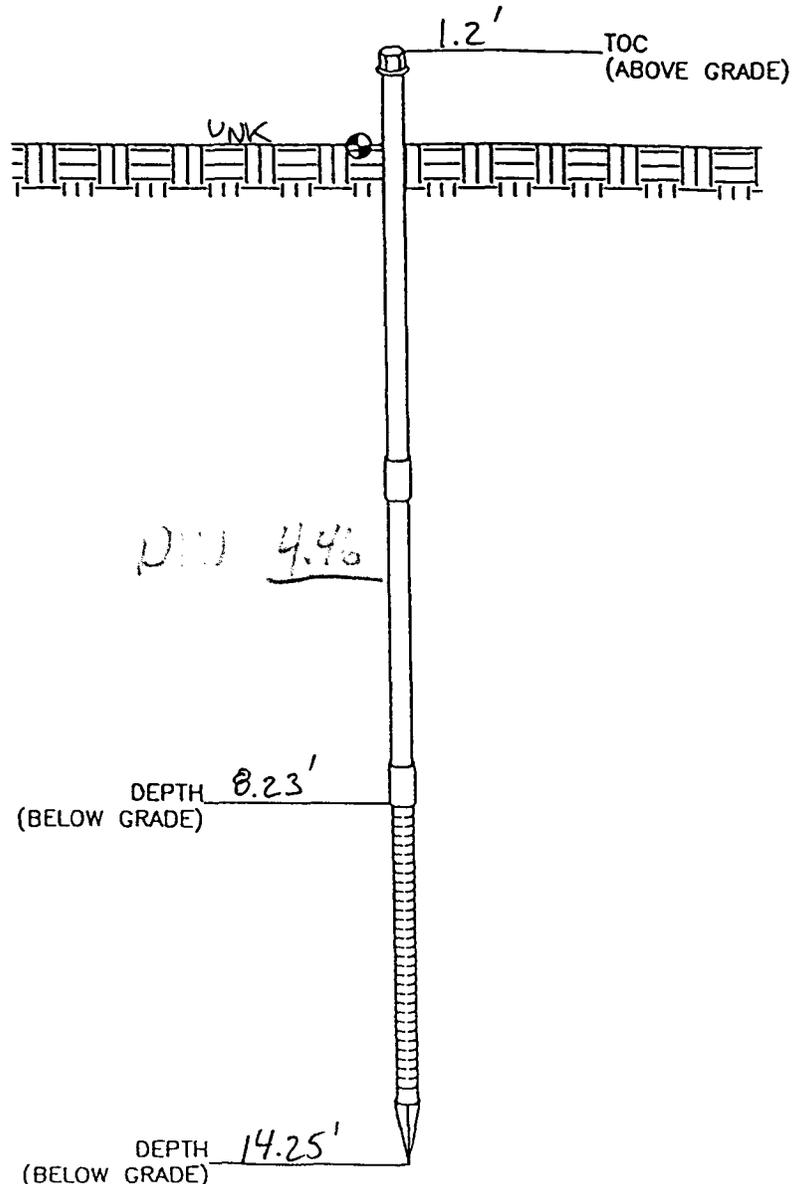
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 9-29-93

Chg. Code 54159.20

Well Point Id. WP-4

Site Location BRICKLANDS REFINERY

Drilling Contractor PEI

Screen Type STAINLESS STEEL

Slotted Length 5.71'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 12.9'

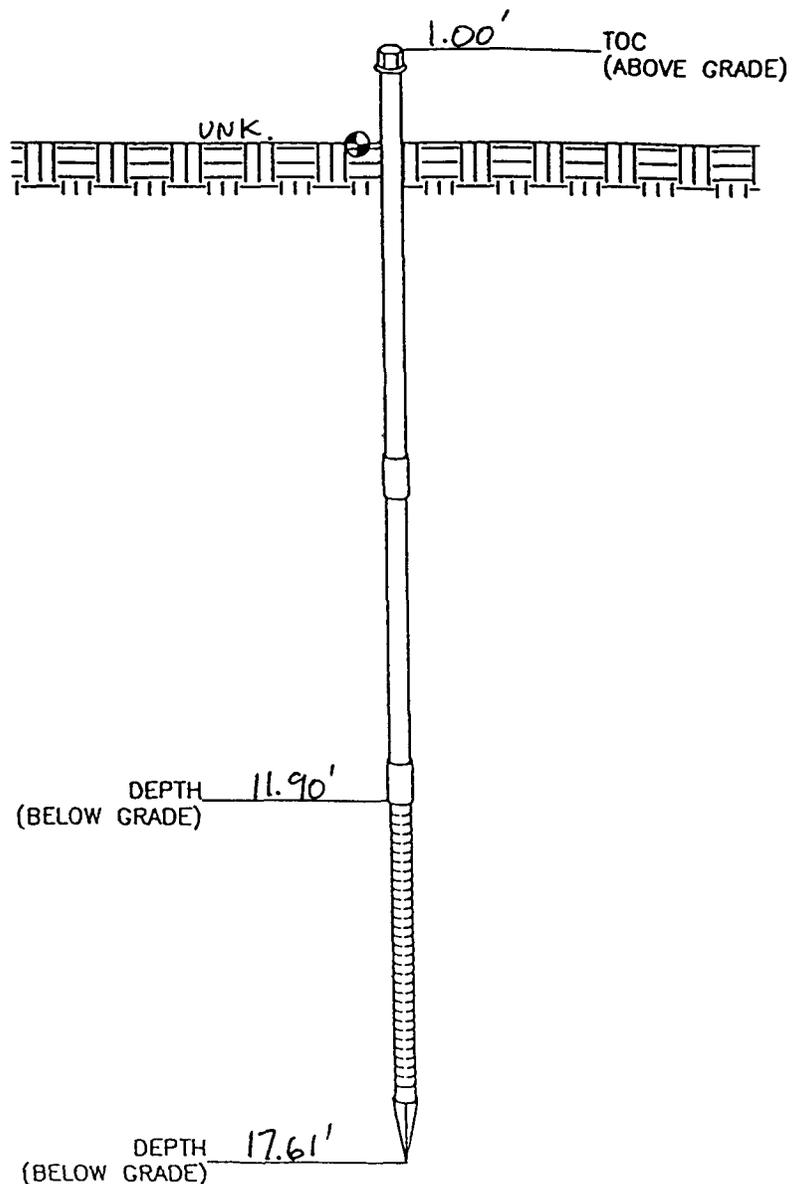
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks TOC BENT TO 60° ANGLE
BY DRILL RIG. STILL ABLE
TO TAKE WL MEASUREMENTS.



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 9-29-93

Chg. Code 54159.20

Well Point Id. WP-5

Site Location BRICKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 5.69'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 9.86'

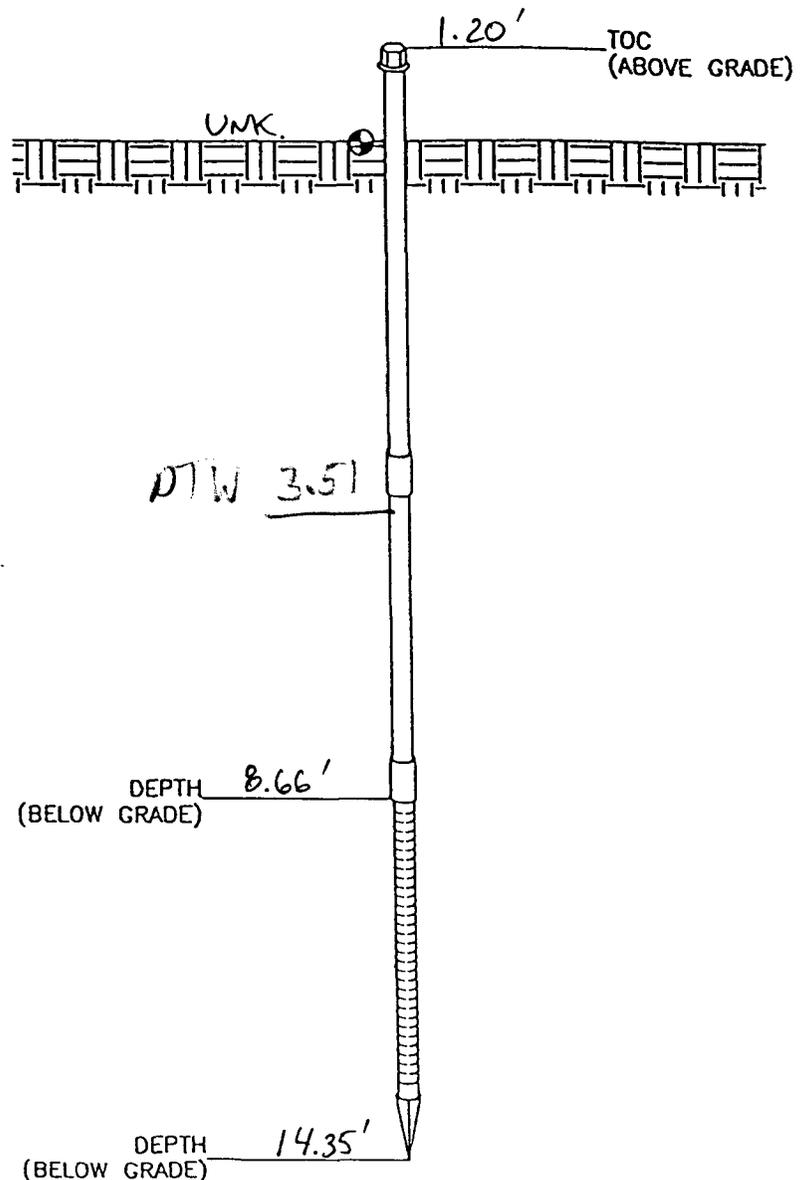
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 9-29-93

