

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

ORDER NO. 86-75

INTERIM WATER QUALITY PROTECTION STANDARDS
FOR
IT CORPORATION - IMPERIAL VALLEY WASTE MANAGEMENT FACILITY
Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. In accordance with Provision 8 of Waste Discharge Requirements, contained in Regional Board Order No. 85-80, the Executive Officer has prepared Interim Water Quality Protection Standards for consideration of adoption by the Regional Board.
2. IT Corporation (hereinafter also referred to as the discharger), 23456 Hawthorne Boulevard, Suite 220, Torrance, California, 90505, has submitted ground-water monitoring data reports in accordance with the Monitoring and Reporting Program for Board Order No. 84-111.
3. The discharger's operations are contained in its privately-owned 640-acre tract comprising Section 16, T13S, R12E, SBB&M. A site plan of said Section 16 is shown in Attachment "A" appended hereto as a part of this Order. Approximately 300 to 400 acres of this section appear to be developable for waste management units with a total capacity expectancy of 30 to 50 years beginning from about the year 1980.
4. The discharger is currently discharging industrial waste to surface impoundments No. 3, 5, 8, and 9 under Order No. 84-111 adopted by the Regional Board on November 14, 1984. These impoundments are located in the E 1/2, SE 1/4 of said Section 16. The discharger also has constructed and plans to operate a solid waste management unit (SWMU) under Order No. 85-80 adopted by the Regional Board on November 20, 1985. The SWMU is located in the E 1/2, NE 1/4 of said Section 16.
5. The area outside of and immediately adjacent to the one square mile site is vacant, uncultivated desert, sparsely vegetated, and sloping gently downward towards the northeast. The nearest dwelling is a farmhouse, approximately one mile to the east. The site stratigraphy consists of shallow alluvial soils, underlain by overconsolidated, interbedded clays, silts, and silty sands. Two ground-water aquifers have been identified at the site: a shallow, mostly unconfined aquifer (15 to 25 feet thick) with an average total dissolved solids concentration of about 3,100 mg/l and a deeper, confined aquifer that apparently extends downward through the entire thickness of sediments in the area. This aquifer has an average total dissolved solids concentration of about 5,150 mg/l.

6. This Order No. 86-75 is designed to comply with the provisions of Section 2552 (a) of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code, for establishing water quality protection standards.
7. The Interim Water Quality Protection Standards contained herein were developed from existing ground-water monitoring data obtained from the waste management facility's 16 ground-water monitoring wells. A site plan illustrating the ground-water monitoring well network is shown in Attachment "B" appended hereto as a part of this Order. An additional 15 monitoring wells have recently been constructed at the SWMU. When sufficient monitoring data from these wells become available, any necessary updating of water quality protection standards will be submitted for Board consideration of approval.
8. Although the discharger considers Well No. 13A to be a deep-aquifer monitoring well, the water chemistry is the same as the water chemistry associated with the uppermost aquifer. Therefore, Well No. 13A was included in the statistical analyses for the development of these Interim Water Quality Protection Standards for the uppermost aquifer.
9. Data from Wells No. 5A, 6A, 7A, 8C, 9C, 16, and 18 was not included in the statistical analyses for the following reasons:
 - a. Wells No. 6A, 7A, and 16 have not yielded sufficient quantities of water for sampling and analyses.
 - b. Wells No. 5A, 8C, 9C, and 18 are deep aquifer monitoring wells and insufficient data exists for a meaningful statistical analysis for development of water quality protection standards at this time.
10. In view of Finding's No. 8 and 9, the statistical summary of the available water quality data is obtained from nine of the original 16 monitoring wells constructed between May 1983 and April 1985, that was used to develop interim standards is as follows:

Water Quality Indicator	Max*	Median*	No. of Wells
	Min	90th Percentile	No. of Analyses
Total Dissolved Solids (TDS)	$\frac{4300}{1800}$	$\frac{2700}{3760}$	$\frac{9}{34}$
Specific Conductance (in micromhos/cm)	$\frac{6800}{2370}$	$\frac{4350}{5800}$	$\frac{9}{50}$
pH (in pH units)	$\frac{8.1}{6.5}$	$\frac{7.2}{7.8}$	$\frac{9}{50}$
Total Organic Carbon (TOC)	$\frac{7.1}{0}$	$\frac{0}{3}$	$\frac{9}{50}$

