TACOMA-PIERCE COUNTY
HEALTH
DEPARTMENT

Federico Cruz-Uribe, MD, MPH
Director of Health

Governed by a local
Board of Health

•Community Based
•Competitive
•Integrated
•Preventive

11 August 2003

Mr. Tim Shearer, Operations Mgr.
Woodworth & Company Inc.
1200 E. D Street
Tacoma, WA 98421

RE: Site Hazard Assessment Completion

Dear Mr. Shearer:

The Tacoma-Pierce County Health Department has completed the Site Hazard Assessment (SHA) of the **Woodworth Lakeview Gravel Pit** site located at **2800 104th St. S, Tacoma WA** as required under the Model Toxics Control Act. This site's hazard ranking, an estimation of the potential threat to human health and/or the environment relative to all other Washington state sites assessed at this time, has been determined to be a **2**. The ranking scale ranges from 1 to 5, with 1 representing the highest relative risk and 5 the lowest relative risk.

For your information, Ecology will be publishing the ranking of this and other recently assessed sites in the August 26, 2003 Special Issue of the Site Register. The site hazard ranking will be used in conjunction with other site-specific considerations in determining Ecology's priority for future actions.

Please contact me at (253) 798-2891 if you have any questions relating to the SHA of your site. If you have inquiries/comments about the site scoring/ranking process, please call Michael Spencer, Washington State Department of Ecology, at (360) 407-7195. For inquiries regarding any further activities at your site now that it is on Ecology's Hazardous Sites List, please call Dan Alexanian at (360) 407-6249.

Sincerely,

Sharon Bell

Sharon Bell
Environmental Health Specialist

cc: Michael Spencer, Ecology
Dan Alexanian, Ecology ✓

3629 South D Street
Tacoma, WA 98418-6813

253/**798-6500**
TDD: 798-6050
800/992-2456

www.tpchd.org

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Tacoma-Pierce County Health Department
Source Protection Programs/Site Hazard Assessment

Worksheet 1 - Summary Score Sheet

SITE INFORMATION

Name: **Woodworth & Co. Inc. Lakeview Pit**
Address: **2800 104th Street South**
City: Tacoma **County: Pierce** **State: WA** **Zip: 98444**
Section/Township/Range: 6-19N-3E
Latitude: 47° 09' 45"N **Longitude: 122° 28' 25"W**
Facility Site ID: 1372

Site assessed/ranked for the August 2003 update

Site Description (Include management areas, substances of concern, and quantities):

The Woodworth Lakeview Gravel Pit (Lakeview) encompasses four contiguous parcels (0319061135, 0319061136, 0319062075, and 0319062076) and spans approximately 60 acres. Lakeview is located adjacent to and northeast of the intersection of I-5 and State Highway 512. This area is dominated by the Spanaway Soil Series, described as gravelly sandy loam several feet thick which is moderately permeable and underlain by highly permeable Steilacoom gravels. Steilacoom gravels typically range in thickness from a few feet to 60 feet and form an unconfined aquifer that recharges directly from precipitation. As such, this aquifer is sensitive to surface-borne contaminants. The upper, unconfined aquifer is separated from a deeper aquifer by a layer of hardpan and clay. The deeper aquifer is in an older glacial outwash of sand and gravel.

Lakeview's topography slopes towards the northwest, although surface mining in the past has created low areas as much as 40 feet below the original grade as evidenced by a bluff adjacent to the north end of the property. The native surficial sediments, consisting of very coarse Steilacoom gravels, have been mined and the current operations now lie predominately on somewhat finer sand and gravel outwash sediments. Pavement extends over approximately half the site with a perimeter road and the southern portion of the property covered with asphalt or asphalt/concrete pads. A stormwater collection system directs surface flow into a combination of bioswales and retention/infiltration ponds.

Lakeview is located above a federally designated sole source aquifer. Thirty (30) Group A drinking water wells, ranging in depth from 30 to 937 feet below ground surface (bgs), are located within two miles of the Woodworth site and serve a population of approximately 382,000. Seven Group A drinking water wells are located downgradient of the Lakeview site:

- Carriage Court Trailer Park, about 1000 feet north, 82 feet deep;
- Lakewood Water District, about 3500 feet north, 156 and 605 feet deep (2 wells);
- Mt. Tacoma Trailer Park, about 1100 feet NW, 95 and 105 feet deep (2 wells);
- Lakewood Water District, about 10,000 feet NW, 302 feet deep;

- Laurel Lane Mobile Home Park, about 1000 feet NE, 108 feet deep.

Two Group B drinking water wells and three private wells are also located downgradient of the site; depths of these wells are not recorded.

Groundwater was encountered at a very shallow depth during installation of the groundwater monitoring wells at Lakeview and the finished depths of the monitoring wells range from 15 to 20 feet bgs. Results of the groundwater monitoring indicate that flow trends generally to the NNW. A production well installed for process water in 1969 on the Lakeview site extends to 187 feet bgs. This well is screened at two levels, and draws from both the upper and lower aquifers. There is nothing indicated in the abbreviated well log to demonstrate proper seals having been constructed to prevent cross contamination between the aquifers. This well was recently converted to use for a drinking water supply for the business operation without the benefit of a permit or adequate water quality testing; the well pumphouse is located within several hundred feet of monitoring wells showing evidence of trichloroethylene contamination.

Site History

Until recent years, Lakeview was used primarily for surface mining of sand and gravel as well as hot-mix asphalt production. While asphalt is still produced at this site, the raw materials for crushed and washed rock production have been depleted and are now imported.

For a period of about 10 years, Woodworth used the Lakeview site to landfill various waste materials. This period commenced about 1981, with Woodworth applying for a permit to landfill inert waste material from 1987 to 1992. The permit to landfill inert waste material was never granted, but landfilling continued until 1991/1992. Woodworth has acknowledged four sources of landfill material:

- Clean dirt and rock from various projects;
- Waste concrete and asphalt, volume estimated to be many thousands of cubic yards;
- Waste concrete roof tiles consisting primarily of cement, sand, and silicon sand; about 7500 cubic yards were accepted from 1987 to 1991;
- Refuse sand, refractory materials, reclaim dust, and slag from Atlas Foundry cast steel production consisting of silica and chromite sands, bentonite clay, sodium silicate, burned dolomite brick, high alumina brick, calcium aluminate cement, alumina mortar, ladle linings, and silica dust and flour; about 87,000 cubic yards were accepted from 1981 to 1991.

The Atlas fill materials were reportedly placed along the eastern boundary of the property. The areal extent of the other landfilled material is not well defined. During construction of groundwater monitoring wells in 1992, visual evidence of asphalt fill within the top 10 feet was noted in well locations spanning the southern and western borders of the property (MW-5, -6, -7 and -11).

Woodworth diversified its business by incorporating treatment of petroleum contaminated soil and located the facility at the subject property. In 1991, Woodworth's Lakeview Facility received its first Conditional Solid Waste Permit from Tacoma-Pierce County Health Department (TPCHD) for Contaminated Soil Treatment.

In 1992, Woodworth changed its focus from trying to landfill inert waste material to recycling inert materials such as concrete, masonry, asphalt, and glass into roadbuilding material. Woodworth's Lakeview Facility received a Conditional Solid Waste Permit from Tacoma-Pierce County Health Department (TPCHD) for Inert Waste Recycling and Petroleum Contaminated Soil (PCS) Treatment in 1992.

In 1994, the soil treatment facility was sold to TPST Soil Recyclers of Washington. As a result, Woodworth's solid waste permit was amended to include only Inert Waste Recycling to separate the facilities and the responsible parties. Woodworth's permit has been updated annually and was amended to include asphalt roofing shingle recycling in 1995.

TPST bought the soil treatment facility but leases the property from Woodworth. A solid waste permit was issued to TPST for Petroleum Contaminated Soil Treatment in 1994 and has been updated annually since that time.

Current Site Conditions

Lakeview is now a multi-use facility, with all activities taking place within the confines of the former surface mining operation. Woodworth has a Conditional Solid Waste Permit from the Tacoma-Pierce County Health Department for Inert Waste Recycling; its lessee, TPST Soil Recyclers is permitted for Petroleum Contaminated Soil Treatment. Lakeview is primarily used for hot-mix asphalt production, recycling of various construction materials (asphaltic and Portland cement concrete, asphalt and cedar shake roofing, foundry waste, spent sandblast grit, and cold-patch asphalt), and treatment of petroleum contaminated soils. A maintenance shop is also located on this site for the Woodworth truck fleet.

The hot-mix asphalt plant operated by Woodworth at Lakeview consists of a continuous mix drum plant, silos for storage of product material, liquid asphalt storage tanks, a shredder, a screening plant, conveyors, and stockpiles of both waste roofing and shredded roofing. The plant uses both virgin and recycled material for asphalt production. The stockpiles are stored outside and exposed to the elements. The plant, tanks, and equipment are located on paved surface, without cover.

Two 12,000 gallon above ground diesel fuel tanks are located near the hot mix asphalt plant. Both tanks are on a covered pad and have secondary containment.

The asphaltic and Portland cement concrete recycling facilities operated by Woodworth consist of crushers, screening plants, and reinforcing steel removal apparatus for Portland cement concrete recycling. The uncovered plant is on paved surface but the stockpiles are not.

The Woodworth facility is also permitted to receive foundry waste and spent sandblast grit for inclusion to the asphalt production process. However, this type of waste has not been accepted for the last three to four years. When they were accepted, these waste streams made up less than one percent of the total recycled materials coming on to the site.

Woodworth also produces cold-mix asphalt patching material which uses a soft oil product along with crushed rock. The soft oil is stored in a 20,000 gallon above ground storage tank, located on paved surface with secondary containment.

The petroleum contaminated soils treatment facility is operated by TPST Soil Recyclers on a parcel leased from Woodworth & Co., Inc. Contaminated soils are stored under cover, while treated soils and much of the treatment equipment are exposed to precipitation and stormwater runoff.

Groundwater Monitoring

Four (4) groundwater monitoring wells were installed as part of the environmental monitoring required in the initial conditional permit issued for PCS treatment. The average depth of these monitoring wells was 20 feet bgs. When groundwater monitoring began in 1991, it became clear that the groundwater was already contaminated with lead, cadmium, chromium, and trichloroethylene above MTCA Method A cleanup levels. Seven (7) additional groundwater monitoring wells were installed in 1992, at an average depth of 15 feet bgs, to better define and monitor groundwater quality beneath the site. Hydrocarbon odors were detected during drilling of monitoring wells #5, #6, #7, and #11, along with visual evidence of asphalt fill material within the top 10 feet.

Sampling conducted in 1992 detected lead, cadmium, chromium, trichloroethylene, and total petroleum hydrocarbons in excess of MTCA Method A cleanup levels. Sampling results spanning 1991 to 2003 indicate groundwater contaminated above MTCA cleanup levels with diesel, cadmium, chromium, lead, and trichloroethylene. Gasoline and 1,1,1-trichloroethane have also been detected at levels below MTCA cleanup levels. The detected contamination has varied over time, location, and concentration.

Initially, groundwater at this site was monitored quarterly for all indicated constituents. In 1994, sampling was abbreviated such that quarterly sampling was conducted for TPH constituents only, with annual sampling for metals and volatiles.

The last annual sampling for metals and volatiles was in October 2002. Analytical results from those samples indicated groundwater contaminated with trichloroethylene above

MTCA cleanup levels present in three wells. Lead was also detected in one well above MTCA cleanup levels. Other metals detected in the 2002 sampling event were barium, chromium, copper, nickel, and zinc. Annual groundwater sampling which is conducted in October/November for metals and volatiles may not be adequate to demonstrate potential contamination levels given the relatively low water conditions at that time of year.

Diesel has been intermittently detected in various monitoring wells at this site, sometimes significantly above cleanup levels. Over the last four quarters of sampling, diesel has been detected in 3 wells at concentrations below MTCA cleanup levels. However, one well sampled in October 2002 had diesel concentrations (492 ppb) just below the MTCA cleanup level.

Field parameters measured during sampling events indicate persistent and unusually high conductivity values (as high as 500 to 800 uS/cm) in most wells which may be indicative of other contaminants.

Potential sources of contamination

Anecdotal information indicates that the Lakeview facility was once used by the Washington State Department of Transportation to test asphalt. Trichloroethylene was used in the testing, and reportedly dumped on the ground as a routine practice.

Landfilling has occurred on the site and may have contamination associated with the landfilled materials although the records indicate that inert material was the primary waste stream. However, chromite sands from the Atlas Foundry waste stream are a potential source of chromium. There is also the possibility of Atlas Foundry slag material having been landfilled.

Historical and current business practices are potential contributors of petroleum contamination. Several above ground fuel tanks are located on the property along with a large tank holding a soft oil product; heavy equipment and trucks are routine traffic at the site; and the soil treatment facility handles petroleum contaminated soil that may also have secondary contaminants such as metals. Inspection reports of the PCS facility have noted several issues over the years which have included PCS stored outside with visible sheen in the stormwater runoff and trucks tracking PCS in and out of the property on their tires.

Finally, located upgradient of the Lakeview Facility and on the south side of the property is the Cascade Demolition Landfill (closed) and McChord Air Force Base. The Cascade Demolition Landfill was permitted from 1972 to 1987 to accept (inert) demolition material. The material accepted at this landfill was primarily sheetrock but also included demolition waste, masonry, pulp waste, and sulfur liquor. Reportedly, jet fuel may also have been accepted at this site. The Cascade site was owned and used by Cascade Asphalt Paving Company (Cascade). Cascade extracted rock and used it in their asphalt

production at this site. The resulting pit was filled as described above to restore the original topography. A final cover of approximately four feet of impermeable clay was installed.

Special Considerations (Include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

Routine groundwater monitoring has been conducted at this site since 1991 with indications of intermittent, but persistent groundwater contamination. Due to the significant contamination documented on-site being primarily subsurface, the surface water and air routes are not applicable for WARM scoring for this site. Therefore, only the groundwater route will be scored.

