CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2005-0715
FOR
BAKER COMMODITIES, INC
HANFORD HIDE SKINNING AND HIDE CURING FACILITY
KINGS COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Baker Commodities, Inc. (hereafter Discharger), a Delaware corporation, owns and operates a dead cow and calf skinning and hide salt curing facility (Facility). The 160-acre Facility is at 7480 Hanford Armona Road, approximately 2 miles east of the City of Hanford. The property is described by Kings County Assessor's Parcel Nos. 016-070-12, 016-070-13, and 016-070-15, and in Section 33, T18S, R22E, MDB&M.

2. The Facility has operated since at least 1964 and discharged hide skinning and hide curing wastes to land the entire period without waste discharge requirements. Regional Board staff found the Facility operating and requested in a 30 April 1996 letter that the Discharger submit a Report of Waste Discharge (RWD) by 24 June 1996. The Discharger submitted an RWD dated 15 July 1996 that describes two types of waste: liquid brine waste and hide skinning wastewater. In September 2000, the Discharger submitted a revised RWD in support of an increase in discharge associated with a complete upgrade of the Facility (i.e., new buildings, equipment, etc.). The September 2000 RWD proposed continued use of three existing unlined lagoons constructed in the early 1970s to store hide skinning process wastewater. Operations moved into the newly constructed Facility in January 2002. In February 2003, the Discharger submitted a second revised RWD (to respond to Regional Board staff comments regarding the inability of the unlined lagoons to prevent waste constituents from migrating into groundwater) that proposed to construct three new lined treatment lagoons.

3. Brine waste is generated from the hide curing process when freshly skinned hides salted with rock salt (i.e., sodium chloride, NaCl) drain highly saline liquid comprised of salt mixed with moisture from the hides. Hide skinning wastewater results from the release of bodily fluids during the skinning process, from the rinsing of carcasses and hides, and from the washing down of truck beds, facility floors, and equipment.

4. Land use in the Facility vicinity is primarily agricultural. Crops grown within two miles of the Facility include corn, cotton, and alfalfa according to Department of Water Resources land use data published in 1996. Agricultural lands adjacent to the Facility are to the north, south, and west. Directly east are a number of rural residences and a tree recycling facility. Kit Carson School is a rural elementary school located approximatley one-half mile to the northeast that serves between 400 and 500 kindergarten through eighth grade students.

APPLICABLE LEGAL REQUIREMENTS

5. The *Water Quality Control Plan for the Tulare Lake Basin*, Second Edition (Basin Plan) designates beneficial uses of the waters of the State and establishes water quality objectives to protect those uses. It also contains implementation plans and policies for protecting waters of the basin.

6. *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, California Code of Regulations, section 20005, et seq., (hereafter Title 27) specify types of waste that must be fully contained and prescribes standards for containment, including for designated waste.

7. California Water Code (CWC) section 13050(l)(1) defines pollution as: ". . .an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) the waters for beneficial uses; (B) facilities which serve these beneficial uses."

8. CWC section 13173 defines designated waste as "nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding water quality objectives..."

9. CWC section 13267(b)(1) states that:

> "In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

10. CWC section 13304(a) provides that:

> "Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

11. CWC section 13304(c)(1) provides that:

> "If the waste is cleaned up or the effects of the waste are abated, or, in the case of threatened pollution or nuisance, other necessary remedial action is taken by any governmental agency, the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial action. The amount of the costs is recoverable in a civil action by, and paid to, the governmental agency

and the state board to the extent of the latter's contribution to the cleanup costs from the State Water Pollution Cleanup and Abatement Account or other available funds."

12. CWC section 13260 states in part that:

"Any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system ..." "...shall file with the appropriate regional board a report of the discharge..."

13. CWC section 13264(a) states in part that:

"No person shall initiate any new discharge of waste or make any material changes in any discharge, or initiate a discharge to, make any material changes in a discharge to, or construct, an injection well, prior to the filing of the report required by Section 13260 and no person shall take any of these actions after filing the report but before whichever of the following occurs first: (1) The issuance of waste discharge requirements pursuant to Section 13263. (2) The expiration of 140 days after compliance with Section 13260 if the waste to be discharged does not create or threaten to create a condition of pollution or nuisance ..."

