SITE ASSESSMENT ENGINEERING REPORT

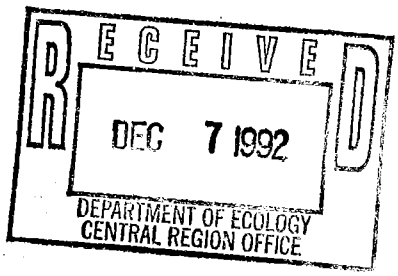
on

PETROLEUM RELEASE

at

MAID o'CLOVER, INC.

Yakima, Washington



Prepared by

PLSA ENGINEERING & SURVEYING
WDOE LIC. NO. S000210
1120 West Lincoln Avenue
Yakima, WA 98902
(509) 575-6990

July, 1992

ECOLOGY COPY

Job No. 91056

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INTRODUCTION

The Maid o'Clover, Inc., a convenience store located at 1802 East Nob Hill Boulevard, Yakima, Washington recently experienced two separate petroleum releases each involving new pressure relief valves installed at the gasoline turbine pump discharges serving its gasoline dispensers. The release site is located in the NW 1/4, SE 1/4, SEC 29, TWN 13N, R 18, EWM. See Figure 1.

Preliminary investigative work was performed by Environmental Science and Engineering, Inc. in February 1991. See Appendix 1. This preliminary report consisted of drilling three resource protection wells completed with 2 inch diameter perforated PVC casing, known as Monitoring Wells, (MW), 1, 2, and 3. See Figure 2. Slight gasoline odors were detected and 0.2 feet of free product was found in the most westerly well designated as MW 3. Soils were logged by ESE. See Figure 3.

This report summarizes the installation of additional monitoring wells, seasonal fluctuations in the water table, interim cleanup actions taken, sampling results compared to required cleanup levels, and proposed site closure.

Environmental and geotechnical engineers and a geologist from PLSA Engineering and Surveying, WDOE License No. S000210, experienced with local soil conditions conducted field investigations and monitored investigative drilling to determine the extent of contamination, and direction of the local hydraulic gradient, (easterly). See Figure 2.

The owner's representative and contact person for this project is:

Mr. Jeff Louden
Maid o'Clover, Inc.
207 South Sixth Avenue
Yakima, WA 98902
phone (509) 248-3562

SURFACE CONDITIONS

A convenience store, gas pumps, and self service car wash are located on the premises. Concrete pavement covers the tank basin. The balance of the open area is asphalt paved parking. The site is zoned commercial. Residential areas are immediately to the south of the site, and multiple gas stations exist immediately north, northwest and west of the site and further west of the site along East Nob Hill Blvd., (with a known, extensive petroleum product release on record).

Affected populations include local residents and those who work at or frequent the store.

the water table elevation. Each sample was labeled and assigned a coded designation specific to the well. Water samples were collected from the upper static water level by using a Teflon bailer to sample from the resource protection wells. The bailer and other sampling equipment was washed in an Alconox solution and rinsed with domestic tap water before each use. See Appendix 11. Sample containers supplied by the analytical laboratory were clean glass, with teflon lined, threaded caps. Soil gas was field monitored with a Gastech 1314 SMPN Combustion Analyser and a Photovac Photoanalizer. Health and safety issues were/are to be in accordance with PLSA's Health and Safety Plan. See Appendix 12.

Laboratory analysis of soil and water samples were performed by Sound Analytical Laboratories, Washington State Department of Ecology accreditation No. C027.

Quality control procedures and information are on file at WDOE, Sound Analytical, and at PLSA.

All samples were stored and shipped to the laboratory by overnight express in a refrigerated, insulated container, accompanied by a completed chain-of-custody form.

TANK BASIN CONTAMINANT CHARACTERIZATION

A petroleum odor was observed when the tank basin soil was disturbed, by ESE, Inc. A characterization sample was collected. This sample was submitted to a laboratory for analysis for WTPH-HCID, BTEX, and lead, in the tank basin.

Gasoline was found in excess of Model Toxics Control Act limits, (WAC 173-340), in the tank basin. See Appendix 3.

PERIPHERAL WELL CONSTRUCTION SAMPLING RESULTS

Soil and water samples were collected from the water table elevation at six, six inch diameter resource protection wells drilled around the periphery of the premises and submitted for analysis for the presence of TPH, gasoline components, and lead. Soil samples were below detection limits for WTPH-HCID, BTEX, and lead was low for normally found area background. Water samples similarly did not show evidence of contamination.

Resource protection well locations may be found on Figure 2. Analytical reports may be found in Appendix 4.

INTERIM CLEANUP METHODS

A Westinghouse FAP surface skimming pump was installed in MW 3. Nearly six hundred and fifty gallons of free product were removed directly to fifty five gallon barrels for recycling. When FAP pumping became inefficient, (less than one quarter inch of product on the groundwater surface), other means were explored.

Contamination is located within the gravel stratum. Permeability is sufficiently high to be suitable for remediation by soil agitation with high volume pumping, oil/water separation, and treatment, prior to discharge to a Publicly Owned Treatment Works. Such pumping would develop high ground water velocities to and through the slotted well casings. It was expected to accomplish a significant cleanup of the remaining plume, certainly shortening the time period required for any future soil gas remediation technique. A soil remediation provider was contacted to design and install a soil aeration system with monitoring and reporting by PLSA. Estimated costs of nearly one hundred thousand dollars for a completed project, with no guaranteed solution for the owners, seemed excessive, at this point.

An up flow petrophilic coalescing plate adsorption treatment system was designed by PLSA and constructed and installed on site, following a three hundred gallon per minute capacity oil/water separator. These unit processes were installed in series between the recovery wells and the City sewer. The equipment was tested and monitored. See Appendix 5. A City of Yakima waste discharge permit was obtained. See Appendix 10. The equipment was inspected by Mr. Kim Sherwood of the Washington State Department of Ecology.

Variously sized "trash pumps" and suction tubes and pipes were used to clean debris from each well and eventually to evacuate as much remaining product and potentially contaminated water to the oil/water separator and treatment facility for separation of product for recycling and treated water discharge to the City of Yakima Treatment Plant. Maximum rates of flow were measured at 57 gpm. Total pumpage amounted to as much as seven thousand gallons per day from the targeted wells. Measured draw down estimated by suction breaking and electrical tape, was approximately four feet, (well within the variation of static water levels observed by ESE and PLSA). Pumping locations were selected, opportunisticly, based on field and laboratory analysis of odors and water quality.

Static water levels were measured periodically, before and after pumping. See Figure 5. Recovery time was measured to one 1/100th of a foot in fifteen minutes at well MOC 3, indicating high transmissivity and aquifer yield.

CONTAMINANT REMOVAL MONITORING

Analytical results of samples taken after pumping are recorded in Appendix 7.

VISUAL OBSERVATIONS

Upon sampling with the Teflon bailer in ESE Wells MW 1 and 2, without agitation, numerous living macrophytes were collected, by PLSA, along with gelatinous floc at the ground water surface. This indicated aerobiosis in the upper aerated portion of the monitoring wells which were found to contain petroleum products in subsequent laboratory analysis.

At the beginning of a pumping campaign, water turbidity was monitored. When turbidity was observed, grab samples were taken for visual observation, by PLSA. Water in ESE Wells MW 1 and 2 exhibited a rusty color. Within thirty minutes of natural, undisturbed exposure to the atmosphere, what appeared to be iron oxide precipitate settled to the bottom of the sampling container. This indicated the oxidation of reduced iron and anaerobiosis in the lower portion of the well, the annulus, and the sand pack surrounding the casing. The observations indicate passive insitu bioremediation.

CLEANUP LEVELS

Level A Cleanup Levels are specified in WAC 173 340. See Appendix 8.

REMAINING CONTAMINATION

Contamination persists in two of the ESE monitoring wells. It is the conclusion of the writer that the sand packed, low transmissivity ESE, Inc., monitoring wells, ESE 1 and 2, are retaining, (acting like a sponge), petroleum product which supply nutrients and a carbon source for aerobic and anaerobic biota visually observed and reported herein. The peripheral wells show non detectable levels of analytes. It is theorized that environmental contamination is precluded by the adhesion of the product to the sand and the low ground water velocities it is subjected to. With warm weather, natural bioremediation is rapidly occurs in these wells. MTCA water cleanup levels have not yet been attained in samples from these wells. However, it is anticipated that bioremediation will continue and its progress should be analyzed for attainment of cleanup levels, quarterly,

There are no surface waters in the immediate vicinity of the site.

There are no known sensitive surface species in the immediate vicinity of the site. See Appendix 2.

SUB SURFACE CONDITIONS

The tanks were installed approximately three years ago and are reported to be bedded in pea gravel.

Soils consist of a 2 to 3 foot thick stratum of sandy silt followed by a deep stratum of cobbles, gravel, and sand extending more than 40 feet below the surface to bed rock.

Groundwater was encountered at 16.5 feet in February, 1991, by ESE, Inc., at 17.5 feet, by PLSA in April, 1992, at 12.5 feet, and variable in June, 1992. See Appendix 1 and Figure 5. The water table is expected to fluctuate seasonally with the irrigation season.

The existing ESE, Inc., monitoring wells were drilled to depths of 53-55 feet, fitted with 0.02 inch slotted and blank four inch PVC casing and the annulus back filled with fine grained, washed sand. They were meagerly developed for production by evacuating a minimum of four casing volumes of groundwater.

Six new, PLSA, resource wells were drilled on site. These wells were fitted with one sixteenth inch slotted and blank four inch PVC casing and the annulus back filled with gravel in accordance with WAC 173-160. The hydraulic gradient was determined from multiple measurements of static water levels in the 8 wells, described, using an electrical water surface detection tape. See Figure 5. The hydraulic gradient direction is depicted on Figure 2 and is nearly due east.

Utility trenches have been known to serve as conduits for petroleum contamination plumes, in otherwise impermeable soils. Although the soils at this site are highly permeable, utilities are shown on Figure 4.

Nearby drinking water well owners, who at one time, complained of petroleum contamination in their wells are shown in Appendix 1.

There are no known sensitive species affected by the groundwater plume. See Appendix 2.

SAMPLING PLAN

Representative soil and water samples were collected from wells at the locations shown on Figure 2. Soil samples were collected from

starting on April 1, 1993 and continued until cleanup is attained. Meanwhile, the owners will pursue air sparging at the site immediately.

The PLSA well in the south west corner of the property remains contaminated above MTCA cleanup levels. The PLSA well in the north west corner of the property is clean, as are all other peripheral wells. The hydraulic gradient is from west to east. The contaminant plume being monitored in the south west well appears to be migrating onto the owners' property from offsite. The south west well is sufficiently close to the south and west property lines of the owners' property to conclude that the westerly properties including a City street and gasoline stations further west are involved as potentially liable parties. Likewise, residential properties to the south are probably similarly involved and could be eligible to be named as potentially liable persons.

SITE CLOSURE

After contamination has been removed, the resource protection wells will remain in place for monitoring and the premises will continue to be used as a convenience store or other commercial purpose.

NEARBY WELLS

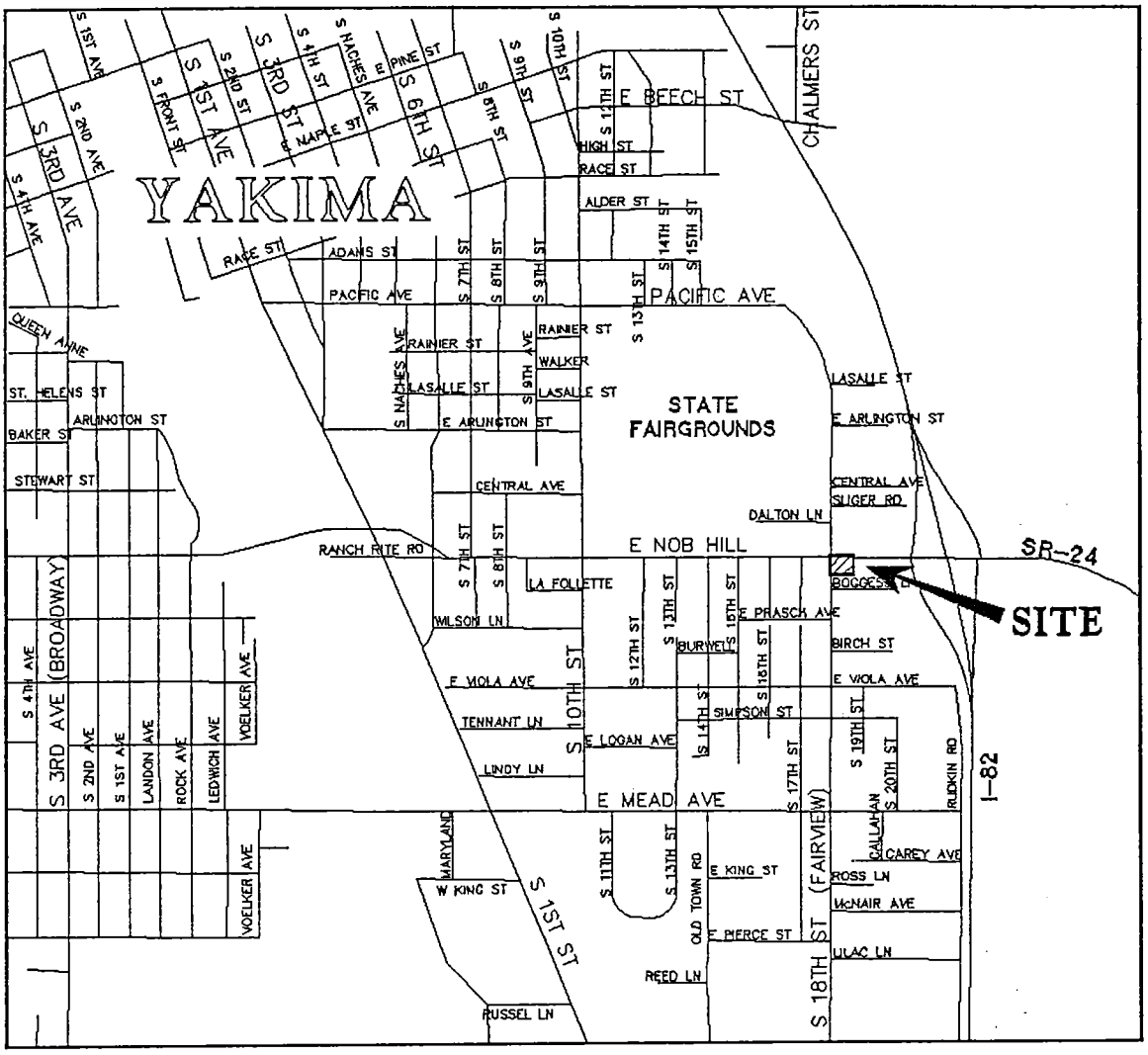
Copies of well logs for documented wells located within one half mile of the site may be found in Appendix 6.

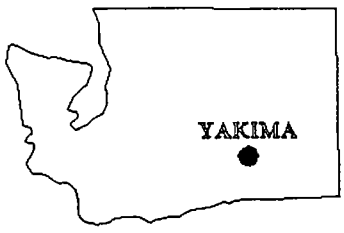
SITE CHECK/SITE ASSESSMENT CHECKLIST

A completed Site Check/Site Assessment Checklist form may be found in Appendix 9.

Figure 1

Location Map





WASHINGTON

2000 0 2000 4000 Feet

SCALE : 1" = 2000'

FIGURE 1

PLSA

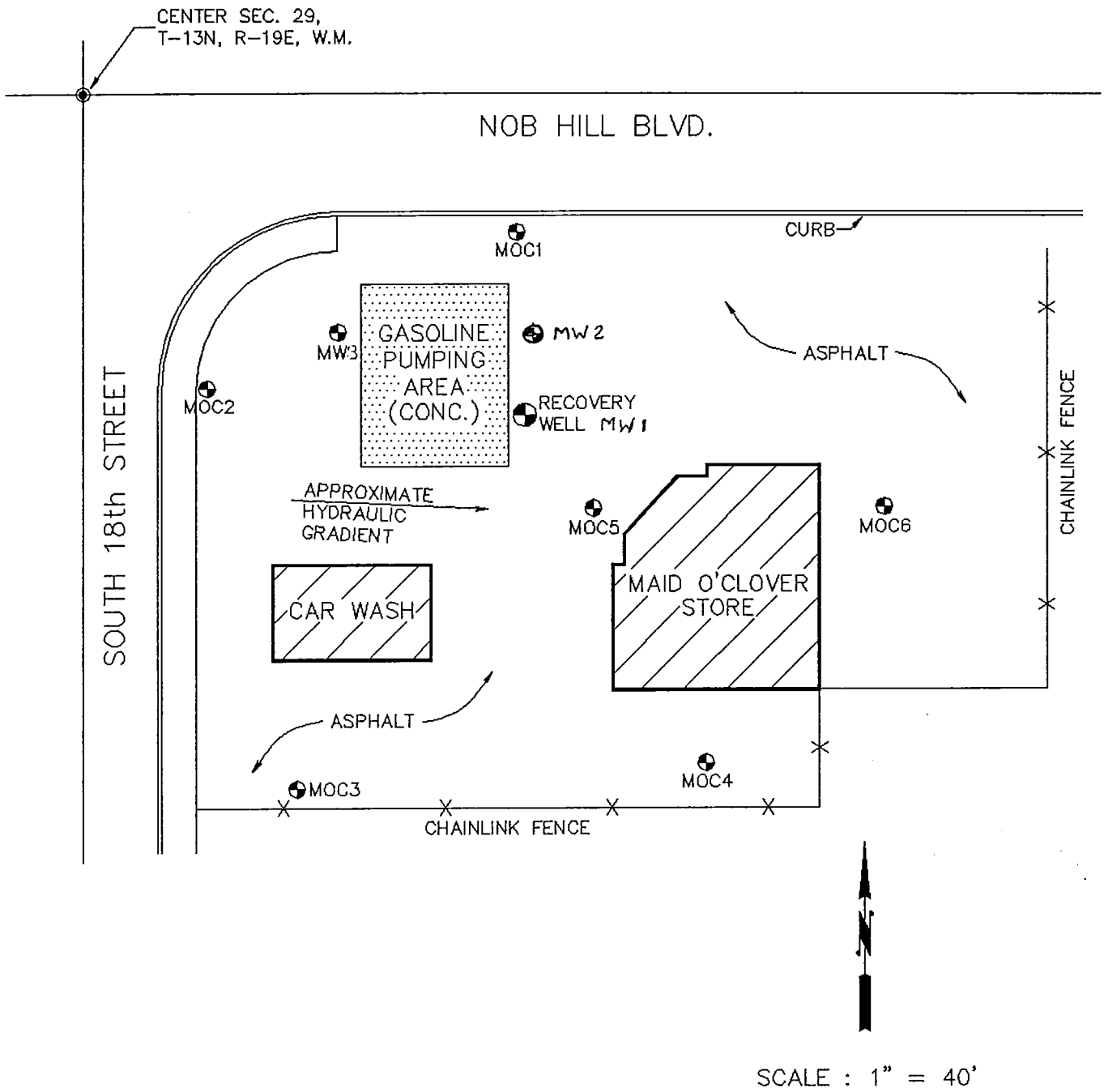
ENGINEERING–SURVEYING–PLANNING
YAKIMA, WASHINGTON
(509) 575-6990

LOCATION MAP
MAID O'CLOVER
1824 E. NOB HILL BLVD, YAKIMA, WA

DRAWN BY: AKV
DATE: JULY 1992
JOB NO. 91056

Figure 2

Site Map / With Hydraulic Gradient



LEGEND

MOC1 – DENOTES MONITORING WELL IDENTIFICATION NUMBER

FIGURE 2

PLSA ENGINEERING–SURVEYING–PLANNING
YAKIMA, WASHINGTON
(509) 575-6990

SITE MAP
WITH HYDRAULIC GRADIENT
MAID O'CLOVER
1802 E. NOB HILL BLVD, YAKIMA, WA

DRAWN BY: AKV
DATE: JULY 1992
JOB NO. 91056

Figure 3

Soils

Figure 4

Utilities

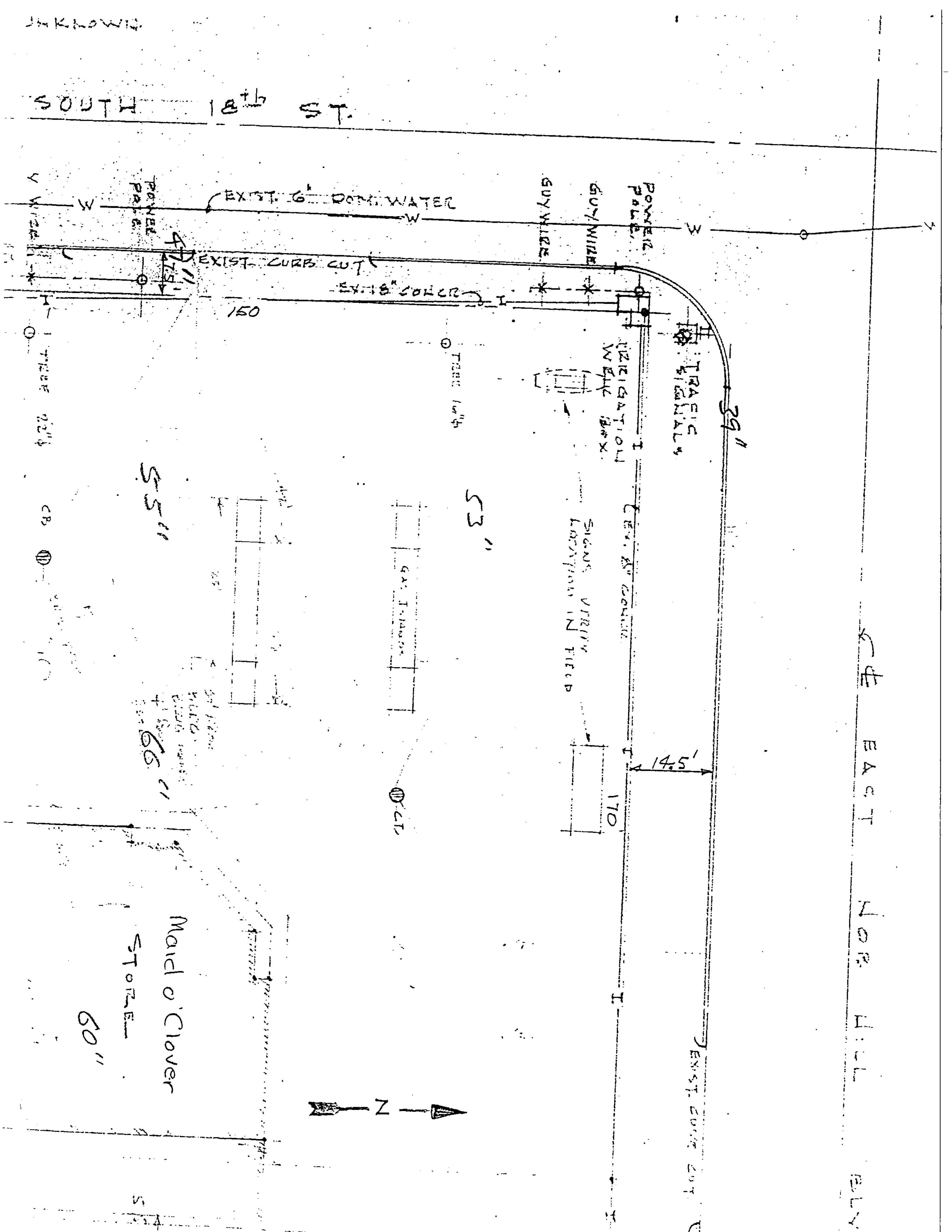
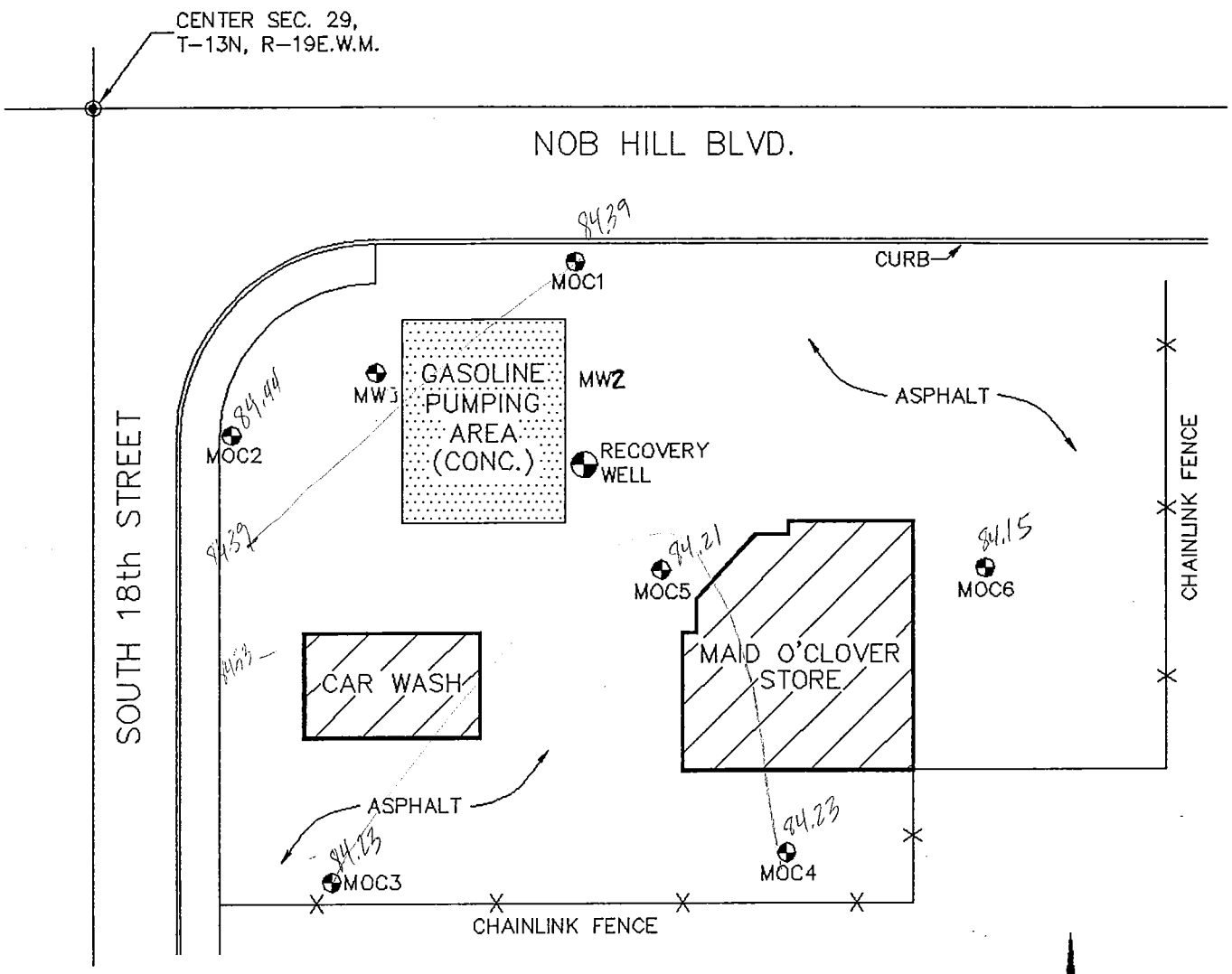

SOUTH 18th ST.
EXIST. 6" DOM. WATER
POWER POLE
GUY WIRE
GUY WIRE
POWER POLE
EXIST. CURB CUT
47'
EXIST. 8" CONCR
150
IRRIGATION WELL
TRAFFIC SIGNALS
39'
55'
53'
SIGNS VERIFY LOCATION IN FIELD
66'
14.5'
170
Maid o'Clover
STORE
60'
N
EXIST. CURB CUT
℄ EAST NOB HILL

Figure 5
Static Water Levels



LEGEND

MOC1 – DENOTES MONITORING WELL IDENTIFICATION NUMBER

SCALE : 1" = 40'

STATIC WATER LEVEL (ft)

WELL	DATE				
	4-6-92	5-14-92	6-18-92	6-19-92	6-22-92
MOC1	82.18	84.39	85.85		
MOC2	82.25	84.44	86.10		86.09
MOC3		84.23	85.79	85.78	
MOC4	82.10	84.23		85.71	85.77
MOC5	82.06	84.21		85.74	85.76
MOC6		84.15		85.75	85.68
MW7		84.37	85.84		
MW8			85.92		85.91
RW	82.18				85.87

FIGURE 5

PLSA
ENGINEERING–SURVEYING–PLANNING
YAKIMA, WASHINGTON
(509) 575-6990

MONITORING WELL LOCATIONS AND STATIC WATER LEVELS
MAID O'CLOVER
1802 E. NOB HILL BLVD, YAKIMA, WA

DRAWN BY: AKV
DATE: JULY 1992
JOB NO. 91056

APPENDIX 1

ESE Report, March 25, 1991

ESE Report is on file at Washington State Department of Ecology

106 So. 6th Avenue
Yakima, WA 98902

APPENDIX 2

Sensitive Species

No sensitive species were reported in the immediate vicinity by the Washington State Department of Wildlife, Sensitive Wildlife Information System.