* Values given in milligrams per liter

Water Quality Indicator	$\frac{\text{Max}^*}{\text{Min}}$	$\frac{\text{Median}^*}{90\text{th Percentile}}$	$\frac{\text{No. of Wells}}{\text{No. of Analyses}}$
Total Organic Halogen (TOX)	$\frac{1.8}{0}$	$\frac{0.28}{1.0}$	$\frac{9}{48}$
Total Alkalinity	$\frac{2200}{280}$	$\frac{575}{1100}$	$\frac{9}{34}$
Total Phenols	$\frac{0.06}{0}$	$\frac{0}{0.015}$	$\frac{9}{41}$
Calcium, Ca	$\frac{460}{120}$	$\frac{210}{370}$	$\frac{9}{32}$
Sodium, Na	$\frac{1500}{370}$	$\frac{590}{940}$	$\frac{9}{47}$
Potassium, K	$\frac{65}{5}$	$\frac{14}{45.7}$	$\frac{9}{33}$
Manganese, Mn	$\frac{4.1}{0}$	$\frac{0.47}{2.75}$	$\frac{9}{45}$
Iron, Fe	**	**	$\frac{9}{50}$
Nickel, Ni	$\frac{0.3}{0}$	$\frac{0.028}{0.1}$	$\frac{9}{35}$
Lead, Pb	$\frac{0.3}{0}$	$\frac{0}{0.3}$	$\frac{9}{35}$
Total Chromium, Cr	$\frac{0.3}{0}$	$\frac{0.001}{0.2}$	$\frac{9}{35}$
Chloride, Cl	$\frac{2100}{290}$	$\frac{905}{1300}$	$\frac{9}{50}$
Sulfate, SO ₄	$\frac{922}{360}$	$\frac{580}{767}$	$\frac{9}{51}$
Nitrate, NO ₃	$\frac{6.4}{0}$	$\frac{0.7}{3.1}$	$\frac{9}{37}$

* Values given in milligrams per liter

** Water Quality data for iron concentrations are extremely variable and appear to be unreliable. Therefore, no standards have been developed at this time. Standards will be developed as sufficient reliable water quality data become available.

11. These Interim Water Quality Protection Standards were developed to protect and maintain the existing ground-water quality beneath the facility and therefore, their adoption by this Board is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Section 15307, Chapter 3, Division 6, Title 14, of the California Administrative Code.
12. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Regional Board on November 14, 1984.
13. The beneficial uses of the ground water of the Imperial Hydrologic Unit, as set forth in the above Plan are for municipal and industrial purposes in some areas.
14. The Board has notified the discharger and interested agencies and persons of its intent to adopt Interim Water Quality Protection Standards for the uppermost ground-water aquifer beneath the IT Corporation Imperial Valley Waste Management Facility.
15. The Board in a public meeting heard and considered all comments pertaining to the Interim Water Quality Protection Standards.
16. This waste management facility is also subject to waste discharge requirements adopted in Board Orders No. 84-111 and 85-80.

IT IS HEREBY ORDERED, IT Corporation shall not violate the following Interim Water Quality Protection Standards as a result of operations at its Imperial Valley waste management facility.

A. Specifications

1. The Interim Water Quality Protection Standards shall:
 - a. Apply to the uppermost ground-water aquifer beneath each waste management unit, or cluster of contiguous waste management units;
 - b. Be applied at the "points of compliance" for each waste management unit, or cluster of contiguous waste management units, and at any other locations as specified by the Executive Officer;
 - c. Apply during the active life, closure period, and post-closure maintenance period of the waste management unit(s).

2. The Interim Water Quality Protection Standards for the shallow aquifer shall be as follows:

<u>Water Quality Indicator</u>	<u>Standards (mg/l) except as indicated</u>
TDS	4300
Specific Conductance (micromhos/cm)	6800
pH (in pH units)	6.5 - 8.1
TOC	7.1
TOX	1.8
Total Alkalinity	2200
Total Phenols	0.06
Calcium, Ca	460
Sodium, Na	1500
Potassium, K	65
Manganese, Mn	4.1
Iron, Fe	**
Nickel, Ni	0.3
Lead, Pb	0.3
Total Chromium, Cr	0.3
Chloride, Cl	2100
Sulfate, SO ₄	922
Nitrate, NO ₃	6.4