The total population usage of groundwater for drinking water from all private and public supply wells is documented to be in excess of 10,000, so the maximum value of 100 will be used for that scoring value.

WRATS info indicates 452 acres are irrigated by water drawn from within a 2 mile radius of this site. However, no known food crops are irrigated with this water so a zero (0) value was assigned in this category.

ROUTE SCORES:

Surface Water/Human Health: **NS**

Surface Water/Environ. **NS**

Air/Human Health: **NS**

Air/ Environmental: **NS**

Ground Water/Human Health: **65.9**

OVERALL RANK: 2

Worksheet 2--Route Documentation

1. SURFACE WATER ROUTE This route not to be scored

2. AIR ROUTE This route not to be scored

3. GROUND WATER ROUTE

a. List those substances to be considered for scoring: Source: **1,2**

Lead, cadmium, chromium, trichloroethylene, diesel, gasoline

b. Explain basis for choice of substances(s) to be used in scoring:

Lead, trichloroethylene, and diesel will be scored for the groundwater route due to levels detected and their persistence over time; also, all substances were available to the groundwater route through less than perfect containment.

Cadmium has not been detected above cleanup levels since 1994; chromium has not been detected above cleanup levels since 1999; and gasoline has been an ephemeral contaminant detected at concentrations below cleanup levels. These substances were, therefore, not used in scoring.

c. List those management units to be considered for scoring: Source: **1,2**

Contaminated soil/spill/discharge due to the documented groundwater contamination for the above listed substances.

d. Explain basis for choice of unit to be used in scoring:

Contaminated groundwater verified by monitoring results.

Not Applicable

Worksheet 3 - Substance Characteristics Worksheet For Multiple Unit/Substance Sites (*If Required*)

UNIT	Combination 1	Combination 2	Combination 3
1. SURFACE WATER ROUTE			
Substances:			
Human Toxicity Value:			
Environ. Toxicity Value:			
Containment Value:			
Rationale:			
Surface Water Human Subscore:	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=
Surface Water Environ. Subscore:	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=
2. AIR ROUTE			
Substances:			
Human Toxicity/ Mobility Value:			
Environ. Toxicity/ Mobility Value:			
Containment Value:			
Rationale:			
Air Human Subscore:	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=
Air Environ. Subscore:	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=
3. GROUND WATER ROUTE			
Substances:			
Human Toxicity Value:			
Containment Value:			
Rationale:			
Groundwater Subscore:	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=	(+3)(+1)= ( )( )=

Based on their respective highest scoring toxicity/containment combinations, the following management units will be used for route scoring:

Surface Water - _____ Air - _____ Ground Water - _____

2.0 MIGRATION POTENTIAL

2.1	**Containment** **Explain Basis**: Groundwater is contaminated	Source: 1,2 **Value: 10** (Max = 10)
2.2	**Net Precipitation:** 19.1 inches (Tacoma: Nov=25.5" – April=6.4")	Source: 2,9 **Value: 2** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** Sand and gravel	Source: 1,2 **Value: 4** (Max = 4)
2.4	**Vertical depth to ground water:** 0 (groundwater is contaminated)	Source: 1,2 **Value: 8** (Max = 8)

3.0 TARGETS

3.1	**Ground Water Usage:** Federally designated sole source aquifer	Source: 2,11 **Value: 10** (Max = 10)
3.2	**Distance to nearest drinking water well:** Well on site is currently being used illegally as drinking water source; about 1000 ft to Group A W.S.	Source: 2,7,11 **Value: 5** (Max = 5)
3.3	**Population served within 2 miles: √ pop. =** Tacoma municipal wells located w 2 miles of site serving population of approximately 316,000.	Source: 2,8,11 **Value: 100** (Max = 100)
3.4	**Area Irrigated by (groundwater) wells within 2 miles:(0.75) √** **No. acres = 452**	Source: 2,6 **Value: 0** (Max = 50)

4.0 RELEASE **Explain basis for scoring a release to ground water:** Analytical evidence	Source: 1,2 **Value: 5** (Max = 5)

Worksheet 6 – Ground Water Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

	Substance	Drinking Water Standard (ug/1)	Val	Acute Toxicity (mg/kg-bw)	Val	Chronic Toxicity (mg/kg/day)	Val	Carcino-genicity WOE PF*	Val
1	Lead	5	8	--	--	--	--	--	--
2	Trichloroethylene	5	8	2402	3	--	--	0.011	4
3	Diesel	20	6	490	5	0.004	3	--	--
4									
5									
6									

***Potency Factor**

Source: 1,2,3
Highest Value: 8
(Max = 10)
Plus 2 Bonus Points? 2
Final Toxicity Value: 10
(Max = 12)

1.2 Mobility (Use numbers to refer to above listed substances)

Cations/Anions:	OR	Solubility (mg/1):
1=		1= lead = 2
2=		2 = trichloroethylene = 3
3=		3 = diesel = 1
4=		
5=		
Source: _____ Value: _____ (Max = 3)		Source: 2,3 Value: 3 (Max = 3)

1.3 Substance Quantity: Unknown

Explain basis: Use default of 1	Source: 2 Value: 1 (Max = 10)

Worksheet 6 (cont'd)

Sources Used in Scoring

1. Tacoma-Pierce County Health Department Site Hazard Assessment and Solid Waste Program Files.

2. Washington State Department of Ecology, WARM Scoring Manual, April 1992.

3. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992.

4. U.S. Department of Interior Geological Survey Topographical Map

5. Soil Survey of Pierce County, U.S.D.A. Soil Conservation Service

6. Water Rights Information System (WRIS), Ecology

7. Department of Ecology/Tacoma-Pierce County Health Department Well Logs

8. Washington State Department of Health Public Water Supply System

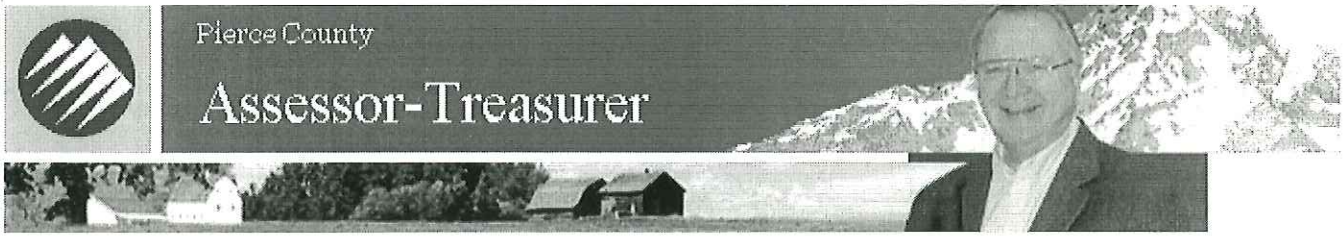
9. Washington Climate for Pierce County, National Weather Service Forecast Office

10. Department of Fish and Wildlife, Catalog of Washington Streams and Salmon

11. Pierce County Geographic Information System Countyview Database

12. Environmental Protection Agency Region 10 Site Information for Site
    Longitude: 47° 09' 45" N
    Latitude: 122° 28' 25" W

13. \\HEALTH1\SYS\LIBSHARE\SRCPRO\SHA\Forms\Sources Used in Scoring.doc



Parcel:	R0319061135
Name:	WOODWORTH & CO INC
Site Address:	2800 104TH ST CT S
Mailing Address:	1200 E D ST , TACOMA WA 98421
Use Code:	9880 INDUSTRIAL LAND WHICH DOES NOT HAVE A BUILDING VALUE BUT DOES HAVE A BUILDING.

Date: 07/11/2003, 01:14 PM

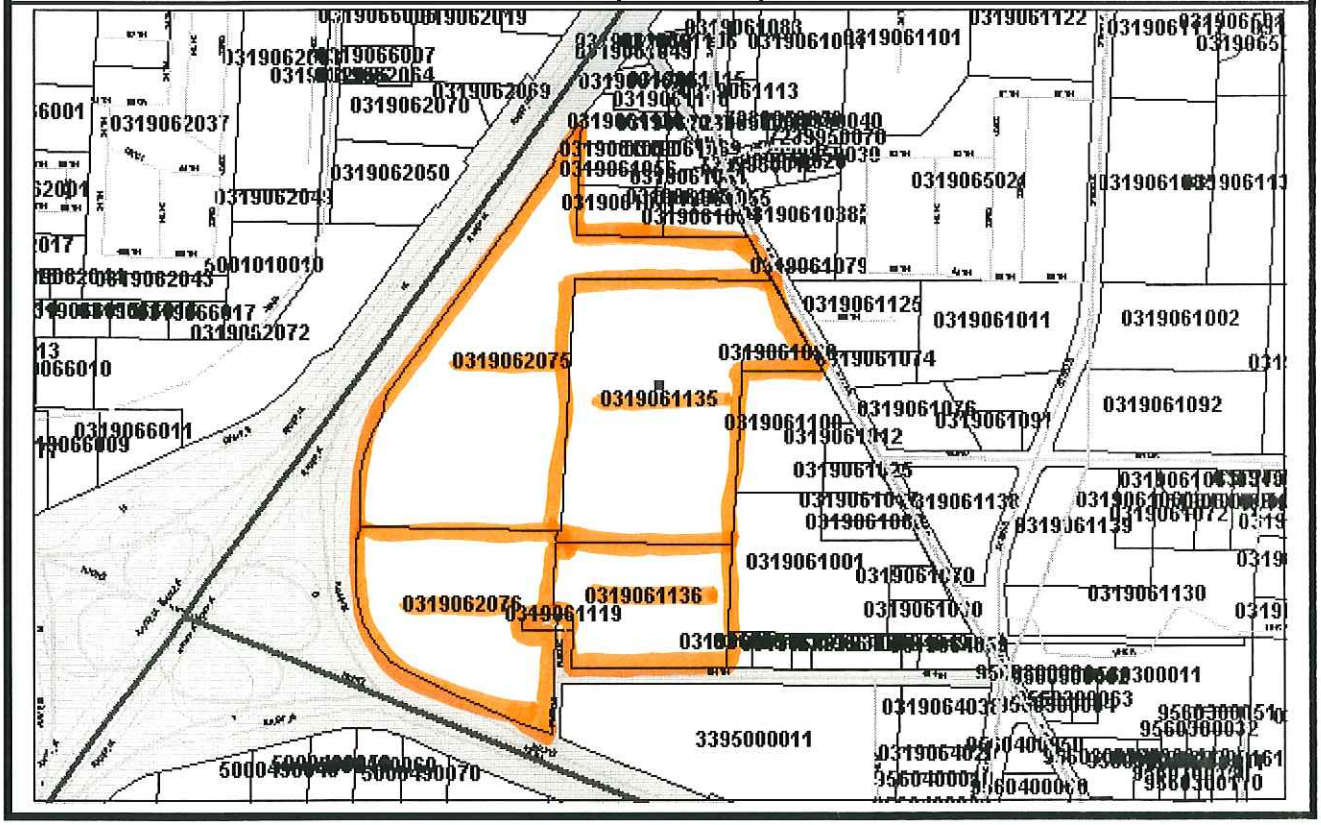
Please Click One Of The Following For Details

Tax & Assessment | Land Characteristics | Parcel Map | Recorded Data | Back to Search

Zoom Level: 15.0 Zoom

N

RTSQQ: 03-19-06-1-3
School District: Clover Park



For additional mapping options, visit Map Your Way

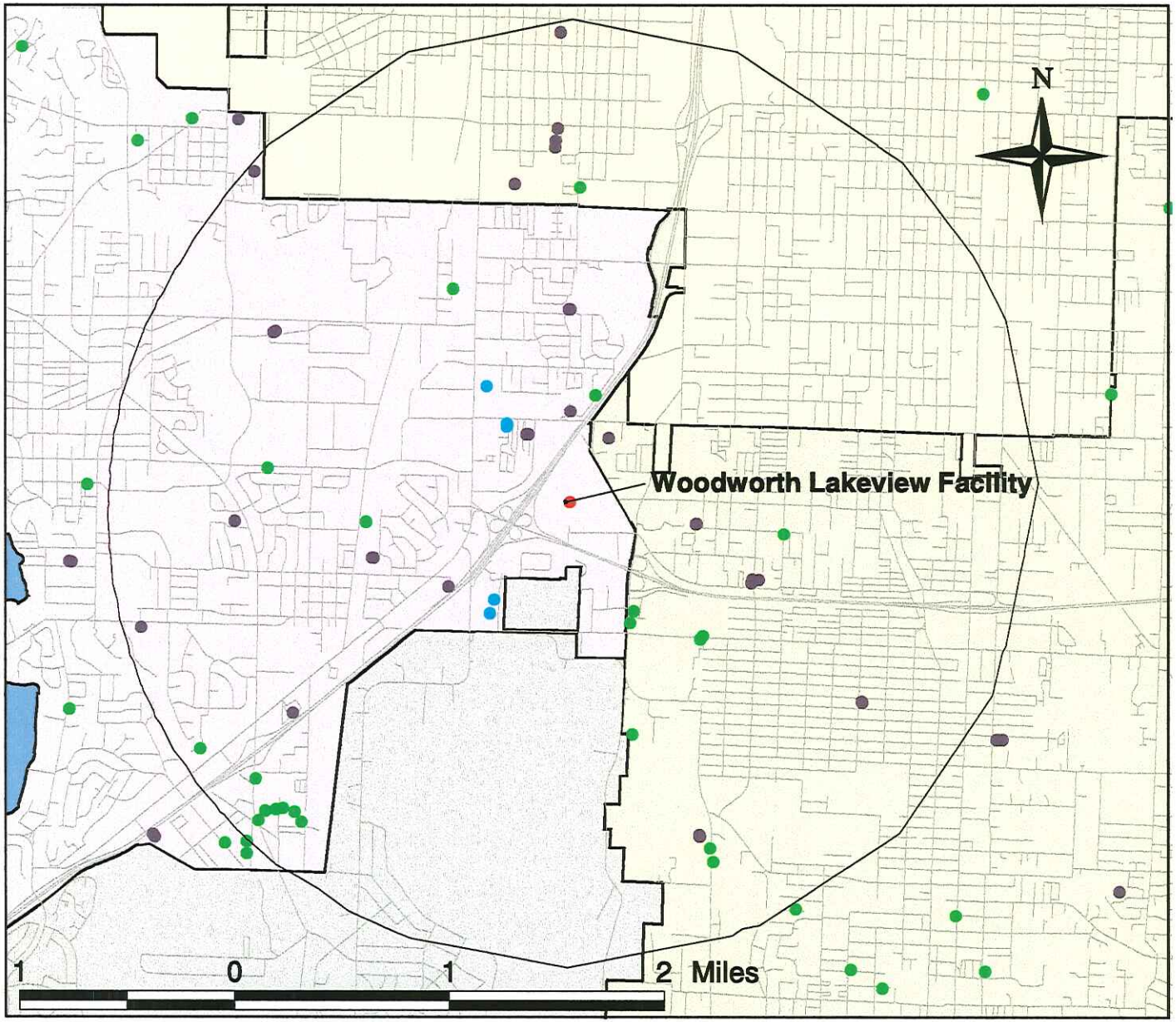
I acknowledge and agree to the prohibitions listed in RCW 42.17.260(9) against releasing and/or using lists of individuals for commercial purposes.