Chg. Code 54159.20

Well Point Id. WP-6

Site Location BRICKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 5.65'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 12.84'

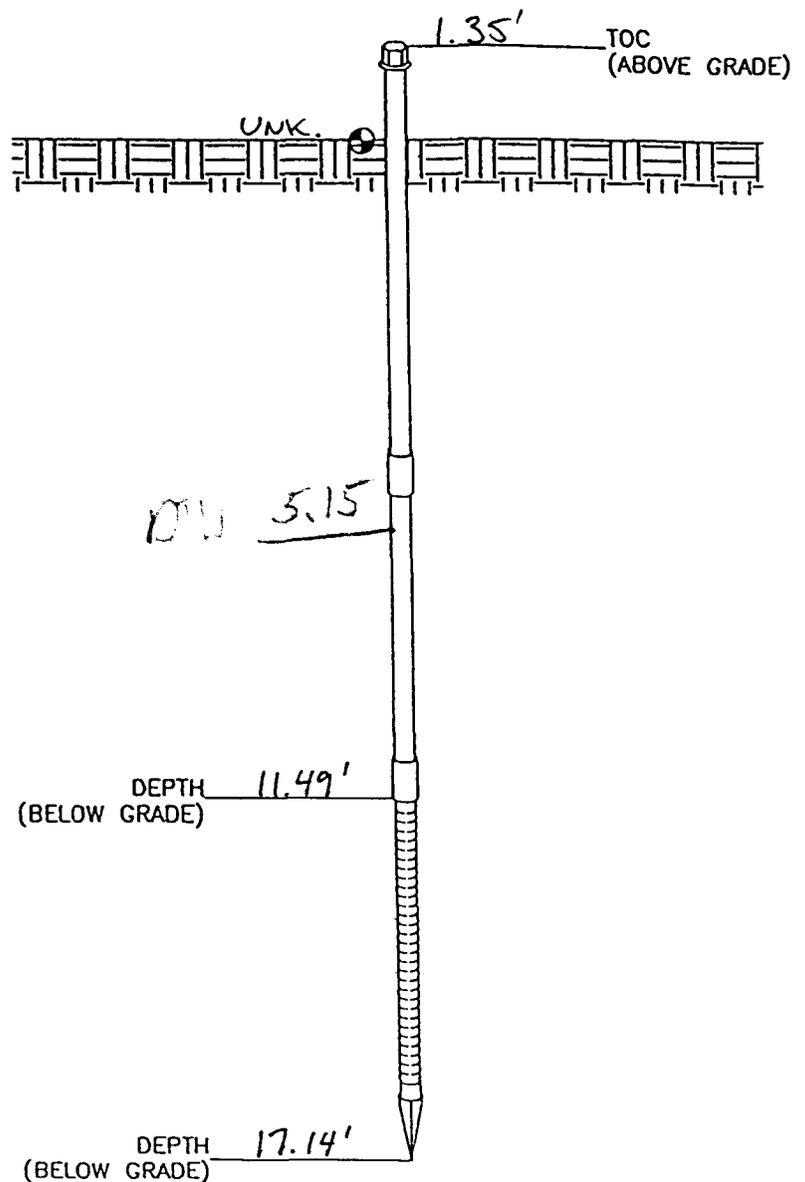
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 9-30-93

Chg. Code 54159.20

Well Point Id. WP-7

Site Location BRICKLAND REGENCY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length _____

Slot Size _____

Casing Type CARBON STEEL

Casing Length _____

Casing Dia. 2" ID

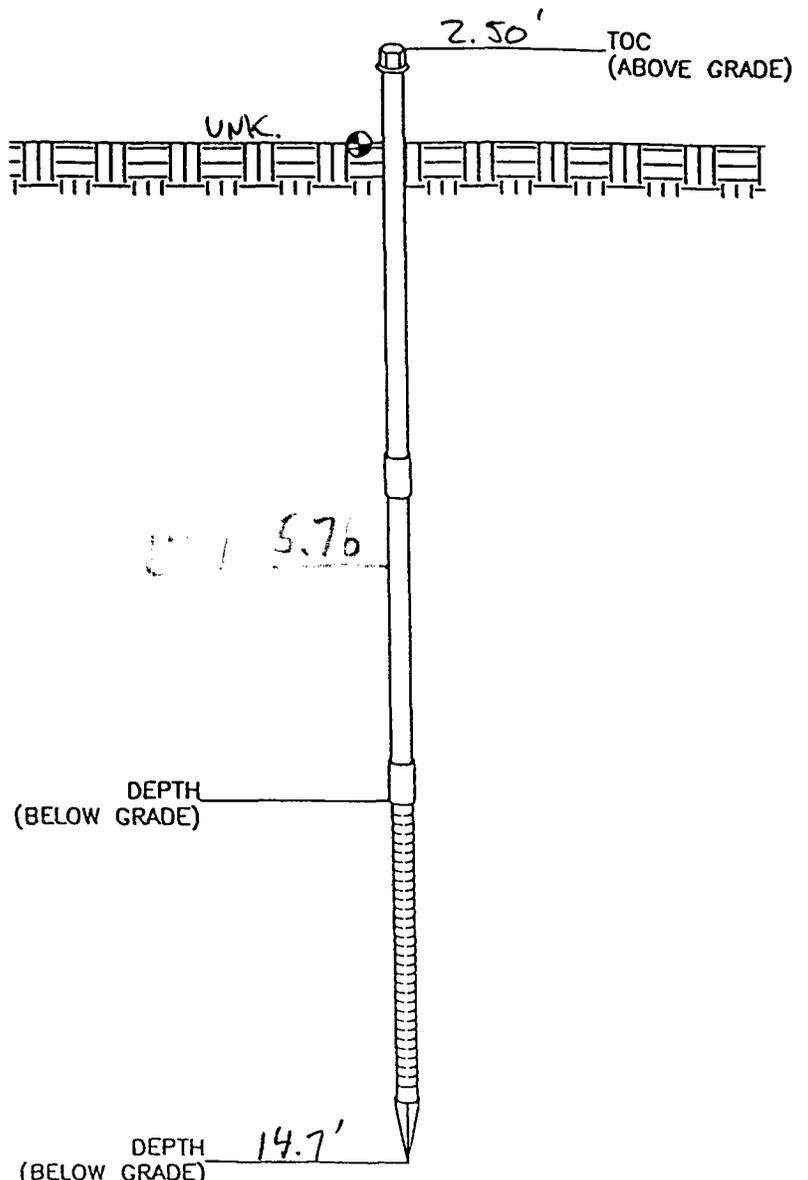
Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method HAND AUGER PILOT HOLE

Remarks PRODUCT SATURATED CLAY @

6' BELOW GRADE.



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 9-30-93

Chg. Code 54159.20

Well Point Id. WP-8

Site Location BRICKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 4.71'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 9.43'

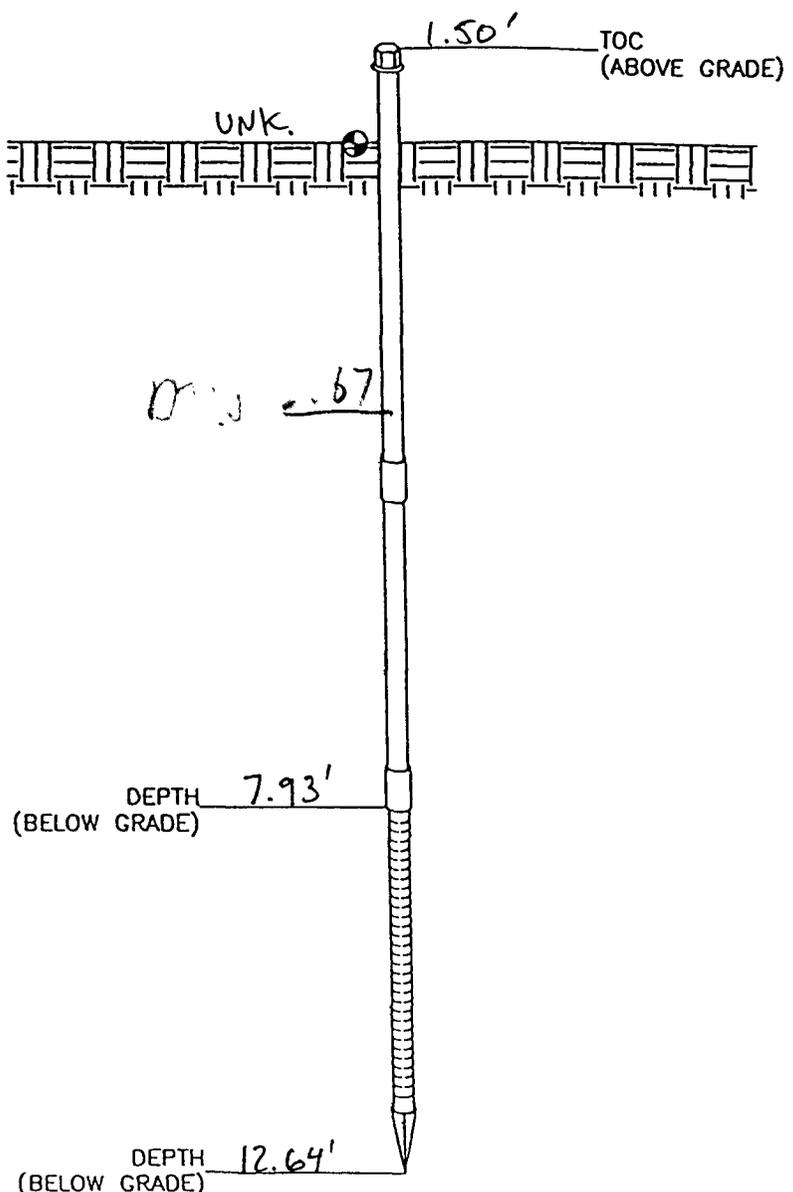
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-9