APPENDIX 3

Tank Basin Well Samples

APPENDIX 3

RESULTS OF SOIL SAMPLE ANALYSES OF SOIL TAKEN FROM ESE WELLS (Units in mg/kg)

SAMPLE NO.	DEPTH	BTEX EPA METHOD 8020				EPA METHOD 8015
		BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	TPH
MW-1	5	ND	ND	ND	ND	ND
MW-1	10	ND	ND	ND	ND	ND
MW-1	15	ND	ND	ND	ND	ND
MW-2	10	ND	ND	ND	ND	ND
MW-2	15	ND	ND	ND	ND	ND
MW-3	5	ND	ND	ND	ND	ND
MW-3	10	ND	ND	ND	ND	ND
MW-3	15	ND	ND	ND	ND	ND

mg/kg - milligrams per kilogram
TPH - Total Petroleum Hydrocarbons
ND - Not Detected
EPA - Environmental Protection Agency

RESULTS OF WATER SAMPLE ANALYSES OF WATER TAKEN FROM ESE WELLS (Units in mg/l)

SAMPLE NO.	BTEX EPA METHOD 8020				EPA METHOD 8015
	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	TPH
MW-11	ND	ND	ND	ND	ND
MW-21	ND	ND	ND	ND	0.034
MW-31	3.2	6.2	0.28	11	45

mg/l - milligrams per liter
TPH - Total Petroleum Hydrocarbons
ND - Not Detected
EPA - Environmental Protection Agency

APPENDIX 4

Peripheral Well Samples

APPENDIX 4

RESULTS OF SOIL SAMPLE ANALYSES
OF SOIL TAKEN FROM PLSA WELLS
(Units in mg/kg)

SAMPLE NO.	WTPH-HCID			LEAD
	GASOLINE	DIESEL	HEAVY OILS	
MOC 1	<20	<50	<100	8.7
MOC 2	<20	<50	<100	3.4
MOC 3	<20	<50	<100	3.4
MOC 4	<20	<50	<100	4.7
MOC 5	<20	<50	<100	1.9
MOC 6	<20	<50	<100	3.2
MOC 7	<20	<50	<100	3.4
MOC 8	<20	<50	<100	4.1

mg/kg - milligrams per kilogram
< - less than

APPENDIX 5

Oil/Water Separator, Up flow Treatment Unit Samples

APPENDIX 5

RESULTS OF WATER SAMPLE ANALYSES
OF WATER TAKEN FROM OIL/WATER SEPARATOR
(Units in mg/l)

SAMPLE NO.	BTEX EPA METHOD 8020				EPA METHOD 418.1	
	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	TPH	LEAD
P-1	1.7	5.9	0.57	4.8	5.5	0.014
P-2	0.081	1.8	0.15	1.2	13	NT
P-3	8.2	0.19	1.2	1.8	81	0.014

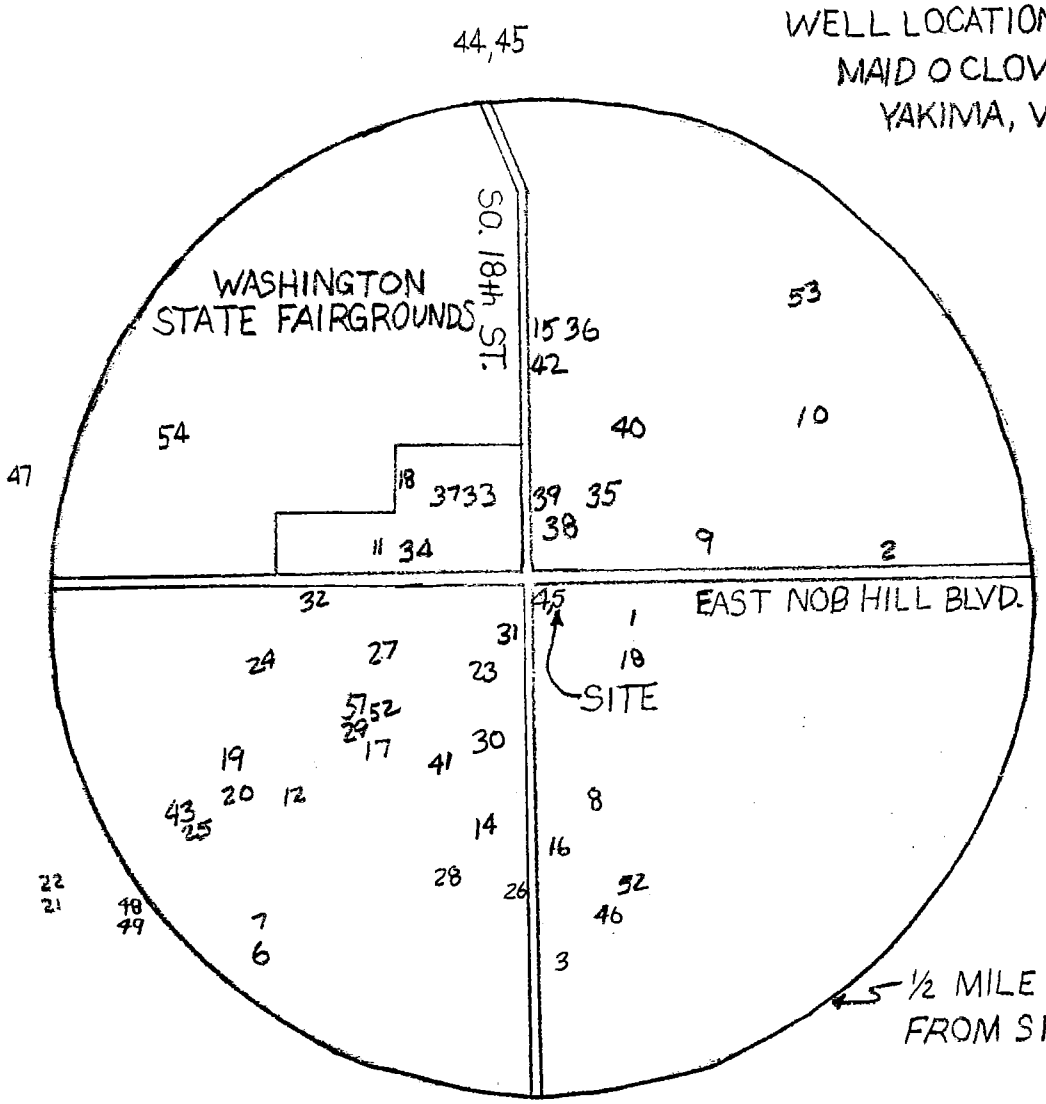
mg/l - milligrams per liter
TPH - Total Petroleum Hydrocarbons
NT - Not Tested
EPA - Environmental Protection Agency

APPENDIX 6

Well Logs in the Vicinity

APPENDIX 6

WELL LOCATION MAP
MAID O CLOVER
YAKIMA, WA.



N

2-LOCATION AND NUMBER OF WELL

SCALE: 1" = 1000'

File Original and First Copy with the Division of Water Management
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 1

Permit No. ....

(1) **OWNER:** Name [illegible] Address [illegible]

(2) **LOCATION OF WELL:** County Yakima NW NW 1/4 SE 1/4 Sec 29 T 13 N., R 19 W.M.

g and distance from section or subdivision corner Lot 7 Block 4 Boggs Home Sites Yakima

(3) **PROPOSED USE:** Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one)....
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 41 ft. Depth of completed well 41 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 6" Diam. from 0 ft. to 41 ft.
Threaded ☑ ..." Diam. from .... ft. to .... ft.
Welded ☐ ..." Diam. from .... ft. to .... ft.

Perforations: Yes ☐ No ☑
Type of perforator used....
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes ☐ No ☑
Manufacturer's Name....
Type.... Model No....
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes ☐ No ☑ Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes ☐ No ☑ To what depth? .... ft.
Material used in seal....
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?.... Depth of strata....
Method of sealing strata off....

(7) **PUMP:** Manufacturer's Name....
Type: .... H.P....

(8) **WATER LEVELS:** Land-surface elevation above mean sea level.... ft.
Static level 20 ft. below top of well Date 1-22-72
Artesian pressure .... lbs. per square inch Date....
Artesian water is controlled by .... (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☑ If yes, by whom?....
Yield: .... gal./min. with .... ft. drawdown after .... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test 1-22-72
Bailer test 7 gal./min. with 10 ft. drawdown after 1 hrs.
Artesian flow .... g.p.m. Date....
Temperature of water .... Was a chemical analysis made? Yes ☐ No ☑

(10) **WELL LOG:**

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
soil	0	2
sandy gravel boulders	2	30
cemented gravel	30	35
W. B. sandy gravel	35	41

Work started 1-17, 19 72 Completed 1-22, 19 72

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Taylor Well Drilling Co.
(Person, firm, or corporation) (Type or print)

Address R 1 B 33 Selah, Wn.

[Signed] M. E. Taylor
(Well Driller)

License No. 223 042 2528 Date 1-23, 19 72

2/21/74

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 5-69)—5-69.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 2
Permit No. ...

(1) OWNER: Name YAKIMA HUMANE SOCIETY Address 1903 So. 1st. Street

(2) LOCATION OF WELL: County YAKIMA — ¼ ¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner E. NOB HILL BLVD

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☒ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) 01
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 160 ft. Depth of completed well 150 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 10" Diam. from 0 ft. to 20 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ 6" Diam. from +2 ft. to 140 ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☐ No ☒ To what depth? 90ft ft.
Material used in seal cement/bentonite
Did any strata contain unusable water? Yes ☒ No ☐
Type of water? contaminated Depth of strata
Method of sealing strata off cased & sealed

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level 1000 ft.
Static level 5 ft. below top of well Date 11/2/83
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 60/80 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
GRVL/BLDRS TOP SOIL	0	20
PARTLY CEMENTED GRVL/BLDRS		
WATER BEARING 30 GPM FLOODING	20	30
SET 10" CASING WITH SHOE PRESSURE PACK		
BETWEEN 10" AND 6"		
UNCONSOLIDATED GRVL&BLDRS		
FOUL WATER	30	90
FLOAT BENTONITE SLURRY 1000 lb	TO	90
CEMENT GRVL BLDRS TOP WATER		
SHUT OFF	90	140
CEMENT GRVL	140	145
GRVL CLAY LENSES WATER BEARING	145	152
LIGHT BRN MUD STONE 60 GPM	152	160
SAND & WATER TO 80 GPM CAVING	TO	150

Work started 10/28/83, 19 Completed 11/2/83, 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME RIEBE WELL DRILLING (Person, firm, or corporation) (Type or print)

Address 1503 E. Nob Hill Yakima, Wa.

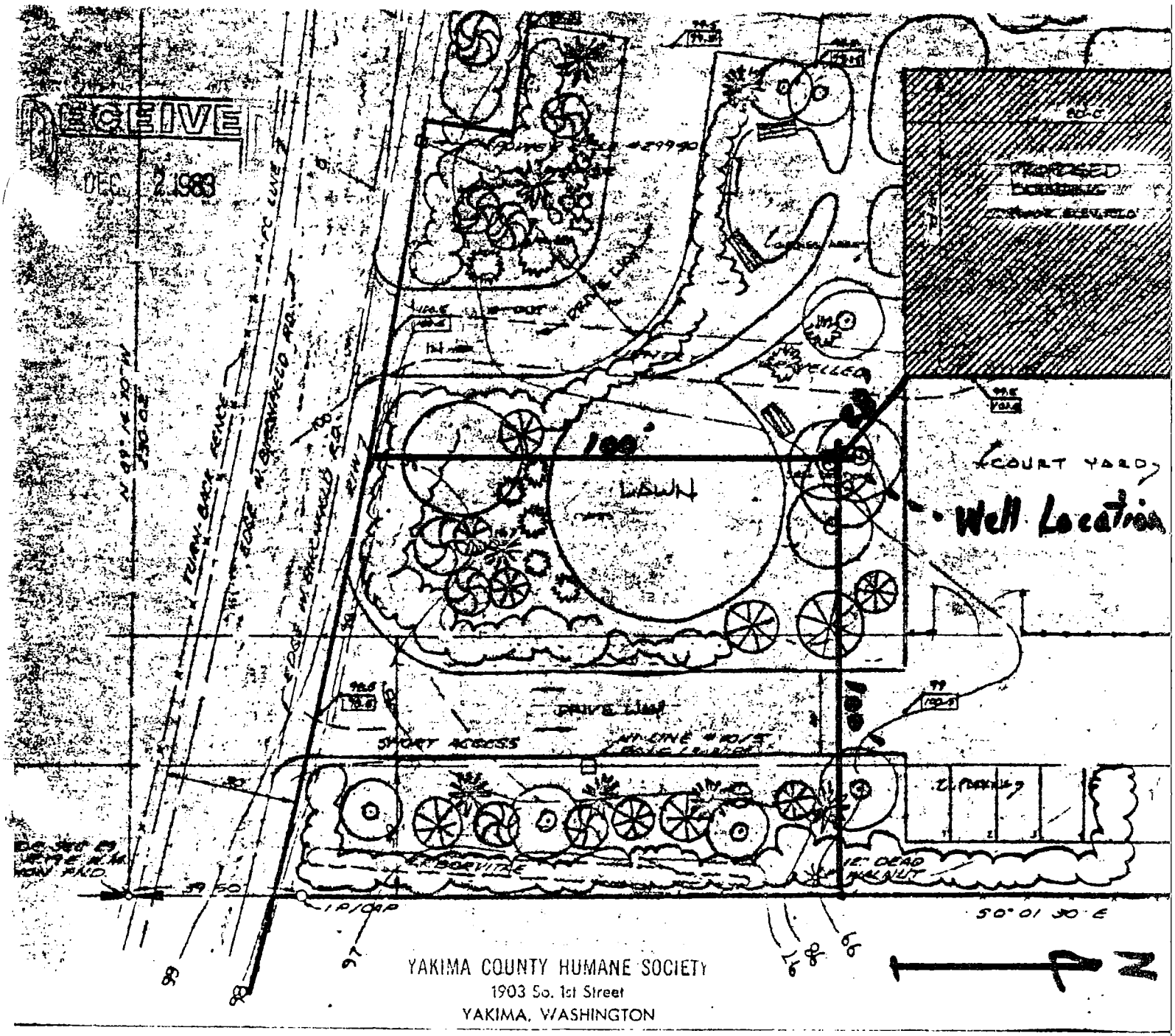
[Signed] John A. Riebe (Jerry Taylor) (Well Driller)

License No. 0422 Date 11/2/83, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

3



LEGAL DESCRIPTION:
That portion of Lots 13 and 24, GOODWIN'S FIVE ACRE TRACTS, according to the plat thereof recorded in Volume "A" of Plats, Page 18, records of Yakima County, Washington, described as follows:

Beginning at the Southeast corner of the Northeast quarter of Section 29, Township 13 North, Range 19 East, W.M.; thence North 89°14'10" West 230.02 feet along the South line thereof; thence North 0°01'30" West 328.23 feet; thence North 50°34'50" East 95.96 feet; thence North 0°01'30" West 266.20 feet to the North line of said Lot 13; thence South 89°09'25" East 155.86 feet along said North line to the Northeast corner thereof; thence South 0°01'30" East 656.14 feet along the East line of said Lots 13 and 24 to the Point of Beginning.

EXCEPT right of way for State Highway No. 3A as acquired by condemnation under Yakima County Superior Court No. 45885.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

3

Application No. .....

Permit No. .....

OWNER: Name Tommy A. McCabe Address 215 S. 30th Ave., Yakima, WA 98902

LOCATION OF WELL: County YAKIMA — NE ¼ SE ¼ Sec 29 T 13N., R 19E W.M.

Bearing and distance from section or subdivision corner Lot 21, Gibler Garden Tracts

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....

New well ☐ Method: Dug ☐ Bored ☐
Deepened ☒ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 25 ft. Depth of completed well 79 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 54 ft. to 79 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☐ No ☒ To what depth? ft.
Material used in seal installed previously
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 10 ft. below top of well Date 3/04/86
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: 100+ gal./min. with ft. drawdown after hrs.
" ESTIMATED AIRLIFT " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

with ft. drawdown after hrs.
g.p.m. Date
ical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Clay, yellow w/gravel	58	61
Cemented gravel w/boulders w/water	61	76
Clay seam, yelbw	76	77
Gravel, coarse w/water	77	83
NO PVC Liner installed		
6" Drive shoe installed		

RECEIVED
MAR 24 1986
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 3/03 19 86 Completed 3/04 19 86

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME PONDEROSA DRILLING & DEVELOPMENT INC.
(Person, firm, or corporation) (Type or print)

Address E. 6010 Broadway, Spokane, WA 99212

[Signed] W. Joseph Close Jr. (Well Driller)

License No. 1040 Date 3/04 19 86

(USE ADDITIONAL SHEETS IF NECESSARY)

2978

Start Card No. 033726

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Water Right Permit No. 4

(1) OWNER: Name Maid O Clover Address 1802 E. Nob Hill Yakima, Wa.

(2) LOCATION OF WELL: County Yakima Parcel # 191329-42433 NW¼ SE¼ Sec. 29 T. 13 N., R. 19 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 1802 E. Nob Hill

(3) PROPOSED USE: ☐ Domestic ☐ Irrigation ☐ DeWater ☐ Industrial ☐ Test Well ☐ Municipal ☐ Other ☒

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
Abandoned ☐ New well ☒ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☐ Rotary ☒ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 60 feet. Depth of completed well 60 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6 " Diam. from 0 ft. to 60 ft.
Welded ☒ Liner installed ☐ Threaded ☐
_____ " Diam. from _____ ft. to _____ ft.
_____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 20 ft. below top of well Date 4-2-90
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☒ If yes, by whom? Bach
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water 58 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO	
Asphalt	0	4"	
Clay Loam	4"	5	
Conglomerate gravel & sand	5	28	
" " w/brn. clay	28	36	
Conglomerate gravel & sand	36	52	wb
" " w/brn. clay	52	56	
Conglomerate gravel & sand	56	60	wb

RECEIVED
MAY 2 1990
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

ENTERED

Work started 4-2 19. Completed 4-6 1990

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Bach Well Drilling Co. (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 2111 Birchfield Rd. Yakima, Wa. 9890

(Signed) Scott Bach (WELL DRILLER) License No. 1436

Contractor's Registration No. BACHWDC137NU Date 4-6, 19 90

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329- 3

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

2976
Start Card No. 033726
5
Water Right Permit No.

(1) OWNER: Name Maid O Clover Address 202 E. 5th Ave. Yakima, Wa.

(2) LOCATION OF WELL: County Yakima Parcel # 191329-42433 NW ¼ SE ¼ Sec. 29 T. 13 N., R. 19 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 1802 E. Nob Hill

(3) PROPOSED USE: ☐ Domestic ☐ Irrigation ☐ DeWater ☐ Industrial ☐ Test Well ☐ Municipal ☐ Other ☒

(4) TYPE OF WORK: Owner's number of well (if more than one)
Abandoned ☒ New well ☐ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☐ Rotary ☐ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled feet. Depth of completed well ft.

(6) CONSTRUCTION DETAILS:
Casing installed: " Diam. from ft. to ft.
Welded ☐ Liner installed ☐ Threaded ☐
" Diam. from ft. to ft.
" Diam. from ft. to ft.

Perforations: Yes ☐ No ☐
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☐
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☐ Size of gravel
Gravel placed from ft. to ft.

Surface seal: Yes ☐ No ☐ To what depth? ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Airtest gal./min. with stem set at ft. for hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
PRESSURE GROUTED WELL AND FILLED WELL WITH BENTONITE.		

RECEIVED
MAY 2 1990
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 4-6, 19. Completed 4-6, 1990

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Bach Well Drilling Co. (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 2111 Birchfield Rd. Yakima, Wa. 9890

(Signed) (WELL DRILLER) License No. 1436

Contractor's Registration No. BACHWDC137NU Date 4-6, 1990

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 6

Permit No. ....

(1) OWNER: Name.. WELEN FRANDLE (Address..... 7 S. 10th AVE YAKIMA, WA

(2) LOCATION OF WELL: County YAKIMA — SW ¼ SW ¼ Sec. 29 T. 13 N., R. 19E W.M.

g and distance from section or subdivision corner LOT 9 BLOCK 2 FAIRVIEW Add NO 1

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2" inches.
Drilled.....ft. Depth of completed well 30 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from +1 ft. to 30 ft.
Threaded ☐ ....." Diam. from ..... ft. to ..... ft.
Welded ☐ ....." Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used.....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name.....
Type..... Model No.....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☑ No ☐ To what depth? ..... ft.
Material used in seal..... Bentonite Cement
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?..... Depth of strata.....
Method of sealing strata off.....

(7) PUMP: Manufacturer's Name.....
Type: ..... H.P.....

(8) WATER LEVELS: Land-surface elevation above mean sea level.... .....ft.
Static level 17 ft. below top of well Date.....
Artesian pressure .....lbs. per square inch Date.....
Artesian water is controlled by.....
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?.....
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Baller test.....gal./min. with.....ft. drawdown after.....hrs.
Artesian flow.....g.p.m. Date.....
Temperature of water..... Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Conglomerate	0	18'6"
Hard Rock	18.6'	22'
Loose Conglomerate	22'	28.
Sand & Gravel	28'	31'

RECEIVED
APR 18 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 4-6 19 77 Completed 4-9 19 77

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME John WELDING & REPAIR
(Person, firm, or corporation) (Type or print)

Address 1965 So 3rd AVE,

[Signed] John B Trudeau
(Well Driller)

License No. 0508 Date 4-9 19 77

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY-050-1-20

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 7
Permit No. ....

(1) **OWNER:** Name Lyle Conrad Address P.O. Box 68, Ronald, WA 98940

(2) **LOCATION OF WELL:** County YAKIMA — NE ¼ SW ¼ Sec. 29 T. 13 N., R. 19E W.M.

Bearing and distance from section or subdivision corner Lot 6, Block 2, Fairview Addtion #1 (parcel 191329-33439)

(3) **PROPOSED USE:** Domestic XX Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary XX Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 60 ft. Depth of completed well 46 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 6 " Diam. from +1 ft. to 46 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded XX ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No XX
Type of perforator used.....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No XX
Manufacturer's Name.....
Type..... Model No.....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes XX No ☐ To what depth? 19 ft.
Material used in seal bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water?..... Depth of strata.....
Method of sealing strata off.....

(7) **PUMP:** Manufacturer's Name.....
Type: ..... H.P.....

(8) **WATER LEVELS:** Land-surface elevation above mean sea level.... ....ft.
Static level 18 ft. below top of well Date 5/14/85
Artesian pressure .....lbs. per square inch Date.....
Artesian water is controlled by..... (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?.....
Yield: 20 gal./min. with ft. drawdown after hrs.
" ESTIMATED AIRLIFT "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test.....gal./min. with.....ft. drawdown after.....hrs.
Artesian flow.....g.p.m. Date.....
Temperature of water..... Was a chemical analysis made? Yes ☐ No ☐

(10) **WELL LOG:**

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Sand, gravel, cobble	0	18
Sand, gravel, cobble w/water	18	53
Sand, gravel, cobble w/clay w/water	53	60
NO PVC Liner Installed		
6" Drive shoe installed		

RECEIVED
DEPARTMENT OF ECOLOGY
CENTRAL REGION

Work started 5/14, 19 85 Completed 5/14, 19 85

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME PONDEROSA DRILLING & DEVELOPMENT INC.
(Person, firm, or corporation) (Type or print)

Address E. 6010 Broadway, Spokane, WA 99212

[Signed] Lynnwood E. Hendrick
Lynnwood E. Hendrick (Well Driller)

License No. 1351 Date 5/14/ , 19 85

5/24/85

(USE ADDITIONAL SHEETS IF NECESSARY)

9

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....

Permit No. .....

(1) OWNER: Name [redacted] Wilson Ottawa Trust Address 1809 E Viola Yakima

LOCATION OF WELL: County YAKIMA NW¼ SE¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner SE 1/4 City of Yakima Lot 37 Goodwin's Five Acres Tracts

(3) PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) .....
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☑ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 77 ft. Depth of completed well 75 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 66 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☑ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☑
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☑
Manufacturer's Name .....
Type ..... Model No .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☑ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☑ No ☐ To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 16 ft. below top of well Date .....
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by ..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☑ If yes, by whom? .....
Yield: ..... gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test 3.5 gal./min. with ..... ft. drawdown after 1 hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water ..... Was a chemical analysis made? Yes ☐ No ☑

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	5
Gravel, Sand & Boulders	5	75
SURFACE WATER 25-35		
WATER 50-70		

Work started 5-14 19 79 Completed 5-15 19 79

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME EASTWOOD Drilling Co
(Person, firm, or corporation) (Type or print)

Address 2202 River Rd Yakima, Wa.

[Signed] Jerry Lawton
(Well Driller)

License No. 0495 Date 5-15 19 79

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 9

Permit No. ....

(1) OWNER: Name GEORGE VELIKANJE Address 303 E. D. Street; YAKima, WA.

(2) LOCATION OF WELL: County YAKIMA SW¼ NE¼ Sec. 29 T. 13 N., R. 19 W. G

Bearing and distance from section or subdivision corner E 62 ft of W 134 ft; TRACK 22 Goodwin's; SACRE TRACK AS RECORDE Volume 11 of Plat PAGE 18

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 48 ft. Depth of completed well 48 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 48 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☐ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 10 ft. below top of well Date 10/10/78
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Water Level	Time	Water Level	Time	Water Level

Test 15 gal./min. with 15 ft. drawdown after 2 hrs.
g.p.m. Date
water 50 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
~~Rock & Sand~~	0	~~48~~
Top Soil		6
Sand & Small Rock	6	15
Little Sand & Rock	15	30
Boulder & Little Sand	30	48

RECEIVED
FEB 1 1979
DEPARTMENT OF ECOLOGY
[illegible] OFFICE

Work started Oct 4, 19 78 Completed Oct 10, 19 78

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME PAULIN DRILLING CO.
(Person, firm, or corporation) (Type or print)

Address Rt. 3, Box 3356, SELAH, WA

[Signed] Bob Paulin.
(Well Driller)

License No. 924 Date Oct 11, 19 78

(USE ADDITIONAL SHEETS IF NECESSARY)

3

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 10

Permit No. .....

(1) OWNER: Name Walter & Lucile Kane Address 1901 Simpson Yakima

(2) LOCATION OF WELL: County Yakima — ¼ ¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner S½ of Lot 11 Giblers Garden Tracts

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) .....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ..... ft. Depth of completed well 31 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 31 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☒ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No. .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal Cement Grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... 1020 ft.
Static level 7½ ft. below top of well Date 9/27/74
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by ..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? .....
Yield: 10 gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... 60 g.p.m. Date .....
Temperature of water ..... Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	3
Loose Dirt & Rock	3	10
Conglomerate	10	-

RECEIVED
OCT 30 1974
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

RECEIVED
OCT 31 1974
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 9/27 19 74 Completed 9/27 19 74

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensens Well Drilling & Driving
(Person, firm, or corporation) (Type or print)

Address 1603 South 10th Ave Yakima 98902

[Signed] Florence W. Jensen
(Well Driller)

License No. 0218 Date 10/24 19 74

(USE ADDITIONAL SHEETS IF NECESSARY)

S. E. No. 7356—OS (Rev. 4-71)

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Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 1

Permit No. .....

(1) OWNER: Name Robert J. Neuman Address 1618 Souyh 20th Ave Yakima

(2) LOCATION OF WELL: County Yakima — ¼ ¼ Sec 29 T. 13 N., R. 19 W.M.

ring and distance from section or subdivision corner E½ of Lot 19 Giblers Garden Tracts

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) .....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ..... ft. Depth of completed well 26 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 26 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☒ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal Cement Grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... 1020 ft.
Static level 7½ ft. below top of well Date 9/26/74
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by ..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? .....
Yield: 10 gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

ate of test .....
ailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 62 Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	2
Conglomerate	2	-

RECEIVED
OCT 30 1974
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

RECEIVED
OCT 1974
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 9/26, 19 74. Completed 9/26, 19 74

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensens Well Drilling & Driving
(Person, firm, or corporation) (Type or print)

Address 1603 South 10th Ave, Yakima 98902

[Signed] Florence W Jensen
(Well Driller)

License No. 0218 Date 10/ 24 19 74

(USE ADDITIONAL SHEETS IF NECESSARY)

S. E. No. 135f—OS (Rev. 4-71)

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Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 7
Permit No. 16

(1) OWNER: Name Ovid B. Stiles Address 1515 So 14th Street Yakima

(2) LOCATION OF WELL: County Yakima — ¼ ¼ Sec. 29 T. 13 N., R. 19E W.M.
ing and distance from section or subdivision corner Lot 6 Block 4 Fairview ADD. No1 S½ Lot 6

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled .... ft. Depth of completed well 31 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 2" Diam. from 0 ft. to 31 ft.
Threaded ☐ ....." Diam. from ..... ft. to ..... ft.
Welded ☒ ....." Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used.....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name.....
Type..... Model No.....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal Cement Grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?..... Depth of strata.....
Method of sealing strata off.....

(7) PUMP: Manufacturer's Name.....
Type: ..... H.P.....