Neither Pierce County nor the Assessor-Treasurer warrants the accuracy, reliability or timeliness of any information in this system, and shall not be held liable for losses caused by using this information. Portions of this information may not be current or accurate. Any person or entity who relies


WOODWORTH
WOODWORTH
WOODWORTH
WOODWORTH

Woodworth Lakeview Facility
Wells Within 2 Miles

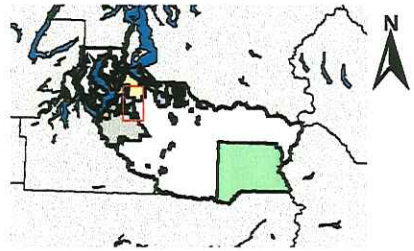
July 2003



MAP LEGEND

- Group B Wells
- Individual Wells
- Group A Wells
- Roads

Scale: 1:47000



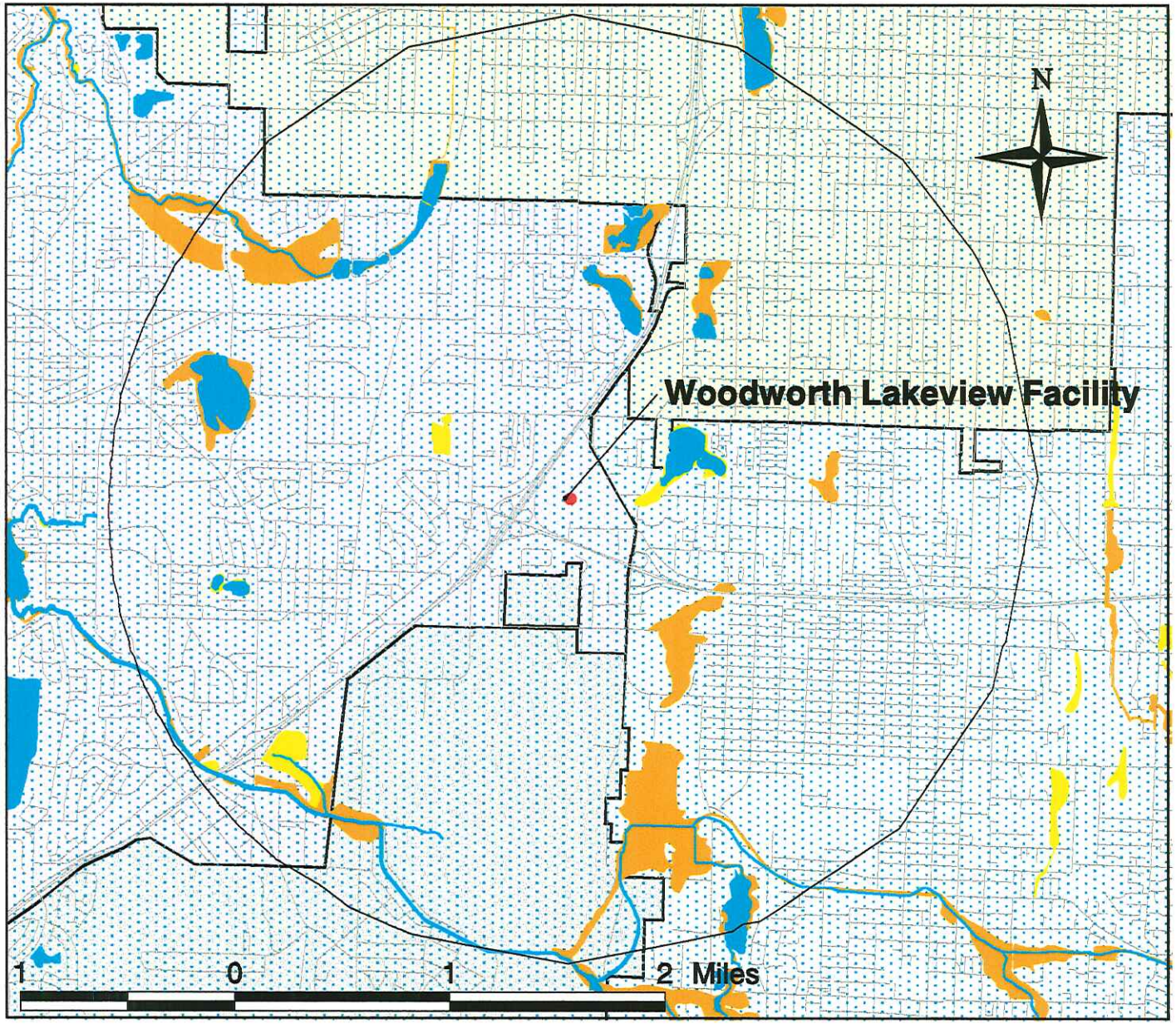
All geographic information on this map should be considered under revision and each user should recognize the limitations on use of this data.

Tacoma-Pierce County Health Department
Environmental Health Program
Clean water. Healthy Environment. For life.

Pierce County
Geographic Information Services

Woodworth Lakeview Facility
Waterbodies and Aquifers Within 2 Miles

July 2003



MAP LEGEND

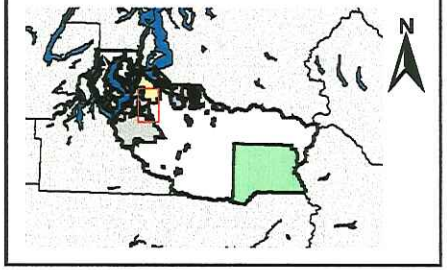
Hydro - PC*
- Water Features
- StreamsHydro - PC*(arcs)

Flood Hazard Areas
- 100 year(A Zone)
- 500 year(X500 Zone)

EPA Sole Source Aquifer

Roads - All*

Scale: 1:47000



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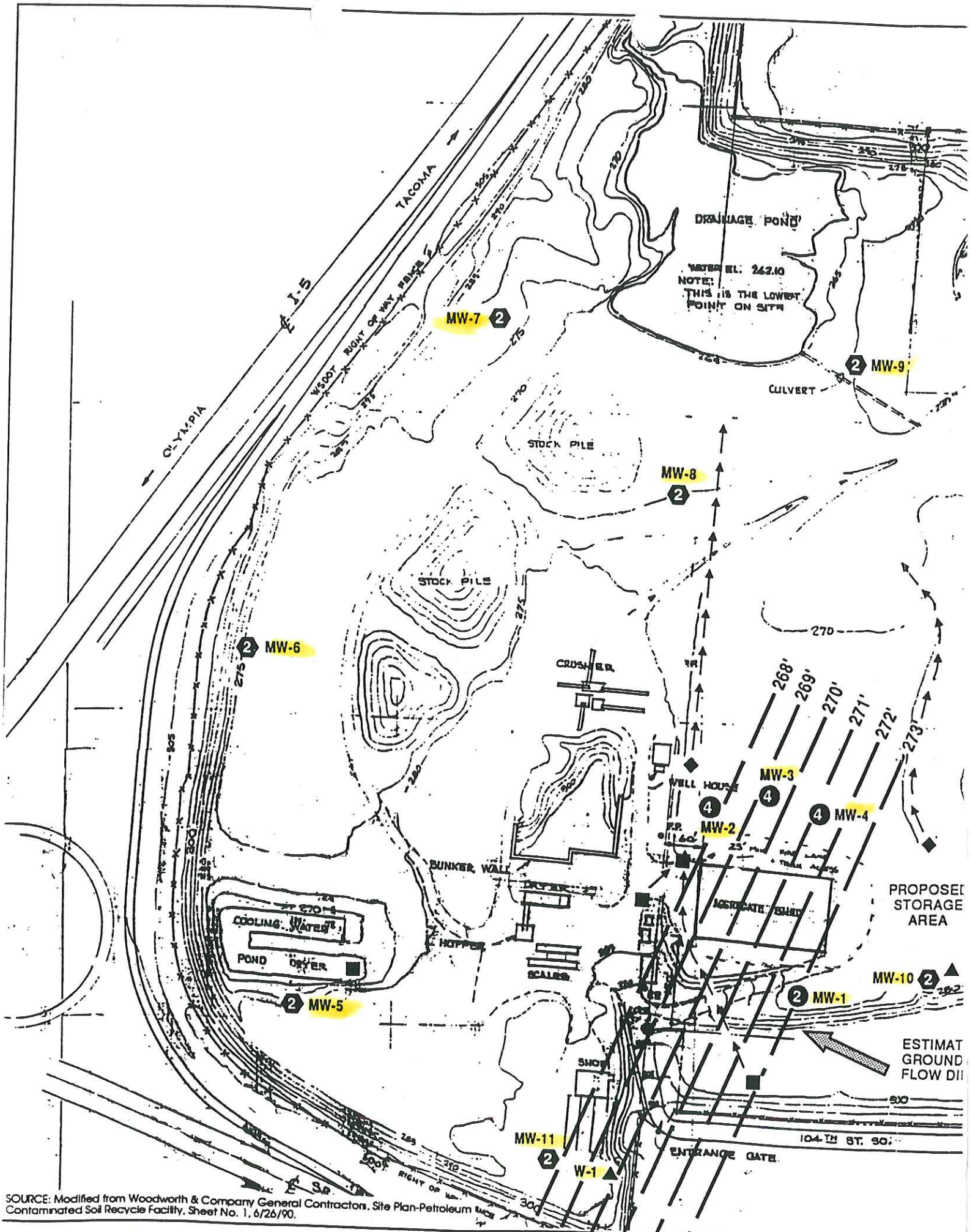
Tacoma-Pierce County Health Department
Environmental Health Program
Clean Water. Healthy Environment. For Life.

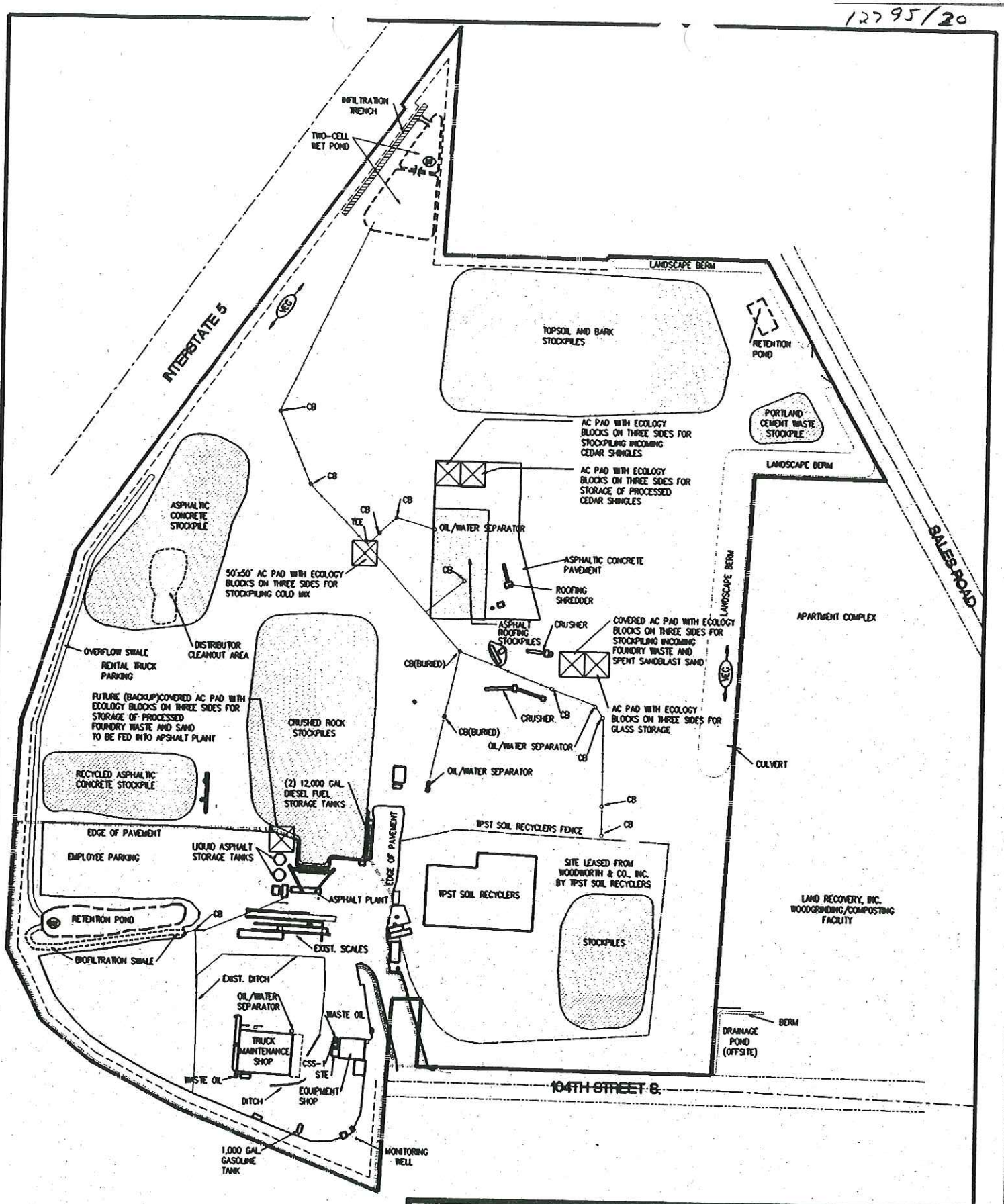
Pierce County
Geographic Information Services



SOURCE: Modified from Woodworth & Company General Contractors, Site Plan-Petroleum Contaminated Soil Recycle Facility, Sheet No. 1, 6/26/90.