Site Location BRACKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 4.71'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 8.27'

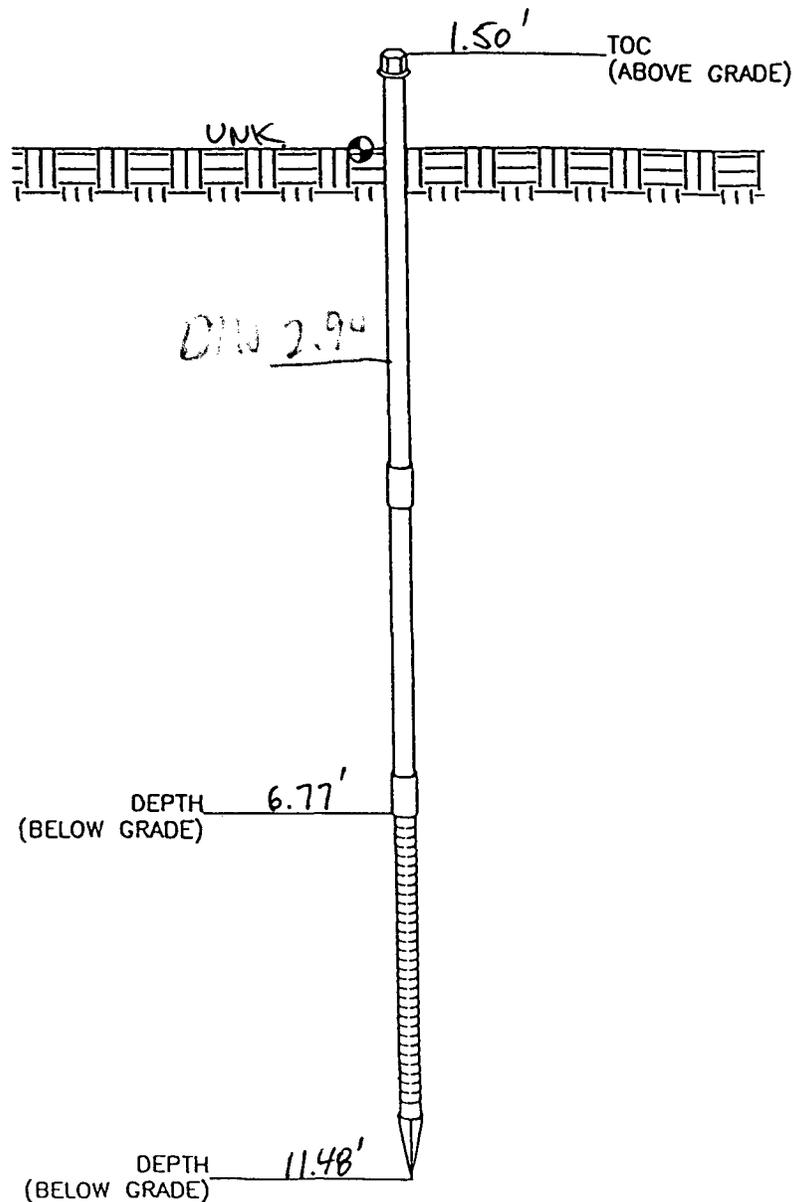
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks HYDROCARBON ODOR



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-10
~~WP-6~~

Site Location BRICKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.71

Slot Size 20

Casing Type CARBON STEEL

Casing Length 7.29'

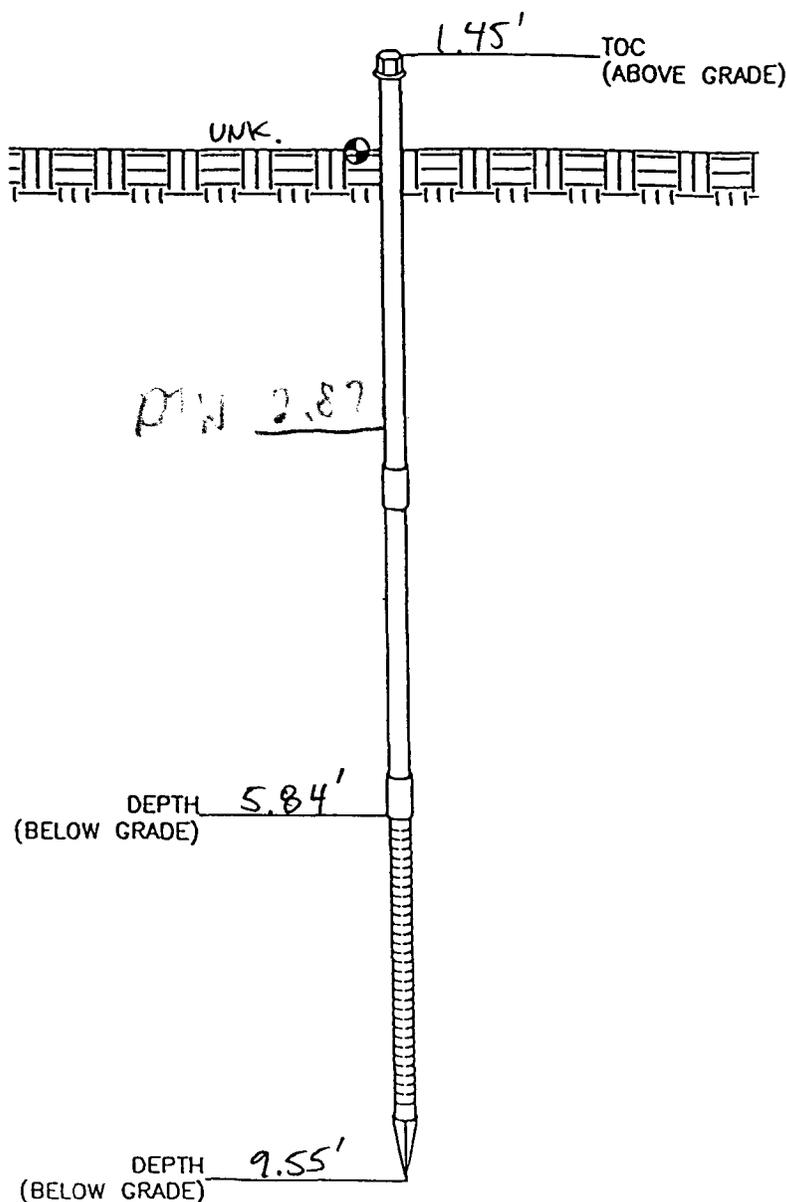
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-11

Site Location BRICKLAND REF.

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.71'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 4.88'

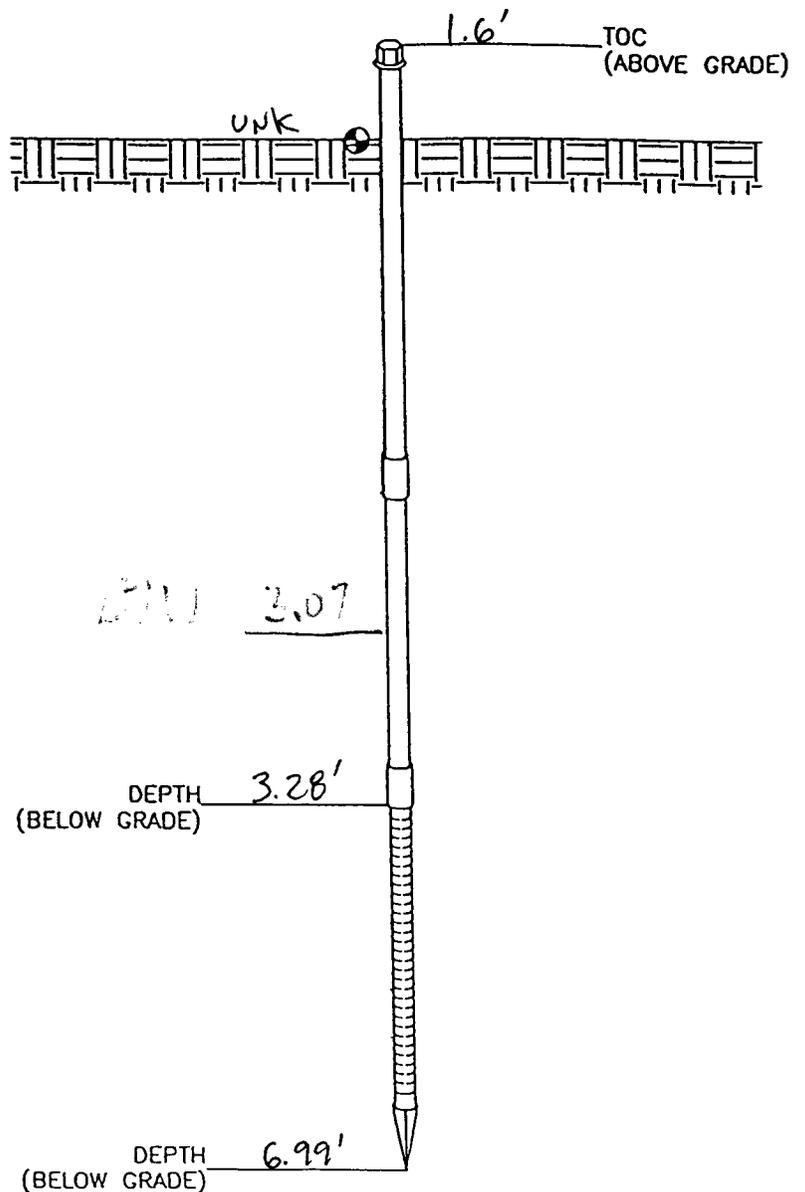
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-12

Site Location BRICKLAND REF.