14. State Board Resolution No. 68-16 (hereafter Resolution 68-16 or the "Antidegradation" Policy) requires that, in authorizing any discharge of waste, that the high quality waters of the State be maintained until it is demonstrated that any change in quality is consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality that exceeds water quality objectives.

15. The State Water Resources Control Board (hereafter State Board) adopted Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. Resolution No. 92-49 establishes protocol for investigation, cleanup and abatement of any discharge that has created or threatens to create a condition of pollution.

16. Section I (F)(2) Resolution No. 92-49 pertains to potential cleanup and abatement actions, in particular subsections (b) and (c), which are as follows:

b. If cleanup and abatement involves removal of waste from the immediate place of release and discharge of the waste to land for treatment, storage, or disposal, the [Board] shall regulate the discharge of the waste through waste discharge requirements issued under [Title 27], provided that the [Board] may waive waste discharge requirements under [CWC] Section 13269 if the waiver is not against the public interest (e.g., if the discharge is for short-term treatment or storage, and if the temporary waste management unit is equipped with features that will ensure full and complete containment of the waste for the treatment or storage period); and

c. If cleanup and abatement involves actions other than removal of the waste, such as containment of waste in soil or ground water by physical or hydrological barriers to migration (natural or engineered), or in-situ treatment (e.g., chemical or thermal fixation, or bioremediation), the [Board] shall apply the applicable provisions of [Title 27], to the extent that it is technologically and economically feasible to do so; and

ENFORCEMENT CONSIDERATIONS

17. The Discharger's July 1996 RWD estimated that the Facility at the time generated 1,000 gallons of hide skinning wastewater per month. Historic management of the hide skinning wastewater is

described in the RWD as follows: no brine waste was generated prior to 1993 as the Discharger sold only unpreserved hides (green hides), between 1993 and 1995 hides were preserved with rock salt and shipped in water tight containers with the hide buyers responsible for the management of the brine waste. The RWD states that in 1996 the Discharger began storing brine waste in a holding tank and periodically hauling it to Baker Commodities' Los Angeles facility for "treatment and disposal." A September 2000 RWD states, as the 1996 RWD did, that brine waste is stored in a holding tank and periodically hauled offsite.

18. Based on the September 2000 RWD and a 3 November 2000 inspection of the Facility by Regional Board staff, a Notice of Violation (NOV) was issued to the Discharger on 6 February 2001 for, among other things, discharge of brine waste to unlined lagoons.

19. A sample of wastewater from the unlined lagoons (i.e., hide skinning wastewater combined with brine waste) collected by staff during the 3 November 2000 inspection yielded a chloride concentration of 4,000 mg/L. In addition, laboratory analyses performed by the Discharger on the sodium chloride content of wastewater held in the unlined lagoons between 1995 and 1997 indicate a sodium chloride content of between 2,000 and 12,700 mg/L, with an average content of 5,600 mg/L.

20. The Discharger reportedly only discharged waste brine to the Facility's three unlined lagoons from 1996 through 2000. Since then, liquid brine waste has been discharged into a 10,000 gallon, above-ground plastic holding tank and disposed of off site.

21. The Basin Plan contains a narrative water quality objective for chemical constituents which states that "[w]aters shall not contain chemical constituents in concentrations that affect beneficial uses." The Basin Plan sets forth an implementation plan entitled "Policy for Application of Water Quality Objectives" that specifies how the Regional Board applies water quality objectives. In accordance with the Policy, the concentrations that implement the narrative water quality objective for sodium and chloride are 69 mg/L and 106 mg/L, respectively. These concentrations ensure no restriction or special management for irrigation use of the water. The Basin Plan also incorporates State numeric drinking water standards (Maximum Contaminant Levels or MCL) contained in Title 22, California Code of Regulations, section 64448. According to the Basin Plan, those standards apply to waters of the State designated for municipal or domestic supply. The primary MCL established by Title 22 for nitrate is 45 mg/L as NO_3 while the secondary MCL for TDS is a range, with a preferred limit of 500 mg/L. Limits may be established at a higher level but this requires a demonstration that the higher level will still insure conformance with Basin Plan water quality objectives and that the source of degradation has been minimized by implementation of best practicable treatment and control. In any case, a higher level for chloride may not exceed the Basin Plan limit for discharges to land which requires that "discharges to areas that may recharge to good quality groundwaters shall not exceed" a chloride content of 175 mg/L.