(8) WATER LEVELS: Land-surface elevation above mean sea level... app 1020 ft.
Static level 10 ft. below top of well Date 5-7-75
Artesian pressure ..... lbs. per square inch Date.....
Artesian water is controlled by..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?.....
Yield: 10 gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 58 Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	2
Conglomerate	2	—

RECEIVED
[illegible] 1975
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 5-7, 1975 Completed 5-7, 1975

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensens Well Drilling [illegible] (Person, firm, or corporation) (Type or print)
Address 603 So 10th Ave Yakima 98902
[Signed] Florence M Jensen (Well Driller)
License No. 0218 Date 6-2, 1975

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....
Permit No. 13

(1) OWNER: Name Joe W Brooks Address 1705 Dalton Lane Yakima

(2) LOCATION OF WELL: County Yakima ¼ ¼ Sec. 29 T. 13 N. R. 19 W.M.

Bearing and distance from section or subdivision corner Lot 10 Block 1 Bogess Homes Sites Vol. H Plat

(3) PROPOSED USE: Domestic X Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☐ Method: Dug ☐ Bored ☑
Deepened ☐ Cable ☐ Driven X
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ..... ft. Depth of completed well 28 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 28 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded X ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No X
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No X
Manufacturer's Name .....
Type ..... Model No .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No X Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes X No ☐ To what depth? 6 ft.
Material used in seal Cement Grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... 1020 ft.
Static level 9 ft. below top of well Date 6/14/74
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by ..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? .....
Yield: 20 gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
r test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 56 Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	1½
Conglomerate	1½	-

RECEIVED
JUL 10 1974
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

RECEIVED
JUL 10 1974
DEPARTMENT OF ECOLOGY
SPOKANE REGIONAL OFFICE

Work started 6/14 19 74 Completed 6/14 19 74

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensens Well Drilling & Driving
(Person, firm, or corporation) (Type or print)
Address 1603 South 10th Ave. Yakima 98902

[Signed] Clarence M Jensen
(Well Driller)

License No. 0218 Date 7/5 19 74

S. F. No. 7356—OS—(Rev. 4-71). 1/9/14 (USE ADDITIONAL SHEETS IF NECESSARY)

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WATER WELL REPORT

STATE OF WASHINGTON

Application No. 14

Permit No. ....

(1) OWNER: Name Mirel Mabry Address 1703 E Viola - Yakima 98901

(2) LOCATION OF WELL: County Yakima — ¼ — ¼ Sec. 29 T. 13 N., R. 19E W.M.

ing and distance from section or subdivision corner Lot 11 - S half of Lot 12 Block 1

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Supplement domestic well — Irrigation ☒ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....

New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ....ft. Depth of completed well 26 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 26 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☒ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft ft.
Material used in seal Cement Grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... 1020 ft. app
Static level 15' 6" ft. below top of well Date 4-11-75
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by .....
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level

Was a pump test made? Yes ☐ No ☐ If yes, by whom? .....
Yield: 10 gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

ate of test .....
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 58 Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	4
Conglomerate	4	—

RECEIVED
JUN
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 4-11 19 75 Completed 4-11 19 75

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensen Well Drilling & Pum
(Person, firm, or corporation) (Type or print)

Address 1603 So 18th Ave Yak 9890

[Signed] Clarence M Jensen
(Well Driller)

License No. 0218 Date 6-1-75, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

S-E No. 7355 OS (Rev. 4-71)

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Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

WRC* 90548
Application No. 15
Permit No. ....

(1) OWNER: Name J. D. Schuler Address 1201 S 18th St. Yakima, WA

(2) LOCATION OF WELL: County Yakima - SW ¼ NE ¼ Sec. 24 T. 13 N., R. 19 W.M.
Bearing and distance from section or subdivision corner - 13404

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 50 ft. Depth of completed well 50 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 10" Diam. from 0 ft. to 18 ft.
Threaded ☐ 6" Diam. from 0 ft. to 50 ft.
Welded ☒ ......" Diam. from ...... ft. to ...... ft.

Perforations: Yes ☐ No ☒
Type of perforator used........
SIZE of perforations ...... in. by ...... in.
...... perforations from ...... ft. to ...... ft.
...... perforations from ...... ft. to ...... ft.
...... perforations from ...... ft. to ...... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name........
Type........ Model No........
Diam. ...... Slot size ...... from ...... ft. to ...... ft.
Diam. ...... Slot size ...... from ...... ft. to ...... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ....
Gravel placed from ...... ft. to ...... ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?........ Depth of strata........
Method of sealing strata off........

(7) PUMP: Manufacturer's Name........
Type: .... H.P. ......

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ...... ft.
Static level 23 ft. below top of well Date 3-4-77
Artesian pressure ...... lbs. per square inch Date ......
Artesian water is controlled by........ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?........
Yield: 20 gal./min. with ...... ft. drawdown after ...... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ....
Bailer test 20 gal./min. with 20 ft. drawdown after 5 hrs.
Artesian flow ...... g.p.m. Date 3-4-77
Temperature of water...... Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
top soil	0	2
boulders	2	18
brown sand	18	30
coarse brown sand	30	34
brown sand	34	45
coarse brown sand	45	47
gravel	47	50 T.D.

RECEIVED
JUN 13 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 2-28, 1977 Completed 3-4, 1977

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME A. Bach Well Drlg (Person, firm, or corporation) (Type or print)

Address P.O. Box 48 Yakima, WA

[Signed] Bob Cannon (Well Driller)

License No. 0702 Date 3-10, 1977

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

16

Application No. ____

Permit No. ____

(1) OWNER: Name James Mc Donald Address 1706 Simpson Lane

(2) LOCATION OF WELL: County Yakima — SE ¼ SW ¼ Sec 29 T. 13 N., R. 19 W.M.

...ng and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ....ft. Depth of completed well 27 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 27 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☒ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite - cement grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level ... Approx. 1010 ft.
Static level 10 ft. below top of well Date 2-4-77
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by .....
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? .....
Yield: 5 gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 58 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	1
Conglomerate	1	27

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FEB 25 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 2-4, 19 77 Completed 2-4, 19 77

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensen Well Drilling
(Person, firm, or corporation) (Type or print)

Address 1603 So. 10TH Ave.

[Signed] Lawrence Jensen
(Well Driller)

License No. 0218 Date 2-20, 19 77

(USE ADDITIONAL SHEETS IF NECESSARY)

1506

17

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 16347

Water Right Permit No. _____

(1) OWNER: Name YEN VAN PHUNG Address 7017 So. 6th ST. YAKIMA WA

(2) LOCATION OF WELL: County YAKIMA SE ¼ SW ¼ Sec. 29 T. 13 N., R. 19 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 1510 16th Street, Yakima

(3) PROPOSED USE: [X] Domestic [ ] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ] DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned [ ] New well [X] Method: Dug [ ] Bored [ ] Deepened [ ] Cable [ ] Driven [ ] Reconditioned [ ] Rotary [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 60 feet. Depth of completed well 60 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +2 ft. to 58 ft.
Welded [X]
Liner installed [ ] _____ " Diam. from _____ ft. to _____ ft.
Threaded [ ] _____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes [ ] No [X]
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes [ ] No [X]
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes [X] No [ ] To what depth? _____ ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes [ ] No [ ]
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 11 ft. below top of well Date 11-29-88
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL		FROM	TO
Top Soil		0	2
River Rock & Sand	H	2	11
Sandy Clay-Silt & Cobbles	H	11	15 H2
" " "	H	15	20 H2
Silty Clay & Gravel	H	20	34
" " " Red-Brn	H	34	37
Brn Silty Clay Grvls-To Bldrs		37	60
GPM - 42			

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DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 11-29-88 19. Completed 11-29-88 19.

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME RIEBE WELL DRILLING INC (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address P.O. BOX 10866

(Signed) John N Riebe (WELL DRILLER) License No. 0422

Contractor's Registration No. 132K1 Date 11-30-88, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

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WATER WELL REPORT

STATE OF WASHINGTON

Application No. 13

Permit No. /

(1) OWNER: Name Gene Day Address 1506 Borgess Yakima, Wn.

) LOCATION OF WELL: County Yakima — NW ¼ SE ¼ Sec. 29 T. 13 N., R. 19 W.M.

ig and distance from section or subdivision corner See attached paper

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well ..... inches.
Drilled.....ft. Depth of completed well.....ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 28 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☒ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used.....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name.....
Type..... Model No.....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal bentrite clay
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?..... Depth of strata.....
Method of sealing strata off.....

(7) PUMP: Manufacturer's Name.....
Type: ..... H.P.....

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ..... ft
Static level 16 ft. below top of well Date 3-22-77
Artesian pressure .....lbs. per square inch Date.....
Artesian water is controlled by.....
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?.....
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test 5 gal./min. with 7 ft. drawdown after 1 hrs.
Artesian flow.....g.p.m. Date.....
Temperature of water..... Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Topsoil	0	1
Gravel small loose	1	28

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APR 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started....., 19..... Completed....., 19.....

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Robert V. Hull
(Person, firm, or corporation) (Type or print)

Address RT. 2 Box 2265 Selah, Wash 98942

[Signed] Robert V Hull
(Well Driller)

License No. 0208 Date 3-29- 19 77

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 4

Permit No. ....

(1) OWNER: Name Hugh Taylor Address 1501 So. 13th St

(2) LOCATION OF WELL: County Yakima NW¼ SW¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner Parcel 191329-32461

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 40 ft. Depth of completed well 40 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6" Diam. from 0 ft. to 40 ft.
Threaded ☐ ." Diam. from ft. to ft.
Welded ☒ ." Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off Bentonite

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 15 ft. below top of well Date 3-14-82
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 20 gal./min. with 10 ft. drawdown after 4 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Surf + Gravels	0	4
Large Gravels	4	10
Cemented Sand + Gravel	10	27
Gravel + Sand	27	40

Work started 3-10, 19 82 Completed 3-14, 19 82

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Bach Drilling Co.
(Person, firm, or corporation) (Type or print)

Address Rt 3 Box 1010 Ellensburg

[Signed] Craig McCorkindale
(Well Driller)

License No. 0836 Date 3-14, 19 82

(USE ADDITIONAL SHEETS IF NECESSARY) EP 3/16/82

82

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Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 20

Permit No. V

(1) **OWNER:** Name Brian Kelly Address 1721 South 13th Street Yakima

(2) **LOCATION OF WELL:** County Yakima SW ¼ SE ¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner Parcel # 191329-33413

(3) **PROPOSED USE:** Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 100 ft. Depth of completed well 100 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 6 " Diam. from 0 ft. to 100 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 100 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) **PUMP:** Manufacturer's Name
Type: H.P.

(8) **WATER LEVELS:** Land-surface elevation above mean sea level .... ft.
Static level 8 ft. below top of well Date 9-18-86
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Bach
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test September 18, 1986
Bailer test 100 gal./min. with 90 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) **WELL LOG:**

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Topsoil, cobbles & gravel	0	12
Gravel - conglomerate	12	16
Medium brown sand & gravel	16	18
Gravel - conglomerate	18	26
Gravel w/coarse sand	26	47
Coarse sand	47	53
Gravel	53	100

wt

RECEIVED
OCT 14 1986
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 9-17, 1986 Completed 9-18, 1986

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Bach Well Drilling Company
(Person, firm, or corporation) (Type or print)

Address Route 1 Box 1401 Moxee, Wa. 98936

[Signed] Scott DeVries
(Well Driller)

License No. 1436 Date 9/18, 1986

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artment of Ecology
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WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....

Permit No. .....

WNER: Name LLOYD LEROUE Address 1615 S. 10 St.

LOCATION OF WELL: County YAKIMA — SW ¼ SW ¼ Sec. 29 T. 13 N., R 19 W.M.

aring and distance from section or subdivision corner

) PROPOSED USE: Domestic X ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

) TYPE OF WORK: Owner's number of well (if more than one) ....
New well X ☐ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary X ☐ Jetted ☐

) DIMENSIONS: Diameter of well 6 inches.
Drilled 60 ft. Depth of completed well 60 ft.

) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 59.6 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded X ☐ " Diam. from ft. to ft.

Perforations: Yes ☐ No X ☐
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No X ☐
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No X ☐ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes X ☐ No ☐ To what depth? 20 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes X ☐ No ☐
Type of water? connate Depth of strata 22
Method of sealing strata off CASED

7) PUMP: Manufacturer's Name
Type: H.P.

WATER LEVELS: Land-surface elevation above mean sea level .... ft.
atic level 10 ft. below top of well Date 10/3/86
rtesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

) WELL TESTS: Drawdown is amount water level is lowered below static level
a pump test made? Yes ☐ No X ☐ If yes, by whom?
l: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
very data (time taken as zero when pump turned off) (water level neasured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
r test gal./min. with ft. drawdown after hrs.
ian flow g.p.m. Date
perature of water Was a chemical analysis made? Yes X ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL & ROCK	0	4
BOULDERS GRVL SAND	4	20
SAND & WATER	20	22
GRVL SILT SAND	22	27
BLDRS SAND GRVL WATER	27	43
GRVL AND SILT	43	49
BLDRS GRVL SAND WATER	49	60
60 GPM		

RECEIVED
OCT 24 1986
DEPARTMENT OF ECOLOGY
CENTRAL REGION

Work started 10/3/86 19 Completed 10/3/86 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME RIEBE WELL DRILLING
(Person, firm, or corporation) (Type or print)

Address N 1503 E. NOB HILL YAKIMA

[Signed] BOB BRITTON
(Well Driller)

License No. 043 Date 10/4/86 19

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Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Mar 22 - 1960

Application No. 02

Permit No. /

(1) OWNER: Name Burgess F. Perkins Address 1605 So. 108th Yakima Wn 98901

(2) LOCATION OF WELL: County Yakima — SW ¼ NW ¼ Sec. 21 T. 13 N., R. 18 E W.M.

Bearing and distance from section or subdivision corner

PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) 1

New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 33 ft. Depth of completed well 33 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 33 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☐ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal grout
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 12 ft. below top of well Date 3-22-60
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test 3-22-60
Bailer test 30 gal./min. with 2 ft. drawdown after 2 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

OK MAB

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Boulders & gravel	0	15
Clay & gravel layers	15	24
Sand & gravel & water	24	33

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OCT 29 1974
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 3-18, 1960. Completed 3-22, 1960

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Eastwood Drilling Co (Person, firm, or corporation) (Type or print)

Address 2202 River Rd Yakima Wn

[Signed] Frank Johnson (Well Driller)

License No. Date 3-22, 1960

(USE ADDITIONAL SHEETS IF NECESSARY) 77340

S. F. No. 7356—OS—(Rev. 4-71)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

23

Application No. .....

Permit No. .....

(1) OWNER: Name TEENA HUFFMAN Address 1435 S. 1ST YAKIMA, WA

LOCATION OF WELL: County YAKIMA NE¼SW¼ Sec. 29 T. 13 N., R. 19E W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....

New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 5 inches.
Drilled 60 ft. Depth of completed well 60 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 5 " Diam. from +1 ft. to 60 ft.
Threaded ☐ ." Diam. from ft. to ft.
Welded ☒ ." Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name STA RITE
Type: SUBMERSIBLE H.P. 1/3

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 15 ft. below top of well Date 8-28-82
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

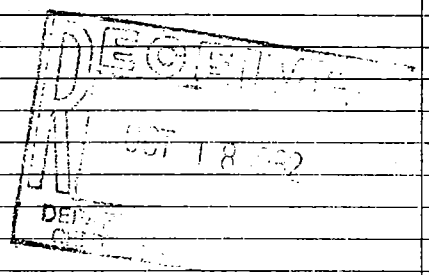
Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 10 gal./min. with 15 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
SOIL, GREY, ROCKY	0	2
GRAVEL, COARSE	2	14
BOULDERS	14	18
GRAVEL, COARSE W/BRN CLAY	18	23
SAND, LT BRN, SILTED SOME WATER	23	29
SAND, BRN COARSE W. B.	29	32
SAND, LT BRN, SILTED, SOME H2O	32	37
GRAVEL AND CLAY	37	42
SANDY CLAY, DARK SOME H2O	42	58
SAND, BRN, MED FINE W B	58	61



Work started 17 AUG, 19 82 Completed 27 AUG, 19 82

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME CAIN DRILLING (Person, firm, or corporation) (Type or print)

Address RT 5 BOX 382A, YAKIMA, WA

[Signed] C. Cain (Well Driller)

License No. 0700 Date 31 AUG, 19 82

1000

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 2

Permit No. ....

(1) OWNER: Name Alma Martin Address 1416 S. 14th St., Yakima

(2) LOCATION OF WELL: County Yakima — NW¼ SW¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....

New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 52 ft. Depth of completed well 52 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 44 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Benitonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 18 ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 50 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 58° Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Topsoil	0	6
small Gravel & large Gravel & sand	6	25
small Gravel & large Gravel & sand & water	25	52

Work started 3-24, 1988 Completed 3-25, 1988

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Water Wells Drilling
(Person, firm, or corporation) (Type or print)

Address 5503 Ahtanum Rd.

[Signed] (Well Driller)

License No. 1435 Date 3-25, 1988

(USE ADDITIONAL SHEETS IF NECESSARY)

...nal and First Copy with
...ent of Ecology
Copy — Owner's Copy
...opy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 25

Permit No. ....

OWNER: Name John Schouler Address 1209 E. Viola, Yakima, Wa.

LOCATION OF WELL: County Yakima — NW ¼ NE ¼ Sec 29 T 13 N., R 19 W.M.

Bearing and distance from section or subdivision corner

(3) **PROPOSED USE:** Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 40 ft. Depth of completed well 40 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 6 " Diam. from +1 ft. to 30 ft.
Threaded ☐ " Diam. from ... ft. to ... ft.
Welded ☒ " Diam. from ... ft. to ... ft.

Perforations: Yes ☐ No ☒
Type of perforator used ...
SIZE of perforations ... in. by ... in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name ...
Type ... Model No ...
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ...
Gravel placed from ... ft. to ... ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? ... Depth of strata ...
Method of sealing strata off ...

(7) **PUMP:** Manufacturer's Name ...
Type: ... H.P. ...

(8) **WATER LEVELS:** Land-surface elevation above mean sea level .... ft.
Static level 17 ft. below top of well Date 4/15/36
Artesian pressure ... lbs. per square inch Date ...
Artesian water is controlled by ... (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? ...
Yield: ... gal./min. with ... ft. drawdown after ... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ...
Baller test 75 gal./min. with ... ft. drawdown after ... hrs.
Artesian flow ... g.p.m. Date ...
Temperature of water ... Was a chemical analysis made? Yes ☐ No ☒

(10) **WELL LOG:** 1/1

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Topsoil	0	1
River rock & sand	1	5
Unconsolidated rock	5	17
Gravel, brown clay & sand	17	22
Gravel, & sand	22	30
Gravel, brown clay, & sand	30	34
Gravel, brown clay, sand, & water	34	40

RECEIVED
JUL - 1 1986
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 4/14/86, 19 ... Completed 4/15/86, 19 ...

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Vernon L. Rank (Person, firm, or corporation) (Type or print)

Address 5503 Ahtanum Rd. Yakima, Wa. 98903

[Signed] Vernon L. Rank (Well Driller)

License No. 0854 Date 4/15/86, 19 ...

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 24
Permit No.

(1) OWNER: Name Joe Butler Address 1618 S. 14 St

(2) LOCATION OF WELL: County Yakima NE¼ SW¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner E½ of lot 8, Block 2, Fairview Add. #2

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) 01
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 53 ft. Depth of completed well 52 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: ..." Diam. from ... ft. to ... ft.
Threaded ☐ ..." Diam. from ... ft. to ... ft.
Welded ☒ 6" Diam. from +2 ft. to 53 ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations ... in. by ... in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type ... Model No.
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ... ft. to ... ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal 200/bentonite 200cement
Did any strata contain unusable water? Yes ☒ No ☐
Type of water surface Depth of strata 28
Method of sealing strata off cased

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level 1020 ft.
Static level 15 ft. below top of well Date 2/18/84
Artesian pressure ... lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Baller test ... gal./min. with ... ft. drawdown after ... hrs.
Artesian flow ... g.p.m. Date
Temperature of water ... Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL & GRAVEL	0	1
sand gravel boulders river bd	1	28
trace of water		
cement grvl bldrs	28	33
grvl bldrs silt brn hard	33	47
sand grvl bldrs water	47	53
water approximately 30 GPM at 50 ft.		

Work started 2/18/84, 19 Completed 2/18/84, 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME RIEBE WELL DRILLING (BOB BRITTON)
(Person, firm, or corporation) (Type or print)

Address 1503 E. Nob Hill YAKIMA WA

[Signed] John H. Riebe
(Well Driller)

License No. 0422 Date 2/20/84, 19

(USE ADDITIONAL SHEETS IF NECESSARY) RA 6/7/84

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 27 1
Permit No. C

(1) OWNER: Name TED J. BENDER Address 1412 SO. 16TH STREET YAKIMA, WASH.

(2) LOCATION OF WELL: County YAKIMA — NE ¼ SW ¼ Sec. 29 T. 13 N., R. 19 E W.M.

...ring and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled.....ft. Depth of completed well 29' ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2" Diam. from 6 ft. to 29' ft.
Threaded ☐ ....." Diam. from ..... ft. to ..... ft.
Welded ☒ ....." Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used.....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name.....
Type..... Model No.....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal BENTONITE & CEMENT GROUT
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?..... Depth of strata.....
Method of sealing strata off.....

(7) PUMP: Manufacturer's Name.....
Type: ..... H.P.....

(8) WATER LEVELS: Land-surface elevation above mean sea level. APP 1030 ft.
Static level 10' ft. below top of well Date 11-7-75
Artesian pressure ..... lbs. per square inch Date.....
Artesian water is controlled by.....
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?.....
Yield: 10 gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
...er test.....gal./min. with.....ft. drawdown after.....hrs.
Artesian flow.....g.p.m. Date.....
Temperature of water 56 Was a chemical analysis made? Yes ☐ No ☒

OK MAB

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL	0	3
CONGLOMERATE	3	29

DRIVEN WELL

RECEIVED

Work started 10-7, 1975 Completed 11-7, 1975

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 SO. 10TH AVE. Yakima

[Signed] .....
(Well Driller)

License No. 0218 Date 11-10, 1975

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71)

1757

29

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 07423

Water Right Permit No. ~

(1) OWNER: Name Philip Goeson Address 1612 S 17TH STREET YAKIMA 98901

) LOCATION OF WELL: County YAKIMA NE ¼ SW ¼ Sec. 29 T. 13 N., R. 19 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address)

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one)
Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 58 feet. Depth of completed well 58 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6 " Diam. from +2 ft. to 58 ft.
Welded ☒
Liner installed ☐ " Diam. from ft. to ft.
Threaded ☐ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level 9 ft. below top of well Date 5-16-89
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test

Bailer test gal./min. with ft. drawdown after hrs.
Airtest gal./min. with stem set at ft. for hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL		FROM	TO
TOPSOIL GRAVEL	H	0	1
SAND GRAVEL COBBLES	H	1	9
SAND SILT GRAVEL BOULDERS COBBLES	H	9	54
CEMENTED GRAVEL	H	54	58

DEPARTMENT OF ECOLOGY CENTRAL REGION OFFICE

Work started 5-16-89, 19. Completed 5-16-89, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME RIEBE WELL DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address PO BOX 10866 YAKIMA WA.

(Signed) Mills (WELL DRILLER) License No. 1335

Contractor's Registration No. 132K6 Date 5-22-89, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

1670

29

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 026073

Water Right Permit No. _____

(1) OWNER: Name HARRY STOTSENBERG Address 1723 S. 1st, Yakima

LOCATION OF WELL: County Yakima NE ¼ SW ¼ Sec 29 T. 13 N., R. 19 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 1505 S. 15th, Yakima

(3) PROPOSED USE: ☐ Domestic ☐ Industrial ☐ Municipal ☐ Irrigation ☐ DeWater ☐ Test Well ☐ Other ☒

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned ☒ New well ☐ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 1½ inches. Drilled _____ feet. Depth of completed well _____ ft.

(6) CONSTRUCTION DETAILS:

Casing installed: _____" Diam. from _____ ft. to _____ ft.
Welded ☐ Liner installed ☐ Threaded ☐ _____" Diam. from _____ ft. to _____ ft.
_____" Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

[redacted] seal: Yes ☒ No ☐ To what depth? _____ ft.
Material used in seal CEMENT
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level _____ ft. below top of well Date _____
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Used 1" PVC to bottom of well then cemented from bottom up, pulling PVC pipe up as pouring cement. Cut 1½" pipe off 1½ feet below ground.		

RECEIVED
[redacted] 12 1989
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 5-11, 19. Completed 5-11, 1989

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME WATER WELLS Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 5503 Ahtanum Rd.

(Signed) Jerry L. Rink (WELL DRILLER) License No. 1435

Contractor's Registration No. WATER W 131 N8 Date 5-11, 1989

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 30

Permit No. ....

(1) OWNER: Name Terry Potts Address 1509 So. 17th St. Yakima, Wa.

LOCATION OF WELL: County Yakima — NE ¼ SW ¼ Sec 20 T 13 N., R 19 W.M.

earing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 52 ft. Depth of completed well 52 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 52 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level 16
Static level ft. below top of well Date 4/11/86
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 130 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Topsoil	0	3
River rock, soil, sand	3	18
Gravel, brown clay sand	18	28
Gravel, grey clay, sand, water	28	35
Gravel, Brownclay, sand, water	35	52

RECEIVED
JUL - 1 1986
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 4/9/86, 19.... Completed 4/9/86, 19....

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Vernon L. Rank
(Person, firm, or corporation) (Type or print)

Address 5503 Ahtanum Rd. Yakima, Wa. 98903

[Signed] Vernon L. Rank
(Well Driller)

License No. 0854 Date 4/12/86, 19....

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 31

Permit No. ....

(1) **OWNER:** Name Frank Gutierrez Address 1416 So. 18th St. Yakima, WA

(2) **LOCATION OF WELL:** County Yakima — NE¼ SW¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner 31452

(3) **PROPOSED USE:** Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 45 ft. Depth of completed well 45 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 10" Diam. from 0 ft. to 18 ft.
Threaded ☐ 6" Diam. from 0 ft. to 45 ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) **PUMP:** Manufacturer's Name
Type: H.P.

(8) **WATER LEVELS:** Land-surface elevation above mean sea level.... ft.
Static level 19 ft. below top of well Date 3-12-77
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 15 gal./min. with 15 ft. drawdown after 3 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) **WELL LOG:**

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Boulders	0	16
brown sand	16	23
hard pan	23	25
blue sand	25	35
hard pan	35	36
brown sand	36	40
gravel	40	45
		T.D.

RECEIVED
JUN 13 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 3-9, 1977 Completed 3-12, 1977

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME 'A' Bach Well Drlg.
(Person, firm, or corporation) (Type or print)

Address P.O. Box 48 Yakima, WA 98907

[Signed] Bob Cannon
(Well Driller)

License No. 0702 Date 3-18, 1977

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 32
Permit No. ....

(1) OWNER: Name Carlos Diaz Address 1416½ E. Nob Hill Yakima, Wa

(2) LOCATION OF WELL: County Yakima — NE ¼ SW ¼ Sec 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 50 ft. Depth of completed well 50 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 49 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 14 ft. below top of well Date 1/28/87
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 50 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Topsoil	0	5
Overburden & river rock	5	22
Brown clay & gravel	22	35
Gravel, silt & water	35	45
Brown clay & gravel	45	48
Gravel & water	48	50

RECEIVED
JUN - 8 1987
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 1/28/87, 19 Completed 1/28/87, 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Vernon L. Rank
(Person, firm, or corporation) (Type or print)

Address 5503 Ahtanum Rd. Yakima, Wa. 98903

[Signed] Vernon L. Rank
(Well Driller)

License No. 0854 Date 2/3/87, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 33

Permit No. ....

(1) OWNER: Name A. F. WHEELER Address 1701 DALTON LANE - YAKIMA

(2) LOCATION OF WELL: County YAKIMA — SE¼ NW¼ Sec. 29 T. 13 N., R. 19 E W.M.

...ring and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2" inches.
Drilled ....ft. Depth of completed well 29' ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2" Diam. from 0 ft. to 29' ft.
Threaded ☐ ." Diam. from ft. to ft.
Welded ☒ ." Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal BENTONITE & CEMENT GROUT
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level APP 1020 ft.
Static level 20' ft. below top of well Date 3-24-76
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: 10 gal./min. with ft. drawdown after hrs.
" WITH PITCHER PUMP " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 55° Was a chemical analysis made? Yes ☐ No ☒
OK

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL (DARK B)	0	1
CONGLOMERATE	1	29

DRIVEN WELL

RECEIVED
APR 15 1976
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 3-24, 19 76 Completed 3-24, 19 76

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 SO. 10TH AVE

[Signed] (Well Driller)

License No. 0218 Date 3-25, 19 76

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 34

Permit No. ....

(1) OWNER: Name Triboulet Bros. Address 1609 E. Nob Hill Bv. Yakima, Wa

(2) LOCATION OF WELL: County Yakima — SE ¼ NW ¼ Sec. 21 T. 13 N., R. .... W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 42 ft. Depth of completed well 42 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 10" Diam. from 0 ft. to 18 ft.
Threaded ☐ 6" Diam. from 0 ft. to 42 ft.
Welded ☒ ...." Diam. from .... ft. to .... ft.