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 4.81

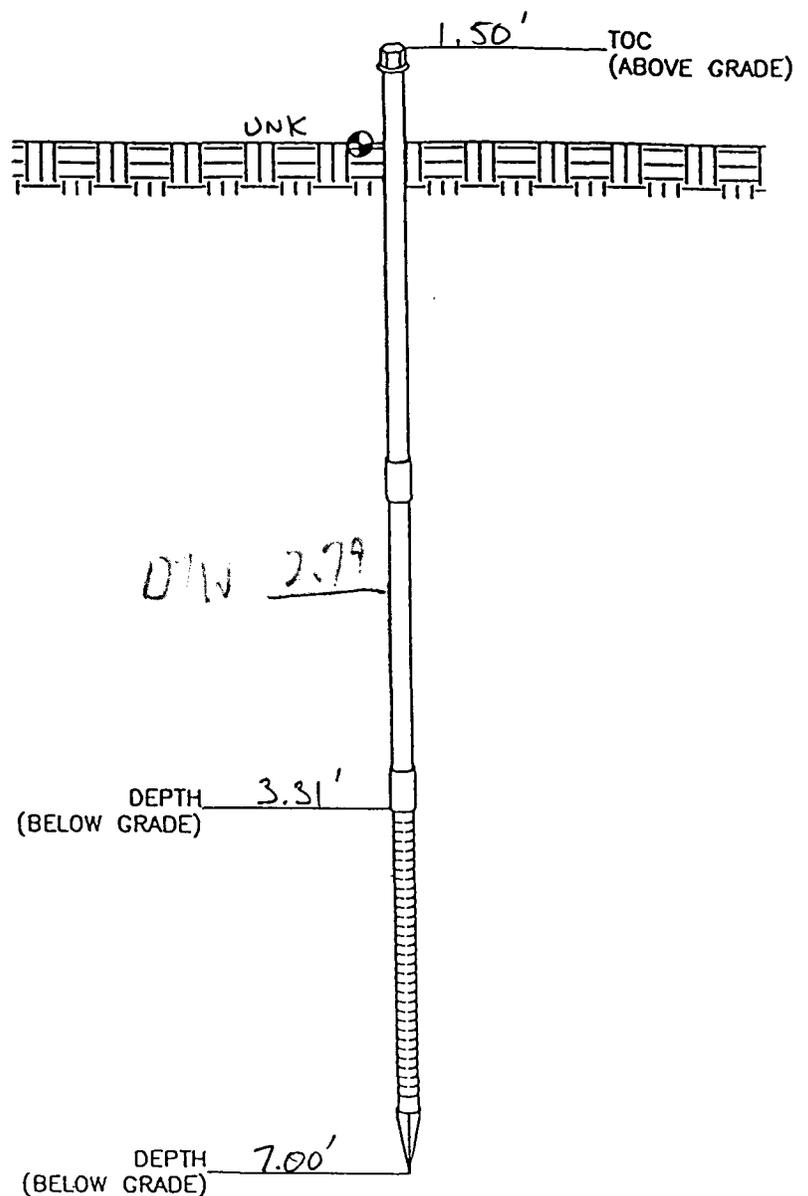
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks PRODUCT RESIDUE ON PROBE



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXONE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-13

Site Location BECKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.67'

Slot Size # 20

Casing Type CARBON STEEL

Casing Length 4.79'

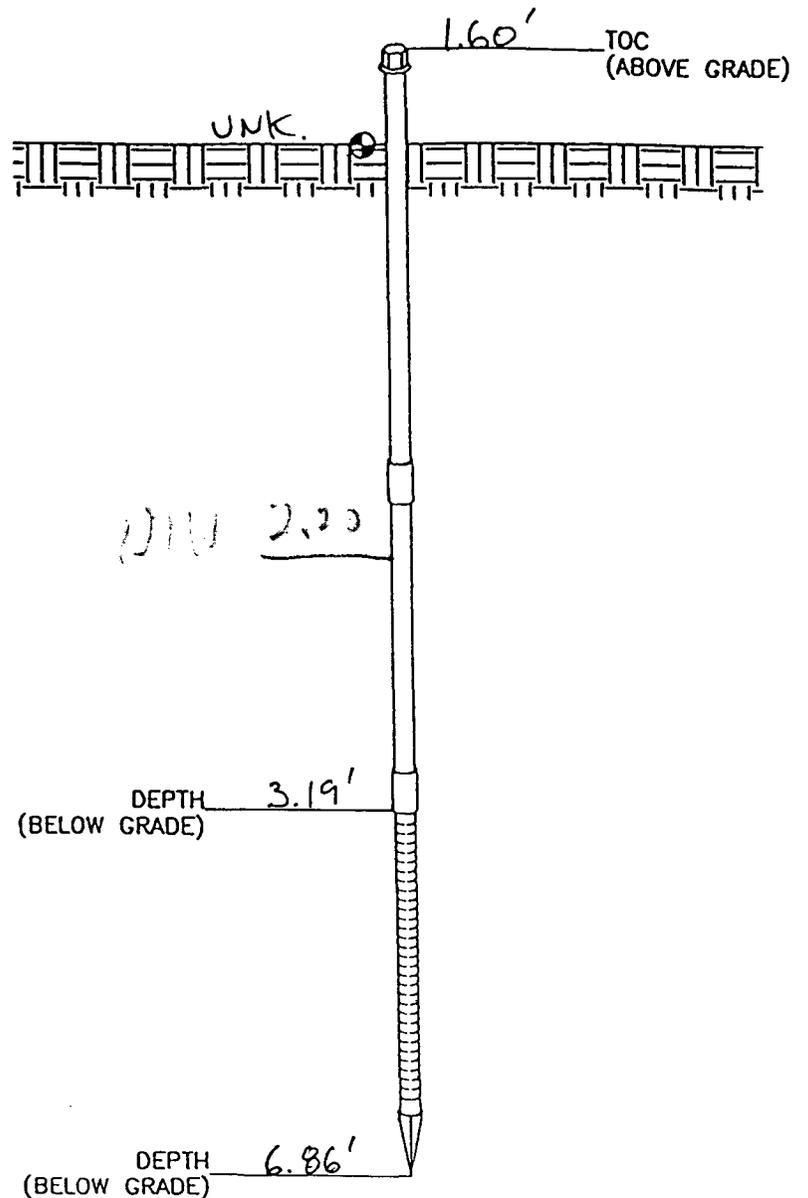
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXWV

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-14

Site Location BUCKLAND REF.

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 4.26'

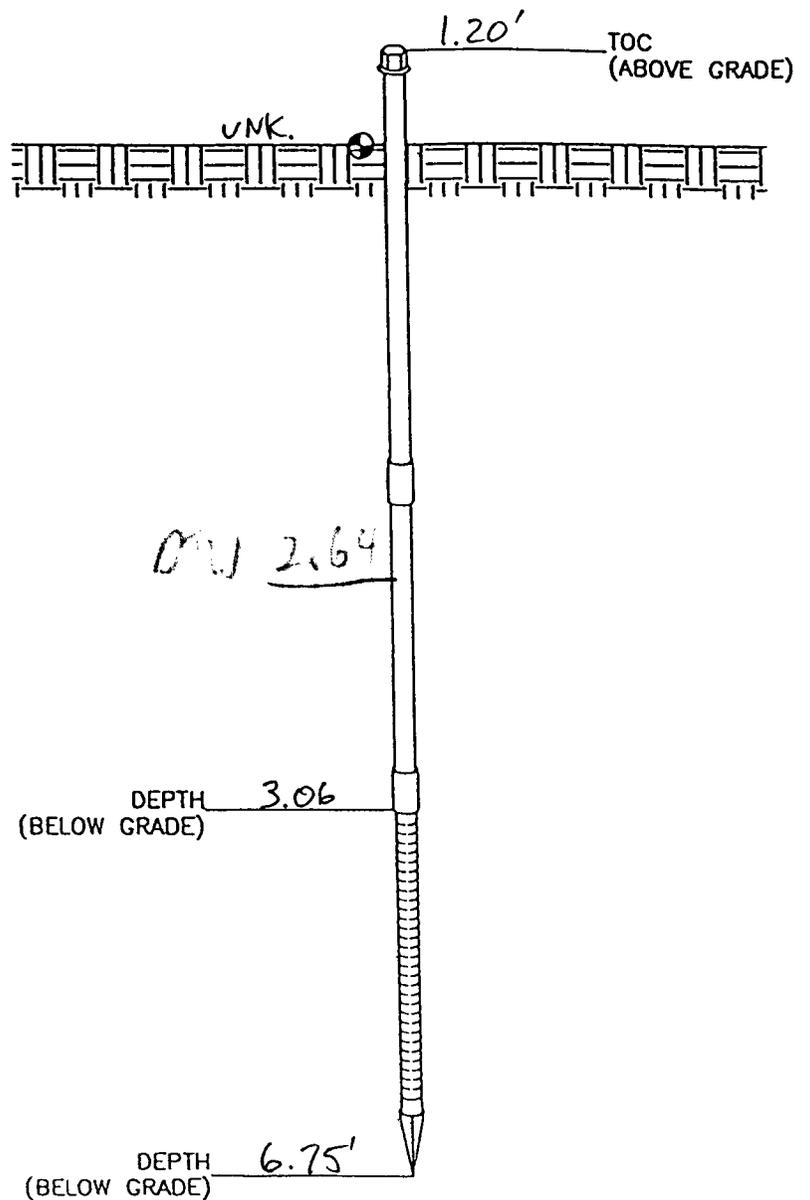
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-15