22. Brine waste and brine waste combined with hide skinning wastewater have concentrations an order of magnitude greater than the concentrations identified in Finding 21 as consistent with water quality objectives and such wastes must be classified as designated.

23. To determine the impact of the three unlined lagoons on the uppermost aquifer from the impounded brine waste and the hide skinning wastewater, the Discharger installed a groundwater-monitoring network around the unlined lagoons. Wells (MW-1 through MW-6) were installed to depths between 93 and 94 feet below ground surface (bgs) with 25-foot screen intervals across the water table. The boring logs for MW-1 through MW-6 indicate that the subsurface geology to that depth is comprised generally of sand and silt.

24. To determine the extent of waste constituents within soil from lagoon leakage, soil samples were collected at ten-foot intervals between 10 feet and 90.5 feet bgs when MW-1, MW-4 and MW-6 were drilled. Average sodium, chloride, and nitrate (as NO_3) concentrations in the following table from nine soil samples from MW-1 (background from an area approximately 625 feet east of the lagoons) and MW-4 and MW-6 demonstrate the effect of lagoon seepage on underlying soils.

Constituent	Units	MW-1	MW-4	MW-6
Sodium	mg/kg	17	122	136
Chloride	mg/kg	4	68	26
Nitrate (as NO_3)	mg/kg	3	262	45

25. Samples collected from the monitoring wells between March 2003 and April 2004 yield average concentrations from four sampling events as follows:

Constituent/ Parameter	Units	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Gradient[1]		Up	Up	Side & Down	Side	Down	Down
TDS	mg/L	183	143	483	773	1,030	1,525
Sodium	mg/L	26	16	96	84	225	127
Chloride	mg/L	7	3	99	186	363	568
Nitrate (as NO_3)	mg/L	3	3	22	47	49	9

[1] Relative hydraulic position of the monitoring wells to the three unlined lagoons.

26. Leakage of hide skinning wastewater and brine waste from the Facility's three unlined lagoons has degraded groundwater and created or threatened to create a condition of pollution. As detailed in the above findings, monitoring results indicate significant increases in EC, TDS, sodium, chloride, and nitrate concentrations in groundwater downgradient of the lagoons with the lagoons as the predominant source of pollutants, at the levels found, within the vicinity of the Facility. In addition, soil borings from the ground surface to the top of the water table confirm the transport of waste constituents from the unlined lagoons into groundwater with soils horizontally within 20 ft of the lagoons containing waste constituents at levels one to two orders of magnitude greater than background soils.

CLEANUP AND ABATEMENT

27. As summarized in the above finding, the Discharger has caused or permitted, or threatens to cause or permit waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and has created a condition of pollution, or threatens to create, a condition of pollution. A cleanup and abatement order pursuant to CWC section 13304 that requires the Discharger to investigate and cleanup the waste and/or abate the effects of the waste is necessary and appropriate.

28. The Discharger's February 2003 RWD proposes to construct and operate three new, lined treatment lagoons adjacent to the three existing unlined lagoons. The unlined lagoons that received hide skinning wastewater and brine waste (i.e., designated waste) will be closed. The Discharger proposes to use a composite liner for the new lagoons that will either be 1) a geomembrane overlying 8 inches of bentonite-amended soil or 2) a pre-manufactured geomembrane/bentonite liner, depending on cost. The geomembrane material will be reinforced 45-mil polypropylene constructed in the field using heat-welded seams. Approximately one foot of cover soil will be placed on top of the geomembrane, both along the bottom and side slopes to protect the geomembrane.