FROM: 1992 MONITORING WELL INSTALLATION

12795/20



12795

Apex Engineering PLLC

2601 South 35th, Suite 200
Tacoma, Washington 98409-7479
(206) 473-4494 FAX: (206) 473-0599

FROM: 1996 PLAN OF OPERATION FOR WOODWORTH SITE

GENERAL CONTRACTORS

WOODWORTH & COMPANY INC.

February 14, 1992

RECEIVED
FEB 18 1992
TACOMA-PIERCE CO. HEALTH DEPT.
ENVIRONMENTAL HEALTH DIVISION

Tacoma-Pierce Co. Health Dept.
Waste Management Section
ATTN: DAVID BOSCH
3629 South D Street
Tacoma, WA 98408

Subject: Woodworth & Company Lakeview Dump Site

I would like to apologize for our long delay in answering your initial letter regarding the types of material that have been dumped at our Lakeview facility. Besides clean dirt and rock from various projects, there have been three primary sources of other wastes.

First, Woodworth & Company has dumped waste concrete and asphalt from various company projects for the past 10 years or so. Although the exact quantity is unknown, it amounts to many thousands of cubic yards.

The second source of inert waste was Monier Roof Tile Company. They dumped waste concrete roof tiles from early 1987 to July 1991. The total dumped amounted to approximately 7,500 cubic yards and consisted primarily of cement, sand and silicon sand. The Material Safety Data Sheet is attached.

The third source of material was from Atlas Foundry. In their attached letter, they describe the materials that were delivered from 1981 to 1991 and also include several test results from the described materials. These wastes are all part of cast steel production. The attached map shows the limits of the area where all these materials were dumped. None of the materials were ever moved into other areas; they were only leveled off within the shown boundaries.

This information was gleaned from discussions with our pit manager and operators and with the generators themselves and should accurately reflect what was dumped. I hope this information meets your satisfaction. We would be happy to answer any further questions you may have.

Sincerely,

WOODWORTH & COMPANY, INC.

Michael Tollkuehn
Superintendent

MT:bi (2187)

1200 East D Street / Tacoma, Washington 98421 / Tacoma (206) 383-3585 / Seattle (206) 838-9090 / FAX 572-8648

ATLAS
FOUNDRY & MACHINE COMPANY

3021 South Wilkeson Street
Tacoma, Washington 98409-7857
Phone: 206/475-4600
Fax: 206/473-8710

November 13, 1991

Mr. John Grecco
Woodworth & Co.
1200 East D St.
Tacoma, WA. 98421

Dear John,

Following is the information you have requested regarding materials used to fill your site.

In our estimation approximately 87,000 cubic yards of material were used as fill at your site since 1981. These materials consisted of refuse sand, refractory materials, reclaim dust, and slag.

Refuse sand contained silica sand, chromite sand, and bentonite clay. 98% of the sand is bonded with sodium silicate and clay.

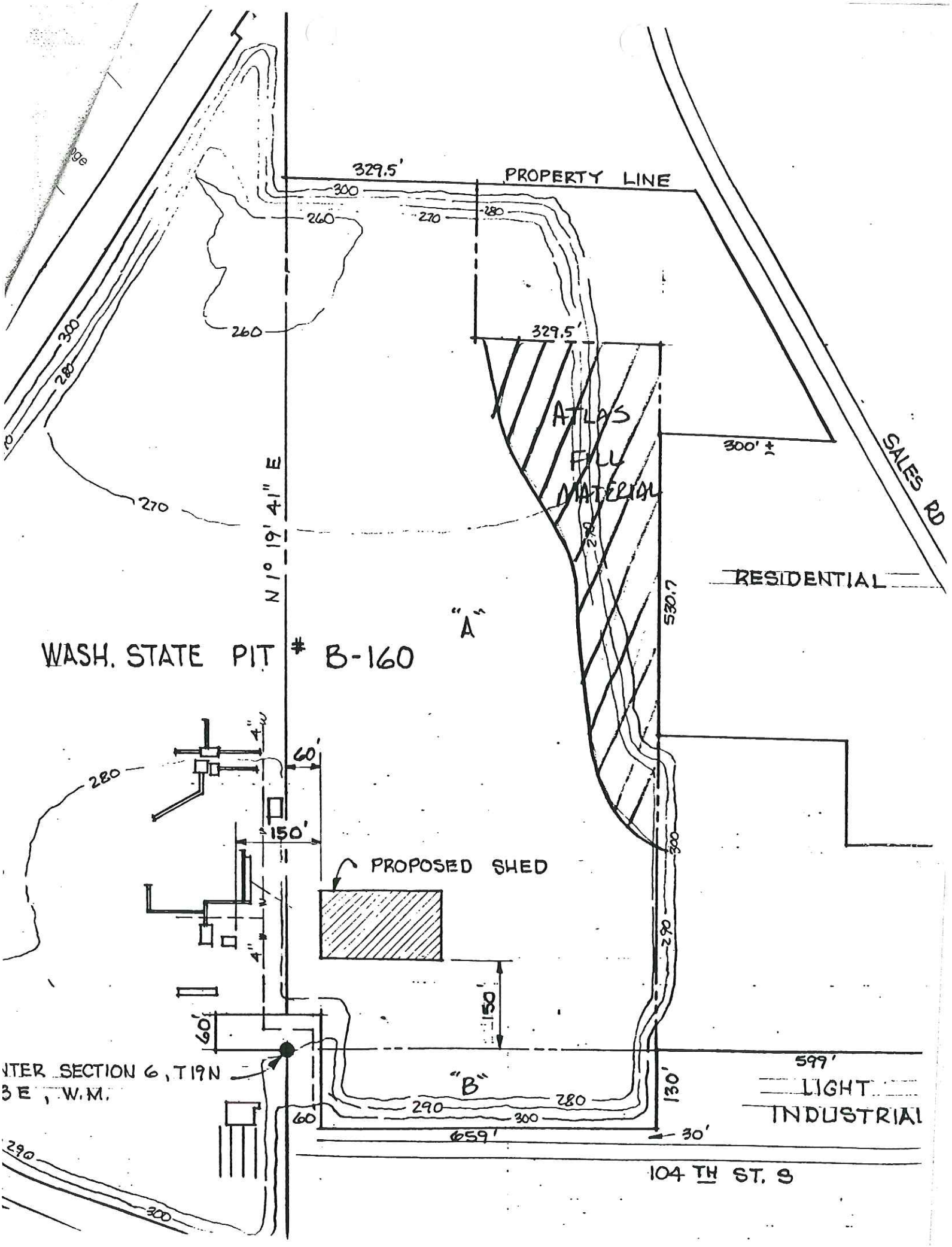
Refractory materials consisted of dead burned dolamite brick, high alumina brick, calcium aluminate cement, alumina mortar, and ladle linings.

Reclaim dust consisted of silica dust, bentonite clay, and some silica flour.

Hopefully this information will help you. Please do not hesitate to call if you have any questions.

Sincerely,

Jeff Stoflet
Safety & Environmental Director


329.5'
PROPERTY LINE
300
260
270
280
329.5'
ATLAS
FILL
MATERIAL
300' ±
SALES RD
N 1° 19' 41" E
270
RESIDENTIAL
520.7
"A"
WASH. STATE PIT # B-160
4"w
60'
280
150'
PROPOSED SHED
4"w
150'
60'
599'
"B"
290
280
300
130'
60
659'
30'
LIGHT
INDUSTRIAL
104 TH ST. S
290
300

TACOMA-PIERCE COUNTY
HEALTH DEPARTMENT

February 20, 1992

Mike Sosnow
Solid Waste Engineer
Department of Ecology, SWRO
7272 Cleanwater Lane
LU-11
Olympia, WA 98504-6811

Dear Mr. Sosnow:

This letter provides you with information regarding past filling activities at the Woodworth & Company's Lakeview Gravel Pit, and a request for a response regarding the use of this potential MTCA site for an inert waste landfill or an inert waste recycling facility.

The Tacoma-Pierce County Health Department (TPCHD) has recently received the information from Woodworth and Company regarding past filling practices, volumes and sources of waste. This information is enclosed for your review.

Woodworth & Company is aware of the ground water contamination issue and the possibility of this site being placed on the State's MTCA list. The TPCHD would like to be informed when the MTCA designation will occur, and the effects of this designation with regards to the proposed solid waste activities on this site which may include an inert waste landfill and/or an inert waste recycling facility.

Thank you for consideration. If you have any questions regarding these matters, please contact me at 591-6574.

Sincerely,

David Bosch

David Bosch
Environmental Health Specialist
Waste Management Section
Environmental Health Division

DB

Enclosure

cc: Frank Dibiase, TPCHD

19/3E-6F

WOODWORTH WELL LOG

DRILLED BY BICHARDSON WELL DRILLING (RATH) SEPT.-OCT. 1969

LOCATED ON STEILACOOM GRAVEL EXCAVATION---IN PIT BUT NOT AT MAXIMUM DEPTH OF PIT.

12-INCH

Sand, gravel, some clay - Brown	0 - 47'
Sand and gravel, water - Brown	47 - 70'
Gray sand and gravel	70 - 83'
Gray sandy clay	83 - 91'
Gray sand	91 - 101'
Brown sand with some clay	101- 105'
Gray sand and gravel - water	105- 110'
Brown sand and gravel - water	110- 130'
Brown hardpan	130- 133'
Gray hardpan	133- 134'
Gray cemented sand	134- 150'
Green cemented sand and gravel	150- 164'
Brown sand and gravel	164- 187'
Brown hardpan	@ 187'

Screen: 20-slot 167-182'
50-slot 182-187'
Shoe approx 170'

Static water level 40'
190 gpm @ PWL 161'
Q/s = 1.6

Later perforated 107-129'

Static water level 40.5'
503 gpm @ PWL 61.6'
Q/s = 24

Group A Wells Located Within 2 Miles of Woodworth Lakeview Gravel Pit

TPCHD_ID	SYSTEM	SOURCE	DOE_TAG	HEIGHT	SYS_NAME	WELL_DEPTH
112	66200	08	ACN721	280	PARKLAND LIGHT & WATER COMPANY	31
113	66200	09	ACN717	280	PARKLAND LIGHT & WATER COMPANY	287
114	66200	01	ACW449	325	PARKLAND LIGHT & WATER COMPANY	266
116	86800	30	AEF211	330	TACOMA WATER DIVISION, CITY OF	405
242	66200	10	ABS619	323	PARKLAND LIGHT & WATER COMPANY	507
244	66200	06	ACY101	280	PARKLAND LIGHT & WATER COMPANY	30
498	45550	12	ACW532	296	LAKEWOOD WATER DISTRICT	605
499	45550	06	ACY133	266	LAKEWOOD WATER DISTRICT	541
500	45550	21	ACY132	257	LAKEWOOD WATER DISTRICT	567
511	86800	16	ABM917	273	TACOMA WATER DIVISION, CITY OF	312
515	86800	20	ABR904	257	TACOMA WATER DIVISION, CITY OF	280
518	86800	23	ABM919	251	TACOMA WATER DIVISION, CITY OF	83
521	86800	26	ABM918	259	TACOMA WATER DIVISION, CITY OF	937
529	45550	07	ACY109	273	LAKEWOOD WATER DISTRICT	177
530	45550	07	ACN777	271	LAKEWOOD WATER DISTRICT	180
534	45550	11	ABS159	297	LAKEWOOD WATER DISTRICT	156
535	45550	18	ACV531	264	LAKEWOOD WATER DISTRICT	505
536	45550	18	ACN752	262	LAKEWOOD WATER DISTRICT	490
609	86800	32	ACV510	0	TACOMA WATER DIVISION, CITY OF	206
610	86800	33	AEA470	322	TACOMA WATER DIVISION, CITY OF	215
614	82800	00	ABE850	321	SOUTHEAST TACOMA MUTUAL WATER	520
829	45550	27	AFK806	253	LAKEWOOD WATER DISTRICT	302
834	82800	00	AEC905	325	SOUTHEAST TACOMA MUTUAL WATER	361
430	91717	01	ACN743	232	VICTORY MOTEL	80
328	85931	01	ACN737	212	SUNRISE VILLAGE MHP	110
209	11275	01	ABS717	246	CARRIAGE COURT TR CRT	82
115	56635	02	AFK815	245	MOUNT TACOMA TRAILER PARK	105
454	56635	01	ACN763	244	MOUNT TACOMA TRAILER PARK	95
418	46268	01	ACV533	238	LAUREL LANE MOBILE HOME PARK	108
516	86800	21	ABM920	210	TACOMA WATER DIVISION, CITY OF	217