Site Location BRUCLAND REF

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 7.16'

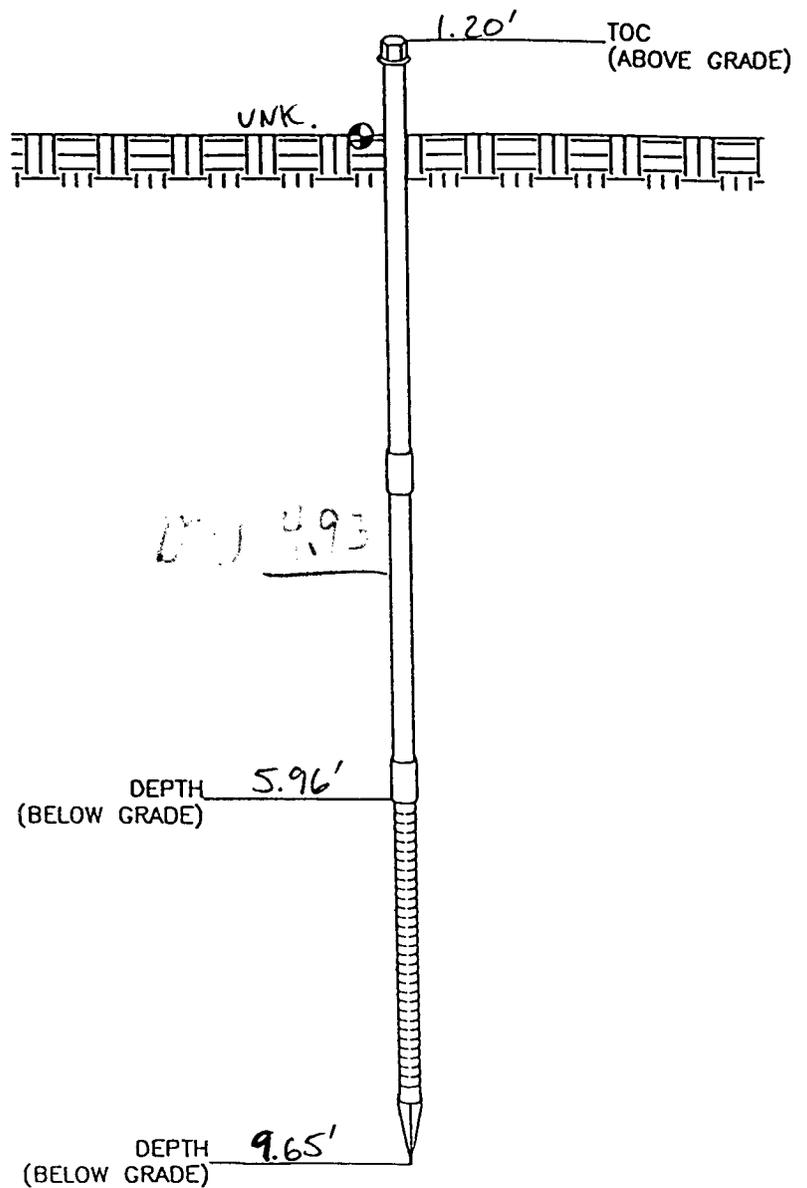
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-16

Site Location BRUKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 8.9'

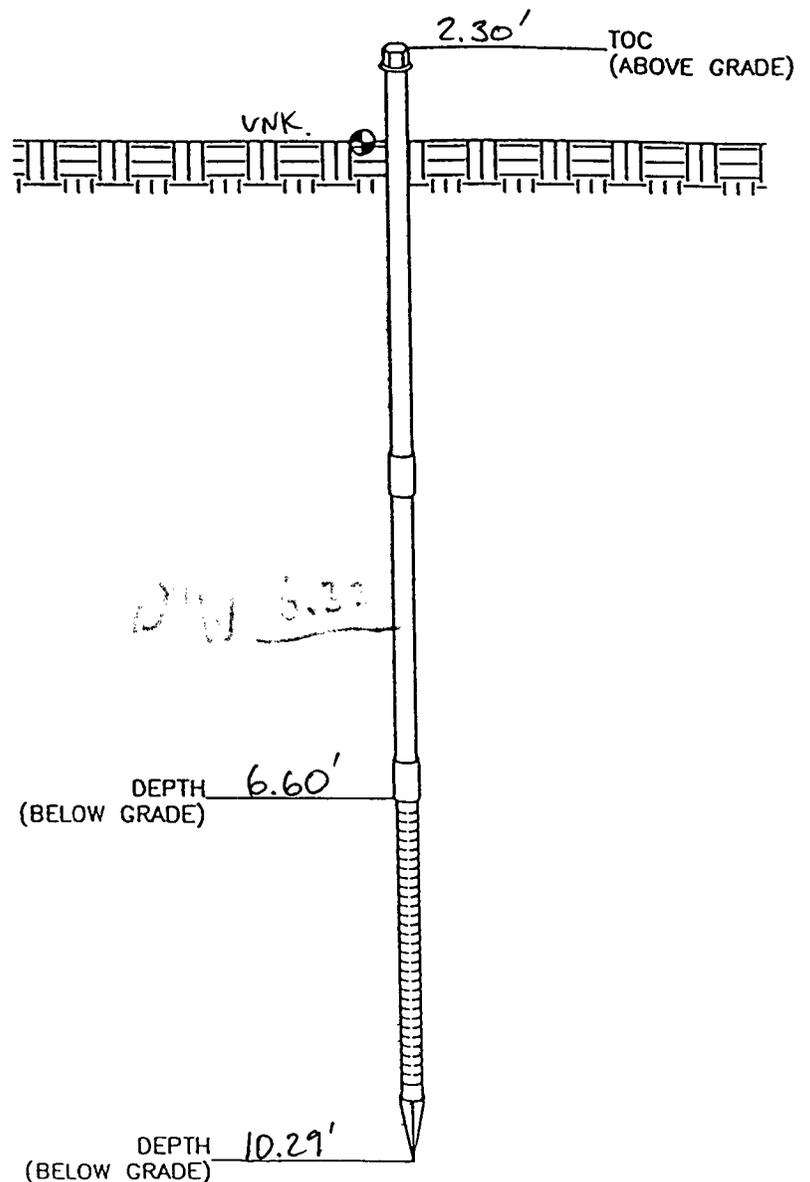
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks _____



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXONE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-17

Site Location BRICKLANDS REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 9.55'

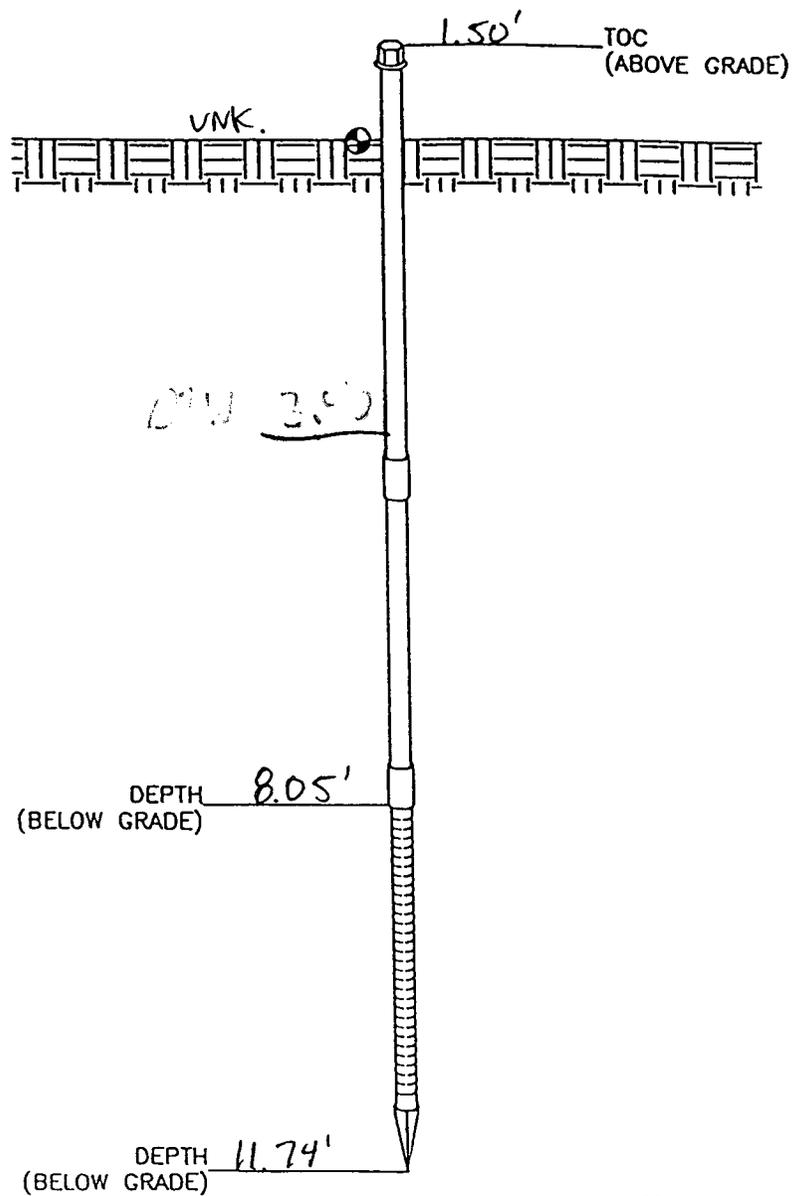
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks HYDROCARBON ODOR