Perforations: Yes ☐ No ☒
Type of perforator used ....
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name ....
Type .... Model No. ....
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal benonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? .... Depth of strata ....
Method of sealing strata off ....

(7) PUMP: Manufacturer's Name ....
Type: .... H.P. ....

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 19 ft. below top of well Date 4-13-77
Artesian pressure .... lbs. per square inch Date ....
Artesian water is controlled by .... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? ....
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ....
Bailer test 40 gal./min. with 4 ft. drawdown after 3 hrs.
Artesian flow .... g.p.m. Date ....
Temperature of water .... Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
boulders	0	16
brown sand	16	28
gravel	28	30
blue sand	30	37
gravel	37	42

RECEIVED
JUN 13 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 4-11, 1977. Completed 4-13, 1977

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME 'A' Bach Well Drlg. (Person, firm, or corporation) (Type or print)

Address P.O. Box 48 Yakima, WA 98907

[Signed] Bob Cannon (Well Driller)

License No. 0702 Date 4-15, 1977

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 3

Permit No. .....

(1) OWNER: Name Ralph Perry Address 1902 Sliger Rd. Yakima, Wa.

(2) LOCATION OF WELL: County Yakima — SW¼ NE¼ Sec 29 T 13N., R 19E W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 40 ft. Depth of completed well 40 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 37 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☐ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite clay
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level 20 ft. below top of well Date 3/23/76
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 25 gal./min. with 15 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG: G

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Brwon soil	0	3
Cemented gravel	3	30
River rock wb	30	40

RECEIVED
OCT 19 1978
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 3/22/76 19 Completed 3/23/76 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME B & B Well Drilling
(Person, firm, or corporation) (Type or print)
Address Rt. 7 Box 600-A Yakima, Wa. 98903

[Signed] Harvey Blackman
(Well Driller)

License No. ~~770~~ 0037 Date 3/28, 19 76

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 36

Permit No. ....

(1) OWNER: Name obart Murphy Address 1312 E. Arlington, Yakima, Wa.

LOCATION OF WELL: County Yakima — SW ¼ NE ¼ Sec. 29 T. 12 N., R 19 W.M.

ing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 62 ft. Depth of completed well 62 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 60 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 23 ft. below top of well Date 1/17/86
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 50 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Soil & river rock	0	18
Silt & river rock	18	32
Consolidated rock	32	35
Sand, gravel, & brown clay	35	50
Gravel & water	50	62

RECEIVED MAR
DEPARTMENT OF ECOLOGY CENTRAL REGION

Work started 1/17/86, 19 Completed 1/17/86, 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Vernon L. Rank
(Person, firm, or corporation) (Type or print)

Address 5503 Ahtanum Rd. Yakima, Wa. 98903

[Signed] Vernon L. Rank
(Well Driller)

License No. 0854 Date 1/18/86, 19

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 37

Permit No. ....

(1) **OWNER:** Name Mrs. Ruby Brooks Address 1705 Dalton Lane

(2) **LOCATION OF WELL:** County Yakima NW ¼ SE ¼ Sec. 29 T. 13 N., R. 19 W.M.

Bearing and distance from section or subdivision corner Behind fairgrounds

(3) **PROPOSED USE:** Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one).... 1
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 60 ft. Depth of completed well 60 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 6 " Diam. from +2 ft. to 60 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20+ ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) **PUMP:** Manufacturer's Name
Type: H.P.

(8) **WATER LEVELS:** Land-surface elevation above mean sea level.... ft.
Static level 14' ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: 50 gal./min. with ft. drawdown after hrs.
" by "Air lift " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) **WELL LOG:**

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Gravel and boulders	0	20
Gravel and boulders	20	60
Static Water level 14 ft.		
Approx 50 gpm at 60 ft.		

RECEIVED
AUG 2 1985

Work started 6/18/85, 19 Completed 6/19/85, 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME RIEBE WELL DRILLING
(Person, firm, or corporation) (Type or print)

Address 1503 E. Nob Hill Blvd.

[Signed] John H Riebe
(Well Driller)

License No. 0422 Date 6/25/85, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 54
Permit No. ....

(1) OWNER: Name S.M. MILLER Address 1812 EAST ARLINGTON

(2) LOCATION OF WELL: County YAKIMA — SW ¼ NE ¼ Sec. 29 T. 13 N., R. 19 W.M.

ring and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☐ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☒ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 1¼" inches.
Drilled ....ft. Depth of completed well 29' ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 1¼" Diam. from 0 ft. to 29' ft.
Threaded ☐ ....." Diam. from .... ft. to .... ft.
Welded ☒ ....." Diam. from .... ft. to .... ft.

Perforations: Yes ☐ No ☒
Type of perforator used....
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name....
Type.... Model No....
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?.... Depth of strata....
Method of sealing strata off....

(7) PUMP: Manufacturer's Name....
Type: .... H.P....

(8) WATER LEVELS: Land-surface elevation above mean sea level APP 1040 ft.
Static level 19 ft. below top of well Date 1-11-77
Artesian pressure .... lbs. per square inch Date....
Artesian water is controlled by .... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?....
Yield: 5 gal./min. with .... ft. drawdown after .... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

ate of test ....
r test.... gal./min. with .... ft. drawdown after .... hrs.
Artesian flow.... g.p.m. Date....
Temperature of water 56 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL	0	4
CONGLOMERATE	4	29
WENT INSIDE 2" PIPE WITH 1¼" PIPE PUT BENTONITE IN 2 INCH PIPE AND DRILLED THROUGH IT WITH 1¼. TO 29 FT.		

RECEIVED
FEB 25 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 1-11 19 77 Completed 1-11 19 77

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 SO. 10TH AVE.

[Signed] Florence Jensen
(Well Driller)

License No. 0218 Date 1-28 19 77

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

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WATER WELL REPORT
STATE OF WASHINGTON

Application No. 37/
Permit No. ....

(1) OWNER: Name I. A. Sliger Address 1301 S. 18th St., Yakima, Washingt

(2) LOCATION OF WELL: County Yakima — SW ¼ NE ¼ Sec. 29 T. 13 N., R 19 E W.M.

ring and distance from section or subdivision corner

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well [ ] Method: Dug [ ] Bored [ ]
Deepened [X] Cable [ ] Driven [ ]
Reconditioned [ ] Rotary [X] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 40 ft. Depth of completed well 40 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from 0 ft. to 40 ft.
Threaded [ ] " Diam. from ft. to ft.
Welded [X] " Diam. from ft. to ft.

Perforations: Yes [ ] No [X]
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes [ ] No [X]
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes [ ] No [X] Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes [X] No [ ] To what depth? 20 ft.
Material used in seal bentonite clay
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 15 ft. below top of well Date 4-7-76
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 25 gal./min. with 20 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Soil, Brn.	0	4
Sand, Gravel	4	18
River rock, Cemented	18	35
River Rock, WB	35	40

RECEIVED
JUN 28 1977
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 4-7-76, 19 Completed 4-7-76, 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME B&B Well Drilling
(Person, firm, or corporation) (Type or print)

Address Rt 7 Box 600-A, Yakima, Wa. 98903

[Signed] Harvey Blackman
(Well Driller)

License No. 0037 Date 4-17-76, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

2817 Start Card No. 40

Water Right Permit No. E

(1) OWNER: Name Cummins Northwest, Inc. Address 1905 Central Ave., Yakima, WA 98901

(2) LOCATION OF WELL: County Yakima SW ¼ NW ¼ Sec 29 T 13 N., R 19 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 1905 Central Ave., Yakima, WA 98901

(3) PROPOSED USE: ☐ Domestic ☐ Irrigation ☐ DeWater Industrial ☐ Test Well ☐ Municipal ☐ Other ☒

(4) TYPE OF WORK: Owner's number of well (if more than one) 1, 2, 3, 4 & 5

Abandoned ☐ New well XX Deepened ☐ Reconditioned ☐ Method: Dug ☒ Cable ☐ Rotary ☐ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 4 inches.

Drilled 22 feet. Depth of completed well 22 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: PVC 4" Diam. from 0 ft. to 22 ft.

Welded ☐ Liner installed ☐ Threaded ☐ ____" Diam. from ____ ft. to ____ ft.

Perforations: Yes ☒ No ☐

Type of perforator used Saw cut

SIZE of perforations 1/8 in. by 4 in.

____ perforations from 12 ft. to 22 ft.

____ perforations from ____ ft. to ____ ft.

____ perforations from ____ ft. to ____ ft.

Screens: Yes ☐ No ☒

Manufacturer's Name ____

Type ____ Model No. ____

Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel ____

Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.

Material used in seal Bentonite

Did any strata contain unusable water? Yes ☐ No XX

Type of water? ____ Depth of strata ____

Method of sealing strata off ____

(7) PUMP: Manufacturer's Name None

Type: ____ H.P. ____

(8) WATER LEVELS: Land-surface elevation above mean sea level 1,000 ft.

Static level 20 ft. below top of well Date 1/31/90

Artesian pressure ____ lbs. per square inch Date ____

Artesian water is controlled by ____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level

Was a pump test made? Yes ☐ No ☒ If yes, by whom? ____

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

" " " "

" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ____

Bailer test ____ gal./min. with ____ ft. drawdown after ____ hrs.

Airtest ____ gal./min. with stem set at ____ ft. for ____ hrs.

Artesian flow ____ g.p.m. Date ____

Temperature of water 60° Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Gravel backfill	0	22

ENTERED

RECEIVED
MAR - 0 1990
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 1/15, 1990 Completed 2/15, 1990

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

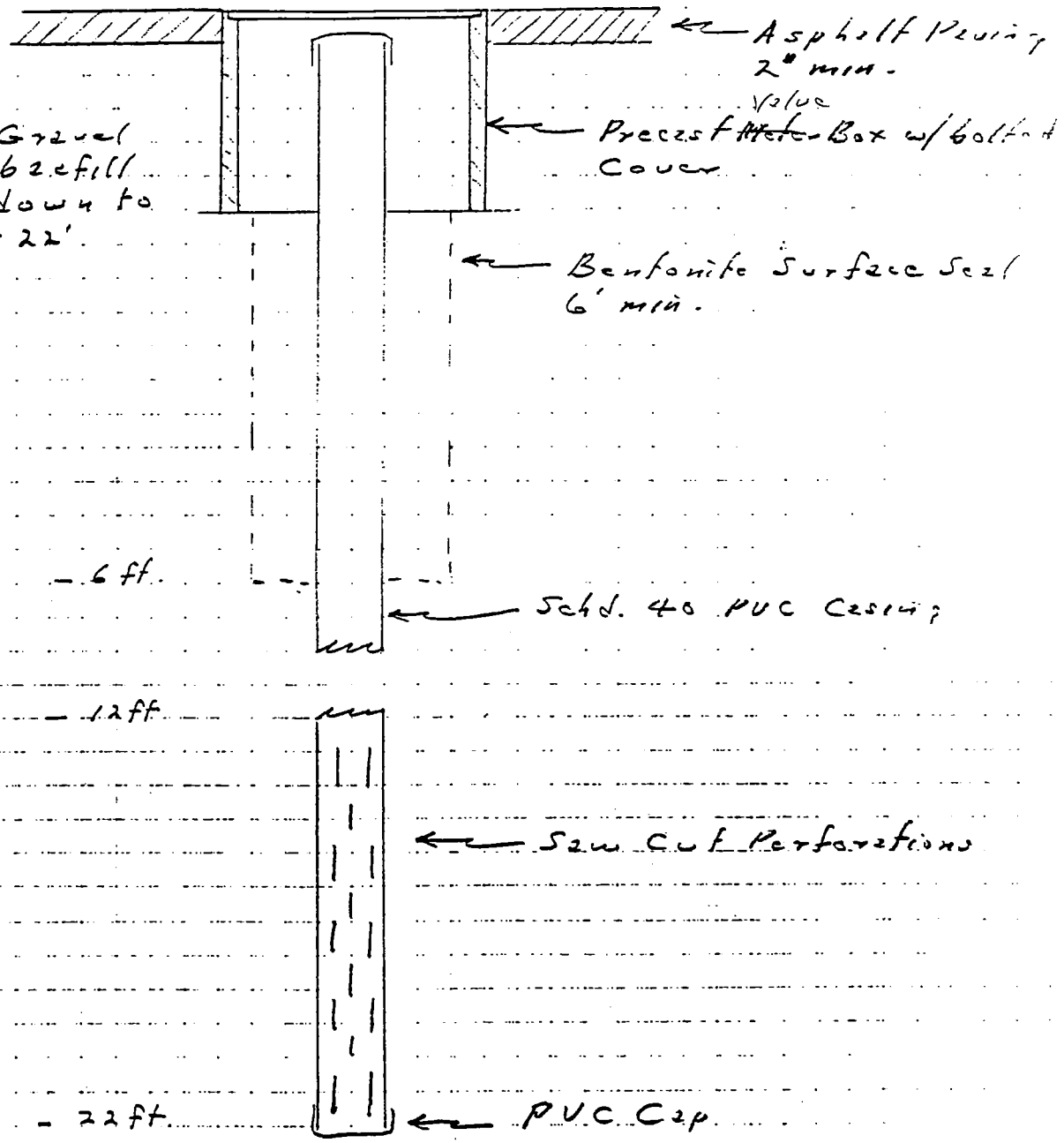
NAME Bradley J. Card (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 1120 West Lincoln Ave., Yakima, WA

(Signed) Bradley J. Card (WELL DRILLER) License No. 1694

Contractor's Registration No. none Date 2/28, 1990

(USE ADDITIONAL SHEETS IF NECESSARY)



Cummins Northwest, Inc.

Resource Protection Well

(Four Each Installed)

Bradley Card

Driller License No. 1694

RECEIVE
MAR 20 1990
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

CHRISTINE GREGOIRE
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
3601 W. Washington • Yakima, Washington 98903-1164 • (509) 575-2800

January 25, 1990

Bradley J. Card, P.E.
1120 West Lincoln Avenue
Yakima, WA 98902

RE: Resource Protection Well Construction
WAC 173-160-550, Variance.

Dear Mr. Card:

This letter is sent with respect to Randy Jackson's January 24, 1990, office conversation concerning a four-well monitoring network at Cummins Northwest, Inc., 1905 Central, Yakima, Washington.

1. This variance is granted for the resource protection well network located at the property in the County of Yakima, commonly known as 1905 Central Avenue.

2. The work is to be performed by a licensed well driller as set forth by WAC 173-162-040.

3. An upper drill hole having a diameter of at least four (4) inches greater than the nominal size of the permanent casing shall be installed to at least six (6) feet below the top of the casing. The annular space between the upper drill hole and the permanent casing shall be filled to the top with cement grout, puddling clay, or bentonite.

4. Other requirements of WAC 173-160-550, and specifically those in Sections 1C and 2C aimed at below ground surface completions must be complied with. Special consideration must be given to siting the wells at topographic high points to insure against surface water drainage into the wells or "water-meter covers" provided for the below ground completion.

If you have questions concerning this variance, please contact Randy Jackson at (509) 575-2800.

Sincerely,

Doug Clausing

Doug Clausing
Section Supervisor
Water Resources Program

DC/RJ:gh
901.188 grm2

RECEIVED
MAR 20 1990
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

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Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 41

Permit No. .....

(1) **OWNER:** Name Perry Robinson Address 1512 So. 17th St. Yakima Wn

(2) **LOCATION OF WELL:** County YAKIMA — ¼ ¼ Sec. T. N., R. W M.

Bearing and distance from section or subdivision corner

(3) **PROPOSED USE:** Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 2 inches.
Drilled ..... ft. Depth of completed well 24 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 2 " Diam. from 0 ft. to 24 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☒ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal Cement Grout.
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) **PUMP:** Manufacturer's Name .....
Type: ..... H.P. .....

(8) **WATER LEVELS:** Land-surface elevation above mean sea level .... ft.
Static level 14 ft - 6 in ft. below top of well Date .....
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by .....
(Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? .....
Yield: 10 gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 56 Was a chemical analysis made? Yes ☐ No ☐

(10) **WELL LOG:**

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil.	0	2
Conglomerate.	2	24

Work started 3-21 19 75 Completed 3-21 19 75

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 So. 10th ave. Yakima. 9890

[Signed] Florence M Jensen
(Well Driller)

License No. 0218 Date ....., 19.....

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 42

Permit No. ....

(1) OWNER: Name ROY E. ROBERSON Address 1213 SO. 15TH STREET, YAKIMA

(2) LOCATION OF WELL: County YAKIMA — NE ¼ NW ¼ Sec. 27 T. 13 N., R. 17 E W.M.

Bearing and distance from section or subdivision corner

PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ....ft. Depth of completed well 30 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 30' ft.
Threaded ☐ ...." Diam. from .... ft. to .... ft.
Welded ☒ ...." Diam. from .... ft. to .... ft.

Perforations: Yes ☐ No ☒
Type of perforator used....
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name....
Type.... Model No....
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal BENTONITE & CEMENT GROUT
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? .... Depth of strata....
Method of sealing strata off....

(7) PUMP: Manufacturer's Name....
Type: .... H.P....

(8) WATER LEVELS: Land-surface elevation above mean sea level ABV 1040 ft.
Static level 10' ft. below top of well Date 10-9-75
Artesian pressure .... lbs. per square inch Date....
Artesian water is controlled by .... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?....
Yield: 10 gal./min. with .... ft. drawdown after .... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ....
er test .... gal./min. with .... ft. drawdown after .... hrs.
esian flow .... g.p.m. Date....
Temperature of water 56° Was a chemical analysis made? Yes ☐ No ☒

OK MAB

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL	0	3
CONGLOMERATE	3	30

RECEIVED
OCT 28 1975
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 10-9 19 75 Completed 10-9 19 75

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 So. 10TH AVE

[Signed] .... (Well Driller)

License No. 0218 Date 10-17 19 75

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71)

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Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 43

Permit No. ....

(1) OWNER: Name [illegible] Address [illegible]

(2) LOCATION OF WELL: County [illegible] — NW ¼ NW ¼ Sec. [illegible] T. 13 N., R. 17 W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☑ Jetted ☐

(5) DIMENSIONS: Diameter of well ... inches.
Drilled [illegible] ft. Depth of completed well [illegible] ft.

(6) CONSTRUCTION DETAILS:

Casing installed: [illegible] " Diam. from [illegible] ft. to [illegible] ft.
Threaded ☐ ...... " Diam. from ...... ft. to ...... ft.
Welded ☑ ...... " Diam. from ...... ft. to ...... ft.

Perforations: Yes ☐ No ☑
Type of perforator used
SIZE of perforations ...... in. by ...... in.
...... perforations from ...... ft. to ...... ft.
...... perforations from ...... ft. to ...... ft.
...... perforations from ...... ft. to ...... ft.

Screens: Yes ☐ No ☑
Manufacturer's Name
Type ...... Model No.
Diam. ...... Slot size ...... from ...... ft. to ...... ft.
Diam. ...... Slot size ...... from ...... ft. to ...... ft.

Gravel packed: Yes ☐ No ☑ Size of gravel:
Gravel placed from ...... ft. to ...... ft.

Surface seal: Yes ☑ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? ...... Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: ...... H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ...... ft.
Static level 21 ft. below top of well Date 8/3/83
Artesian pressure ...... lbs. per square inch Date
Artesian water is controlled by ...... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? Air Lift
Yield: 60 gal./min. with ...... ft. drawdown after ...... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test ...... gal./min. with ...... ft. drawdown after ...... hrs.
Artesian flow ...... g.p.m. Date
Temperature of water ...... Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Gravel	0	52

Work started 8/3, 19 83. Completed 8/3, 19 83

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Poulin & McGuire Drilling (Person, firm, or corporation) (Type or print)

Address RT. 3 Box 335 E

[Signed] Tom McGuire (Well Driller)

License No. 0357 Date 8/8, 19 83

(USE ADDITIONAL SHEETS IF NECESSARY) 52 12-8-83

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....
Permit No. 47

(1) OWNER: Name Bill Amick Yakima Speedway Address 1600 Pacific Yakima 98901

(2) LOCATION OF WELL: County Yakima — ¼ ¼ Sec. 29 T. 13 N., R. 19E W.M.

Bearing and distance from section or subdivision corner

PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐
Beautify Property — Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ..... ft. Depth of completed well 20½ ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 20½ ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☐ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No. .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal Cement Grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... 1020 ft.
Static level 4.5? ft. below top of well Date 6/21/74
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by ..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? .....
Yield: 10 gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 57 Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	0
Conglomerate with large boulders	0	-

Work started 6/21 19 74 Completed 6/21 19 74

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensens Well Drilling & Driving
(Person, firm, or corporation) (Type or print)

Address 1603 South 10th Avenue Yakima 989

[Signed] Florence M. Jensen
(Well Driller)

License No. 0218 Date 7/22 19 74

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....

Permit No. 4

(1) OWNER: Name Bill Amick Yakima Speedway Address 1600 Pacific Yakima 98901

(2) LOCATION OF WELL: County Yakima — 1/4 1/4 1/4 Sec. 29 T. 13 N., R. 19E W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Beautify Property — Domestic ☐ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....

New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ..... ft. Depth of completed well 20 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 20 ft.
Threaded ☐ ..... " Diam. from ..... ft. to ..... ft.
Welded ☐ ..... " Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name .....
Type ..... Model No. .....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depths? 6 ft.
Material used in seal Cement Grout
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name .....
Type: ..... H.P. .....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... 1020 ft.
Static level 4 ft. below top of well Date .....
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by ..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? .....
Yield: 25 gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water 57 Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil None		
Conglomerate with large rocks	0	-

Work started 6/21, 19 74 Completed 6/24, 19 74

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensens Well Drilling & Driving
(Person, firm, or corporation) (Type or print)
Address 1603 So. 10th Ave Yakima 98902

[Signed] Florence M. Jensen
(Well Driller)

License No. 0218 Date 7/22, 19 74

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 45

Permit No. ....

(1) OWNER: Name Joe P. Moser Address 1631 So. 12th Ave Yakima

(2) LOCATION OF WELL: County Yakima — E ¼ ¼ Sec 29 T. 13 N., R. 19 W.M.

ing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [ ] Driven [X]
Reconditioned [ ] Rotary [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled ....ft. Depth of completed well 29 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 29 ft.
Threaded [ ] ....." Diam. from .... ft. to .... ft.
Welded [X] ....." Diam. from .... ft. to .... ft.

Perforations: Yes [ ] No [ ]
Type of perforator used....
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes [ ] No [ ]
Manufacturer's Name....
Type.... Model No....
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes [ ] No [ ] Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes [X] No [ ] To what depth? 6 ft.
Material used in seal Bentonite & Cement Grout
Did any strata contain unusable water? Yes [ ] No [ ]
Type of water?.... Depth of strata....
Method of sealing strata off....

(7) PUMP: Manufacturer's Name....
Type: .... H.P....

(8) WATER LEVELS: Land-surface elevation above mean sea level.... 1020 ft.
Static level 11 ft. below top of well Date 3/28
Artesian pressure .... lbs. per square inch Date....
Artesian water is controlled by .... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom?....
Yield: 10 gal./min. with .... ft. drawdown after .... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

...te of test ....
Bailer test....gal./min. with....ft. drawdown after....hrs.
Artesian flow....g.p.m. Date....
Temperature of water 56 Was a chemical analysis made? Yes [ ] No [ ]

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	3
Conglomerate- Hard to Harder	3	15
Conglomerate - Softer	15	21
Conglomerate - Real Soft	21	22
Conglomerate - Soft	22	25
Conglomerate - Harder to Real Hard	25	-

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SE...

Work started 3/28, 19 74 Completed 3/28, 19 74

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Jensens Well Drilling & Driving
(Person, firm, or corporation) (Type or print)

Address 1603 So. 10th Ave. Yakima, 98902

[Signed] Clarence W. Jensen
(Well Driller)

License No. 0218 Date 4/27, 19 74

11/29/74

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 47
Permit No.

(1) OWNER: Name [illegible] Address [illegible]

(2) LOCATION OF WELL: County Yakima SW1/4 SE 1/4 NW 1/4 Sec 29 T 13 N., R 19 W.M.
Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐ Irrigation ☑ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☑ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 16 inches.
Drilled 700 ft. Depth of completed well 700 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 16" Diam. from +3 ft. to 635 ft.
Threaded ☐ 8" Diam. from 621 ft. to 700 ft.
Welded ☑ " Diam. from ft. to ft.

Perforations: Yes ☑ No ☐
Type of perforator used Mill slot (machine cut) (above casing)
SIZE of perforations 1/4 in. by 3 in.
2520 perforations from 622 ft. to 640 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☑
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☑ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☑ No ☐ To what depth? 25 ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level ft. below top of well Date
Artesian pressure 4-5 lbs. per square inch Date 10-10-72
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☑ No ☐ If yes, by whom? Fossrens
Yield: 420 gal./min. with 40 ft. drawdown after 2 1/2 hrs.
" 625 " 151 " 3 "
" 550 " 136 " 4 "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
~~10~~					
5:00	136				
20	FLOWING				

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 67 Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
GRAVEL, SAND, SILT LOOSE	0	12
CONGLOMERATE GRAY	12	23
GRAVEL, BOULDERS, SAND, LOOSE	23	49
CONGLOMERATE, GRAY, COARSE	49	70
CONGLOMERATE, TAN, COARSE	70	153
CONGLOMERATE GRAY	153	187
CONGLOMERATE BROWN	187	315
CONGLOMERATE TAN	315	341
CONGLOMERATE, BROWN, HARD	341	365
CLAY, BROWN STICKY	365	381
CLAY GRAY STICKY	381	433
SHALE, GREEN "	433	441
SHALE, GREEN STICKY & PEA GRAVEL	441	454
GRAVEL, SHALE, GREEN, LOOSE, SOME WATER	454	455
SAND, GRAVEL LOOSE	455	456
SHALE, GREEN, SOME GRAVEL	456	475
CONGLOMERATE DARK GRAY	475	480
CLAY, DARK GRAY	480	517
SHALE, GREEN, S. GRAVEL	517	523
CONGLOMERATE, DARK GRAY, H	523	541
CLAY, BROWN, STICKY	541	545
CONGLOMERATE, L. BROWN	545	556
CLAY, BROWN STICKY	556	608
CONGLOMERATE, GRAY	608	632
SAND, COARSE, WITH SMALL GRAVEL, (WATER)	632	635
BAILED APPROX 100 GPM FROM 24 FT. - STATIC 10 FT		
CONGLOMERATE, TAN, TIGHT	635	644
CONGLOMERATE, CLEAN, BAILED 85 GPM FROM 15 FT, STATIC 6 FT	644	655
CONGLOMERATE, CLEAN AND SILTED AREAS INTERMITTENT STATIC INCREASED GRADUALLY TO 100 GPM FLOW	655	690

Work started 7-14, 1975 Completed 10-29, 1975

WELL DRILLER'S STATEMENT:
CONGLOMERATE, TAN, HEAVY SILT 690-700
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME CASSEL WELL DRILLING (Person, firm, or corporation) (Type or print)
Address 1308 VOELKER YAKIMA, WN
[Signed] [signature] (Well Driller)
License No. 0073 Date 11-12, 1975

OK CMC 11/20/75

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 46

Permit No. ....

(1) OWNER: Name DAVID E. JOHNSTON Address 508 S. 7TH AVE

(2) LOCATION OF WELL: County YAKIMA — SW¼ SW¼ Sec. 29 T. 13 N., R. 19 E W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled.....ft. Depth of completed well 30 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 30 ft.
Threaded ☐ ....." Diam. from ..... ft. to ..... ft.
Welded ☒ ....." Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used.....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name.....
Type..... Model No.....
Diam. ..... Slot size ..... from ..... ft. to ..... ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal BENTONITE & CEMENT GROUT
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?..... Depth of strata.....
Method of sealing strata off.....

(7) PUMP: Manufacturer's Name.....
Type: ..... H.P.....

(8) WATER LEVELS: Land-surface elevation above mean sea level APP 1020 ft.
Static level 11' ft. below top of well Date 10-28-76
Artesian pressure .....lbs. per square inch Date.....
Artesian water is controlled by.....
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?.....
Yield: 10 gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test.....gal./min. with.....ft. drawdown after.....hrs.
Artesian flow.....g.p.m. Date.....
Temperature of water 58° Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL	0	½
CONGLOMERATE	½	30

WELL IS AT 1115 SIMPSON LANE.

RECEIVED
DEC 1 - 1976
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 10-27, 19 76 Completed 10-28, 19 76

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & PUMPING
(Person, firm, or corporation) (Type or print)

Address 1603 So. 10TH AVE.

[Signed] Lawrence Jensen
(Well Driller)

License No. 0218 Date 11-30, 19 76

S. F. No. 7356—OS—(Rev. 4-71) (USE ADDITIONAL SHEETS IF NECESSARY) WWM

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 49
Permit No. ✓

(1) OWNER: Name GLENN M. WARD Address 705 W. PEAR AVE., SELAH 98

(2) LOCATION OF WELL: County YAKIMA — SW ¼ SW ¼ Sec. 29 T. 13 N., R. 19 W.M.

...ing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☒
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled....ft. Depth of completed well 26 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 2 " Diam. from 0 ft. to 26'10" ft.
Threaded ☐ ..." Diam. from ... ft. to ... ft.
Welded ☒ ..." Diam. from ... ft. to ... ft.