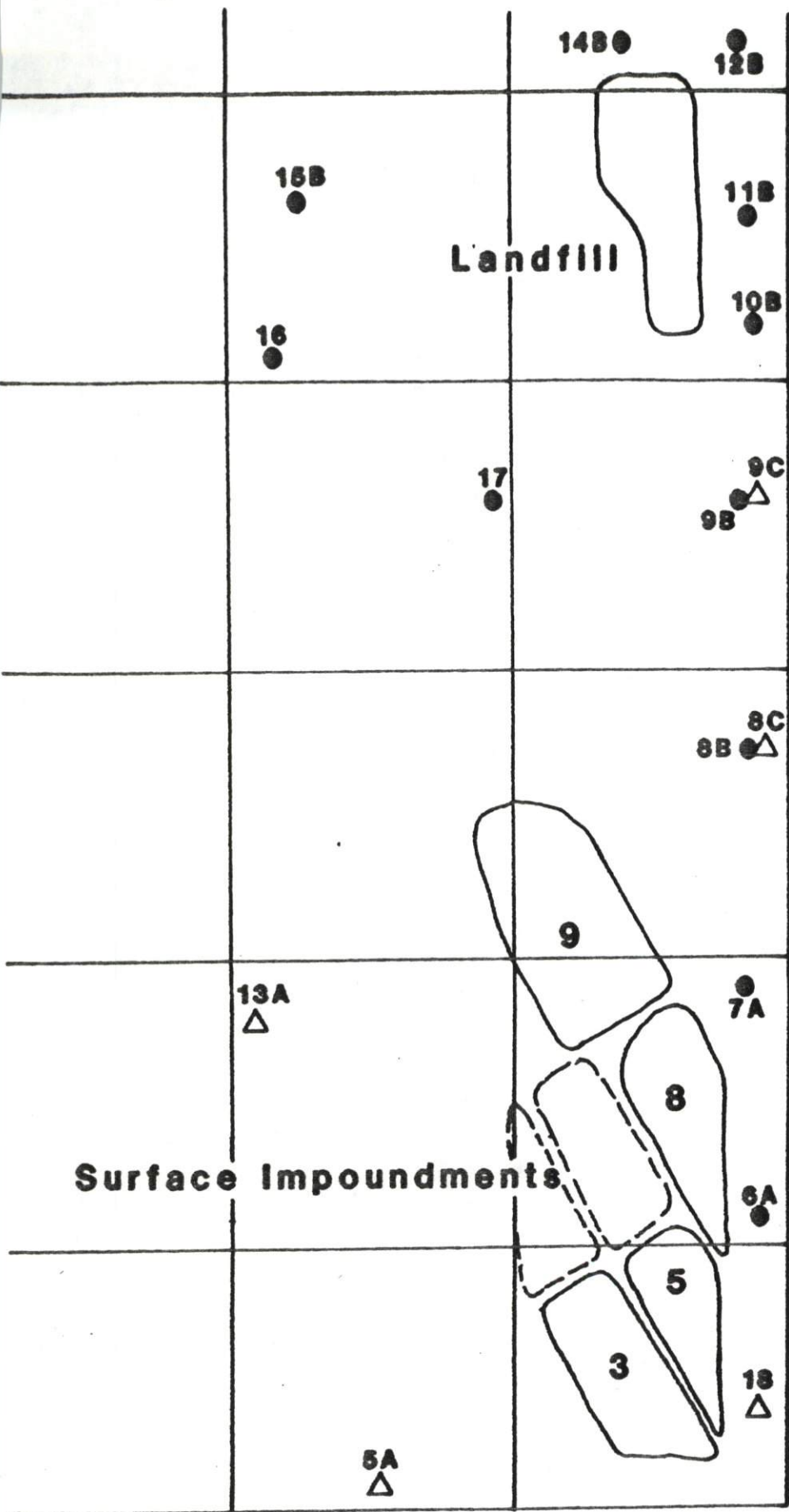
B. Provisions

1. When sufficient additional ground-water quality data becomes available, the Regional Board's Executive Officer is directed to submit any necessary revised water quality protection standards for consideration of adoption by the Regional Board.
2. Prior to any change of ownership of these facilities/operations, the discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to this Board.
3. This Order does not authorize violation of any federal, state, or local laws or regulations.
4. This Board's Orders No. 84-111 and 85-80 remain in full force and effect.

I, Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 17, 1986.

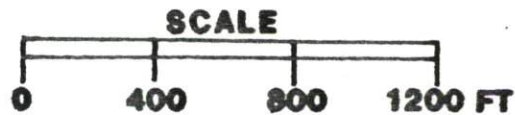

 Executive Officer

IT CORPORATION IMPERIAL VALLEY FACILITY



GROUND-WATER MONITORING WELL NETWORK

- SHALLOW WELL
- △ DEEP WELL



ATTACHMENT B