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-18

Site Location BRICKLAND REFINERY

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 369'

Slot Size 20

Casing Type CARBON STEEL

Casing Length _____

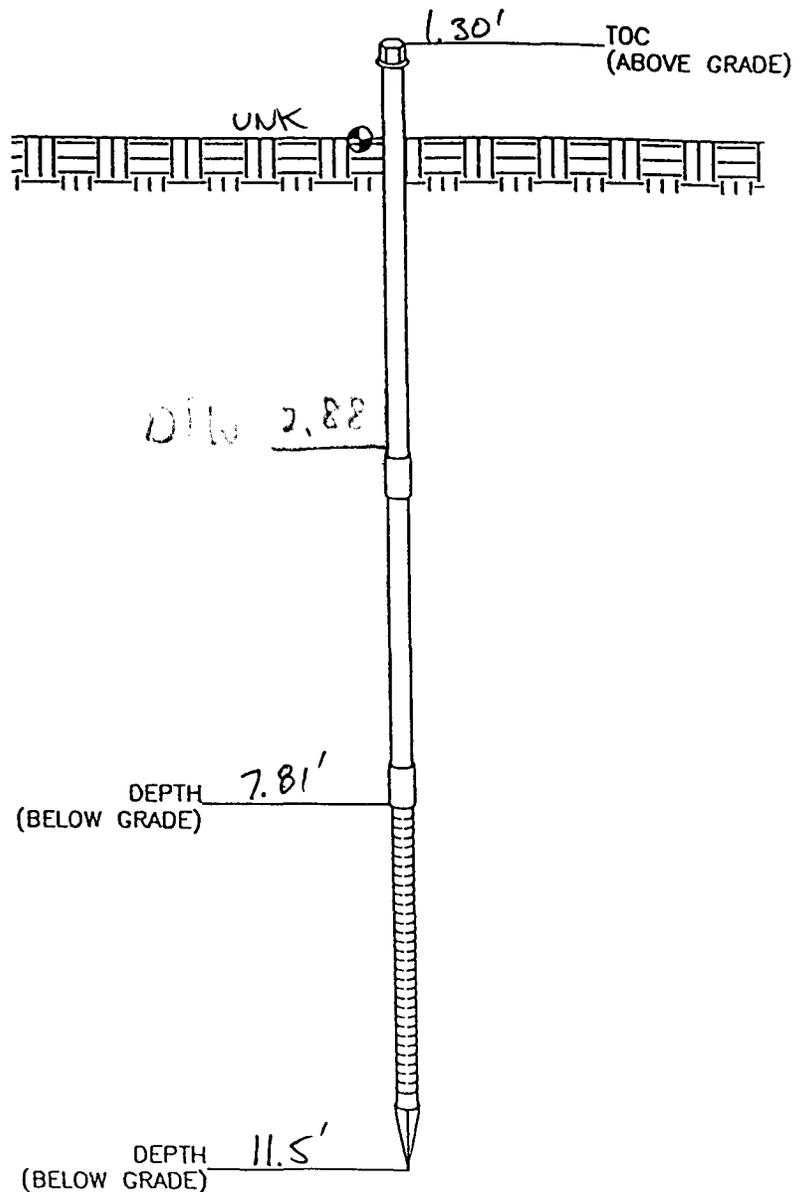
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks PRODUCT RESIDUE ON PROBE



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXWORK

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-19

Site Location BRUKLAND REF.

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.71'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 3.53'

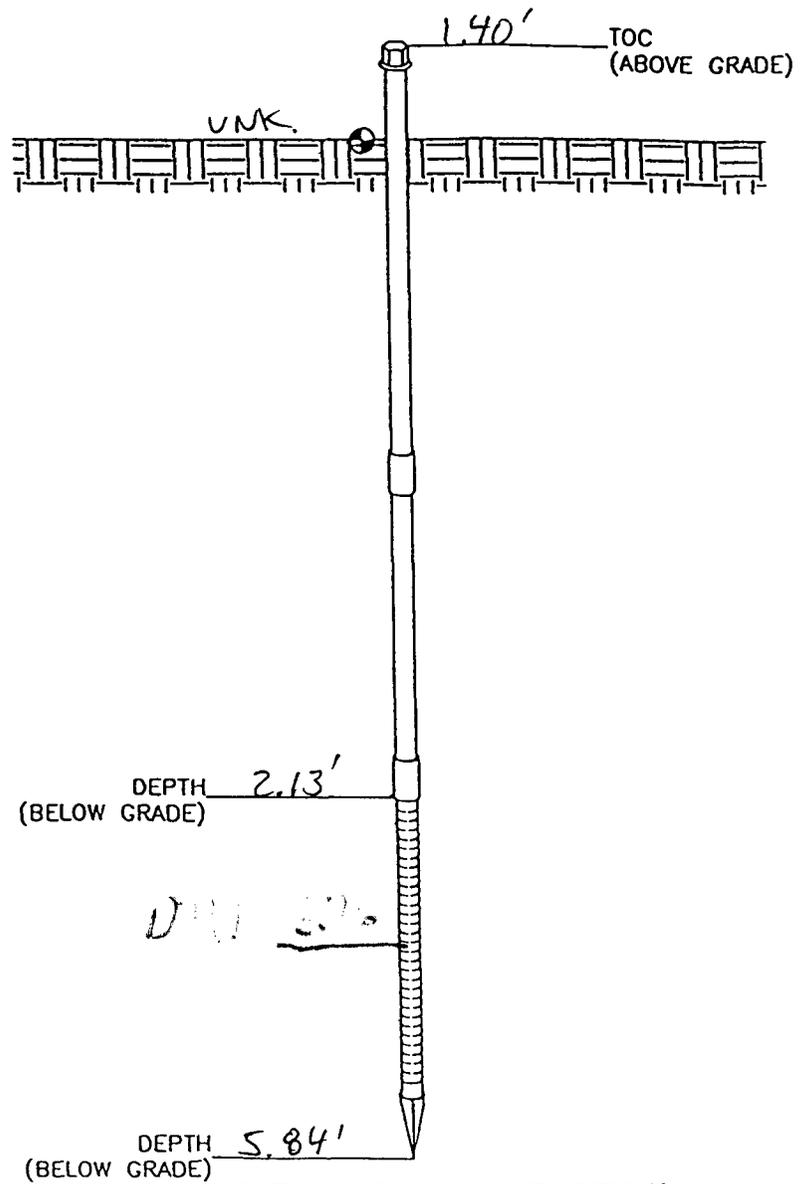
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks HYDROCARBON ODORE



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code S4159.20

Well Point Id. WP-20

Site Location BRICKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 4.67'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 4.85'