29. The RWD calculates that leakage from permeation and defects from the proposed composite liner will result in leakage in the following approximate range:

Source	Annual projected infiltration from all three lagoons
Permeation through the geomembrane	1,300 gallons per year
Leakage through defects in the geomembrane	200 to 6,300 gallons per year
Total (permeation and leakage)	1,500 to 7,600 gallons per year
Mass loading of chloride	1.5 to 7 pounds
Mass loading of nitrogen	4.1 to 21 pounds per year

30. The electrical leak location survey (ELLS) method of locating leaks in a geomembrane component of a liner impresses a high voltage across the geomembrane and then detects the precise locations where electrical current flows through leaks in the electrically-insulating material. The ELLS geomembrane leak location method is standardized in ASTM D6747 and D7002.

31. Closure requirements for surface impoundments that have received designated waste, as have the existing unlined lagoons, are contained in Title 27, section 21400. Section 21400(b)(2)(A) allows closure as a landfill pursuant to the closure and post-closure maintenance requirements for landfills contained in section 21090. The prescriptive standard for the final cover is contained in section 21090(a).

32. On 11 October 2005, after reviewing a tentative draft of this Order, the Discharger submitted a work plan titled *Workplan: Additional Investigation to Define the Extent of Groundwater Contamination.* The work plan proposes thirteen cone penetration tests and three additional groundwater monitoring wells. The locations of the wells will be partially based on the results of the cone penetration tests. The work plan states that if cone penetrometer soundings meet early refusal and cannot consistently achieve depths of at least 20 feet below the groundwater table, the program will be reevaluated and may be abandoned. The work plan also states that the actual number of cone penetrometer soundings may be altered based on field measurements and observations.

General Findings

33. The technical reports required by this Order and the monitoring and reporting required by this Order and the attached Monitoring and Reporting Program No. R5-2005-0715 are necessary to determine and characterize the discharges of waste, including determining the horizontal and vertical extent of waste, the impact on groundwater, and the extent and degree of necessary cleanup and abatement to restore and enhance the waters of the state.

34. Pursuant to CWC section 13304, this Regional Board is entitled to, and may seek, reimbursement for all reasonable costs actually incurred by this Regional Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action required by this Order.

35. The issuance of this Order is an enforcement action taken by a regulatory agency and exempt from the provisions of the California Environmental Quality Act, pursuant to Title 14, California Code of Regulations, section 15321(a)(2).

36. The Discharger was informed of the intent to issue a cleanup and abatement order and was provided with an opportunity for a public hearing and an opportunity to submit its written views and recommendations on a draft of this Order. The Discharger submitted comments that were subsequently considered in the final terms of this Order.

37. Any person adversely affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with Title 23, California Code of Regulations, sections 2050-2068. The State Board Office of Chief Counsel must receive the petition within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/wqpetitions/index.html or will be provided upon request.

38. Failure to comply with the provisions of this Order may result in further enforcement action including, but not limited to, the imposition of Administrative Civil Liability pursuant to CWC sections 13268 and 13350.

IT IS HEREBY ORDERED that, pursuant to California Water Code sections 13267 and 13304, Baker Commodities, Inc., and its agents, successors, and assigns, shall comply with the following at the Hanford Hide Skinning and Hide Curing Facility:

1. **Abatement of Discharge.** To abate the effects of the leakage of hide skinning wastewater from the unlined lagoons and the further transport of brine waste in the soil column beneath the lagoons, the Discharger shall construct three new lined lagoons adjacent to the old lagoons and cease discharging to the old lagoons in accordance with the following time schedule:

   a. **By 15 March 2006**, the Discharger shall submit a detailed work plan, including plans and specifications, for the lined lagoon system proposed in its February 2003 RWD. The work plan shall include proposed vadose zone and groundwater monitoring networks to monitor the integrity of the lagoons once they are constructed. The groundwater monitoring network portion of the work plan must satisfy Attachment A, *Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports*, standards described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 74-81* (December 1981), and any more stringent standards adopted by a local agency pursuant to CWC section 13801. The work plan shall also include a time schedule for construction of the lined lagoons and groundwater monitoring network that ensures completion no later than **30 September 2006**.