Pws_SystemName	Pws_PwsID	Pws_Group	Pws_SystemTy	Pws_ResPop	Pws_ResConn	Pws_TotalCon	Pws_CWS
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787	Y
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787	Y
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787	Y
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910	Y
VICTORY MOTEL	91717	A	TNC	3	1	18	
SUNRISE VILLAGE MHP	85931	A	COMM	100	60	60	Y
CARRIAGE COURT TR CRT	11275	A	COMM	80	40	40	
MOUNT TACOMA TRAILER PARK	56635	A	COMM	88	64	64	
MOUNT TACOMA TRAILER PARK	56635	A	COMM	88	64	64	
LAUREL LANE MOBILE HOME PARK	46268	A	COMM	75	38	38	Y
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527	Y

Pws_SystemName	Pws_PwsID	Pws_Group	Pws_SystemTy	Pws_ResPop	Pws_ResConn	Pws_TotalCon
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787
PARKLAND LIGHT & WATER COMPANY	66200	A	COMM	22000	6514	6787
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527
LAKEWOOD WATER DISTRICT	45550	A	COMM	62500	15910	15910
VICTORY MOTEL	91717	A	TNC	3	1	18
SUNRISE VILLAGE MHP	85931	A	COMM	100	60	60
CARRIAGE COURT TR CRT	11275	A	COMM	80	40	40
MOUNT TACOMA TRAILER PARK	56635	A	COMM	88	64	64
MOUNT TACOMA TRAILER PARK	56635	A	COMM	88	64	64
LAUREL LANE MOBILE HOME PARK	46268	A	COMM	75	38	38
TACOMA WATER DIVISION, CITY OF	86800	A	COMM	316850	85527	85527

Group B Wells Located Within 2 Miles of Woodworth Lakeview Gravel Pit

TPCHDID	DOE	SYSTEM	PWSID	SOURCE	SITE ADDRESS	GROUPB_ID	WELLDEPTH
10373	0	Double Oaks, Inc	22964	01	11000 34th Av S	12122	
10644	0	Kamus Apts W.S.	55860	01	3320 96th St. S	12122	
10645	0	Kamus Apts W.S.	55860	02	3320 96th St S	12122	
10693	0	Ladd W.S.	75625	01	3423 112th St S	12122	
11375		Jung's H2O Water System	AA053	01	9321 South Tacoma Way	0	100

Pws_SystemName	Pws_PwsID	Pws_Group	Pws_SystemTy	Pws_ResPop	Pws_ResConn	Pws_TotalCon	Pws_CWSSA
DOUBLE OAKS, INC.	22964	B	GRPB	0	0	1	Y
KAMUS APTS WATER SYSTEM	55860	B	GRPB	20	11	11	
KAMUS APTS WATER SYSTEM	55860	B	GRPB	20	11	11	
LADD	75625	B	GRPB	13	5	5	

Private Wells Located Within 2 Miles of Woodworth Lakeview Gravel Pit

TPCHDID	RECDDATE	APN	APPLICANTS	ADDRESS	CITY	WELL_DEPTH	TM_CASNO	TYPEWELL	STATUS	COMPLETED
35392	1/8/2001	0219123092	LARRY RIDJAS	12524 ADDISON AV SW	LAKEWOOD		HWL01-00546	2	N	U
35393	1/18/2001	0219123013	GREG DUBORD	12521 ADDISON AV SW	LAKEWOOD		HWL01-00547	3	N	U
35394	1/8/2001	0219123106	HARRY DUNN	4723 127TH ST SW	LAKEWOOD		HWL01-00550	3	N	U
35395	1/8/2001	0219123032	NATALIE NEWTON	12016 47TH AV SW	LAKEWOOD		HWL01-00551	3	N	U
35522	4/19/2001	0319064022	PM Investments	11111 Steel ST					N	N
35760	11/9/2001	0219118021	Laura VanderMeer	12111 Cochise Lane SW					N	N
35880	1/8/2001	0219123068	MARVIN PERLOFF	12507 -17 ADDISON AV	LAKEWOOD		HWL01-00548	3	N	U
35881	1/8/2001	0219123068	MARVIN PERLOFF	12511 ADDISON ST SW			HWL01-00549	2	N	U
50708		0319053142	DIVERSIFIED SURVEYIN	10717 S AINSWORTH						F
51588			LAKEVIEW CHURCH OF C	1801 S 112TH ST						F
52007			P.M. INVESTMENT	11111 SOUTH STEELE ST						F
52297			ROD MCLEAN	12111 S STEEL ST						F
52299			RODNEY A. MCLEAN	8513 38TH CT SW						F
52814			Marsh Hartley	1818 112th St S						F
52827			Cross	12823 Spanaway Loop Rd S						F
53191			Julson, Leonard	7817 Pine St S						F
53261			MARION K. HEIM	9420 Front St						F
53264			ROBERT E. KAHLER	12623 Bridgeport Way SW						F
53265			GENEVIEVE JOHNSON	12315 Bridgeport Way						F
53424			ANDY HOUSLER	5208 100th St SW		120				F
53429			M.I. RICHMOND (MEEKER)	10302 Pacific Hwy		53				F
53432			ROBERT E. JONES	12720 Spanaway Loop Rd S		85				F

Irrigation Wells Located Within 2 Miles of the Woodworth Lakeview Facility

Control #	Old Cert #	Type/Stat	Name	Priority Date	Qi	Qa/acf	Acres Irr	Dom Units	Purposes	Source	TRS
G2-067667CL		CL[S]	BURKHARDT, ALBERT J.						DG		T20N/R 2E-25
G2-061382CL		CL[L]	CALVARY CEMETERY ASS	0/0/1969			59		IR	WELL	T20N/R 2E-25
G2-*09669CWRIS	06478	CE	CALVARY CEMETERY ASS	8/19/68	400.000	60.00	30		IR	WELL	T20N/R 2E-25
G2-*04573CWRIS	05147	CE	CHASE M,	4/15/57	145.000	38.00	19		IR DS	WELL	T20N/R 2E-25
G2-146227CL		CL[L]	CHASE, KATHLEEN M	0/0/1948					DG	WELL	T20N/R 2E-25
G2-067669CL		CL[L]	CHASE, MELVIN E.	0/0/1948					DG	A WELL	T20N/R 2E-25
G2-070169CL		CL[L]	CORIELL, KENNETH C.	0/0/1951					DG	WELL	T20N/R 2E-25
G2-*05364CWRIS	03713	CE	FLETT DAIRY,	8/13/59	400.000	640.00			ST	WELL	T20N/R 2E-25
G2-*00426SWRIS	00460	CE	FUCHS G,	5/01/38	500.000	150.00	120		IR	WELL	T20N/R 2E-25
G2-*00427SWRIS	00461	CE	FUCHS G,	5/01/45	250.000	204.00	10		ST IR CI	WELL	T20N/R 2E-25
G2-026585CL		CL[L]	KUHN, CHARLES H.	0/0/1963					DG		T20N/R 2E-25
G2-059680CL		CL[L]	MONICH, VASILY S.	0/0/1940					DG	WELL	T20N/R 2E-25
G2-067668CL		CL[S]	PORTMANN, EDWARD A.						DG ST		T20N/R 2E-25
G2-156250CL		CL[L]	RICHARDS, DAVID J	0/0/1961					DG	WELL	T20N/R 2E-25
G2-*00910CWRIS	01060	CE	SCHULER L J,	6/08/48	450.000	105.00	70		IR	WELL	T20N/R 2E-25
S2-*08457AWRIS		AP/REJ	SCHULER LOUIS J,	6/08/48	.300		30		IR	FLETT CREEK	T20N/R 2E-25
G2-27861		PE	TACOMA CITY, OLSON	8/14/90	2700.000	3000.00			MU	WELL	T20N/R 2E-25
G2-122884CL		CL[S]	AUTY, WALLACE G								T20N/R 2E-35
G2-028325CL		CL[L]	BUCK, MARGARET D.	0/0/1948					DG		T20N/R 2E-35
G2-009505CL		CL[L]	ENGMAN, EARL E.	0/0/1946					DG		T20N/R 2E-35
G2-096350CL		CL[L]	FRECKLETON, ELLEN M	0/0/1962			3		DG ST IR	WELL	T20N/R 2E-35
G2-*01661CWRIS	00643	CE	HALL H R,	9/14/50	20.000	6.00	1		IR DS	WELL	T20N/R 2E-35
G2-107918CL		CL[S]	HARRISON, LA VERNE W						DG IR		T20N/R 2E-35
G2-024294CL		CL[L]	HOLMES, IRENE	0/0/1958					DG		T20N/R 2E-35
G2-021409CL		CL[L]	IRVINE, DAVID L.	0/0/1941					DG		T20N/R 2E-35
G2-006930CL		CL[L]	JOHNSON, JOSEPHINE	0/0/1930			1		IR		T20N/R 2E-35
G2-095807CL		CL[L]	LEMON, HOWARD U	0/0/1925					DG	WELL	T20N/R 2E-35
G2-089084CL		CL[S]	LIVINGSTON, DENNIS D						DG		T20N/R 2E-35
G2-152298CL		CL[L]	NESS, CHARLES B	0/0/1930					DG IR	WELL	T20N/R 2E-35
G2-042361CL		CL[S]	PONTON, BERTHA F.						DG		T20N/R 2E-35
G2-042360CL		CL[S]	PRIEDHORSKY, MARY LO						DG		T20N/R 2E-35
G2-147079CL		CL[S]	RICHARDS, HAROLD A						IR		T20N/R 2E-35
G2-029242CL		CL[L]	ROUGH, CHARLES A.	0/0/1953			10		DG IR		T20N/R 2E-35
G2-029243CL		CL[L]	ROUGH, CHARLES A.	0/0/1910					DG		T20N/R 2E-35

Irrigation Wells Located Within 2 Miles of the Woodworth Lakeview Facility

S2-*06825AWRIS		AP/REJ	ROWE C F T,	12/25/45	1.000				IR FR	FLETT CREEK	T20N/R 2E-35
G2-020516CL		CL[L]	RUFF, ROBERT F.	0/0/1949			1		DG IR		T20N/R 2E-35
G2-080179CL		CL[S]	SWOSINSKI SR., CHEST						DG		T20N/R 2E-35
G2-114832CL		CL[S]	WEBER, WILLIAM H						DG IR		T20N/R 2E-35
G2-042606CL		CL[L]	WELCHKE, VIRGINIA	0/0/1953					DG	WELL	T20N/R 2E-35
G2-064397CL		CL[L]	CLARK, HARRY T.	0/0/1945					DG	WELL	T20N/R 2E-36
S2-099670CL		CL[L]	FLETT DAIRY, INC	0/0/1920			130		IR	SPRING&FLETT CRK	T20N/R 2E-36
G2-137201CL		CL[L]	FRANZ, JOHN F	0/0/1940					DG	WELL	T20N/R 2E-36
G2-028262CL		CL[L]	FRANZ, ROLLAND L.	0/0/1933					DG		T20N/R 2E-36
G2-*00428SWRIS	00462	CE	FUCHS G,	6/01/37	175.000	204.00			ST CI	WELL	T20N/R 2E-36
G2-117495CL		CL[L]	GASPERETT, PRIMO	0/0/1945					DG	WELL	T20N/R 2E-36
G2-086356CL		CL[L]	GROVER, VIRGIL KENNE						DG	WELL	T20N/R 2E-36
G2-130512CL		CL[L]	JONES, JOHN H	0/0/1943					DG	WELL	T20N/R 2E-36
CG2-*10001		CA	LAKEWOOD WATER DIST,	9/26/97	3000.000	2400.00	0	0		WELL	T20N/R 2E-36
G2-*10001C	6840	CE	LAKEWOOD WATER DIST,	1/31/69	3000.000	2400.00			MU	WELL	T20N/R 2E-36
S2-156280CL		CL[L]	MAIDA, ROBERT J	0/0/1896			3		ST IR	STREAM	T20N/R 2E-36
G2-145743CL		CL[S]	MC DONALD, DORIS P						DG		T20N/R 2E-36
S2-*02811CWRIS	00464	CE	MOUNTAIN VIEW DEVELO	1/08/30	.500		30		IR	FLETT CREEK	T20N/R 2E-36
S2-*03675CWRIS	00640	CE	MOUNTAIN VIEW DEVELO	7/05/32	1.120		20		IR	FLETT CREEK	T20N/R 2E-36
G2-019932CL		CL[L]	PUGET SOUND RENDERIN	0/0/1948					DG		T20N/R 2E-36
G2-134027CL		CL[L]	WAMBERG, R M	0/0/1967					DG	WELL	T20N/R 2E-36