Perforations: Yes ☐ No ☒
Type of perforator used....
SIZE of perforations ... in. by ... in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name....
Type.... Model No....
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ...
Gravel placed from ... ft. to ... ft.

Surface seal: Yes ☒ No ☐ To what depth? 6 ft.
Material used in seal BENTONITE & CEMENT GROUT
Did any strata contain unusable water? Yes ☐ No ☐
Type of water?.... Depth of strata....
Method of sealing strata off....

(7) PUMP: Manufacturer's Name....
Type: .... H.P....

(8) WATER LEVELS: Land-surface elevation above mean sea level... APP. 1020 ft.
Static level 14 ft. below top of well Date 11-6-79
Artesian pressure ...lbs. per square inch Date....
Artesian water is controlled by.... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?....
Yield: 10 gal./min. with ... ft. drawdown after ... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

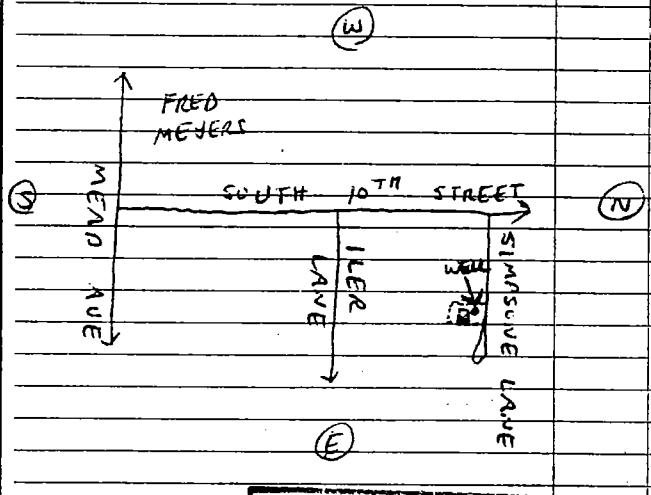
Time	Water Level	Time	Water Level	Time	Water Level

Date of test ...
ler test....gal./min. with....ft. drawdown after....hrs.
Artesian flow....g.p.m. Date....
Temperature of water 62 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG: N

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL (MED B.) EASY	0	1
CONGLOMERATE " HARD	1	26



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SEP 26 1980

Work started 11-6, 19 79 Completed 11-6, 19 79

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME JENSEN'S WELL DRILLING & DRIVING
(Person, firm, or corporation) (Type or print)

Address 1603 SO. 10TH AVE.

[Signed] Chris B. Jensen Jr.
(Well Driller)

License No. 0218 Date 11-23, 19 79

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 5

Permit No. ....

(1) OWNER: Name Harry Stotsenburg Address 1725 So. 1st st. Yakima, Wa.

(2) LOCATION OF WELL: County Yakima NE ¼ SW ¼ Sec. 29 T. 15 N., R. 19 W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 50 ft. Depth of completed well 50 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 50 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level ~~50~~ 7 ft. below top of well Date 8/5/85
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 50 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Overburden & river rock	0	15
Gravel & water	15	16
Sand, gravel, & water	16	48
Coarse gravel & water	43	50

SEP 6 1985
DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

Work started 8/5/85, 19.... Completed 8/5/85, 19....

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Vernon L Rank
(Person, firm, or corporation) (Type or print)

Address 5503 Ahtanum Rd. Yakima, Wa. 98903

[Signed] Vernon L. Rank
(Well Driller)

License No. 98903 Date 8/13/85, 19....

(USE ADDITIONAL SHEETS IF NECESSARY)

1310

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 010242

Water Right Permit No. _____

(1) OWNER: Name Harry Stotensberg Address 1723 S. 1st, Yakima, Wa.

(2) LOCATION OF WELL: County Yakima NE ¼ SW ¼ Sec. 29 T. 13 N., R. 19 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 1505 S. 15th St. Yakima, Wa.

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 53 feet. Depth of completed well 53 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 52 ft.
Welded ☒ Liner installed ☐ Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.
_____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 12 ft. below top of well Date 12/19/88
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 100 gal./min. with stem set at 50 ft. for 1 hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Overburden & river rock	0	18
River rock, gravel, & water	18	25
Sand gravel & clay	25	35
Coarse gravel, rock & water	35	53

RECEIVED
DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 12/21/88 19. Completed 12/21/88 , 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Water Wells Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 5503 Ahtanum Rd. Yakima, Wa.

(Signed) Vernon L. Ranks (WELL DRILLER) License No. 0854

Contractor's Registration No. WATERW*131N8 Date 12/21/88 , 19

(USE ADDITIONAL SHEETS IF NECESSARY)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. /

Permit No. ....

(1) OWNER: Name Lawrence Moser Address

LOCATION OF WELL: County Yakima NW ¼ SE ¼ Sec 29 T. 13 N., R 19 W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6" inches.
Drilled 95 ft. Depth of completed well 95 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 8" Diam. from +1 ft. to 68 ft.
Threaded ☐ 6" Diam. from +1 ft. to 92 ft.
Welded ☐ " Diam. from ft. to ft.

Perforations: Yes ☑ No ☐
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☑ No ☐
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☑ No ☐ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☑ No ☐ To what depth? 74+ ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 12 ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0	1
Gravel, DIRT	1	6
Boulders, Cobbles gravel	6	40
Gravel, Sand, SILT Narrow Cong & SILT lenses 56-58'	40	62
Cobbles, gravel	62	74
conglomerate, gray w/ narrow brown clay & SILT lenses hard	74	92
gravel, w/ brown sand, water	92	95
No GAS odor		

RECEIVED
JUL 30 1982
DEPARTMENT OF ECOLOGY
CENTRAL REGION

Work started 5-17, 19 82 Completed 5-20-, 19 82

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Cassel Well Drilling
(Person, firm, or corporation) (Type or print)

Address 1308 Washington Yakima

[Signed] Larry D Cassel
(Well Driller)

License No. 0073 Date 5-21, 19 82

80 8.3.82

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 53
Permit No.

(1) OWNER: Name .... Address ....

(2) LOCATION OF WELL: County .... NE ¼ NE ¼ Sec. 29 T. 13 N., R. 19 W.M.
Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☐ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 48 inches.
Drilled ...... ft. Depth of completed well ...... ft.

(6) CONSTRUCTION DETAILS:

Casing installed: ......" Diam. from ...... ft. to ...... ft.
Threaded ☐ ......" Diam. from 5 ft. to 41 ft.
Welded ☐ ......" Diam. from ...... ft. to ...... ft.

Perforations: Yes ☐ No ☐
Type of perforator used ......
SIZE of perforations ...... in. by ...... in.
...... perforations from 1 ft. to ...... ft.
...... perforations from ...... ft. to ...... ft.
...... perforations from ...... ft. to ...... ft.

Screens: Yes ☐ No ☐
Manufacturer's Name ......
Type ...... Model No. ......
Diam. ...... Slot size ...... from ...... ft. to ...... ft.
Diam. ...... Slot size ...... from ...... ft. to ...... ft.

Gravel packed: Yes ☐ No ☐ Size of gravel: ......
Gravel placed from ...... ft. to ...... ft.

Surface seal: Yes ☐ No ☐ To what depth? ...... ft.
Material used in seal ......
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ...... Depth of strata ......
Method of sealing strata off ......

(7) PUMP: Manufacturer's Name Carver Pump Co.
Type: ......

(8) WATER LEVELS: Land-surface elevation above mean sea level...... ft.
Static level ...... ft. below top of well Date ......
Artesian pressure 4 lbs. per square inch Date Aug 18 1940
Artesian water is controlled by ...... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? ......
Yield: ...... gal./min. with ...... ft. drawdown after ...... hrs.
300

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ......
Bailer test ...... gal./min. with ...... ft. drawdown after ...... hrs.
Artesian flow ...... g.p.m. Date ......
Temperature of water ...... Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
This well was dug by Carver, shell and ... other record was lost		

Work started ...... 19.... Completed ...... 19....

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME ...... (Person, firm, or corporation) (Type or print)
Address ......
[Signed] ...... (Well Driller)
License No. ...... Date ...... 19....

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71)

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 54

Permit No. 1

(1) OWNER: Name Central Wash. State Fairgrounds Address P. O. Box 1231 Yakima, Wa

(2) LOCATION OF WELL: County Yakima — 3" ¼ NW ¼ Sec 28 T 15 N., R 19 W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 8 ☒ inches.
Drilled 42 ft. Depth of completed well 42 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 8 " Diam. from +1 ft. to 39 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 14 ft. below top of well Date 6/9/87
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 100 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Topsoil	0	1
Boulders, L[illegible] gravel, [illegible] sand	1	5[illegible]
Lg. gravel, sand, [illegible] water	5[illegible]	42

AUG 2 1 1987

Work started 6/4/87, 19 Completed 6/9/87, 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Water Wells Drilling (Person, firm, or corporation) (Type or print)

Address 5503 Ahtanum Rd. Yakima Wa. 98903

[Signed] (Well Driller)

License No. 1455 Date 6/17/87, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

APPENDIX 7

Well Sampling Results

MAID'O'CLOVER
1802 E. NOB HILL BLVD, YAKIMA WA

Testing at the Maid'O'Clover site began March 26, 1992 and has continued to September 23, 1992.

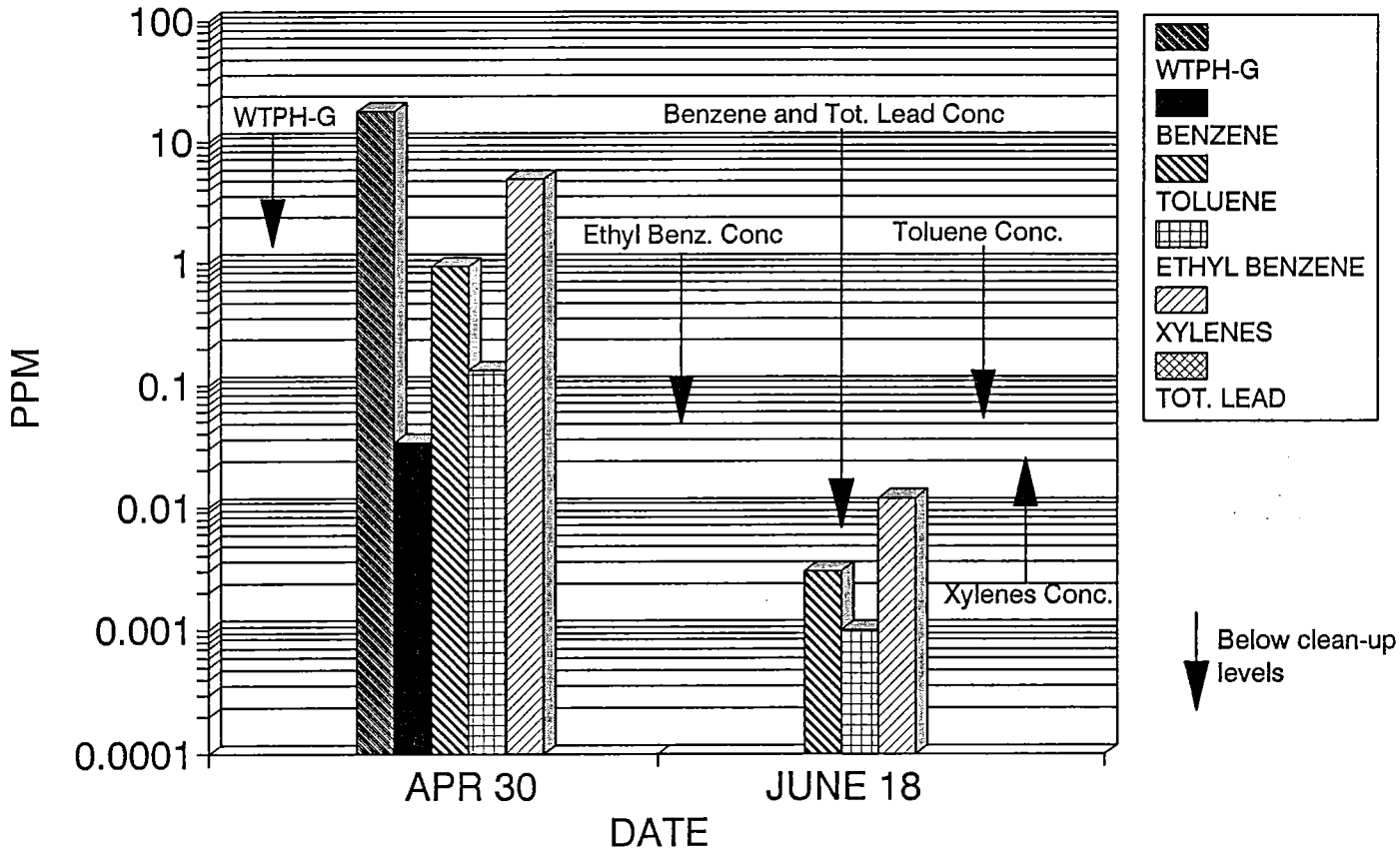
Two types of monitoring wells were developed, six designated as MW, and two as ESE. The ESE wells were developed first by Environmental Science and Engineering, Inc. and are sand packed. The MW wells were developed by Maid'O'Clover, Inc. and were developed in accordance with standard practices for the Yakima area and WAC173-160.

Since tests were started product concentration levels in the MW wells has steadily declined until all the product concentration levels have dropped below clean-up levels except for MW3 and MW6. Wells MW3 and MW6, as of September 23, still had WTPH-G and Xylenes concentrations above allowable levels, but showed rapidly declining concentration levels of these products.

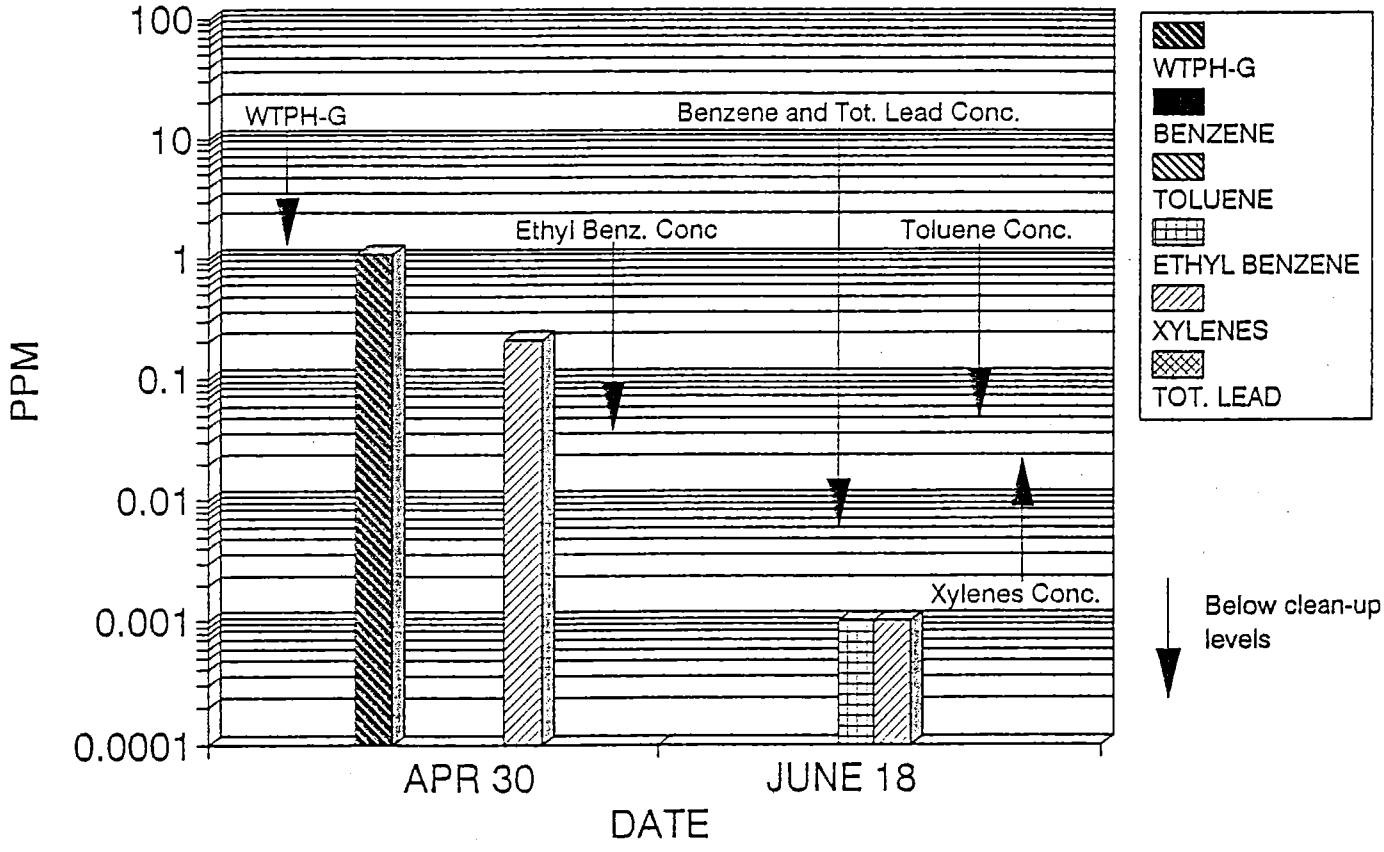
The product concentration levels in the ESE wells have fluctuated since monitoring began, but, overall, concentration levels have not changed dramatically, and many product concentrations are above allowable limits.

The reason the ESE wells are maintaining high concentration levels of product may be the sand around the well, which acts like a sponge, not allowing water to move in or out of it very quickly. Therefore, the product absorbed in the sand pack around the well casing.

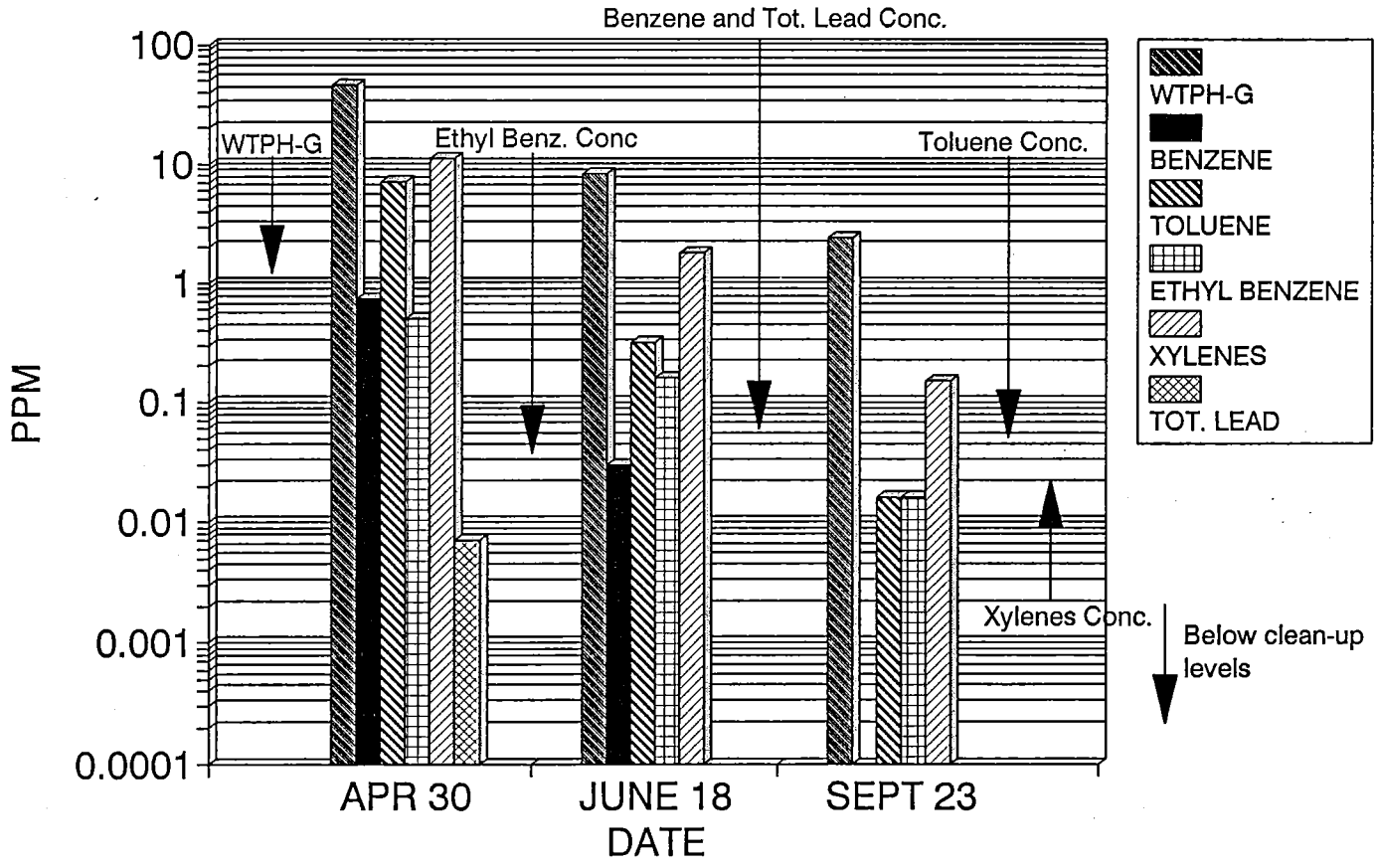
PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, MW1, 1802 E. NOB HILL BLVD.



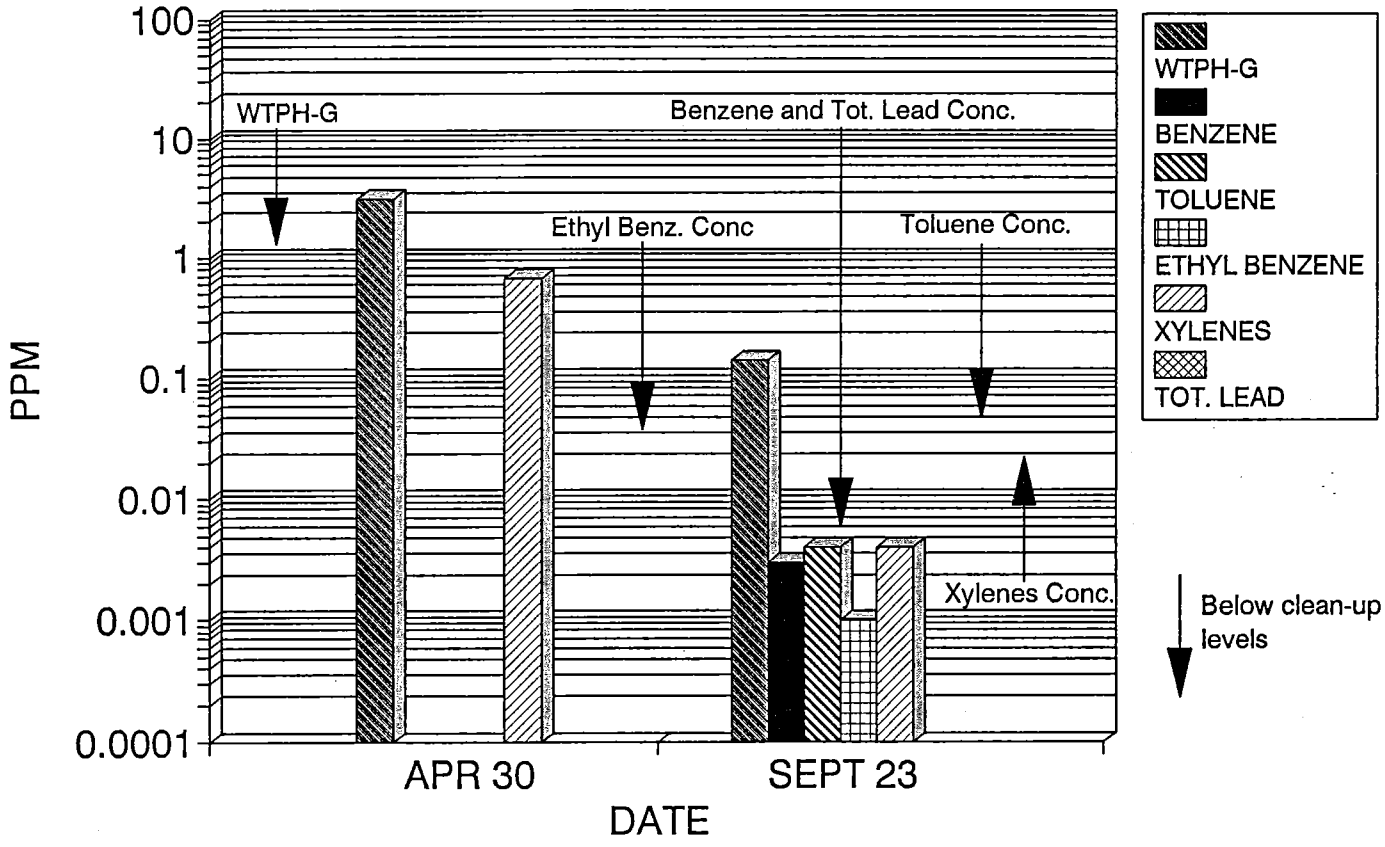
PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, MW2, 1802 E. NOB HILL BLVD.



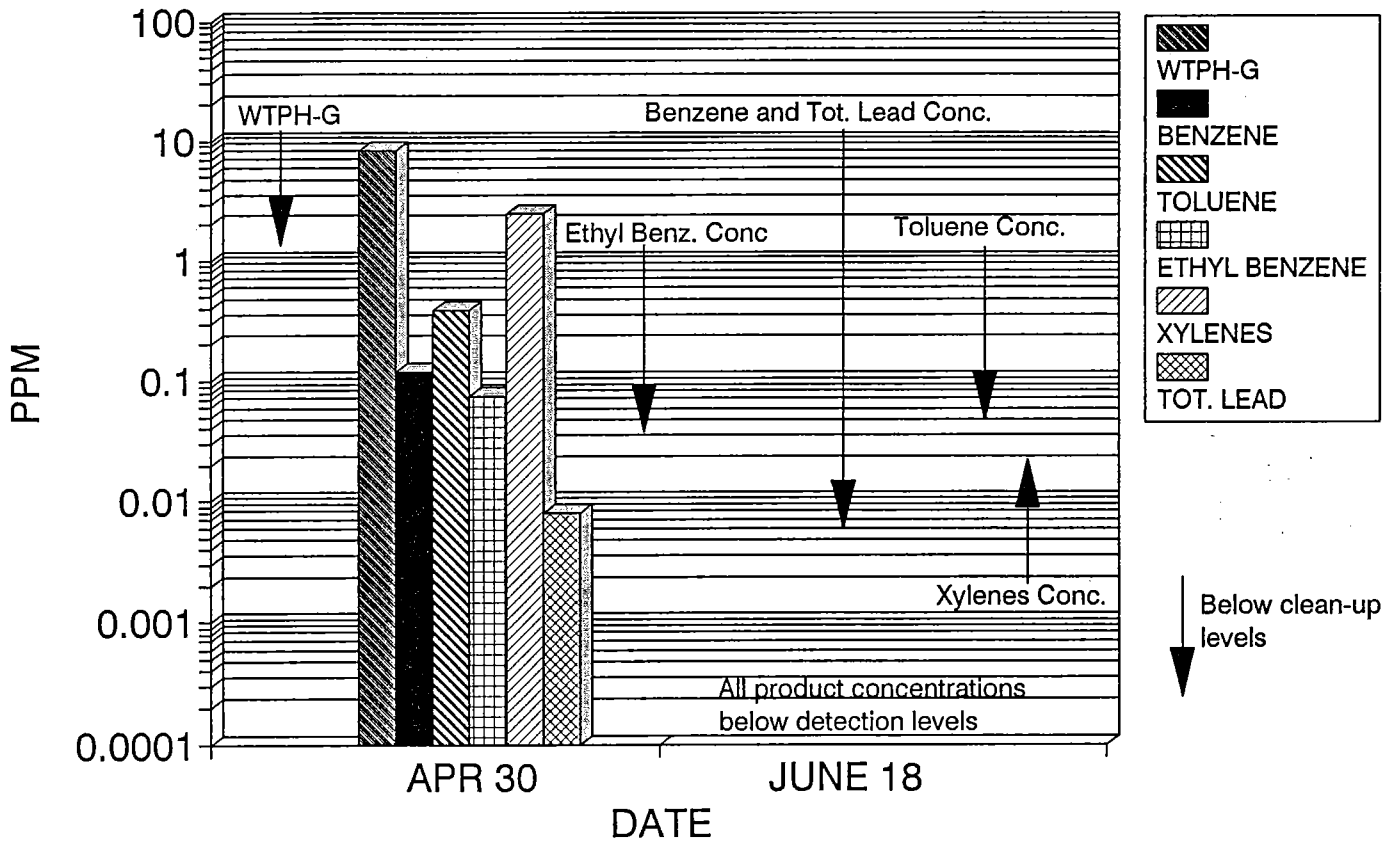
PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, MW3, 1802 E. NOB HILL BLVD.



