

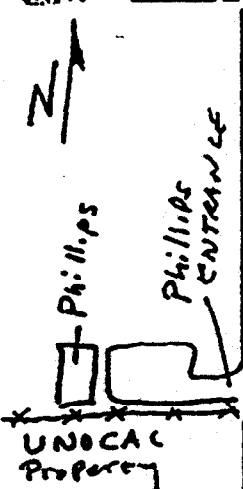
*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press

Reference Source: Environmental Strategies Corp., 1989, Evaluation of ~~The~~ Hydrogeology and the Impact of Industrial Pumping Wells on Contaminant Movement at the Tesoro Alaska Petroleum Refinery and adjacent properties, May 1, 1989

FIELD LOG OF BORING

SHEET 1 OF 4

LOCATION OF BORING:



In Tesoro's "Monitoring Wells Plant
as point #1000
pw#243

123.40 el. top 2" PVC
(Phillips datum,
MLLW NIK3 1966)

111.66' - ref to
NGVD '29 (1984 elev.)
(RA 12-20-91)

NTS

PROJECT: TESORO
Boring Coordinates... Catalogue

BORING NO. PMW-1

TOTAL DEPTH:

JOB NO.:

LOGGED BY:

PROJ. MGR.:

EDITED BY:

DRILLING CONTRACTOR: Anchor Point Drilling

DRILL RIG TYPE: CME 55/Truck

DRILLERS NAME: Bob Hughes

SAMPLING METHODS:

HAMMER WT.:

DROP:

STARTED, TIME: 8 AM

DATE:

COMPLETED, TIME:

DATE:

BORING DEPTH (ft) 70

CASING DEPTH (ft) casing to 48' / screen to 68'

WATER DEPTH (ft) 51

TIME:

DATE:

BACKFILLED, TIME:

DATE:

BY:

SURFACE ELEV.:

DATUM:

CONDITIONS:

Brown Organic Soil with abundant woody debris

PT

Gray, Sandy Gravel (GP)

cobbles 2"-3" to sand

GP

Tesoro Data:

LAT. 60° 40' 47.6826"

LONG. 151° 22' 33.1628"

Northing 8704.71'

Easting 9041.14'

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GP

SB7-a-aa DBCD 1-34

FIELD LOG OF BORING (CONTINUED)

SHEET 3 OF 4

PMW-1

DEPTH	TYPE	BLOWS	DRIVEN	REC'D.	CONO.	D.RATE			DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO.
											TESORO		PMW-1
									31	GP			
										SP	Gray-Brown, Gravelly Sand		
									32		1" cobbles to sand		
									33				
									34				
									35				
									36				
									37				
									38				
									39				
									40	SP	Gray-Brown, Gravelly Sand		
									41				
									42				
									43				
									44	SP	Gray-Brown, Gravelly Sand		
									45				
									46				
									47				
									48	GP	Gray Sandy Gravel		
											3" cobbles to sand		
									49				
									50	SP	Gray-brown Gravelly Sand		

Sheet 2 of 4
Missing from
original report

SB7-12-22 DBCD

PMW-1

SHEET 4 OF

FIELD LOG OF BORING (CONTINUED)

[illegible]

FIELD WELL COMPLETION FORM

JOB NAME: TESORO REFINERY

JOB NUMBER: _____ PROJECT MANAGER: _____

LOGGED BY: _____ EDITED BY: _____

WELL NAME: PW-1 DATE: 9-23-88DRILLING COMPANY: HUGHES DRILLINGEQUIPMENT: 4 1/2 INCH HOLLOW STEM AUGER DRILLER: MR. R. HUGHES☐ INCH ROTARY WASH HOURS DRILLED: _____GALLONS OF WATER USED DURING DRILLING: 15 GALLONSMETHOD OF DECONTAMINATION PRIOR TO DRILLING: HIGH PRESSURE/STEAM

DEVELOPMENT

METHOD OF DEVELOPMENT: BALL

DEVELOPMENT BEGAN DATE: _____ TIME: _____ DATE: _____

YIELD: _____ GPM TIME: FROM _____ TO _____ DATE: _____

YIELD: _____ GPM TIME: FROM _____ TO _____ DATE: _____

YIELD: _____ GPM TIME: FROM _____ TO _____ DATE: _____

YIELD: _____ GPM TIME: FROM _____ TO _____ DATE: _____

TOTAL WATER REMOVED DURING DEVELOPMENT: 20 GALLONSDESCRIPTION OF TURBIDITY AT END OF DEVELOPMENT: ☐ CLEAR ☐ SLIGHTLY CLOUDY☐ MOD. TURBID ☒ VERY MUDDY

SOURCE OF WATER: _____

WATER DISCHARGED TO: ☐ GROUND SURFACE ☐ TANK TRUCK☐ STORM SEWERS ☐ STORAGE TANK☐ DRUMS ☒ OTHER RETENTION POND

DEPTH TO WATER AFTER DEVELOPMENT: _____ FEET

MATERIALS USED

_____ SACKS OF _____ SAND

_____ SACKS OF _____ CEMENT

_____ GALLONS OF GROUT USED

_____ SACKS OF POWDERED BENTONITE

_____ POUNDS OF BENTONITE PELLETS

_____ FEET OF _____ INCH PVC BLANK CASING

_____ FEET OF _____ INCH PVC SLOTTED SCREEN

_____ FEET OF _____ INCH STEEL CONDUCTOR CASING

_____ YARD³ CEMENT-SAND (REDI-MIX) ORDERED_____ YARD³ CEMENT-SAND (REDI-MIX) USEDCONCRETE PUMPER USED? ☒ NO ☐ YES

NAME _____

WELL COVER USED: ☒ LOCKING STEEL COVER☐ CHRISTY BOX☐ OTHER _____SILT TRAP USED? ☒ NO ☐ YES☐ CHRISTY BOX☒ LOCKING STEEL COVER16 INCH DIAMETER STEEL CONDUCTOR CASING3 to 40 feet8 INCH DIAMETER BOREHOLE0 to 70 feet☐ BENTONITE-CEMENT SEAL OR☐ 8-SACK CEMENT-SAND SEAL

_____ to _____ feet

TOP OF CASING AT 36 FEET ABOVE/AT/BELOW GROUND LEVEL8 INCH DIAMETER BOREHOLE0 to 70 feet2 INCH DIAMETER SCHEDULE 40 PVC BLANK CASING0 to 68 feet☐ BENTONITE-CEMENT SEAL OR☐ 8-SACK CEMENT-SAND SEAL0 to 45 feet

BENTONITE PELLET SEAL

45 to 47 feetGRANKSILK #1647 to 68 feet2 INCH DIAMETER SLOTTED 020 INCH SCREEN48 to 68 feet1 INCH DIAMETER SCHEDULE 40 PVC BLANK SILT TRAP

_____ to _____ feet

BOTTOM WELL CAP

_____ feet

HOLE CLEANED OUT TO _____ feet

BOTTOM OF BOREHOLE _____ feet

NOT TO SCALE

ADDITIONAL INFORMATION: _____

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