Control #	Old Cert #	Type/Stat	Name	Priority Date	Qi	Qa/acf	Acres Irr	Dom Units	Purposes	Source	TRS
G2-144568CL		CL[S]	BAKER, FRANKLIN B						DG		T20N/R 3E-29
G2-107832CL		CL[L]	ERDAHL, JOHN L	0/0/1943					DG	WELL	T20N/R 3E-29
G2-058956CL		CL[S]	OSTRANDER, CHARLES D						DG		T20N/R 3E-29
S2-124930CL		CL[S]	WASHBURN, F V						IR	WAPATO LAKE	T20N/R 3E-29
G2-064622CL		CL[L]	BUHRE, WALTER H.	0/0/1950					DG	WELL	T20N/R 3E-30
G2-126896CL		CL[L]	CROMIE, THOMAS R	0/0/1958			1		DG ST IR	WELL	T20N/R 3E-30
G2-091266CL		CL[S]	HAWKINS, TOM E								T20N/R 3E-30
G2-067674CL		CL[L]	JULSON, LEONARD	0/0/1962					DG	WELL	T20N/R 3E-30
G2-066353CL		CL[S]	MILLER, GEORGE E.						DG ST		T20N/R 3E-30
G2-150049CL		CL[L]	MOORE, JOHN F	0/0/1960					DG	WELL	T20N/R 3E-30
G2-021563CL		CL[L]	SHAW, WAYNE W.	0/0/1911					DG		T20N/R 3E-30
G2-*00170SWRIS	218	CE	TACOMA CITY,	2/01/31	3820.000	749.00			MU CI	WELL	T20N/R 3E-30
G2-*00174S		CE	TACOMA CITY,	9/01/39	1126.000	221.00			MU	WELL	T20N/R 3E-30
G2-*00175S	00223	CE	TACOMA CITY,	7/01/40	4337.000	853.00			MU	WELL	T20N/R 3E-30
G2-*00631APC	02665A	CE	TACOMA CITY,	9/16/47	600.000	968.00			MU	WELL	T20N/R 3E-30
G2-*00631BPC	02665B	CE	TACOMA CITY,	9/16/47	600.000	952.00			MU	WELL	T20N/R 3E-30
G2-27860		CE	TACOMA CITY,	8/14/90	750.000	890.00			MU	WELL	T20N/R 3E-30
G2-069222CL		CL[L]	ARCHBOLD, JOHN J.	0/0/1950					DG	WELL	T20N/R 3E-31
G2-108707CL		CL[L]	BROCK, DUERELL	0/0/1933					DG	WELL	T20N/R 3E-31
G2-22692CWRIS		CE	CARRIAGE COURT MOBIL	6/21/74	35.000	13.00			DM	WELL	T20N/R 3E-31
G2-24032PWRIS		PE/CAN	CARRIAGE COURT MOBIL	12/29/75	200.000	13.50			DM	WELL	T20N/R 3E-31
G2-009559CL		CL[L]	DALIN, HILMER A.	0/0/1936					DG		T20N/R 3E-31
G2-070858CL		CL[L]	DAVILA, SERVANDO G.	0/0/1953					DG	WELL	T20N/R 3E-31
G2-033171CL		CL[S]	FOSTER, THOMAS B.						DG		T20N/R 3E-31
G2-028265CL		CL[L]	FRANZ, ROLLAND L.	0/0/1934					DG		T20N/R 3E-31
G2-028268CL		CL[L]	FRANZ, ROLLAND L.	0/0/1940					DG		T20N/R 3E-31
G2-074197CL		CL[L]	HARKINS, DANIEL T.	0/0/1962					DG	WELL	T20N/R 3E-31
G2-126311CL		CL[L]	HECHT, WORTHY D	0/0/1938			5		DG	WELL	T20N/R 3E-31
G2-008897CL		CL[L]	HEIM, MARION K.	0/0/1940					DG		T20N/R 3E-31
G2-029423CL		CL[L]	KASEMEIER, ERNEST J.	0/0/1939					DG		T20N/R 3E-31
G2-159498CL		CL[S]	KNUDSON, ROY A						DG		T20N/R 3E-31
CG2-*01747		CA	LAKEWOOD WATER DIST,	9/26/97	1500.000	2000.00	0	0		WELL	T20N/R 3E-31
CG2-*06109		CA	LAKEWOOD WATER DIST,	9/26/97	1500.000	2400.00	0	0		WELL	T20N/R 3E-31
G2-*01747C	01305	CE	LAKEWOOD WATER DIST,	12/06/50	1500.000	2000.00			MU	WELL	T20N/R 3E-31

G2-*06109C	04184	CE	LAKEWOOD WATER DIST,	11/17/61	1500.000	2400.00			**DM**	WELL	T20N/R 3E-31
G2-118702CL		CL[L]	LARSEN, DONALD R	0/0/1969			1		**DG IR**	WELL	T20N/R 3E-31
G2-020849CL		CL[L]	MITCHELL, LAWRENCE B	0/0/1950					**DG**		T20N/R 3E-31
G2-101355CL		CL[L]	MOODY, ROBERT	0/0/1965					**DG**	WELL	T20N/R 3E-31
G2-080807CL		CL[L]	PARKINS, TERRY L.						**DG**	WELL	T20N/R 3E-31
G2-022221CL		CL[L]	PLOWDEN, JOHN L.	0/0/1954					**DG**		T20N/R 3E-31
G2-049064CL		CL[S]	REHER, RONALD F.						**DG**		T20N/R 3E-31
G2-095685CL		CL[L]	RUDY, JOHN	0/0/1941					**DG**	WELL	T20N/R 3E-31
G2-095686CL		CL[L]	RUDY, JOHN	0/0/1966			3		**IR**	WELL	T20N/R 3E-31
G2-073740CL		CL[L]	SALVESEN, ALFRED A.	0/0/1950					**DG**	WELL	T20N/R 3E-31
G2-073011CL		CL[S]	SMITH, ROY J.						**DG**		T20N/R 3E-31
G2-056907CL		CL[L]	STANFORD, ROSENBAUM	0/0/1967					**DG**	WELL	T20N/R 3E-31
G2-007922CL		CL[L]	STREGE, LARRY L.	0/0/1950					**DG**		T20N/R 3E-31
G2-143154CL		CL[S]	GIBBONS, FRED						**DG ST IR**		T20N/R 3E-32
G2-*00871CWRIS	491	CE	MASSEY W H,	5/21/48	25.000	5.25	4		**IR**	WELL	T20N/R 3E-32
G2-152042CL		CL[L]	SAGER, DAISY S	0/0/1907					**DG**	WELL	T20N/R 3E-32
G2-128868CL		CL[L]	ANSAK, LEANDER H	0/0/1969					**DG IR**	DRAINS	T20N/R 3E-33
G2-110883CL		CL[S]	DRESSLER, CHARLES P						**IR**		T20N/R 3E-33
G2-103289CL		CL[L]	FOSS, JEANETTE J	0/0/1945			1		**IR**	WELL	T20N/R 3E-33

Control #	Old Cert #	Type/Stat	Name	Priority Date	Qi	Qa/acf	Acres Irr	Dom Units	Purposes	Source	TRS
G2-00765CWRIS		CE	C & T DEVELOPMENT CO	3/25/70	350.000	20.40			DM	WELL	T19N/R 2E- 1
G2-00766CWRIS		CE	C & T DEVELOPMENT CO	1/27/71	320.000	20.40			DM	WELL	T19N/R 2E- 1
G2-25018CWRIS		CE	C & T DEVELOPMENT CO	8/30/78	50.000	5.00			DM	WELL	T19N/R 2E- 1
G2-066354CL		CL[S]	COVINGTON, JOHN H.						DG	WELL	T19N/R 2E- 1
G2-066355CL		CL[S]	COVINGTON, JOHN H.						DG	WELL	T19N/R 2E- 1
G2-066356CL		CL[S]	COVINGTON, JOHN H.						DG	WELL	T19N/R 2E- 1
G2-*08727PWRIS		PE/CAN	DAVIS R G,	7/27/67	320.000	27.00			DM	WELL	T19N/R 2E- 1
G2-036412CL		CL[S]	DONNALLY, JAMES G.						DG		T19N/R 2E- 1
G2-023958CL		CL[L]	GRAB, WILLIAM	0/0/1950					DG		T19N/R 2E- 1
G2-003060CL		CL[L]	GRAYDON, HAZEL	0/0/1953					DG		T19N/R 2E- 1
G2-106885CL		CL[S]	GREER, ROY C						DG		T19N/R 2E- 1
G2-115115CL		CL[S]	HEWSTON, MRS JOHN G						DG IR		T19N/R 2E- 1
G2-045070CL		CL[S]	KERSEY, HELEN R.						DG		T19N/R 2E- 1
G2-115310CL		CL[S]	KRAMLICH, KENNETH L						DG IR		T19N/R 2E- 1
G2-115311CL		CL[S]	KRAMLICH, KENNETH L						DG IR		T19N/R 2E- 1
CG2-*01558		CA	LAKEWOOD WATER DIST,	9/26/97	3000.000	3000.00	0	0		WELL	T19N/R 2E- 1
G2-*01558C	717	CE	LAKEWOOD WATER DIST,	6/15/50	3000.000	3000.00			DM	WELL	T19N/R 2E- 1
G2-049791CL		CL[L]	MEEKER, JAMES F.	0/0/1940					DG	WELL	T19N/R 2E- 1
G2-091158CL		CL[L]	MORROW, WILLIS L	0/0/1954					DG IR	WELL	T19N/R 2E- 1
G2-020027CL		CL[L]	NOBLE, STELLA R.	0/0/1940					DG		T19N/R 2E- 1
G2-*01583CWRIS	1074	CE	RICHMOND M I,	7/11/50	100.000	30.00			DM	WELL	T19N/R 2E- 1
G2-015774CL		CL[L]	SCANLON, WILLIAM E.	0/0/1935					DG		T19N/R 2E- 1
G2-162084CL		CL[L]	SHOEMAKER, RALPH R	0/0/1944					DG	WELL	T19N/R 2E- 1
G2-162709CL		CL[S]	SILVA, JAMES W						DG IR		T19N/R 2E- 1
G2-056908CL		CL[L]	STANFORD, ROSENBAUM	0/0/1954					DG	WELL	T19N/R 2E- 1
G2-000155CL		CL[L]	STILLMAN, C. G.	0/0/1930			7		DG IR		T19N/R 2E- 1
G2-068480CL		CL[L]	STREHLAN, ERWIN D.	0/0/1948					DG	A WELL	T19N/R 2E- 1
G2-036139CL		CL[S]	SULLIVAN, CLARENCE A						DG		T19N/R 2E- 1
G2-061957CL		CL[L]	TAKEHARA, ROBERT H.	0/0/1953					DG	WELL	T19N/R 2E- 1
G2-083879CL		CL[S]	VANARSDALL, GEORGE A						DG		T19N/R 2E- 1
S2-157159CL		CL[S]	DI DENTI, LOUIE								T19N/R 2E- 2
S2-033539CL		CL[L]	FLORENCE, ROBERT W.	0/0/1973			1		IR	LEON CR	T19N/R 2E- 2
S2-143761CL		CL[S]	HERREID, M H							CREEK	T19N/R 2E- 2
S2-21630CWRIS		CE	INCOME REAL ESTATE P	11/28/73	.160	6.00	3		IR	LK	T19N/R 2E- 2

CG2-*07848		CA	LAKEWOOD WATER DIST,	9/26/97	1000.000	1600.00	0	0		WELL	T19N/R 2E- 2
CG2-*08181		CA	LAKEWOOD WATER DIST,	9/26/97	2600.000	4160.00	0	0		WELL	T19N/R 2E- 2
G2-*00137SWRIS	147	CE/RLQ	LAKEWOOD WATER DIST,	6/01/43	300.000	122.00			DM	WELL	T19N/R 2E- 2
G2-*01156CWRIS	425	CE/RLQ	LAKEWOOD WATER DIST,	6/30/49	500.000	720.00			DM	WELL	T19N/R 2E- 2
G2-*04956PWRIS		PE/CAN	LAKEWOOD WATER DIST,	8/08/58	3500.000	5600.00			DM	WELL	T19N/R 2E- 2
G2-*07848C	5574	CE	LAKEWOOD WATER DIST,	10/29/65	1000.000	1600.00			DM	WELL	T19N/R 2E- 2
G2-*08181C	5541	CE	LAKEWOOD WATER DIST,	7/06/66	2600.000	4160.00			DM	WELL	T19N/R 2E- 2
G2-073266CL		CL[L]	MORTENSEN, DELMAR E.	0/0/1940					DG	WELL	T19N/R 2E- 2
G2-*05987CWRIS	4230	CE	NATIONAL BANK OF WAS	7/03/61	70.000	55.00			HE	WELL	T19N/R 2E- 2
S2-097476CL		CL[L]	ROBINSON, ROBERT L	0/0/1964			5		IR	LEON CR	T19N/R 2E- 2
S2-076531CL		CL[S]	SCOTT, ALVAN C.						DG	LEON CR	T19N/R 2E- 2
G2-125920CL		CL[L]	CAPPRARA, OLGA	0/0/1954					DG	WELL	T19N/R 2E-11
G2-077060CL		CL[L]	FENTON, LEE W.	0/0/1934					DG	WELL	T19N/R 2E-11
S2-*10323CWRIS	4168	CE	GILLIARD R E,	5/08/51	.010				DS	CREEK	T19N/R 2E-11
S2-*16559CWRIS	8128	CE	GUILMETT R A,	3/06/61	.010				DS	CREEK	T19N/R 2E-11
G2-095684CL		CL[L]	GUNTER, CRAIG G	0/0/1939			1		DG IR	WELL	T19N/R 2E-11
G2-069666CL		CL[L]	HOLMES, RAY	0/0/1934						WELL	T19N/R 2E-11
G2-025523CL		CL[L]	JOHNSON, CARL O.	0/0/1966					DG		T19N/R 2E-11
S2-030752CL		CL[L]	LADD, OTTIE A.	0/0/1973					DG		T19N/R 2E-11
S2-016860CL		CL[L]	LAKEWOOD RACQUET CLU	0/0/1890			10		IR		T19N/R 2E-11
CG2-26833		CA	LAKEWOOD WATER DIST,	9/26/97	1500.000	1200.00	0	0		WELL	T19N/R 2E-11
G2-26833C		CE	LAKEWOOD WATER DIST,	12/11/85	1500.000	1200.00			MU	WELL	T19N/R 2E-11
G2-142927CL		CL[S]	MC CLELLAND, FLORENC						DG IR		T19N/R 2E-11
G2-069665CL		CL[L]	MCCLELLAND, FLORENCE	0/0/1947						WELL	T19N/R 2E-11
S2-*04132AWRIS		AP/REJ	MCGINLEY FRANK T,	7/12/35	2.000				FS DS	CREEK	T19N/R 2E-11
G2-25792CWRIS		CE	OTLANS VICTORS,	1/22/81	20.000	2.00			DM	WELL	T19N/R 2E-11
G2-20991CWRIS		CE	PARKINSON CLAUDE M,	5/03/73	25.000	2.00	1		IR	WELL	T19N/R 2E-11
G2-000627CL		CL[L]	PARKINSON, CLAUDE M.	0/0/1950			1		DG IR		T19N/R 2E-11
G2-075862CL		CL[L]	SMILEY, DORRIA L.	0/0/1938					DG	WELL	T19N/R 2E-11
S2-*14925CWRIS	7363	CE	SOLBERG O M,	7/22/58	.250				RE	CREEK	T19N/R 2E-11
G2-068277CL		CL[S]	STOTLER, DELMER H.						DG	WELL	T19N/R 2E-11
G2-123324CL		CL[L]	AMERICAN SALVAGE SAL	0/0/1954					DG	WELL	T19N/R 2E-12
S2-*04022CWRIS	897	CE	BRIGHAM E J,	8/15/34	1.000		5		IR FS DS	CREEK	T19N/R 2E-12
G2-011789CL		CL[L]	BRIGHAMS, HERMAN C.	0/0/1948					DG		T19N/R 2E-12
G2-027925CL		CL[L]	DIMMER, CRESCENTIA M	0/0/1928					DG		T19N/R 2E-12