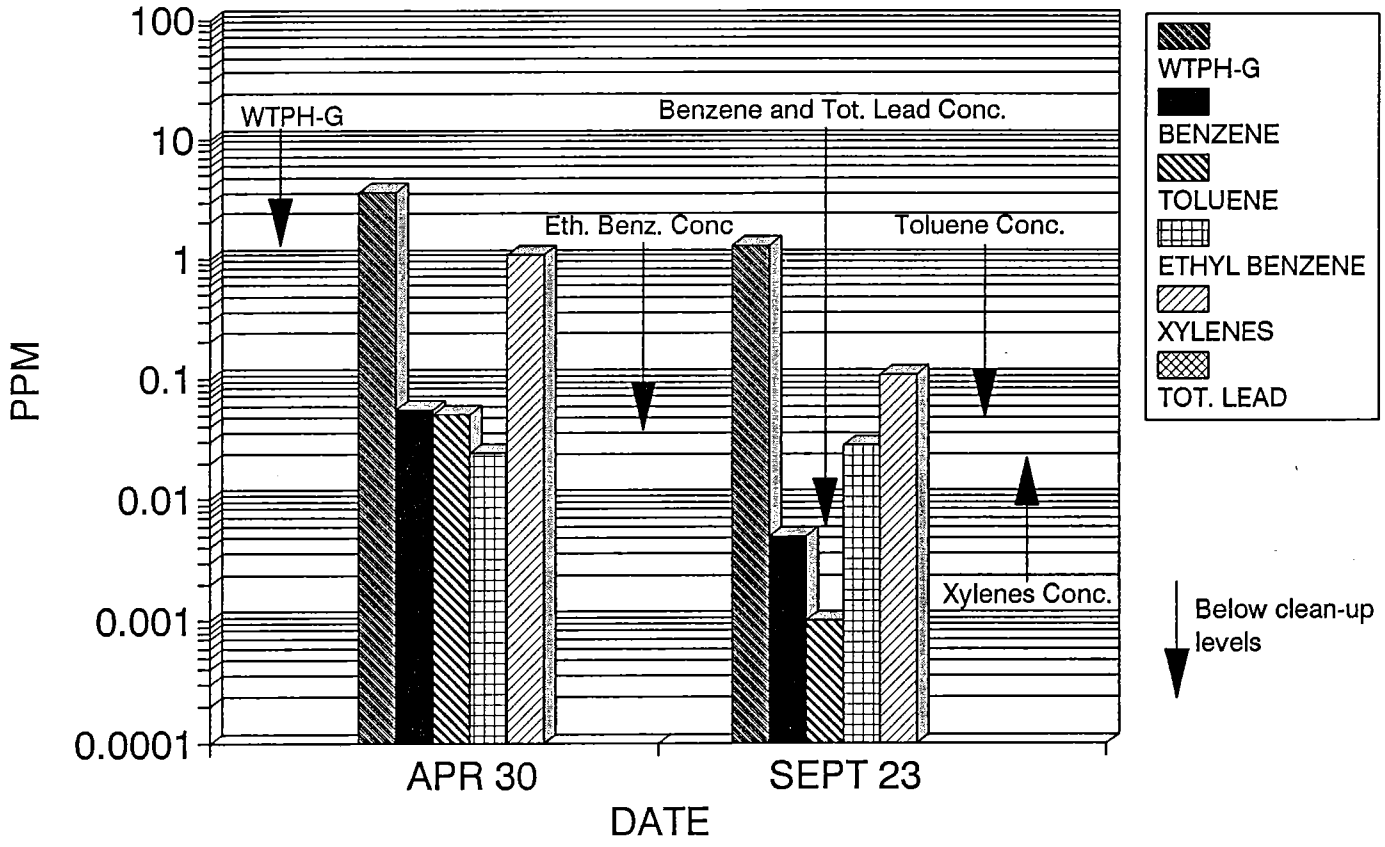
PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, MW4, 1802 E. NOB HILL BLVD.



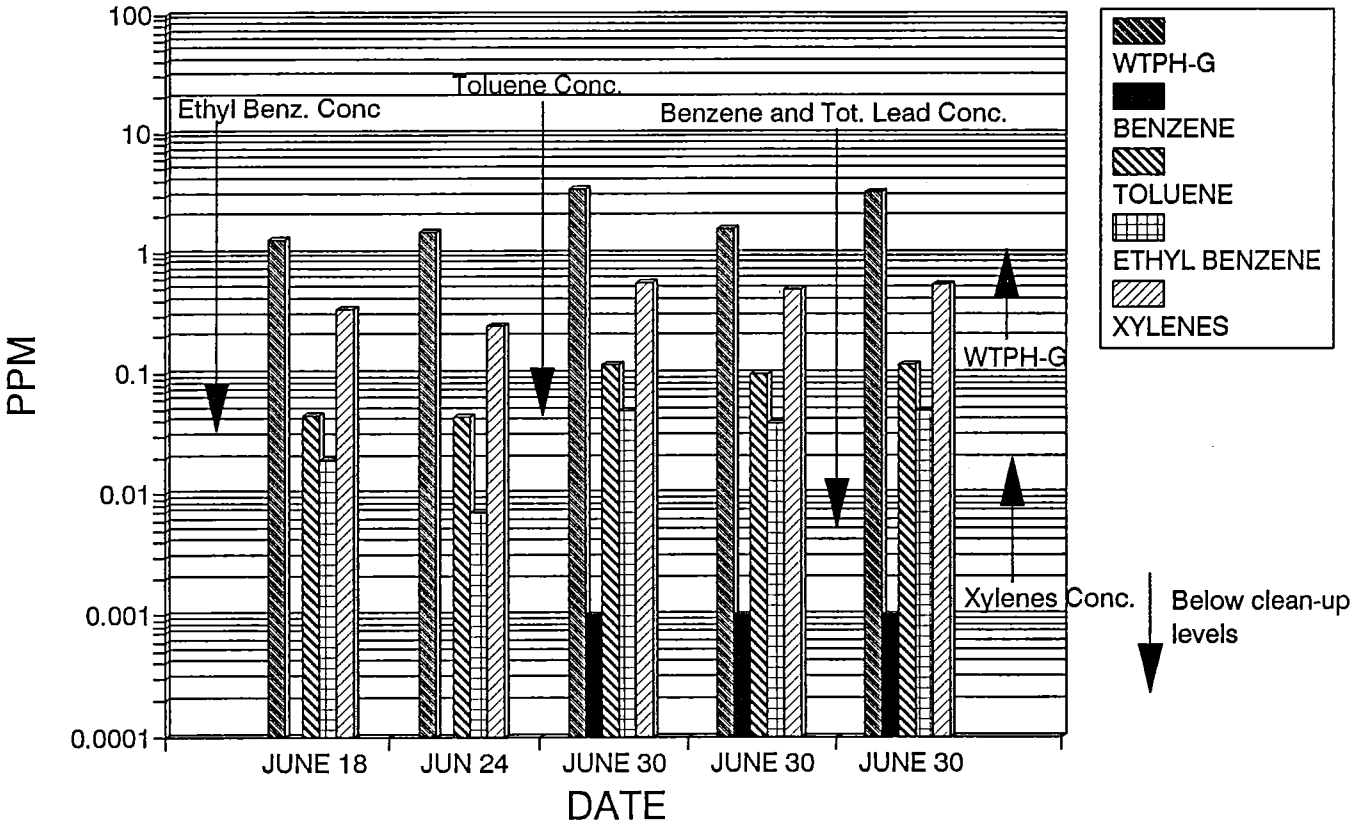
PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, MW5, 1802 E. NOB HILL BLVD.



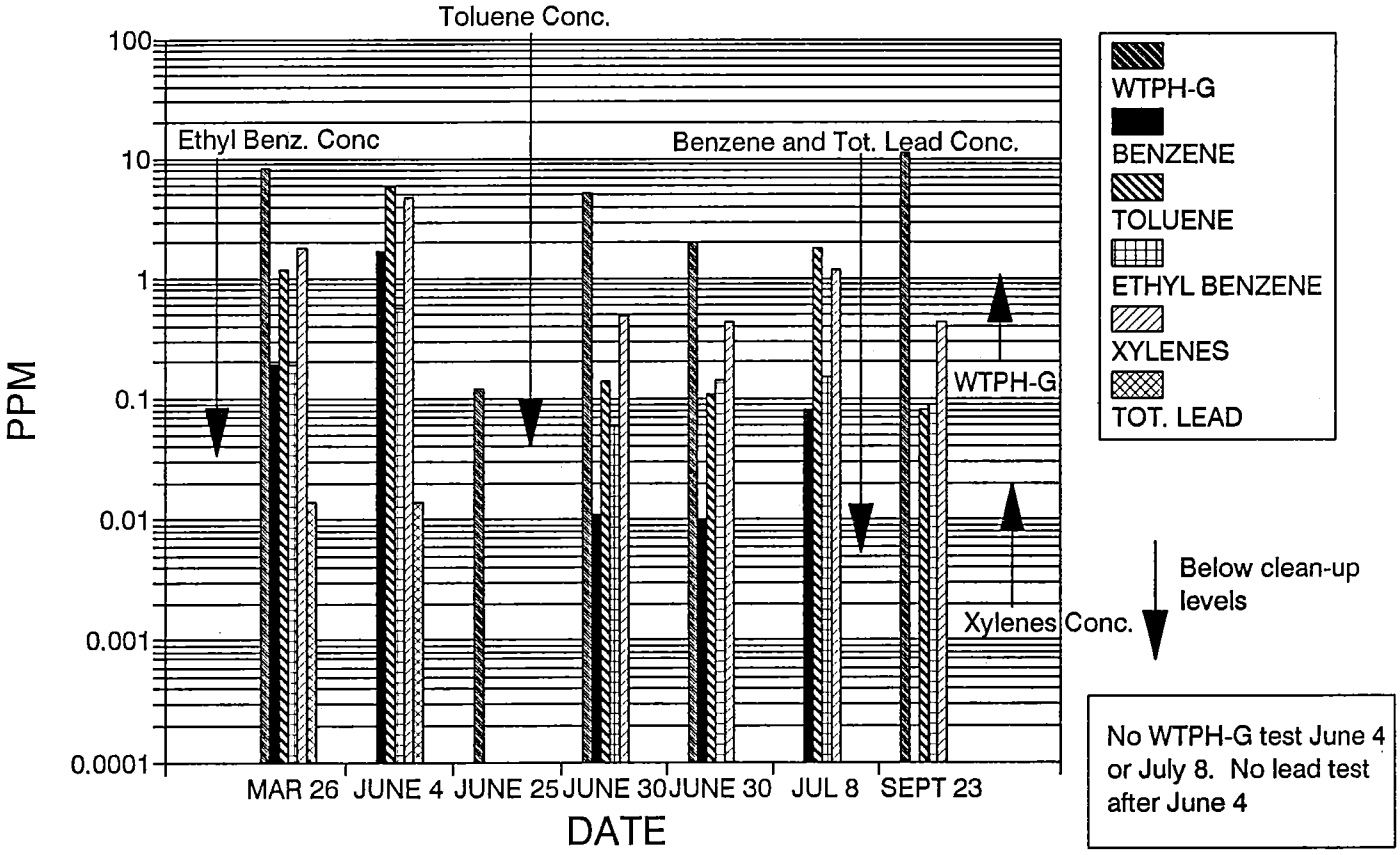
PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, MW6, 1802 E. NOB HILL BLVD.



PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, ESE1, 1802 E. NOB HILL BLVD.

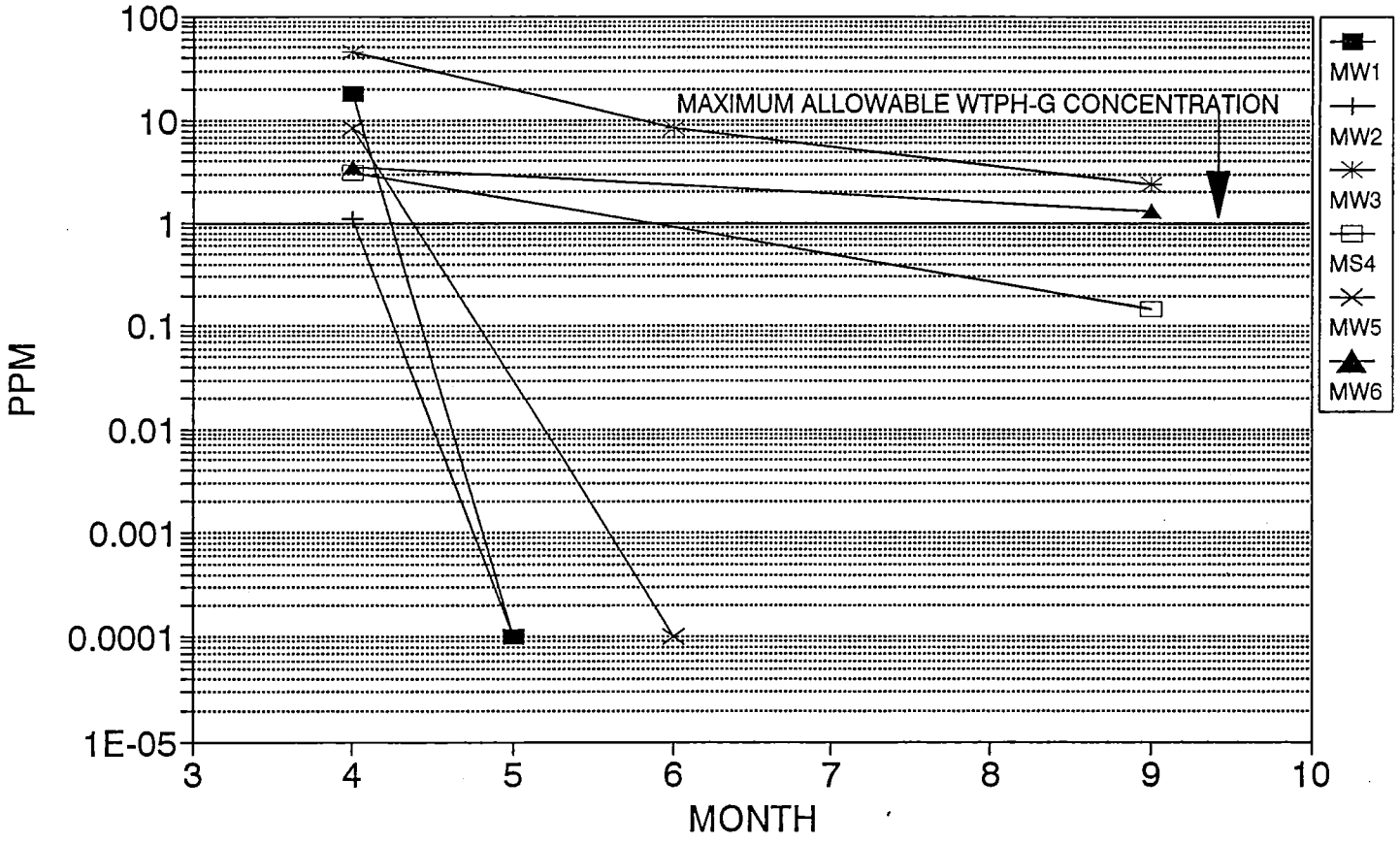


PRODUCT CONCENTRATION AT MAID'O'CLOVER
1992, ESE2, 1802 E. NOB HILL BLVD.