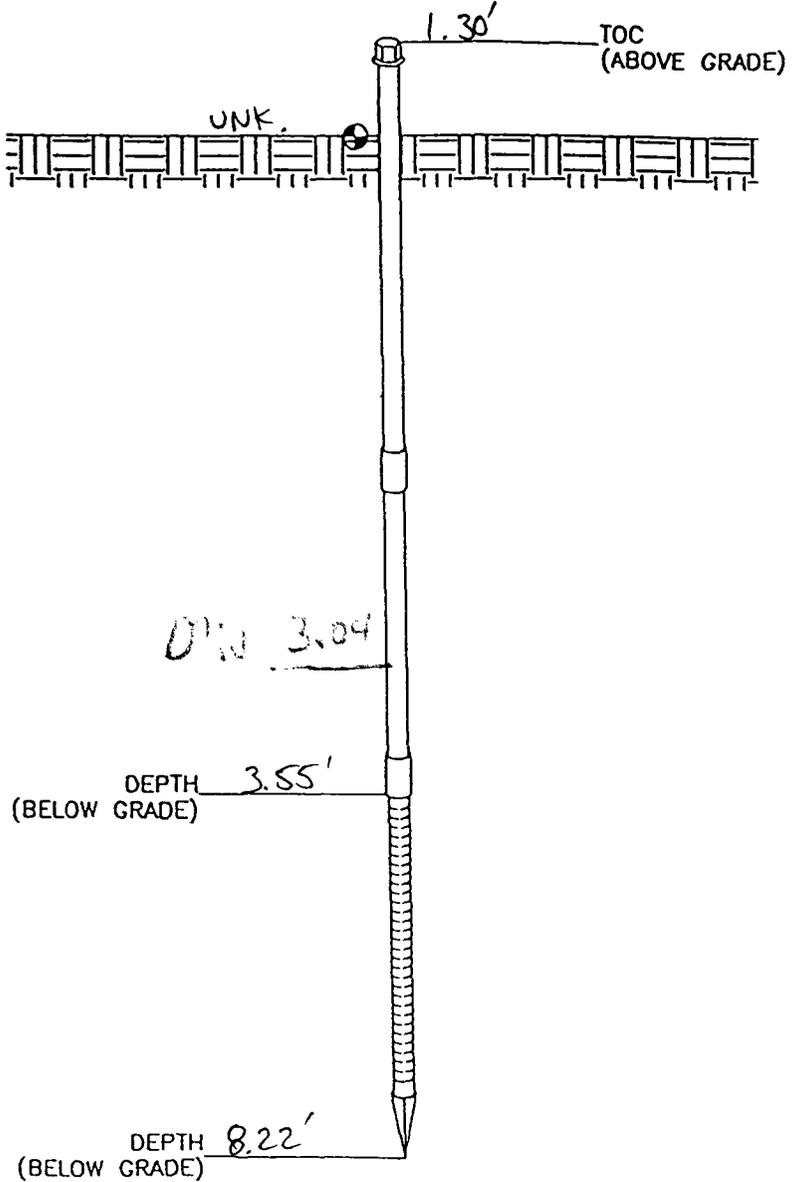
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks PRODUCT RESIDUE ON PROBE



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-21

Site Location BRICKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 9.45'

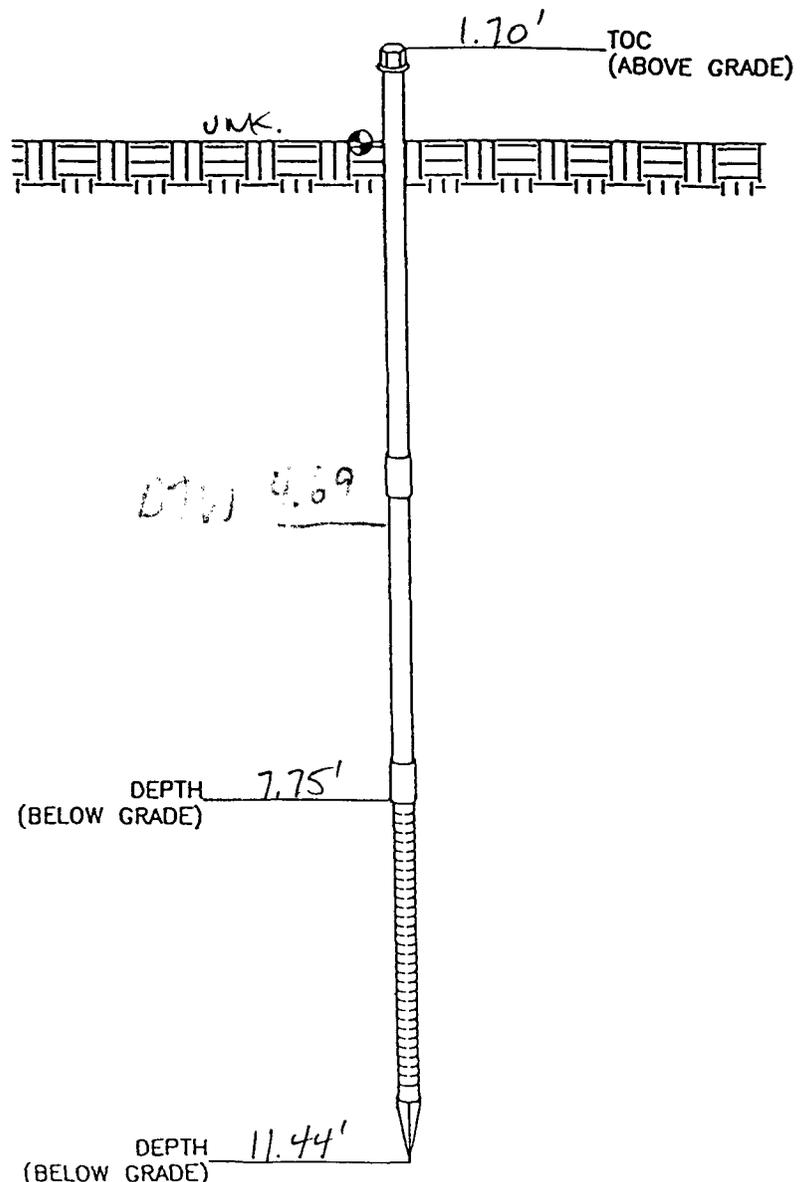
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks PRODUCT RESIDUE ON PROBE



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-22

Site Location BRICKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 13.70'

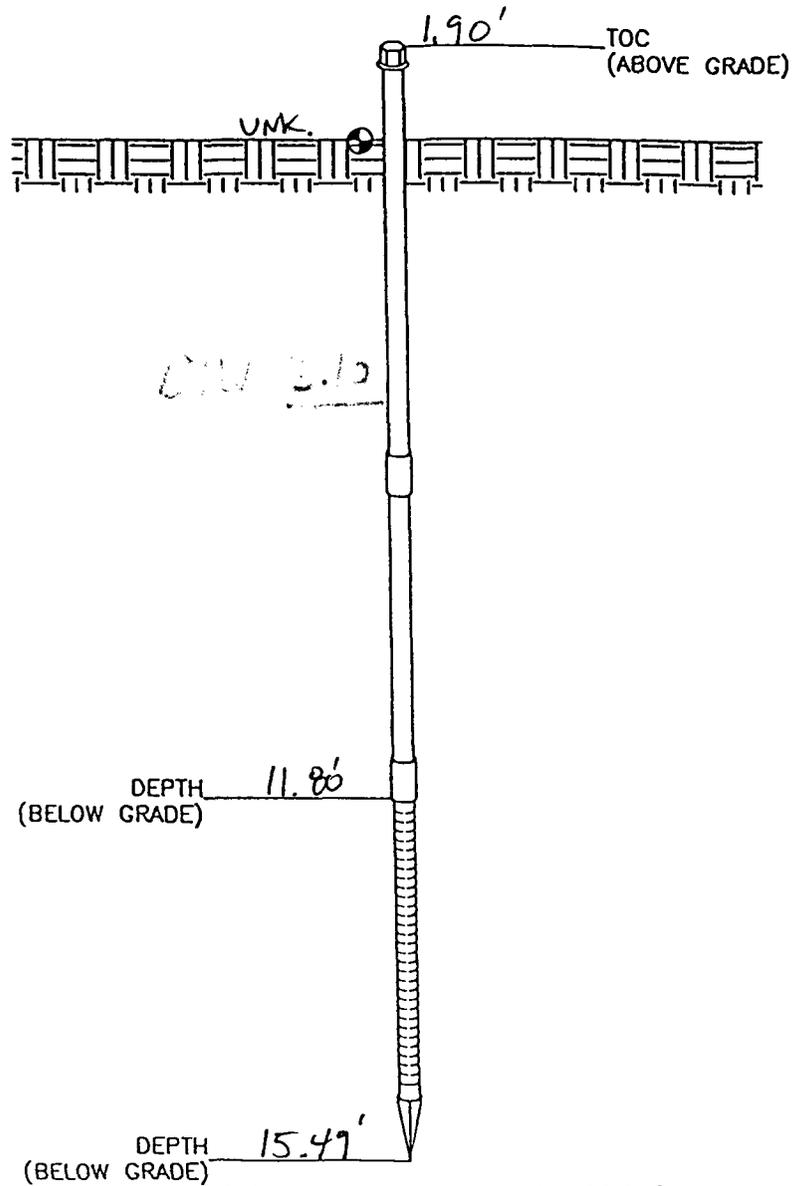
Casing Dia. 2" ID

Casing Cap Type TAPERED

Type of Surface Seal NONE

Installation Method PUSH

Remarks PRODUCT RESIDUE ON PROBE



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-23

Site Location BRICKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 3.69'

Slot Size 20

Casing Type CARBON STEEL

Casing Length 4.81'