G2-002137CL		CL[L]	FIR ACRES TRAILER PA	0/0/1957					DG		T19N/R 2E-12
G2-002138CL		CL[L]	FIR ACRES TRAILER PA	0/0/1957					DG		T19N/R 2E-12
G2-011480CL		CL[L]	HANSEN, MARGUERITE F	0/0/1950					DG		T19N/R 2E-12
G2-22202CWRIS		CE	HANSON MARGURITE F,	4/17/74	25.000	4.50			DM	WELL	T19N/R 2E-12
S2-069660CL		CL[S]	HOLMES, RAY						DG	CREEK	T19N/R 2E-12
G2-069783CL		CL[L]	HOMESTEAD, MARLYN	0/0/1953					DG	WELL	T19N/R 2E-12
G2-069361CL		CL[L]	HOMESTEAD, MARLYND L	0/0/1953					DG	WELL	T19N/R 2E-12
G2-*11527CWRIS	7541	CE	KAHLER ROBERT E,	1/14/71	50.000	21.00			DM	WELL	T19N/R 2E-12
G2-078668CL		CL[S]	LACOUNT, LEONARD F.						DG		T19N/R 2E-12
G2-101149CL		CL[S]	LAFROMBOISE, A A						DG		T19N/R 2E-12
S2-*15299CWRIS	7825	CE	LESHER C F,	2/25/59	.250				RE DS	CREEK	T19N/R 2E-12
G2-085386CL		CL[L]	MCCORMICK, THOMAS T.	0/0/1952					DG	WELL	T19N/R 2E-12
G2-011782CL		CL[L]	MILLER, ROBERT W.	0/0/1934			2		DG IR		T19N/R 2E-12
S2-017734CL		CL[L]	MINTZ, DOROTHY S.	0/0/1950			2		IR		T19N/R 2E-12
G2-086834CL		CL[S]	NEWTON, EDWARD A.						DG		T19N/R 2E-12
G2-000873CL		CL[L]	PIERCE COUNTY ROAD D	0/0/1941					DG		T19N/R 2E-12
G2-011714CL		CL[L]	SAWYER, ROBERT L.	0/0/1950			1		DG IR		T19N/R 2E-12
G2-*06492CWRIS	4744	CE	SCHAFF G J,	9/27/62	100.000	160.00			FS	WELL	T19N/R 2E-12
G2-164052CL		CL[L]	SELLERS, GEORGE R	0/0/1914			3		DG IR	WELL	T19N/R 2E-12
S2-164051CL		CL[L]	SELLERS, GEORGE R	0/0/1914			3		DG IR	CREEK	T19N/R 2E-12
G2-049816CL		CL[S]	SETHER, A.						DG		T19N/R 2E-12
G2-074469CL		CL[L]	SLATTEN, TED	0/0/1952					DG	WELL	T19N/R 2E-12
G2-20765CWRIS		CE	SOUTHWARD ROBERT G,	2/06/73	25.000	3.00			DM	WELL	T19N/R 2E-12
G2-022492CL		CL[L]	SOUTHWARD, R. G.	0/0/1945							T19N/R 2E-12
G2-111621CL		CL[L]	UNION OIL CO LS #358	0/0/1955						WELL	T19N/R 2E-12
S2-*09915CWRIS	4017	CE	VAN HOUTEN C,	9/22/50	.010				DS	CREEK	T19N/R 2E-12
G2-035827CL		CL[L]	WILLIAMS, HOWARD J	0/0/1937					DG ST	WELL	T19N/R 2E-12
G2-035828CL		CL[L]	WILLIAMS, HOWARD J	0/0/1937					DG	WELL	T19N/R 2E-12
G2-142647CL		CL[L]	WILLIAMS, HOWARD J I	0/0/1937					DG	WELL	T19N/R 2E-12
G2-096287CL		CL[L]	DEPT OF THE AIR FORC	0/0/1939					DG	WELL	T19N/R 2E-13
G2-096288CL		CL[L]	DEPT OF THE AIR FORC	0/0/1939					DG	WELL	T19N/R 2E-13
G2-047052CL		CL[L]	TRUE, ALICE L.	0/0/1938					DG	WELL	T19N/R 2E-13

Control #	Old Cert #	Type/Stat	Name	Priority Date	Qi	Qa/acf	Acres Irr	Dom Units	Purposes	Source	TRS
G2-149266CL		CL[L]	HACKER, F W	0/0/1960					DG	WELL	T19N/R 3E- 4
G2-149961CL		CL[L]	ROBERTSON, J H				3		DG	WELL	T19N/R 3E- 4
G2-079164CL		CL[S]	BALLMAN, MELVIN L.						DG		T19N/R 3E- 5
G2-079165CL		CL[S]	BALLMAN, MELVIN L.						DG		T19N/R 3E- 5
S2-041681CL		CL[S]	BASKETT, MIKE						DG	SPRING	T19N/R 3E- 5
G2-057500CL		CL[S]	BONNEL, THEODORE A.						IR		T19N/R 3E- 5
G2-155649CL		CL[L]	BROWN, ROGER A	0/0/1949					DG	WELL	T19N/R 3E- 5
G2-071708CL		CL[S]	BRUNTON, J. W.						DG		T19N/R 3E- 5
G2-005455CL		CL[L]	COX, HERBERT	0/0/1949					DG		T19N/R 3E- 5
G2-060406CL		CL[S]	DAUGHERTY, BERNARD M						DG		T19N/R 3E- 5
G2-157629CL		CL[S]	FALSETTA, CHARLES						DG		T19N/R 3E- 5
G2-20337PWRIS		PE/CAN	FREITER EDWIN W,	6/30/72	50.000	3.00	2		IR	WELL	T19N/R 3E- 5
G2-076566CL		CL[S]	GERRITZ, ROBERT L.						DG ST		T19N/R 3E- 5
G2-*02916AWRIS		AP/REJ	GRAVES KW & EW,	1/12/53	100.000		11		IR	WELL	T19N/R 3E- 5
G2-058494CL		CL[S]	HART, JOHN R.						DG		T19N/R 3E- 5
G2-048294CL		CL[S]	HEIDAL SR., ORVILLE						DG	WELL	T19N/R 3E- 5
G2-127080CL		CL[L]	HOUSE, DANIEL B						DG	WELL	T19N/R 3E- 5
G2-067560CL		CL[S]	HUFF, CECIL G.						DG		T19N/R 3E- 5
G2-088028CL		CL[S]	JENSEN, ALYCE K.						ST IR		T19N/R 3E- 5
G2-029401CL		CL[L]	JOHNSON, STANLEY	0/0/1950					DG		T19N/R 3E- 5
G2-069629CL		CL[S]	JORDAN, RICHARD L.						DG		T19N/R 3E- 5
G2-010179CL		CL[L]	KENT, CHARLES H.	0/0/1911			8		IR		T19N/R 3E- 5
G2-033860CL		CL[S]	MCALPIN, WALTER F.						DG		T19N/R 3E- 5
G2-005000CL		CL[L]	MILLER, BERT E.	0/0/1960					DG		T19N/R 3E- 5
G2-029402CL		CL[L]	MORRIS, HAROLD O.	0/0/1931					DG		T19N/R 3E- 5
G2-013775CL		CL[L]	NOCULA, JAMES S.	0/0/1956					DG		T19N/R 3E- 5
R2-*00613ALAWRIS		AP/REJ	PHILLIPS M S,	4/02/21		160.00			FS	CREEK	T19N/R 3E- 5
G2-070042CL		CL[L]	ROWLAND, RALPH L.	0/0/1938					DG	WELL	T19N/R 3E- 5
S2-20838CWRIS		CE	SELDEN IRVING H,	3/12/73	.100				FS	STREAM	T19N/R 3E- 5
G2-023205CL		CL[L]	SELDEN, IRVING H.	0/0/1931			10		DG IR		T19N/R 3E- 5
G2-028969CL		CL[L]	SHIELDS, ANDREW J.	0/0/1939					DG		T19N/R 3E- 5
G2-075661CL		CL[L]	SILVESTER, GEORGE L.	0/0/1958					DG	WELL	T19N/R 3E- 5
G2-079037CL		CL[L]	SORENSEN, VIVIAN	0/0/1945					DG	WELL	T19N/R 3E- 5
G2-*01812ABC	01036	CE	SOUTHEAST TACOMA MUT	2/05/51	250.000	146.00			DM	WELL	T19N/R 3E- 5

G2-*05160C		CE	SOUTHEAST TACOMA MUT	3/11/59	230.000	370.00			MU	WELL	T19N/R 3E- 5
G2-*09432C		CE	SOUTHEAST TACOMA MUT	5/08/68	80.000	446.00			MU	WELL	T19N/R 3E- 5
G2-071417CL		CL[S]	STEFFKE, FRANCES						DG		T19N/R 3E- 5
CG2-*01812@1		CP	TACOMA CITY,	7/29/2002	250.000	146.00	0	0		WELL	T19N/R 3E- 5
CG2-*01812@2		CA	TACOMA CITY,	11/20/2002			0	0		WELL	T19N/R 3E- 5
CG2-*05160@1		CP	TACOMA CITY,	7/29/2002	230.000	370.00	0	0		WELL	T19N/R 3E- 5
CG2-*09432@1		CP	TACOMA CITY,	7/29/2002	80.000	446.00	0	0		WELL	T19N/R 3E- 5
G2-29048		PE/CAN	TACOMA CITY,	5/12/94	0				MU	WELL	T19N/R 3E- 5
G2-29788		AP/REJ	TACOMA CITY,	9/08/98	500.000				MU	WELL	T19N/R 3E- 5
G2-027458CL		CL[L]	WALTERS, LESLIE R.	0/0/1936					DG		T19N/R 3E- 5
G2-065026CL		CL[L]	WELFRINGER, MARCIAN	0/0/1945					DG ST	WELL	T19N/R 3E- 5
G2-068716CL		CL[S]	WHITE, WILLIAM						DG IR		T19N/R 3E- 5
G2-158242CL		CL[S]	BARRINGER MANOR INVE								T19N/R 3E- 6
G2-121067CL		CL[L]	CHRISTENSEN, D A	0/0/1961					DG	WELL	T19N/R 3E- 6
G2-050551CL		CL[S]	DIEDERIK, LEROY G.						DG		T19N/R 3E- 6
G2-066901CL		CL[L]	DRAKE, JOHN B.	0/0/1965					DG	WELL	T19N/R 3E- 6
G2-047727CL		CL[S]	FREEMAN, DARWIN J.						DG	WELL	T19N/R 3E- 6
G2-076540CL		CL[S]	HOWARD, PAUL V.						DG		T19N/R 3E- 6
G2-22621CWRIS		CE	HUTTO FLOYD,	6/10/74	90.000	18.30			DM	WELL	T19N/R 3E- 6
G2-23074CWRIS		CE	J D SHOTWELL CO,	8/15/74	150.000	57.50			CI	WELL	T19N/R 3E- 6
G2-069278CL		CL[L]	J. D. SHOTWELL COMPA	0/0/1960						WELL	T19N/R 3E- 6
G2-00027CWRIS		CE	KENT RICHARD,	5/07/71	50.000	10.30			DM	WELL	T19N/R 3E- 6
G2-29375		AP/REJ	LAUREL LANE MOBILE H	4/18/96	45.000			38	DM	WELL	T19N/R 3E- 6
G2-160259CL		CL[L]	PANNEK, HENRY J	0/0/1942					DG	WELL	T19N/R 3E- 6
G2-160260CL		CL[L]	PANNEK, HENRY J	0/0/1962					DG	WELL	T19N/R 3E- 6
R2-*00613ALAWRIS		AP/REJ	PHILLIPS M S,	4/02/21		160.00			FS	CREEK	T19N/R 3E- 6
G2-22264CWRIS		CE	POAGE RONALD C,	4/12/74	205.000	49.00			DM	WELL	T19N/R 3E- 6
G2-049277CL		CL[L]	PRIVATE INVESTORS, I	0/0/1950					DG	WELL	T19N/R 3E- 6
G2-000097CL		CL[L]	RAUTON, ISABEL C.	0/0/1969					DG		T19N/R 3E- 6
G2-030753CL		CL[L]	REDFORD, ART & LADD,	0/0/1972							T19N/R 3E- 6
G2-27522CWRIS		CE	ROBERT M MONSEN,	3/14/89	100.000	5.50			DM	WELL	T19N/R 3E- 6
G2-21417CWRIS		CE	SELDEN ARTHUR W,	8/29/73	20.000	2.00	1		IR	WELL	T19N/R 3E- 6
G2-032903CL		CL[L]	SELDEN, ARTHUR W.	0/0/1948			5		DG IR	WELL	T19N/R 3E- 6
G2-072891CL		CL[S]	SHANDROW, BENJAMIN M						DG		T19N/R 3E- 6
G2-139086CL		CL[S]	SPISAK, MIKE						DG IR		T19N/R 3E- 6