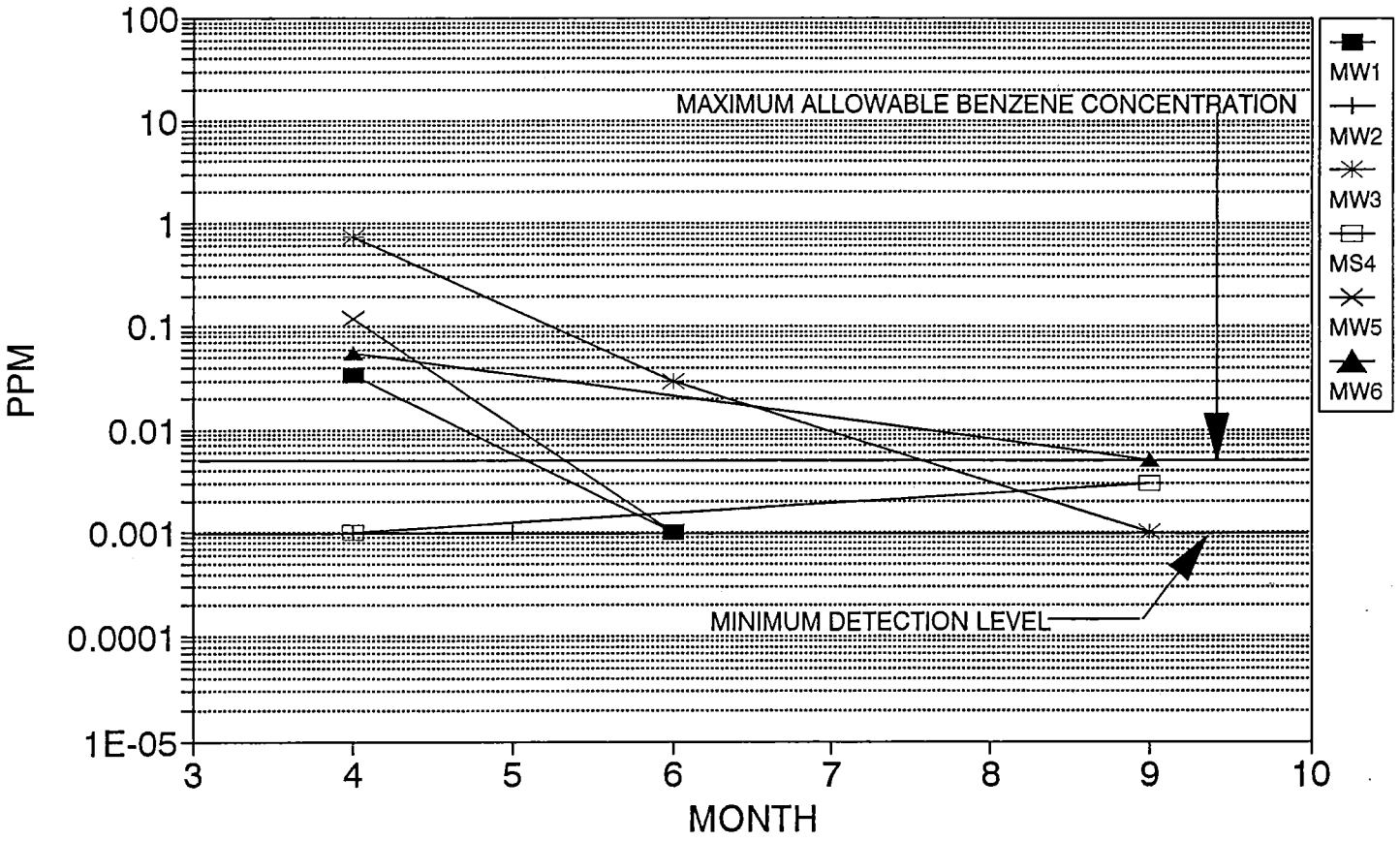
WTPH-G TREND, MAID'O'CLOVER

MW WELLS, 1992, 1802 E. NOB HILL BLVD



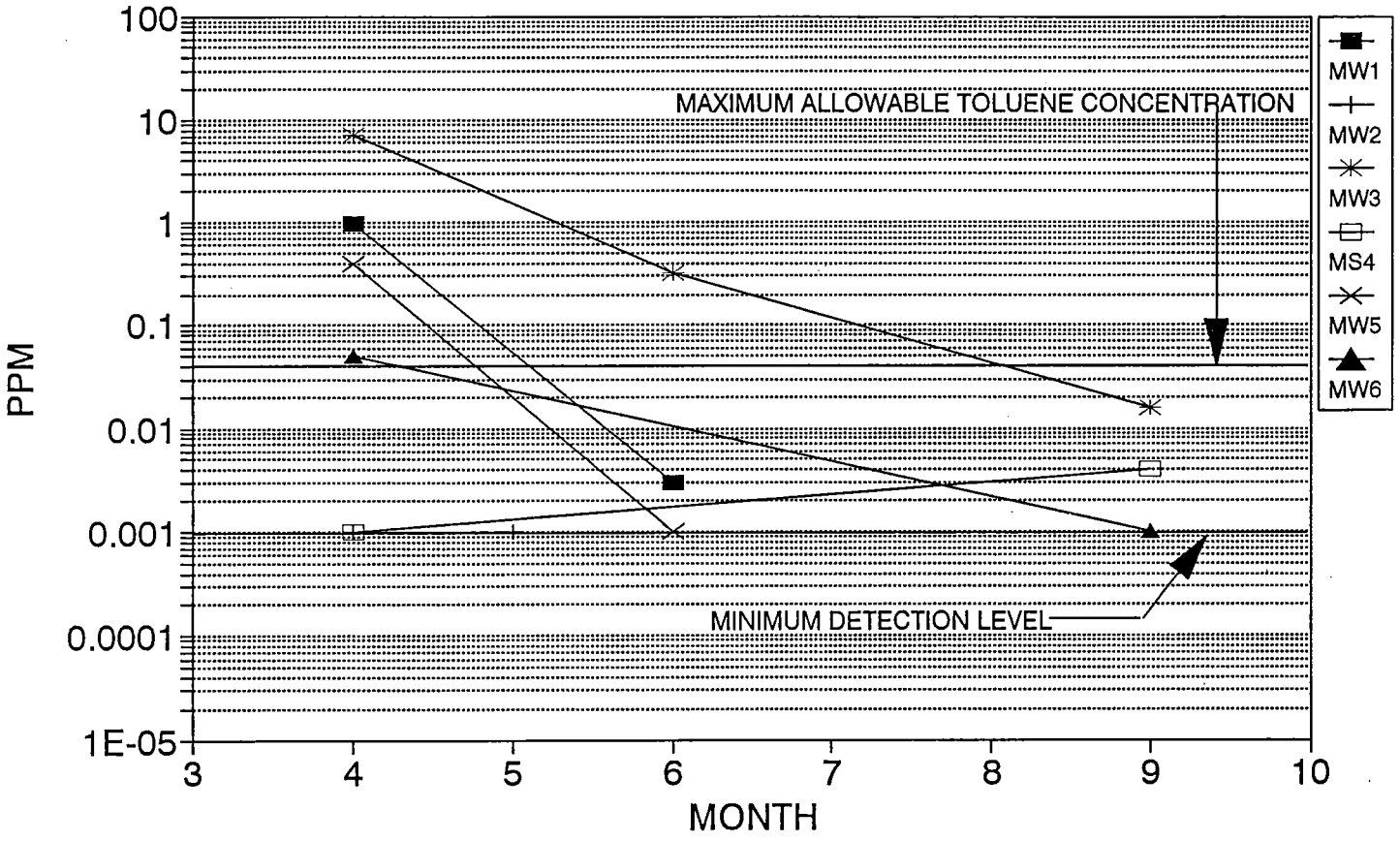
BENZENE TREND, MAID'O'CLOVER

MW WELLS, 1992, 1802 E. NOB HILL BLVD



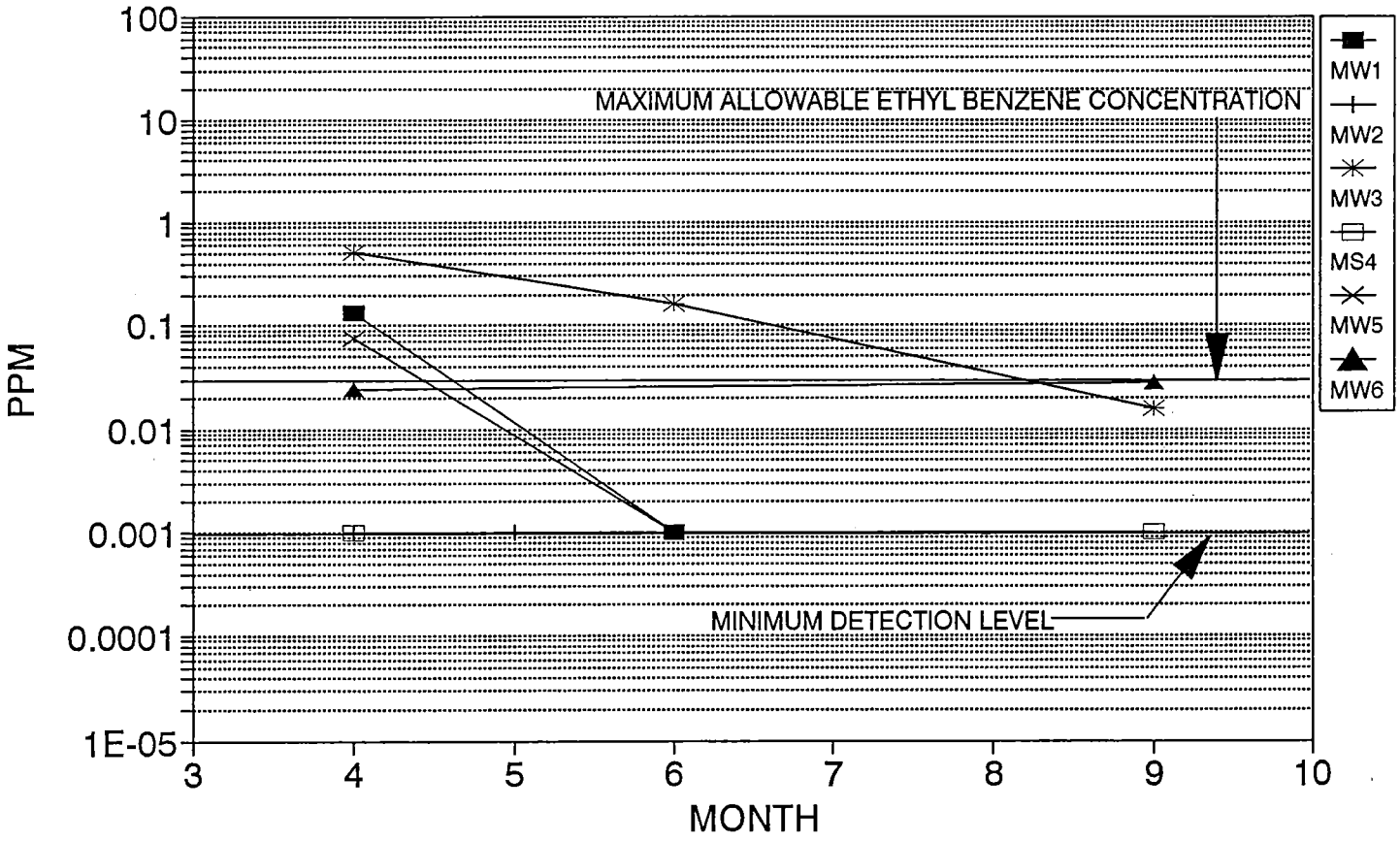
TOLUENE TREND, MAID'O'CLOVER

MW WELLS, 1992, 1802 E. NOB HILL BLVD



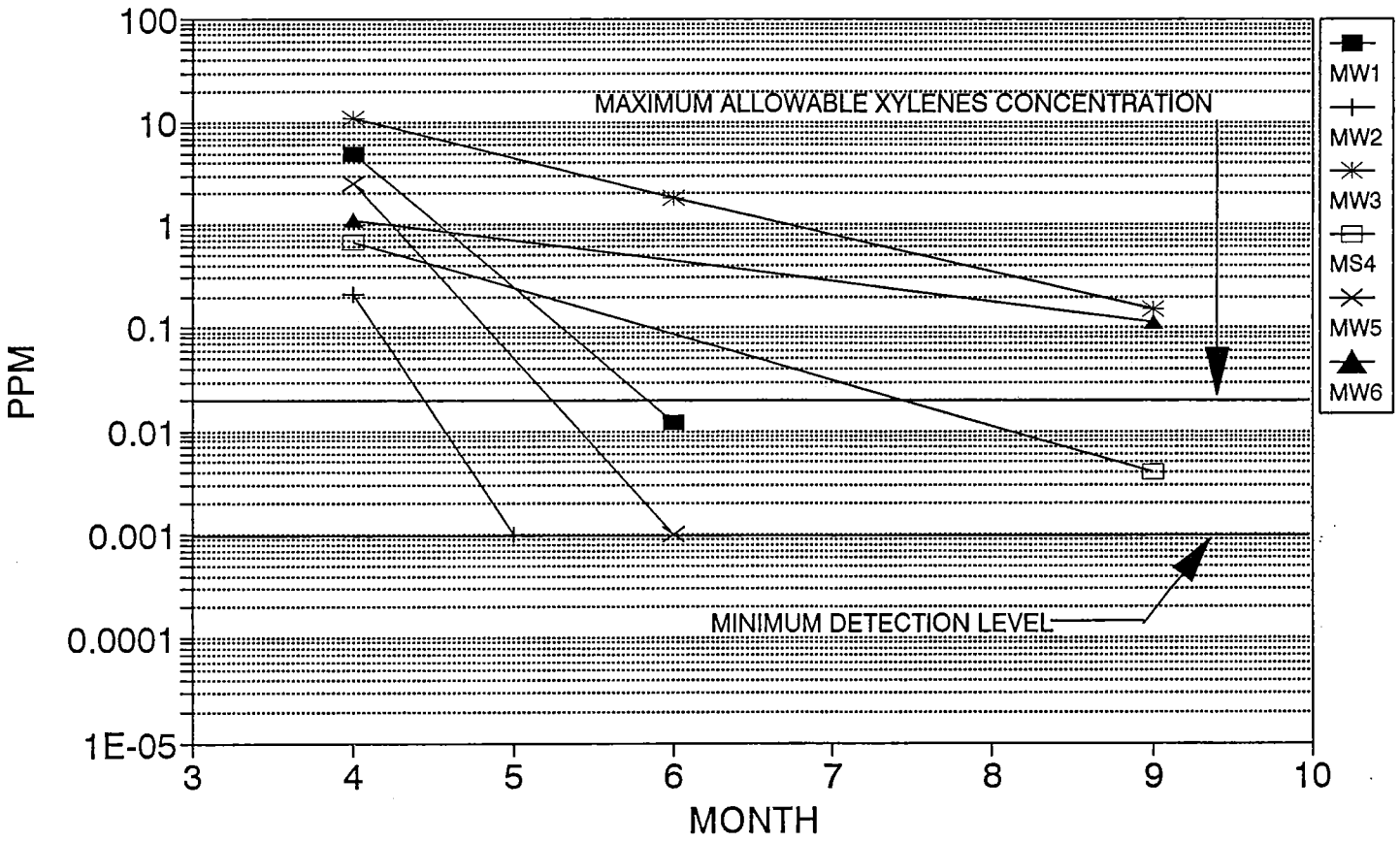
ETHYL-BENZENE TREND, MAID'O'CLOVER

MW WELLS, 1992, 1802 E. NOB HILL BLVD



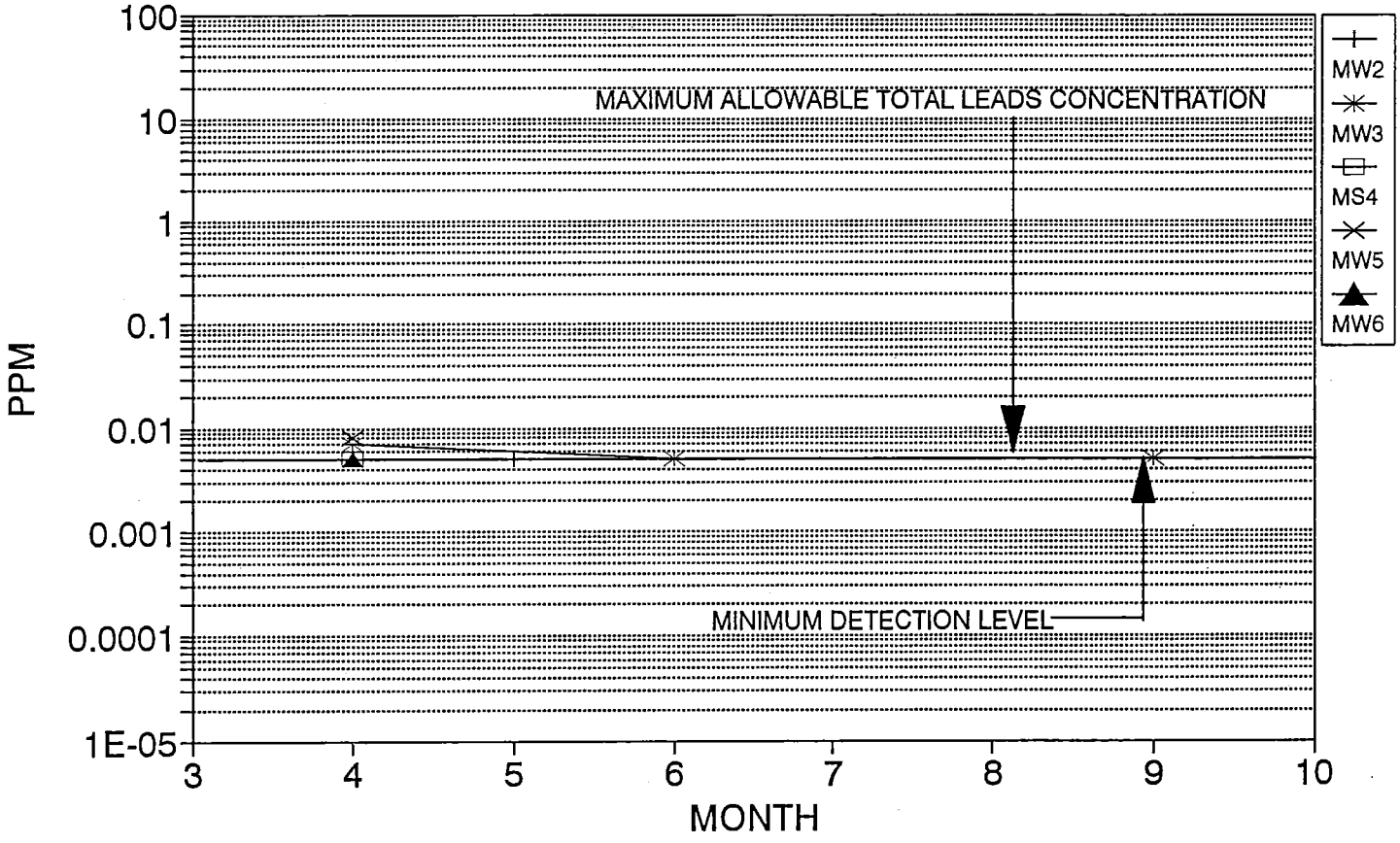
XYLENES TREND, MAID'O'CLOVER

MW WELLS, 1992, 1802 E. NOB HILL BLVD



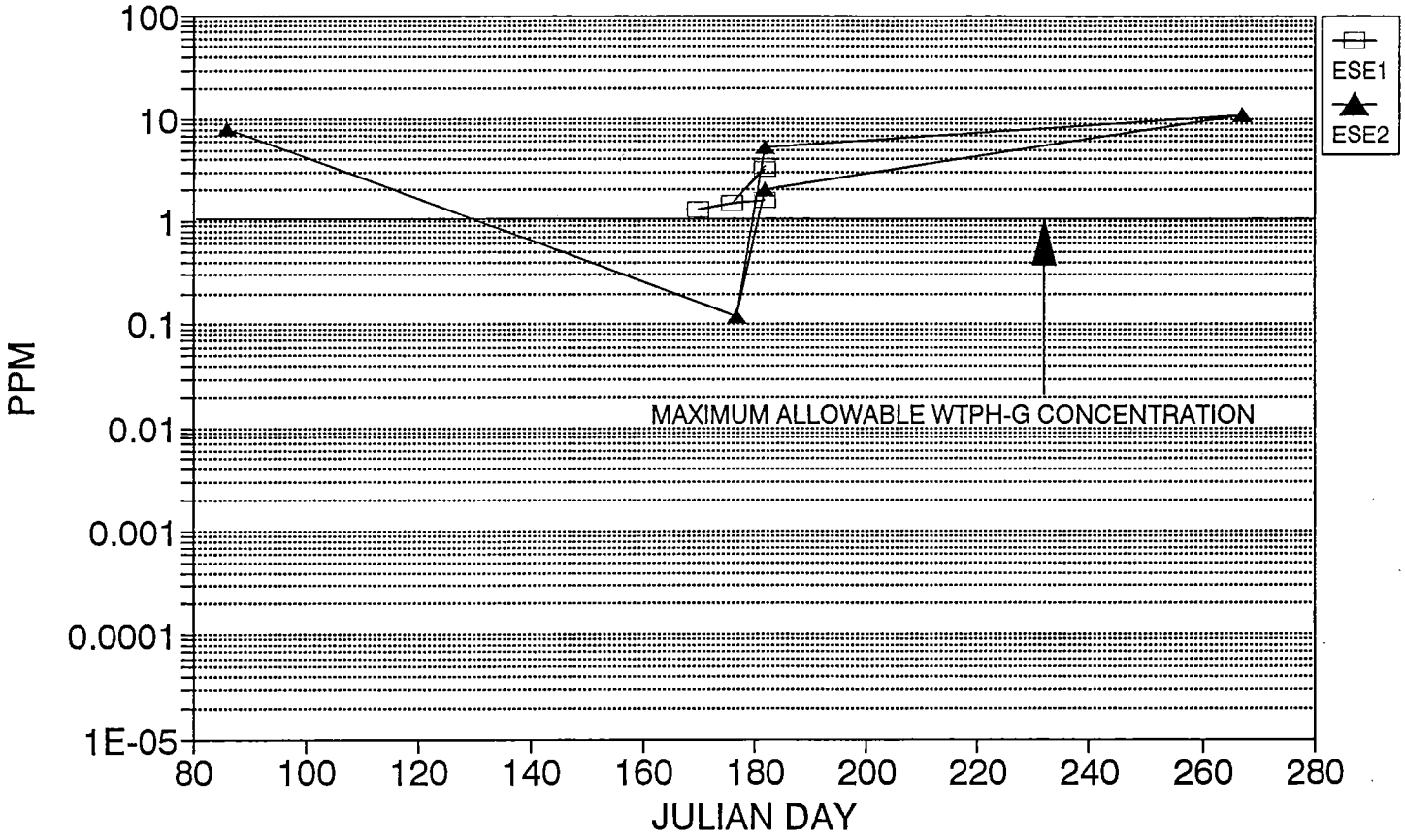
TOTAL LEADS TREND, MAID'O'CLOVER

MW WELLS, 1992, 1802 E. NOB HILL BLVD



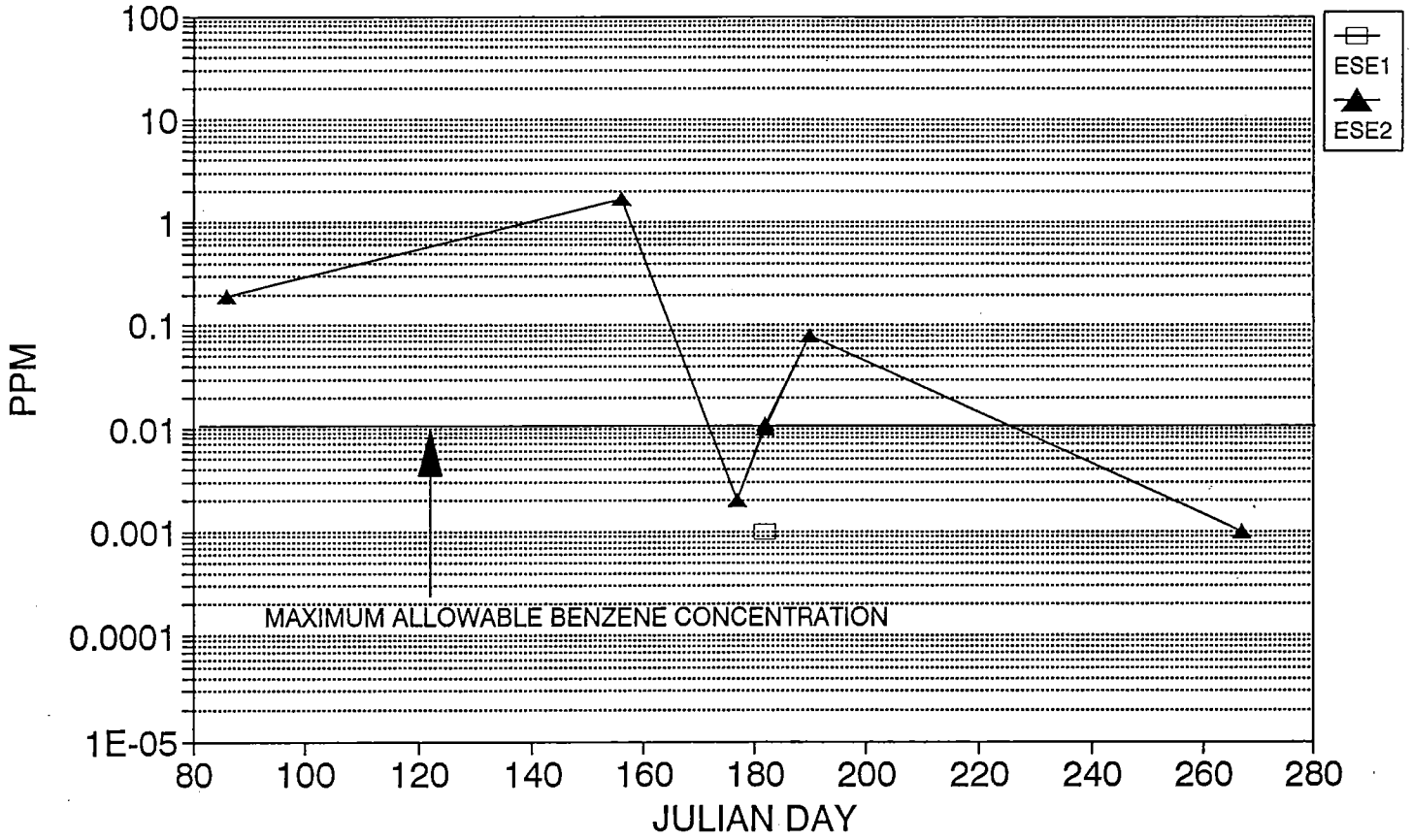
WTPH-G TREND, MAID'O'CLOVER

ESE WELLS, 1992, 1802 E. NOB HILL BLVD



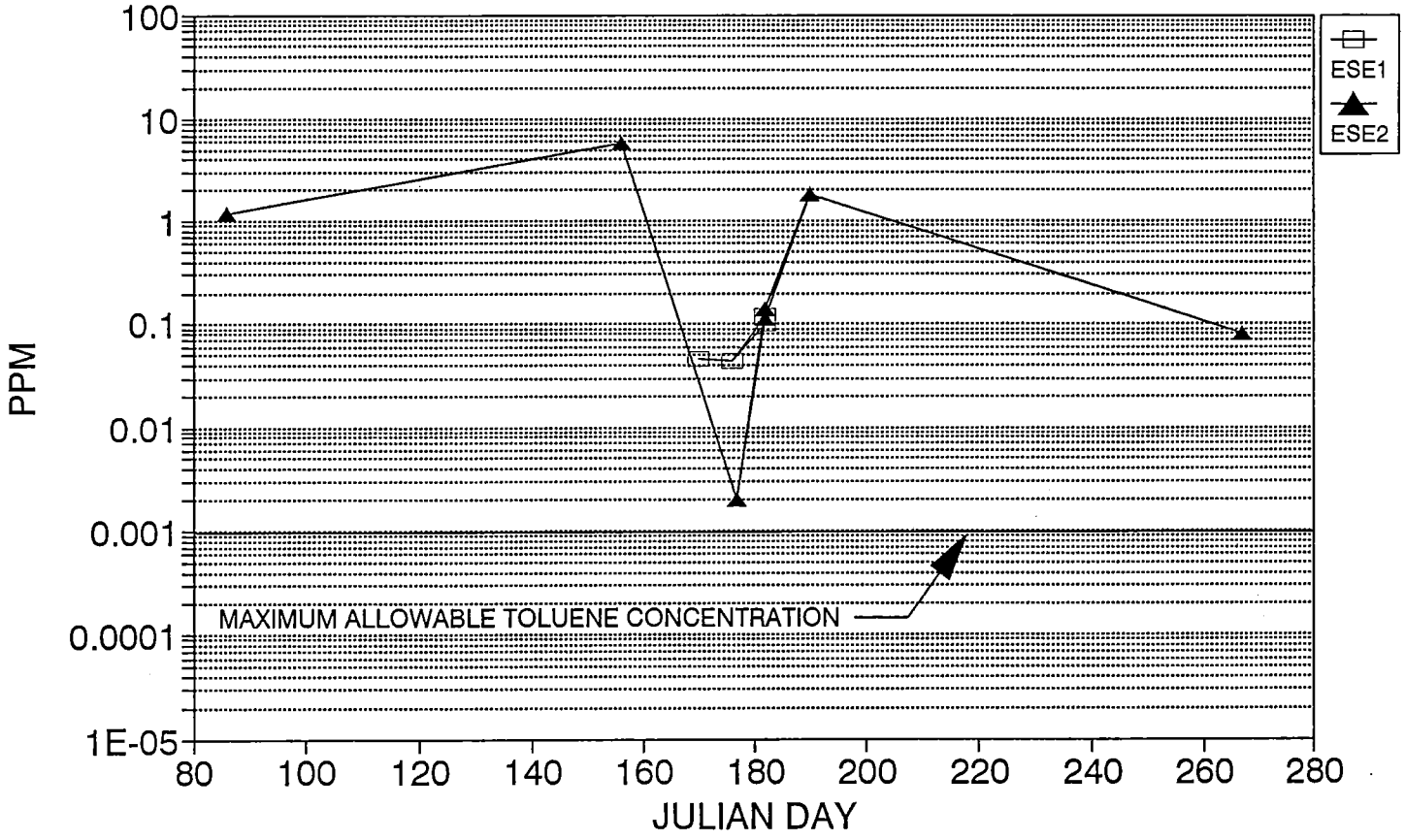
BENZENE TREND, MAID'O'CLOVER

ESE WELLS, 1992, 1802 E. NOB HILL BLVD



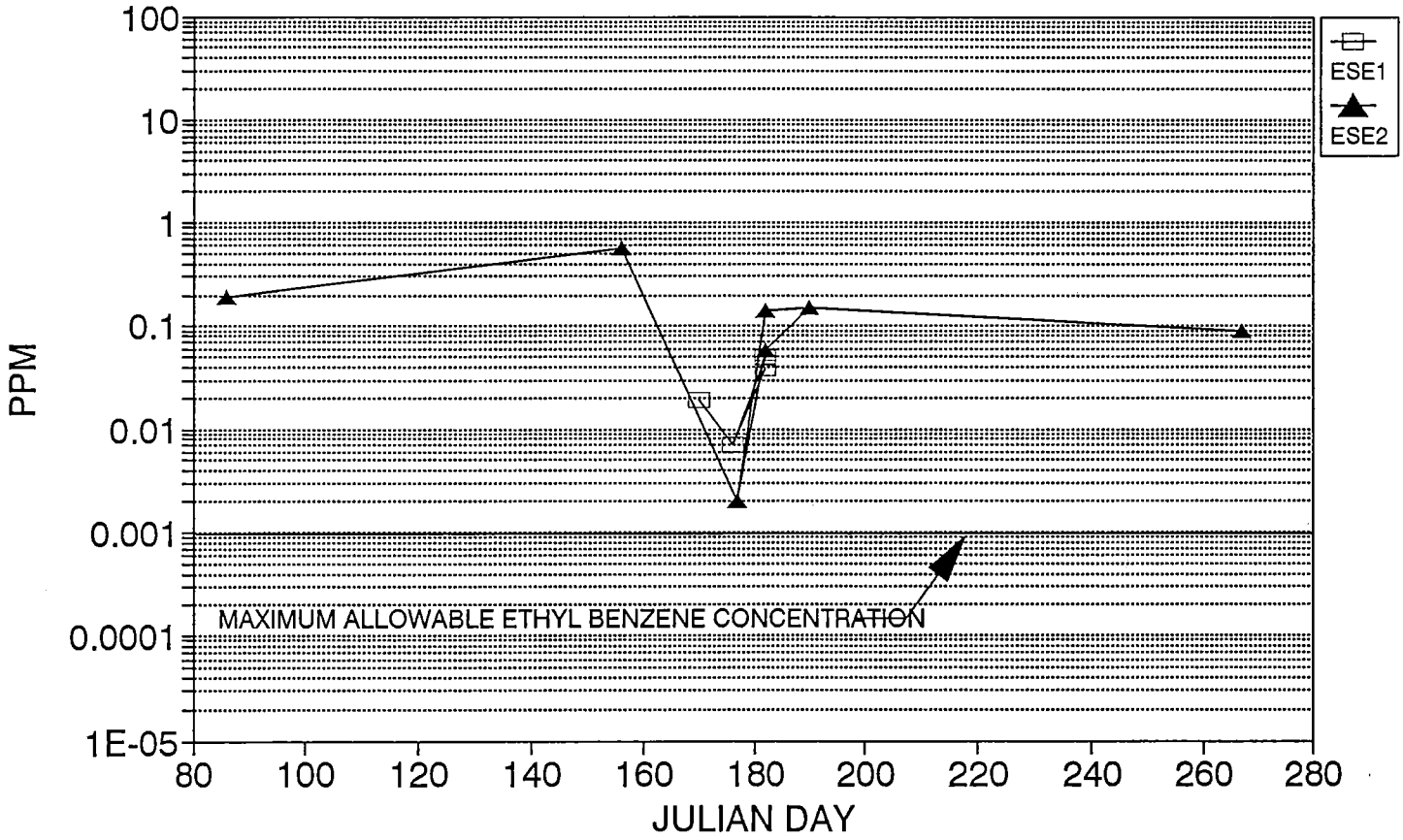
TOLUENE TREND, MAID'O'CLOVER

ESE WELLS, 1992, 1802 E. NOB HILL BLVD



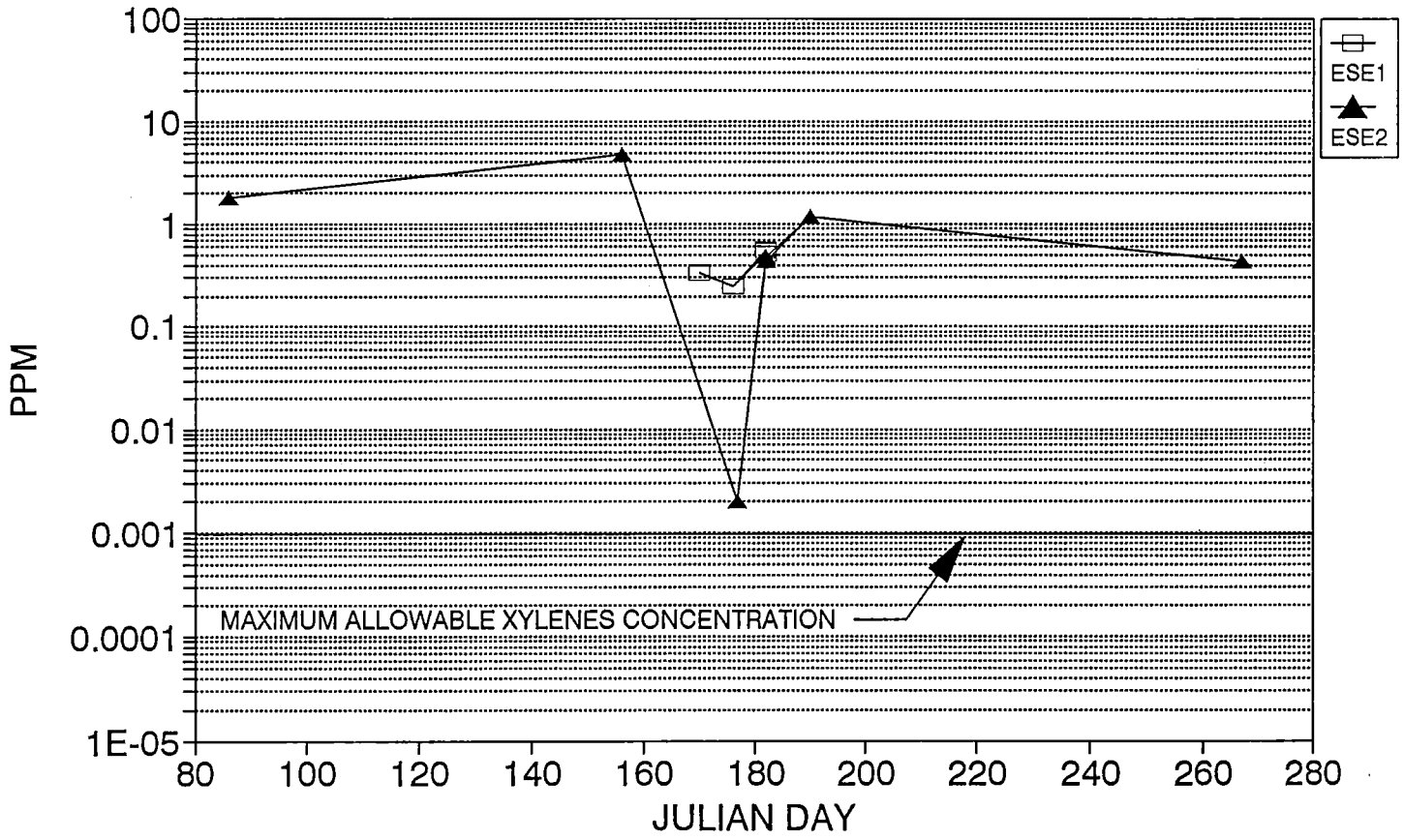
ETHYL BENZENE TREND, MAID'O'CLOVER

ESE WELLS, 1992, 1802 E. NOB HILL BLVD



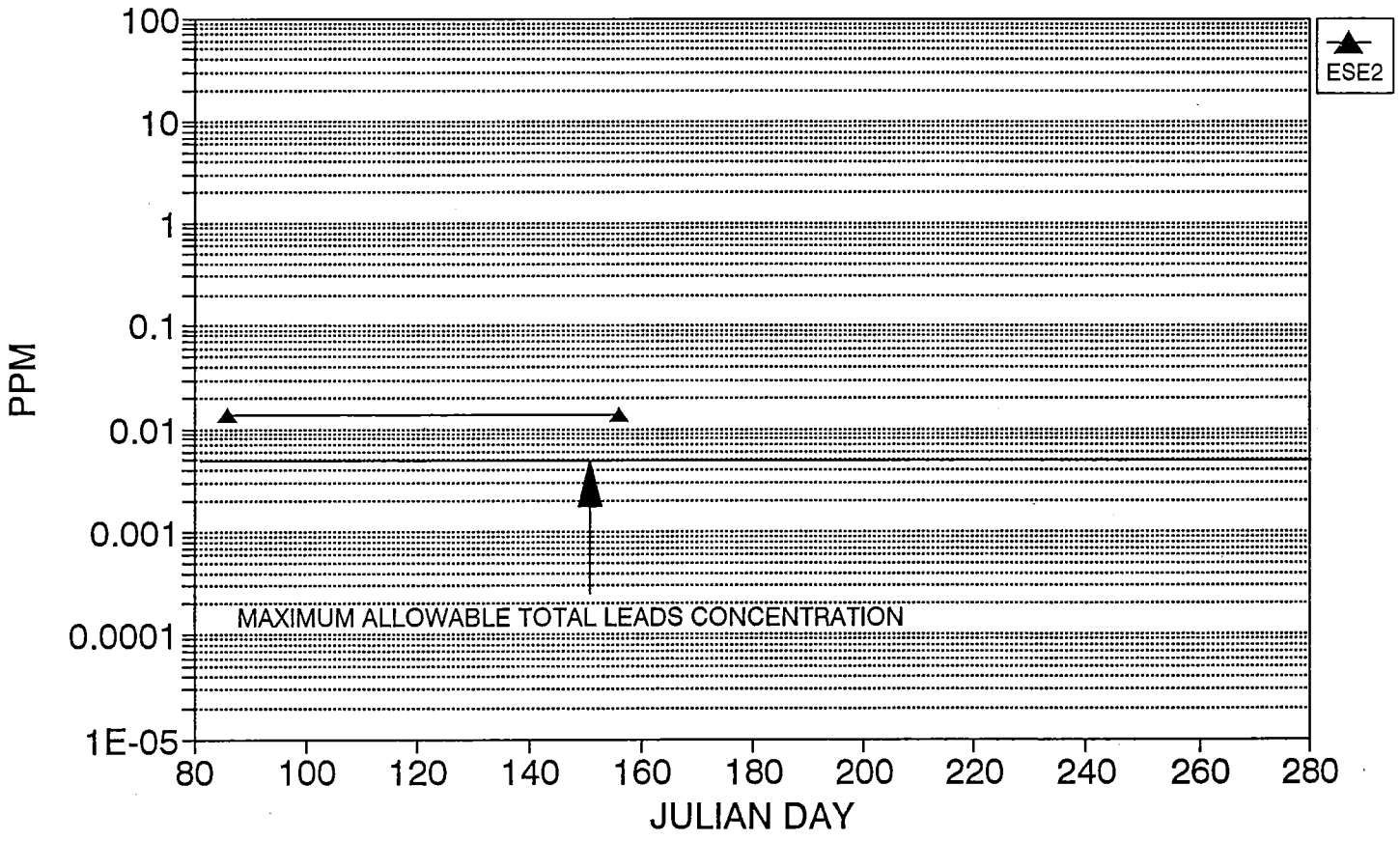
XYLENES TREND, MAID'O'CLOVER

ESE WELLS, 1992, 1802 E. NOB HILL BLVD



TOTAL LEADS TREND, MAID'O'CLOVER

ESE WELLS, 1992, 1802 E. NOB HILL BLVD



APPENDIX 8

Cleanup Levels, WAC 173-340.