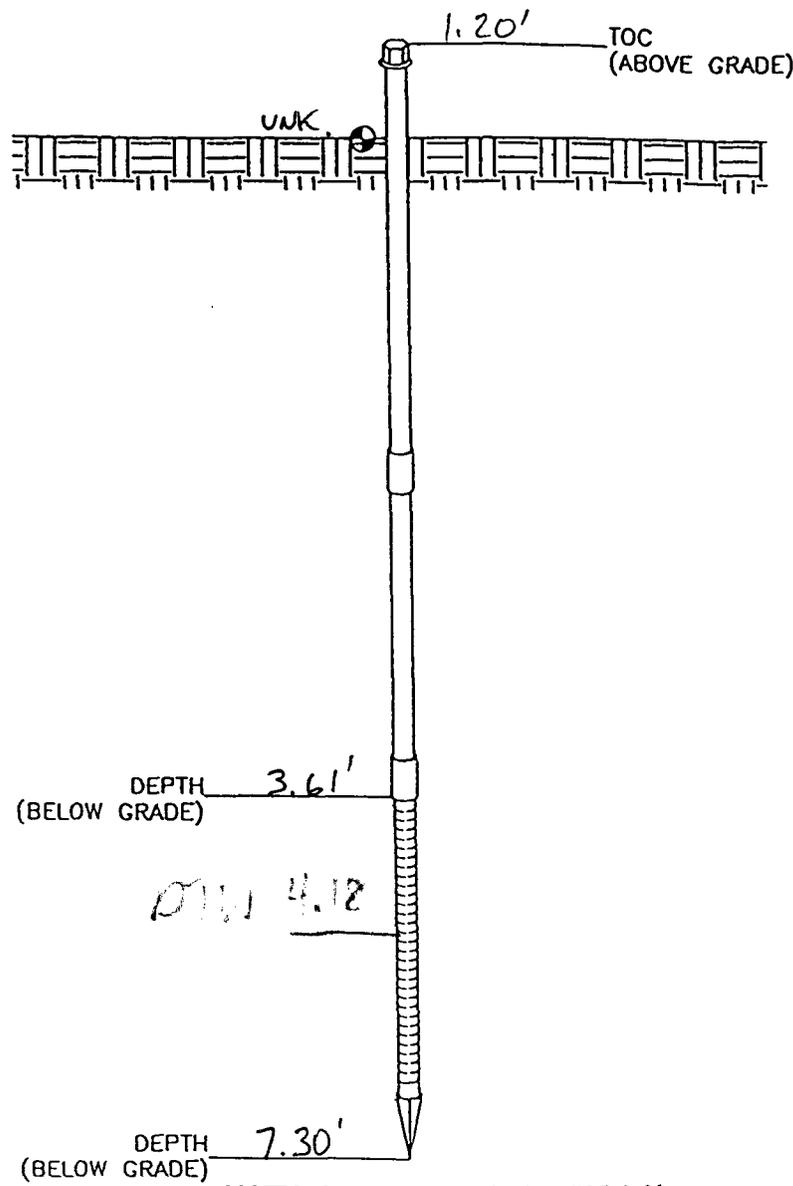
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks PRODUCT RESIDUE ON PROBE.



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXENE

Date 10-1-93

Chg. Code 54159.20

Well Point Id. WP-24

Site Location BRICKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length 5.69'

Slot Size 10

Casing Type CARBON STEEL

Casing Length 9.59'

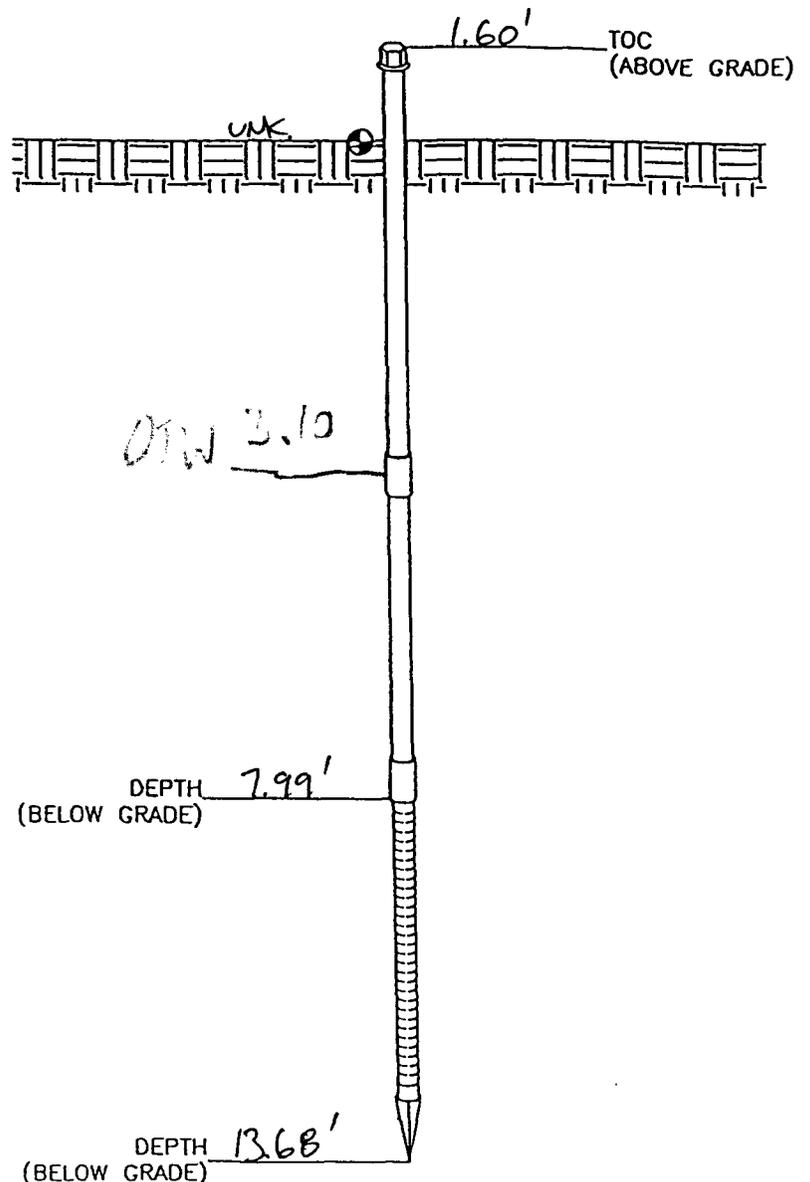
Casing Dia. 2" ID

Casing Cap Type THREADED

Type of Surface Seal NONE

Installation Method PUSH

Remarks PRODUCT RESIDUE ON PROBE



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE

Well Point Construction Information

Client REXONE

Date 9-30-93

Chg. Code 54159.20

Well Point Id. WP-25

Site Location BEUKLAND

Drilling Contractor PEI

Screen Type STAINLESS

Slotted Length _____

Slot Size _____

Casing Type CARBON STEEL

Casing Length _____

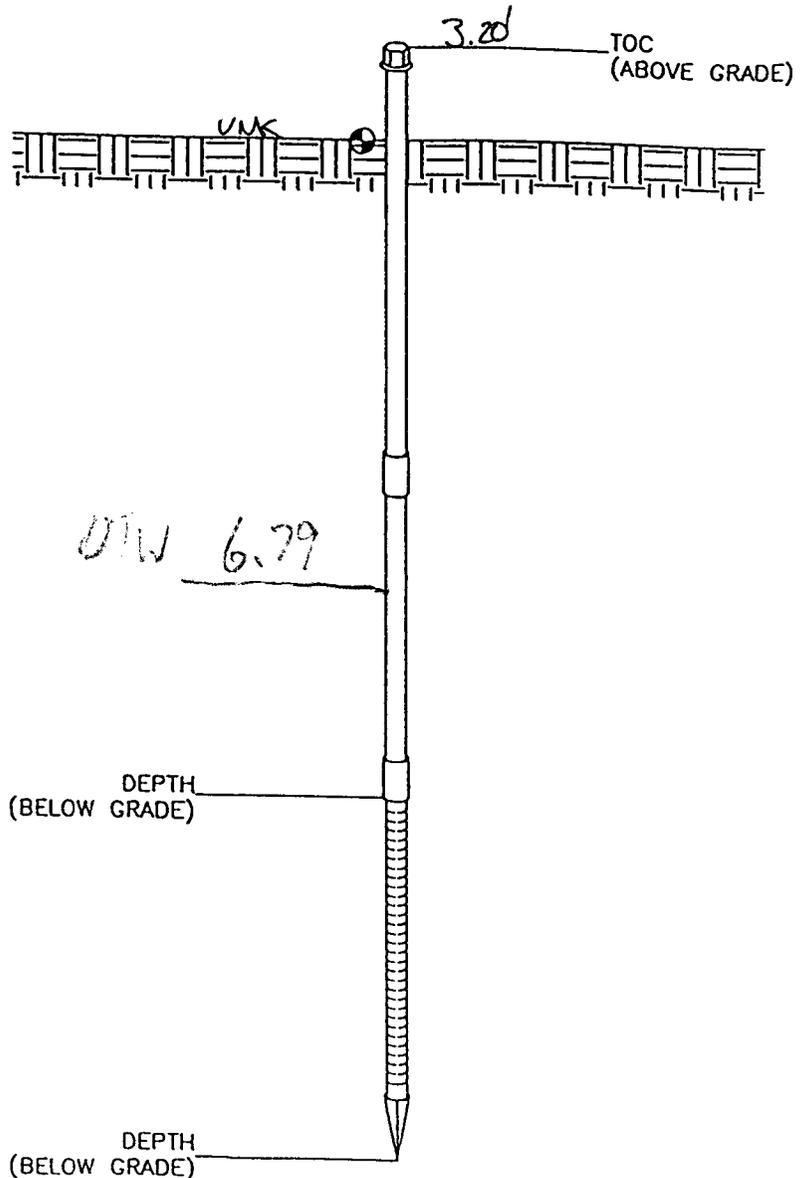
Casing Dia. 2" ID

Casing Cap Type DUST TAPE
~~FLARE~~

Type of Surface Seal NONE

Installation Method SLIDE HAMMER

Remarks CASING THREAD DAMAGE PREVENTS
CAP INSTALLATION



WELL POINT DETAIL

NOT TO SCALE - ALL DIMENSIONS APPROXIMATE