G2-135531CL		CL[L]	STANTON, ADRIAN F							WELL	T19N/R 3E- 6
G2-135532CL		CL[L]	STANTON, ADRIAN F	0/0/1968					DG IR	WELL	T19N/R 3E- 6
G2-093600CL		CL[L]	SULLIVAN, JAMES L	0/0/1924					DG	WELL	T19N/R 3E- 6
G2-106072CL		CL[S]	WEIVODA, HAROLD R						DG		T19N/R 3E- 6
G2-106650CL		CL[S]	WILLETT, FLOYD C						DG		T19N/R 3E- 6
G2-124794CL		CL[L]	WOODWORTH & CO INC,	0/0/1952						WELL	T19N/R 3E- 6
G2-124795CL		CL[L]	WOODWORTH & CO INC,	0/0/1969						WELL	T19N/R 3E- 6
G2-145801CL		CL[L]	WOODWORTH & CO INC,	0/0/1945					DG	WELL	T19N/R 3E- 6
G2-23574PWRIS		PE/CAN	WOODWORTH CO INC,	6/28/74	200.000	160.00			CI	WELL	T19N/R 3E- 6
G2-23575CWRIS		CE	WOODWORTH CO INC,	6/28/74	300.000	129.60			CI	WELL	T19N/R 3E- 6
G2-*02654PWRIS		PE/CAN	YOUNG ALEX,	6/29/52	25.000	21.50			DM	WELL	T19N/R 3E- 6
G2-104598CL		CL[S]	GORELICK, MORRIS						DG ST IR		T19N/R 3E- 7
G2-153295CL		CL[L]	HANSON, JOHN R	0/0/1916					DG ST	WELLS	T19N/R 3E- 7
G2-061962CL		CL[L]	HIGBEE, RAY C.	0/0/1945					DG	WELL	T19N/R 3E- 7
R2-*00613ALAWRIS		AP/REJ	PHILLIPS M S,	4/02/21		160.00			FS	CREEK	T19N/R 3E- 7
G2-057426CL		CL[L]	SCHIBIG, ROSA	0/0/1945					DG	WELL	T19N/R 3E- 7
G2-049185CL		CL[L]	STEVENS, DILLARD L.	0/0/1946					DG	WELL	T19N/R 3E- 7
G2-25722PWRIS		PE/CAN	TOLLIVER R W,	11/14/80	100.000	24.00			DM	WELL	T19N/R 3E- 7
G2-066845CL		CL[S]	FITZER, WILLIAM						DG		T19N/R 3E- 8
G2-097335CL		CL[L]	FLINKFELT, HUGH M	0/0/1904					DG	WELL	T19N/R 3E- 8
G2-00706CWRIS		CE	FRANKLIN PIERCE SCHO	3/25/71	350.000	9.00	5		IR	WELL	T19N/R 3E- 8
G2-21083CWRIS		CE	HARTLEY M A,	5/10/73	10.000	3.00	2		IR DS	WELL	T19N/R 3E- 8
S2-21084CWRIS		CE	HARTLEY M A,	5/10/73	.100	5.00	10		IR	SOURCE	T19N/R 3E- 8
G2-020430CL		CL[L]	HARTLEY, MARSHALL A.	0/0/1954			2		DG IR		T19N/R 3E- 8
S2-020431CL		CL[L]	HARTLEY, MARSHALL A.	0/0/1954			10		IR		T19N/R 3E- 8
G2-*03847CWRIS	02971	CE	PACIFIC LUTHERAN UNI	1/21/55	160.000	60.00	30		IR	WELL	T19N/R 3E- 8
G2-*05128CWRIS	03698	CE	PACIFIC LUTHERAN UNI	2/10/59	200.000	60.00	30		IR	WELL	T19N/R 3E- 8
CG2-*09481		CA	PARKLAND LIGHT & WAT	9/13/97	0	2688.00	0	0		WELL	T19N/R 3E- 8
CG2-00768		CA	PARKLAND LIGHT & WAT	9/12/97	0	2000.00	0	0		WELL	T19N/R 3E- 8
CG2-24469@1		CA	PARKLAND LIGHT & WAT	6/10/2002	350.000	420.00	0	0		WELL	T19N/R 3E- 8
CG2-24469C		CA	PARKLAND LIGHT & WAT	9/12/97	350.000	420.00	0	0		WELL	T19N/R 3E- 8
G2-*06425PWRIS		PE/CAN	PARKLAND LIGHT & WAT	8/13/62	0	2400.00			DM	WELL	T19N/R 3E- 8
G2-*09481C	6263	CE	PARKLAND LIGHT & WAT	5/28/68	0	2688.00			MU	WELL	T19N/R 3E- 8
G2-00768C		CE	PARKLAND LIGHT & WAT	5/20/71	0	2000.00			MU	WELL	T19N/R 3E- 8
G2-24469C		CE	PARKLAND LIGHT & WAT	3/21/77	350.000	420.00			MU	WELL	T19N/R 3E- 8

G2-29289		CE	PARKLAND LIGHT & WAT	9/20/95	350.000	260.00			MU	WELL	T19N/R 3E- 8
R2-*00613ALAWRIS		AP/REJ	PHILLIPS M S,	4/02/21		160.00			FS	CREEK	T19N/R 3E- 8
S2-*00612AWRIS		AP/REJ	PHILLIPS M S,	4/02/21	1.000				IR FS	CREEK	T19N/R 3E- 8
G2-156436CL		CL[L]	PRINE, DONALD A	0/0/1932					DG	WELL	T19N/R 3E- 8
G2-042974CL		CL[S]	RYAN, PHILIP M.						DG		T19N/R 3E- 8
G2-134379CL		CL[L]	SCHMALENBERG, JAN W	0/0/1951					DG	WELL	T19N/R 3E- 8
G2-047479CL		CL[S]	BRADSHAW, PAUL J.						DG	WELL	T19N/R 3E- 9
G2-031122CL		CL[L]	CAMPBELL, LEROY R.	0/0/1943			1		DG IR	WELL	T19N/R 3E- 9
G2-164263CL		CL[L]	HAAKENSON, G						DG	WELL	T19N/R 3E- 9
G2-086611CL		CL[L]	NELSON, DONALD M	0/0/1960					DG	WELL	T19N/R 3E- 9
CG2-*04161		CA	PARKLAND LIGHT & WAT	9/12/97	0	1600.00	0	0		WELL	T19N/R 3E- 9
CG2-*04161@1		CP	PARKLAND LIGHT & WAT	6/10/2002	0	1600.00	0	0		WELL	T19N/R 3E- 9
G2-*01206C	913	CE	PARKLAND LIGHT & WAT	8/18/49	0	1370.00			DM	WELL	T19N/R 3E- 9
G2-*04161C	2903	CE	PARKLAND LIGHT & WAT	11/10/55	0	1600.00			DM	WELL	T19N/R 3E- 9
G2-048885CL		CL[S]	ANDERSON, WILLIAM R.						DG		T19N/R 3E-17
S2-*13311CWRIS	06204	CE	BARR G W,	2/25/55	.050		5		IR DS	Y CREEK	T19N/R 3E-17
G2-078458CL		CL[S]	BASS, RUSSELL F.						DG		T19N/R 3E-17
G2-015583CL		CL[L]	BECKMAN, LAWRENCE E.	0/0/1946					DG		T19N/R 3E-17
S2-*15088AWRIS		AP/REJ	BEQUETTE ROY E,	9/16/58	.100		5		IR FS DS	SPRING	T19N/R 3E-17
S2-*19341CWRIS	10231	CE	BRANDT S W,	11/08/65	.045				RE	Y CREEK	T19N/R 3E-17
G2-068751CL		CL[L]	BROWN, EARNEST W.	0/0/1953			5		DG ST IR	WELL	T19N/R 3E-17
G2-096695CL		CL[L]	CHALKER, RAYMOND L	0/0/1926			1		DG ST IR	WELL	T19N/R 3E-17
G2-113128CL		CL[L]	CLINTON, ROBERT P	0/0/1936					DG IR	WELL	T19N/R 3E-17
G2-043944CL		CL[S]	CRATE, ARTHUR						DG IR		T19N/R 3E-17
G2-125288CL		CL[S]	DIXON, HAROLD C						DG ST	CREEK	T19N/R 3E-17
G2-122598CL		CL[L]	FISHER, LLOYD R	0/0/1948					DG	WELL	T19N/R 3E-17
G2-093303CL		CL[L]	GIUSTI, SALVATORE A	0/0/1934					DG	WELL	T19N/R 3E-17
S2-093304CL		CL[L]	GIUSTI, SALVATORE A	0/0/1934			24		ST IR	CREEK	T19N/R 3E-17
G2-085042CL		CL[L]	GRAHAM, GLEN	0/0/1950					DG	WELL	T19N/R 3E-17
G2-030482CL		CL[L]	GRAHAM, SADIE M.	0/0/1885					DG		T19N/R 3E-17
S2-030483CL		CL[L]	GRAHAM, SADIE M.	0/0/1911			17		IR		T19N/R 3E-17
G2-068550CL		CL[L]	HAAKINSON, TED	0/0/1950					DG	WELL	T19N/R 3E-17
G2-115365CL		CL[S]	HARRINGTON, ANNA B						IR		T19N/R 3E-17
S2-*03070CWRIS	00800	CE	HEBB P H,	8/04/30	1.000		100		IR	CREEK	T19N/R 3E-17
G2-087468CL		CL[L]	HEMENWAY, ANSON J.	0/0/1943					DG	WELL	T19N/R 3E-17

G2-019356CL		CL[L]	HOLMES, FRANZ	0/0/1947			1		IR		T19N/R 3E-17
G2-094916CL		CL[L]	HUGHES, ORRIS C	0/0/1960					DG	WELL	T19N/R 3E-17
G2-128449CL		CL[L]	ISLAM, A R	0/0/1900					DG	WELL	T19N/R 3E-17
S2-128448CL		CL[L]	ISLAM, A R	0/0/1900			20		ST IR	CREEK	T19N/R 3E-17
S2-*03540CWRIS	00943	CE	JOHNSON A B,	10/08/31	.150				WL RE FS	Y CREEK	T19N/R 3E-17
G2-104282CL		CL[S]	LUBBESMEYER, JIM						DG IR		T19N/R 3E-17
G2-25956CWRIS		CE	MAYER KURTIS R,	7/09/81	15.000	24.00			HE DS	WELL	T19N/R 3E-17
G2-26796CWRIS		CE	MAYER KURTIS R,	9/11/85	25.000	1.00			RE	WELL	T19N/R 3E-17
G2-27873		CE	MAYER, KURTIS	10/21/90	25.000	2.00	2		IR	WELL	T19N/R 3E-17
S2-108470CL		CL[S]	MAYER, KURTIS R						DG ST IR	CREEK	T19N/R 3E-17
S2-*10280AWRIS		AP/REJ	MCDONALD LEO J,	5/01/51	.100		4		IR	CREEK	T19N/R 3E-17
S2-27692CWRIS		CE	OLSEN R & B,	1/30/90	.010				WL	STREAM	T19N/R 3E-17
G2-137763CL		CL[S]	OSTENSON, BURTON T						DG IR		T19N/R 3E-17
S2-29441		CE	PACIFIC LUTHERAN UNI	11/26/96	.040	0.00			IR	Y CREEK	T19N/R 3E-17
S2-29441			PACIFIC LUTHERAN UNI	11/26/96							T19N/R 3E-17
G2-301290CL		CL[]	PACIFIC LUTHERAN UNI	0/0/1941	30.000	1.50	7		IR OT	WELL	T19N/R 3E-17
G2-055351CL		CL[L]	PARKLAND CHRISTIAN C	0/0/1950					DG	WELL	T19N/R 3E-17
CG2-*05733		CA	PARKLAND LIGHT & WAT	9/12/97	330.000	528.00	0	0		WELL	T19N/R 3E-17
CG2-25085		CA	PARKLAND LIGHT & WAT	9/12/97	0	1935.00	0	0		WELL	T19N/R 3E-17
CG2-26841		CA	PARKLAND LIGHT & WAT	9/12/97	0	1280.00	0	0		WELL	T19N/R 3E-17
G2-*05096CWRIS	03722	CE/RLQ	PARKLAND LIGHT & WAT	12/15/58	400.000	640.00			DM	WELL	T19N/R 3E-17
G2-*05733C	3965	CE	PARKLAND LIGHT & WAT	9/13/60	330.000	528.00			DM	WELL	T19N/R 3E-17
G2-25085C		CE	PARKLAND LIGHT & WAT	12/01/78	0	1935.00			MU	WELL	T19N/R 3E-17
G2-26841C		CE	PARKLAND LIGHT & WAT	1/13/86	0	1280.00			MU	WELL	T19N/R 3E-17
S2-*14334CWRIS	07866	CE/RLQ	PARKLAND LIGHT & WAT	5/16/57	1.000	720.00			DM	SPRS *	T19N/R 3E-17
S2-*14334CWRIS	07866		PARKLAND LIGHT & WAT	5/16/57							T19N/R 3E-17
S2-*21311CWRIS	11115	CE	PATTERSON WALTER D,	11/01/68	.050				RE	STREAM	T19N/R 3E-17
G2-138744CL		CL[L]	PIPER, C A	0/0/1935					DG	WELL	T19N/R 3E-17
S2-*13380CWRIS	06290	CE	PURVIS J A / G,	4/11/55	1.000				FS DS	Y CREEK	T19N/R 3E-17
G2-038684CL		CL[L]	PURVIS, JOHN A.	0/0/1967					DG	WELL	T19N/R 3E-17
S2-044677CL		CL[L]	PURVIS, JOHN A.	0/0/1909					DG ST	Y CREEK	T19N/R 3E-17
S2-23522CWRIS		CE	RICHARDS DONALD ETUX	5/31/74	1.000	0.00			WL RE	Y CREEK	T19N/R 3E-17
G2-058792CL		CL[L]	ROETER, MELBA C.	0/0/1929					DG	WELL	T19N/R 3E-17
G2-100330CL		CL[L]	SCHRAWYER, ALBERT V	0/0/1929					DG	WELL	T19N/R 3E-17
S2-*10529CWRIS	11160	CE	SELDEN M E,	7/25/51	.220				FS	CREEK	T19N/R 3E-17