Table 1
Method A Cleanup Levels – Ground Water[a]

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	5.0 ug/liter[b]
Benzene	71-43-2	5.0 ug/liter[c]
Cadmium	7440-43-9	5.0 ug/liter[d]
Chromium (Total)	7440-47-3	50.0 ug/liter[e]
DDT	50-29-3	0.1 ug/liter[f]
1,2 Dichloroethane	107-06-2	5.0 ug/liter[g]
Ethylbenzene	100-41-4	30.0 ug/liter[h]
Ethylene dibromide	106-93-4	0.01 ug/liter[i]
Gross Alpha Particle Activity		15.0 pCi/liter[j]
Gross Beta Particle Activity		4.0 mrem/yr[k]
Lead	7439-92-1	5.0 ug/liter[l]
Lindane	58-89-9	0.2 ug/liter[m]
Methylene chloride	75-09-2	5.0 ug/liter[n]
Mercury	7439-97-6	2.0 ug/liter[o]
PAHs (carcinogenic)		0.1 ug/liter[p]
PCB mixtures		0.1 ug/liter[q]
Radium 226 and 228		5.0 pCi/liter[r]
Radium 226		3.0 pCi/liter[s]
Tetrachloroethylene	127-18-4	5.0 ug/liter[t]
Toluene	108-88-3	40.0 ug/liter[u]
Total Petroleum Hydrocarbons		1000.0 ug/liter[v]
1,1,1 Trichloroethane	71-55-6	200.0 ug/liter[w]
Trichloroethylene	79-01-5	5.0 ug/liter[x]
Vinyl chloride	75-01-4	0.2 ug/liter[y]
Xylenes	1330-20-7	20.0 ug/liter[z]

[a] Caution on misusing method A tables. Method A tables have been developed for specific purposes. They are intended to provide conservative cleanup levels for sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. The tables may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in these tables should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in these tables do not necessarily trigger requirements for cleanup action under this chapter.

[b] Arsenic. Cleanup level based on background concentrations for state of Washington.

[c] Benzene. Cleanup level based on applicable state and federal law.

[d] Cadmium. Cleanup level based on applicable state and federal law and concentration derived using procedures in subsection (3)(a)(ii)(A) of this section and a hazard quotient of 0.2.

[e] Chromium (Total). Cleanup level based on applicable state and federal law.

[f] DDT. Cleanup levels based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section.

[g] 1,2 Dichloroethane. Cleanup level based on applicable state and federal law.

Table 2
Method A Cleanup Levels – Soil[a]

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440–38–2	20.0 mg/kg[b]
Benzene	71–43–2	0.5 mg/kg[c]
Cadmium	7440–43–9	2.0 mg/kg[d]
Chromium	7440–47–3	100.0 mg/kg[e]
DDT	50–29–3	1.0 mg/kg[f]
Ethylbenzene	100–41–4	20.0 mg/kg[g]
Ethylene dibromide	106–93–4	0.001 mg/kg[h]
Lead	7439–92–1	250.0 mg/kg[i]
Lindane	58–89–9	1.0 mg/kg[j]
Methylene chloride	75–09–2	0.5 mg/kg[k]
Mercury (inorganic)	7439–97–6	1.0 mg/kg[l]
PAHs (carcinogenic)		1.0 mg/kg[m]
PCB Mixtures		1.0 mg/kg[n]
Tetrachloroethylene	127–18–4	0.5 mg/kg[o]
Toluene	108–88–3	40.0 mg/kg[p]
TPH (gasoline)		100.0 mg/kg[q]
TPH (diesel)		200.0 mg/kg[r]
TPH (other)		200.0 mg/kg[s]
1,1,1 Trichloroethane	71–55–6	20.0 mg/kg[t]
Trichloroethylene	79–01–5	0.5 mg/kg[u]
Xylenes	1330–20–7	20.0 mg/kg[v]

[a] Caution on misusing method A tables. Method A tables have been developed for specific purposes. They are intended to provide conservative cleanup levels for sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. The tables may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in these tables should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in these tables do not necessarily trigger requirements for cleanup action under this chapter.

[b] Arsenic. Cleanup level based on background concentrations in the state of Washington.

[c] Benzene. Cleanup level based on protection of ground water.

[d] Cadmium. Cleanup level based on plant protection.

[e] Chromium. Cleanup level based on health risks associated with inhalation of resuspended dust.

[f] DDT. Cleanup level based on concentrations derived using the procedures in subsection (3)(a)(iii)(B) of this section.

[g] Ethylbenzene. Cleanup level based on protection of ground water.

[h] Ethylene dibromide. Cleanup level based on protection of ground water.

[i] Lead. Cleanup level based on preventing unacceptable blood lead levels.

APPENDIX 9

Site Check/Site Assessment Form

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

WASHINGTON STATE DEPARTMENT OF ECOLOGY

For Office Use Only	
Owner #	
Site #	

INSTRUCTIONS:

When a release has **not** been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person registered with Ecology. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This form must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section
Department of Ecology
P. O. Box 47655
Olympia, WA 98504-7655

SITE INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): 100160

Site/Business Name: Maid o'Clover Convenience Store

Site Address: 1802 E. Nob Hill Blvd (Street) Telephone: (509) 452-8957

Yakima (City) WA (State) 98901 (ZIP-Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
1	10,000 to 20,000 gal	Leaded gasoline
2	10,000 to 20,000 gal	Unleaded gasoline
3	5,000 to 10,000 gal	Unleaded gasoline
4	5,000 to 10,000 gal	Diesel

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

- XX Investigate suspected release due to on-site environmental contamination
- ____ Investigate suspected release due to off-site environmental contamination.
- ____ Extend temporary closure of UST system for more than 12 months.
- ____ UST system undergoing change-in-service.
- ____ UST system permanently closed-in-place.
- ____ UST system permanently closed with tank removed.
- ____ Abandoned tank containing product.
- ____ Required by Ecology or delegated agency for UST system closed before 12/22/88.
- ____ Other (describe): ____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

		YES	NO
1.	The location of the UST site is shown on a vicinity map.		
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)		
3.	A summary of UST system data is provided. (see Section 3.1)		
4.	The soils characteristics at the UST site are described. (see Section 5.2)		
5.	Is there any apparent groundwater in the tank excavation?		
6.	A brief description of the surrounding land use is provided. (see Section 3.1)		
7.	Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.		
8.	A sketch or sketches showing the following items is provided:		
	- location and ID number for all field samples collected		
	- groundwater samples distinguished from soil samples (if applicable)		
	- samples collected from stockpiled excavated soil		
	- tank and piping locations and limits of excavation pit		
	- adjacent structures and streets		
	- approximate locations of any on-site and nearby utilities		
9.	If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)		
10.	A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.		
11.	Any factors that may have compromised the quality of the data or validity of the results are described.		
12.	The results of this site check/site assessment indicate that a confirmed release of a regulated substance has **not** occurred.		

SITE ASSESSOR INFORMATION

Douglas P. D'Hondt — Person registered with Ecology

PLSA Engineering & Surveying — Firm Affiliated with

Business Address: 1120 West Lincoln (Street)

Telephone: (509) 575-6990

Yakima (City) WA (State) 98902 (ZIP+Code)

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

12/3/92 — Date

Signature of Person Registered with Ecology

APPENDIX 10

City of Yakima, Waste Discharge Permit

CITY OF YAKIMA

Wastewater.....575-6078
Engineering.....575-6111
Water/Irrigation.....575-6154

WASTEWATER DIVISION
DEPARTMENT OF ENGINEERING & UTILITIES
FAX (509)575-6116 SCAN 278-6077
2220 E. VIOLA, YAKIMA, WASHINGTON 98901

Permit No.CY92003

AUTHORIZATION TO DISCHARGE

In accordance with the provisions of Yakima Municipal Code Chapter 7.65 " SEWER USE AND PRETREATMENT REGULATIONS"

Industry Name: PLSA
Location Address: 18th and Nob Hill Yakima Wa
Mailing Address: 207 S 6th Ave Yakima Wa 98901
Site Name: Maid O'Clover
is hereby authorized to discharge ground water from the above named facility into the City of Yakima sewer system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

Amount of Discharge 50,000 gallons

Parameter	Daily Maximums	Monthly Average
See Attached		

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently or at a level in excess of that authorized shall constitute a violation of this permit.

This permit must be posted in a conspicuous place at the job site where the discharge is taking place.The discharge will be into the sanitary sewer system at the location address above.

Failure to comply with the provisions listed herein can result in permit revocation and/ or fines and administrative actions that can include fines of from $1,000 to $10,000 per day of violation, civil litigation, criminal prosecution, and suspension of sewer services.

This permit shall become effective on 4/23/1992 and expire at midnight on 6/1/1992.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this date, an application must be filed for reissuance of this permit in accordance with the requirements of the City of Yakima Municipal Code Chapter 7.65, a minimum of 90 days prior to the expiration date.

By: Pete Hobbs

Pretreatment Specialist

Issued this 23th day of April, 1992
cc:Rick Frye WDOE
City Attorney

CITY OF YAKIMA

Wastewater.....575-6078
Engineering.....575-6111
Water/Irrigation.....575-6154

WASTEWATER DIVISION
DEPARTMENT OF ENGINEERING & UTILITIES
FAX (509)575-6116 SCAN 278-6077
2220 E. VIOLA, YAKIMA, WASHINGTON 98901

DISCHARGE LIMITATIONS

Any substances not listed below, whether analyzed for or not, must meet with the local limits as set forth Yakima Municipal Code Chapter "7.65 SEWER USE AND PRETREATMENT METHODS"

Parameter	Daily Maximums	Monthly Average
Purgeable Hydrocarbons	.050 ppm	.050 ppm
Benzene	.0005 ppm	.0005 ppm
Toluene	.0005 ppm	.0005 ppm
Ethyl Benzene	.0005 ppm	.0005 ppm
Xylene	.0005 ppm	.0005 ppm
Petroleum Oil	1.0 ppm	1.0 ppm
Extractable Hydrocarbons	.50 ppm	.50 ppm
Lead	.0010 ppm	.0010 ppm

APPENDIX 11

PLSA Sampling Plan

SAMPLING AND ANALYSIS PLAN

FOR

PETROLEUM CONTAMINATED SOIL AND WATER

MAID o'CLOVER

1802 EAST NOB HILL

YAKIMA, WASHINGTON

August, 1992

Job No. 91056

Prepared by

PLSA ENGINEERING & SURVEYING
WDOE LIC. No. S000210
1120 West Lincoln Avenue
Yakima, WA 98902
(509) 575-6990

SAMPLING AND ANALYSIS PLAN

for

PETROLEUM RELEASE

at

MAID o'CLOVER

1802 EAST NOB HILL BOULEVARD

YAKIMA, WASHINGTON

INTRODUCTION

This report summarizes site conditions and proposes a sampling and analysis plan for evaluation of released petroleum products, and possibly contaminated soil and water, at Maid o'Clover, 1802 East Nob Hill Boulevard, Yakima, WA.

Geotechnical engineers or a geologist from PLSA Engineering and Surveying, WDOE License No. S000210, experienced with local soil conditions will inspect exploratory excavations and collect product, soil, and water samples. Additional, off-site soil and water samples will be collected and submitted for laboratory analysis as directed by WDOE.

The owner's representative and contact person for this project is as follows:

Mr. Jeff Louden
Maid o'Clover, Inc.
207 South Sixth Avenue
Yakima, WA 98902
phone (509) 248-3562

SURFACE CONDITIONS

The site is situated in the NW1 1/4, SE1/4, Sec 29, TWN 13N, R18-EWM. See Figure 1. The study area is depicted in a scale drawing found in Figure 2.

A convenience store, gas pumps, and self service car wash are located on the premises. The tank basin is covered with concrete pavement. The balance of the open area is asphalt paved parking.

Surface waters: There are no surface waters in the immediate vicinity.

SUB-SURFACE CONDITIONS

Sub-surface soils: Soils consist of a 2 to 3 foot thick stratum of sandy silt followed by a deep stratum of cobbles, gravel, and sand extending more than 40 feet below the surface to bedrock.

Groundwater: Ground water elevation varies with the irrigation season and has been found at 12.3 to 17.5 feet below ground.

SAMPLING PROCEDURE

Samples collected for the purpose of performing any interim investigation or developing an RI/FS and verifying cleanup will comply with the following procedures:

Soil sampling equipment will consist of the following:

- New glass sample jars with Teflon-lined screwed caps.
- Steel trowels or spatulas cleaned with an Alconox solution and distilled water rinse between samplings.
- Ice chest for jars containing samples.

Sound Analytical Laboratories in Fife, Washington, WDOE Laboratory Accreditation C 027, has been selected to perform the analyses. Quality control and quality assurance procedures are on file at PLSA and Sound Analytical. Salient laboratory quality control information is included with the laboratory analytical reports from Sound.

All samples will be stored and shipped to the laboratory by overnight express in a refrigerated, insulated container.

Field sampling quality control and laboratory sampling quality control will be in accordance with WDOE "Guidance for Site Checks and Site Assessments for Underground Storage Tanks", February 1991.

SAMPLING FREQUENCY AND SCHEDULE

After initial sampling for characterization, a photoanalyzer and/or a combustion analyzer will be used continuously to monitor for VOC's which may be present. The TIP readings will be used as a guide to determine where laboratory samples should be collected. Qualitative and quantitative information regarding the presence of any particular VOC is a result of the laboratory analyses. Additional samples may be collected upon request from WDOE.

Sample scheduling is dependent upon the nature and types of discoveries made in the field which would require sampling.

SAMPLE PARAMETERS

Samples will be analyzed for WTPH-HCID, BTEX, and lead as appropriate. These analytical parameters are consistent with cleanup standards for spilled petroleum motor fuel products.

WASTE MATERIALS

Waste materials from sampling, other than disposable gloves, include possible excess material from soil sampling and from water sampling. These materials will be stored on-site in covered, steel drums until laboratory analysis has been completed at which time the materials will be properly disposed of.

Sound Analytical has procedures in place for disposal of waste samples which are on file at Sound Analytical.

QUALITY ASSURANCE AND QUALITY CONTROL

Sound Analytical has quality assurance and quality control (QA/QC) procedures which are on file at their laboratory in Fife, Washington, at PLSA, and in the RI/FS for the Town Pump, White Salmon, Washington, on file at the Central Regional Office, WDOE, Yakima, WA. Sound Analytical determines the number of QA/QC samples and includes the results of such in their analytical reports.

CHAIN OF CUSTODY

Sound Analytical standard chain-of-custody forms will be completed and included with each sample shipment. Copies of chain-of-custody forms will be on file at sound Analytical and PLSA.

SAMPLE SPLITTING

Sample splitting will be as required by WDOE.

HEALTH AND SAFETY

Health and safety considerations will be within accordance with WDOE "Guidance for Site Checks and Site Assessments for Underground Storage Tanks", February 1991. See Appendix 12.

Level D protection is required for petroleum cleanup operations.

ANALYTICAL PROCEDURES AND REPORTING

Sound Analytical bears WDOE accreditation C 027. Analytical procedures and reporting will be consistent with EPA and WDOE regulations.

SUPPLIES AND EQUIPMENT

Supplies and equipment for sampling include laboratory-supplied sample containers appropriate for the substances and analytes involved. Sampling equipment must be cleaned before and after sampling. Smaller items such as sampling trowels will be cleaned in an Alconox solution contained in a 5 gallon plastic bucket. Alconox will a part of the supply inventory. Clean water is available at the site for rinsing. Larger equipment items, such as augers or backhoes, will be steam or otherwise appropriately cleaned using cleaning equipment accompanying the equipment.

A supply of plastic gloves will be available for use by samplers. Samplers will also have an ice chest in which to place samples and the necessary pencils, paper, and forms for chain of custody, sample data recording, and other information.

A trailer-mounted hollow stem auger, hand auger, and, if necessary, a backhoe will be available for exploratory excavation for the purpose of sampling. A Teflon bailer will be available if needed for water sampling.

Field test equipment for qualitative measurement of volatile organic compounds and quantitative measurement of explosive vapor concentrations consisting of a Photovac TIP 1 and a GASTECH Model 1314SPN will also be included in the on-site equipment.

MONITORING WELLS

Any monitoring wells drilled to the water table will be constructed and developed in accordance with WAC 173-160.

APPENDIX 12

Health and Safety Plan

HEALTH AND SAFETY PLAN

FOR

MAID o'CLOVER

YAKIMA, WASHINGTON

Prepared By

PLSA ENGINEERING AND SURVEYING
1120 West Lincoln Ave
Yakima, Washington

AUGUST, 1992

Job No. 91056

TABLE OF CONTENTS

SECTION I - BRIEF DESCRIPTION AND HISTORY

Underground tanks have been installed to store gasoline. There was a gasoline release due to faulty check valves installed at the northern gasoline pump island. The immediate area has other gasoline stations nearby. There is public records of previous large petroleum product releases in the vicinity.

A. The purpose of the Health and Safety Plan is to address the issues arising from the handling of the contaminated materials. It is not intended to address normal safety practices on construction sites such as those covered under WAC-296-155 or 29-CFR-1910-0. This plan is based on information that has been provided by the contract representative to PLSA. It does not include unexpected or unknown situations that may arise during the course of the project.

B. Facility Name and Address:

Maid o'Clover
1802 East Nob Hill Boulevard
Yakima, WA 98901

C. Facility Background (History): The Maid o'Clover site has been a gasoline station and mini-mart for quite some time. There is no reason known to suspect the finding of any contaminants in the soil and ground water except gasoline and other possible petroleum products.

D. Job Description (Scope of Work): The work to be performed includes well drilling, water and soil sampling, well purging and pumping, water level surveying, and waste water treatment and disposal.

E. Additional Information (Check Applicable Items)

1. Surrounding Population

_____ Industrial
_____ Secluded
_____ Residential
_____ Other

2. Weather Conditions

_____ Hot >70 f
_____ Rain
_____ Mild 40-70 f
_____ Dry
_____ Cold <40 f
_____ Snow

F. On-site Organization (Chain of Command):

Project Team Leader:	Russ Taylor
Alternate:	Brad Card
Site Safety Officer:	Doug D'Hondt
Alternate:	As delegated
Security/Record Keeper:	Anne Van Eaton
Alternate:	As delegated
Public Information Officer:	WDOE
Field Team Leader:	Luis Valdez
Alternate:	As delegated
Field Team Members:	As delegated

_____
_____
_____

G. Agency Representatives:

Agency	Name	Telephone Number
WDOE	John Weitfeld	(509) 575 2490

SECTION II - ON SITE CONTROL

PLSA personnel are all professional and have capability of working independently. The individual assigned as project engineer is normally responsible for all other PLSA personnel present. PLSA does not accept any responsibility for any personnel that may be present employed by other than PLSA.

A. Establish and cordon off the Exclusion Zone, Decontamination Zone, and Support Zone. Use red, danger barricade tape around the Exclusion Zone; yellow, caution tape around the Decontamination Zone.

B. Site Work Preparation:

1. Shut down and disconnect all electrical services to tanks and associated plumbing. Disconnect all pumps to associated plumbing. Pump and flush all underground tanks and associated plumbing. Then cap all associated plumbing except vent pipes. Locate all utilities and obtain any necessary excavation permits.

2. Purge and inert all tanks scheduled for hot work in accordance with uniform fire code, section 79.114 and API Recommend Practices 1604, Section 4. Have tanks tested by qualified person and issue "Safe for Hot Work Permit." Complete hot work in accordance with permit.

SECTION III - SAFETY AND HEALTH HAZARDS

Gasoline is the most hazardous substance anticipated to be encountered. Hazards from gasoline include flammability, explosion danger, and toxicity, particularly from the more volatile gasoline constituents such as benzene. Diesel and heating oil are flammable, but are less explosive and toxic than is gasoline. Heavier oils, such as Bunker C, are lower in flammability and toxicity than diesel. One should avoid ingesting, skin contact, and inhaling petroleum product or vapors. Protective clothing and a respirator mask must be worn by persons exposed to high concentrations of petroleum vapors. If petroleum vapor is inadvertently inhaled, seek an area of fresh air until the petroleum vapor is purged. If a person is overcome with petroleum vapor, seek medical assistance. Do not re-enter the petroleum vapor area without wearing a respirator and checking for explosion hazard.

Underground storage tank basin excavations could contain explosive vapor concentrations. An explosion meter is required to be on the job and used to check explosion hazard before any work is done in the excavated tank basin. If an explosive atmosphere is present, it may be necessary to ventilate the excavation or allow the explosive vapors to dissipate before any work is done. Fire extinguishers will be on-site and foam equipment will be available for fire extinguishing and vapor suppression on an as required basis.

Most of the sampling activity will be in an excavation. Conscientious effort is made to maintain the sides of the excavation so as to minimize hazard from caving, but this does not insure absolute safety. Persons entering excavations for the purpose of sampling or performing other duties must be alert for unstable soil, over-steepened slopes, overhanging materials, such

as paving, and unstable overhead structures such as power or phone lines. If the excavation is judged too hazardous to enter, the required samples often may be obtained using a backhoe or other construction equipment present.

Construction equipment is usually present and operating during monitoring or sampling for removal of petroleum contaminated soil (PCS). This equipment moves quickly and all sides are not in view of the operator. Avoid blind areas around the equipment and maintain eye contact with the operator when working in the immediate vicinity of operating equipment.

Insecure footing is common in excavations. Personnel are requested to have appropriate footwear and are cautioned to move deliberately and with care when in an excavation. Waterproof boots are provided by PLSA when required.

A. During work operation, the following hazards may be encountered:

1. In the Exclusion Zone - Moving equipment, uneven, slippery terrain, loose debris, contamination, toxic or flammable atmosphere.

2. In the Decontamination Zone - Moving equipment, uneven, slippery terrain, loose debris, cross contamination from Exclusion Zone, low level toxic or combustible atmosphere.

3. In the Support Zone - Moving equipment, uneven, slippery terrain, loose debris, cross contamination from Exclusion Zone or Decontamination Zone, and access by general public.

B. During work operation, the following chemical hazards may be encountered (check appplicable items):

Chemical Name	**Concentration**	**P.E.L.**
1._____ Fuel Oils	_____	<100 ppm

Hazards Combustible, eye & skin contact, inhalation, and ingestion.

2._____ Diesel Fuel	_____	<100 ppm

Hazards Combustible, eye & skin contact, inhalation, and ingestion.

3._____ Gasoline _____ <100 ppm
_____ Benzene _____ <.05 ppm

Hazards Flammable, eye & skin contact, inhalation, and ingestion.

4._____ Stoddard Solvent _____ <100 ppm

Hazards Flammable, eye & skin contact, inhalation, and ingestion.

5._____ Waste Oil _____ <1000 ppm

Hazards Flammable, eye & skin contact, inhalation, and ingestion.

6._____ P.C.B. _____ <01 ppm

Hazards Flammable, eye & skin contact, inhalation, and ingestion.

MSDS sheets for these products are attached, as appropriate.

SECTION IV - PERSONAL PROTECTIVE EQUIPMENT

The following personal protective equipment shall be used according to the level of protection required.

A. Level A - P.P.E.

1. Supplied - Air respirators, positive pressure-demand, SCBA or Air-line with full face mask.
2. Emergency Escape pak.
3. Fully encapsulating chemical - resistant suit.
4. Coveralls (worn under chemical suit).
5. Chemical-resistant gloves (inner).
6. Chemical-resistant steel toe and shank boots.
7. Disposable gloves and boot covers (outer).
8. Requires use of "buddy system".

B. Level B - P.P.E.

1. Supplied - Air respirators, positive pressure-demand, SCBA or Air-line with full face mask.
2. Emergency Escape pak.
3. Chemical-resistant, one or two piece suit with long sleeves and hood.
4. Coveralls (worn under chemical suits).
5. Chemical-resistant hood (inner).
6. Chemical-resistant gloves (inner).
7. Chemical-resistant steel toe and shank boots.
8. Disposable gloves and boot covers (outer).
9. Tape at all joints of P.P.E.
10. Requires use of "buddy system".

C. Level C - P.P.E.

1. Air-purifying, cartridge - equipped, full or half-face mask respirator.
2. Chemical-resistant, one or two piece suit with hood if skin protection required.
3. Coveralls, worn under chemical suit.
4. Chemical-resistant gloves (inner).
5. Chemical-resistant steel toe and shank boots.
6. Disposable gloves and boot covers (outer).

D. Level D - P.P.E.

1. Coveralls.
2. Chemical-resistant gloves.
3. Chemical-resistant steel toe and shank boots.
4. Safety glasses.
5. Hard hat.

E. Other

_____

_____

_____

F. Required levels of Protection (circle applicable item)

1.	Exclusion Zone	A	B	C	D
2.	Decontamination Zone		A	B	C D
3.	Support Zone	A	B	C	D
4.	Emergency Standby Personnel		A	B	C D

SECTION V - COMMUNICATION PROCEDURES

A. All personnel on site should remain in communication or within sight of the Field Team Leader. Any failure of communication requires an evaluation or whether personnel

should leave the Exclusion Zone.

B. The following standard hand signals may be used for communications:

Hand gripping throat ------- Out of air, can't breathe.
Both hands around waist ------- Leave area immediately.
Hands on top of head ---------- Need assistance.
Thumbs up ---------- OK, I am all right, I understand.
Thumbs down ---------- No, negative.

C. Radio or mobile telephone communication shall be established in the Support Zone. The telephone number is _____.

SECTION VI - DECONTAMINATION PROCEDURES

A. Personnel and equipment leaving the Exclusion Zone shall be thoroughly decontaminated using the standard level-decontamination protocol.

B. At minimum, the following stations shall be used.

1. Station 1
2. Station 2
3. Station 3
4. Station 4
5. Station 5
6. Station 6

C. Detergent and water will be used as the decontamination solution.

D. Emergency decontamination will include Stations 1, 3, and 4. Wrap the affected person(s) in plastic and transport to medical care. Notify the medical facility of the contamination factors.

SECTION VII - EMERGENCY INFORMATION

A. The following person(s) on site are qualified for emergency CPR and first aid:

_____

_____

_____

B. The first aid kit, eye wash unit, and skin wash equipment are located in the Decontamination and Support Zones.

C. The nearest medical facility is located approximately twenty five minutes away. (See attached road map.)

Name Memorial Hospital
Address 2811 Tieton Drive
Yakima, WA 98902

D. Emergency telephone numbers

1. Police 509-248-1010
2. Fire 509-248-2100
3. Hospital 509-575-8000
4. Ambulance 509-248-1811

E. The following standard emergency procedures shall be used on site. The Site Safety Officer shall be notified of any on-site emergencies and shall be responsible for ensuring that the appropriate procedures are followed.

1. Any emergency on site which could effect the continuing operations shall be cause for all personnel to immediately evacuate the Exclusion Zone. Personnel shall follow decontamination procedures and standby for orders from the Field Team Leader to re-enter the Exclusion Zone and resume work operations.

2. The Field Team Leader and the Site Safety Officer shall evaluate the causes and effects of the emergency and assure that corrective action has taken place before allowing personnel to resume work operations.

3. Any changes of the health and safety plan or working conditions shall be relayed to the workers prior to resuming work operations.

SECTION VIII - ENVIRONMENTAL MONITORING

A. The following environmental monitoring instruments shall be used on site at the specified intervals (check meter type and circle intervals used).

1. ____ Oxygen meter - continuous hourly daily
other _____
2. ____ Combustible gas-continuous hourly daily
other _____
3. ____ HNU/OVA meter - continuous hourly daily
other _____
4. ____ Colorimetric tubes
____ Benzene - continuous hourly daily
other _____

5. ____ Other - continuous hourly daily
other _____

B. All reading of atmospheric monitoring shall be recorded on the attached sheet, figure 12-1. This information will be relayed to all workers required to enter the control zones.

SECTION IX - PERSONAL MONITORING AND TRAINING

A. All PLSA personnel on site shall have current annual medical examinations in compliance with 29-CFR0-1910-120 and PLSA chemical handler protocol.

B. All personnel working in stress conditions >70 F shall be monitored for symptoms of heat stress. If symptoms are recognized or reported, that person(s) shall be immediately moved to a cool, shady area and allowed to rest. If symptoms continue, transport personnel to medical facility.

C. All PLSA personnel on site shall have documented a minimum of twenty-four (24) hours of health and safety training in accordance with 29-CFR-1910-120.

D. If the work site is designated as a "Hazardous Waste Site", all PLSA personnel shall have documented a minimum of forty (40) hours of health and safety training in accordance with 29-CFR-1910-120.

E. If work on a designated "Hazardous Waste Site", requires the use of personal protective equipment Levels A or B, all personnel required to wear Level A or B P.P.E. shall have documented a minimum of eighty (80) hours of health and safety training in accordance with WISHA 296-62-3040.

F. All PLSA personnel shall be trained to recognize and protect themselves from the hazards on site as described in this Health and Safety Plan.

SECTION X - CHANGES TO HEALTH AND SAFETY PLAN

A. This plan is written for general work operations dealing with

underground tank removal. If work conditions change or conditions are found which are not covered by his Health and Safety Plan; such as chemical spill conditions, atmospheric changes and confined space entry, all personnel shall proceed as follows:

1. Evacuate the work area in the Support Zone and standby for orders to re-enter.

2. The Field Team Leader and Site Safety Officer shall evaluate the change(s) and revise the Health and Safety Plan to incorporate the corrective action(s).

3. The Field Team Leader shall assure that all personnel have been advised to these changes and understand the necessary corrective action(s). Only then shall the Field Team Leader give the order to resume work operations.

4. If any part of this Health and Safety Plan is not understood, or any necessary change(s) to this Health and Safety Plan is not understood, the PLSA Field Services Safety Department shall be contacted for direction.

SECTION XI - SITE SAFETY PLAN REVIEW

This document shall be signed by each member of the work team prior to entry to the controlled zones. We have read and understand the contents of this Site Safety Plan and will comply with its provision, requirements, and restrictions.

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