   b. **By 15 March 2006**, concurrent with submittal of the work plan required by Task 1.a, the Discharger shall submit a detailed and comprehensive quality assurance/quality control (QA/QC) plan to insure that the lagoons are constructed in accordance with the plans and specifications. The QA/QC plan shall be prepared in accordance with "MQC/MQA and CQC/CQA of Waste Containment Liner and Cover Systems" (EPA/600/R-93/182, Technical Resource Document, 2nd Edition, 2005), and shall include provisions for conducting an electrical leak location survey (ELLS).

   c. **Within 30 days** of completion of the construction of the lined lagoons, the Discharger shall submit a construction certification report for that activity. The certification report shall include construction record drawings and a construction QA/QC report with a written summary of the QA/QC program and all test results (including results of the ELLS), field notes, and the certification, seal, and signature of appropriate registered individual(s), stating that the construction was completed in accordance with plans and specifications.

   d. **Within 7 days** following written notification from the Executive Officer that Task 1.c is complete, the Discharger shall cease discharge to the three unlined lagoons.

2. **Soil and groundwater investigation tasks.** The Discharger shall perform an iterative soil and groundwater investigation in accordance with Resolution 92-49 until the horizontal and vertical extent of impacted soil and groundwater from the discharge of hide skinning and brine waste from the Facility's three unlined lagoons is defined.

By 31 December 2005, the Discharger shall submit the results of the investigation described by Finding 32. The submittal shall include a survey of existing wells within a radius ½ mile from the Facility's property, including well construction details when available. Prior to making any significant changes to the work plan, including reducing the original number of proposed cone penetration tests or groundwater monitoring wells, the Discharger shall notify Regional Board staff. If appropriate, Regional Board staff may verbally approve such changes.

Based on a review of technical reports including ongoing groundwater monitoring, the Executive Officer may require and specify deadlines for timely submittal of additional technical reports, work plans, and time schedules until he determines that the horizontal and vertical extent of impacted soil and groundwater are adequately defined and sufficient to provide a basis for decisions regarding clean up and abatement actions required by this Order. Following review of all the technical information submitted pursuant to this task, the Executive Officer will determine which clean up and abatement actions in the following tasks are required. All directives of the Executive Officer pursuant to CWC section 13267 for additional investigation of soil and groundwater shall be considered part of this CAO.

3. **Proposal and selection of cleanup and abatement actions task.** Following completion of Task 2, the Discharger shall evaluate all potentially feasible cleanup and abatement actions and propose treatment and control alternatives that effectively mitigate impacted soil and groundwater. **Within 120 days** of written notification from the Executive Officer that Task 2 is complete, the Discharger shall submit a technical report consistent with Resolution 92-49 and Title 27 that describes and evaluates all alternative projects considered for cleanup and abatement and that proposes effective cleanup and abatement alternatives for both soil and groundwater and for closure of the unlined lagoons. The evaluation shall include a detailed analysis of each considered treatment (e.g., pump and treat) or control alternative (e.g., impermeable cap or clean-closure of the unlined lagoons) and describe the rationale used to evaluate and rank the alternatives.

4. **Implementation of cleanup and abatement action task.** Following written approval of completion of Task 3 by the Executive Officer, the Discharger shall implement the approved alternatives in a timely manner.

   a. **Within 30 days** of written notification from the Executive Officer of satisfactory completion of Task 3, the Discharger shall submit a work plan and time schedule to implement any approved treatment alternatives and control alternatives.

   b. Once operational, any treatment and control measures shall continue uninterrupted except for necessary maintenance as detailed in an O&M manual approved by the Executive Officer.

5. **Oversight Charges.** As directed by invoice, the Discharger shall reimburse the Regional Board in a timely manner for reasonable costs associated with staff oversight of actions taken in response to this Order.

6. **Technical Reports.** All technical reports required herein are subject to Executive Officer written approval as to adequacy. The Discharger shall provide only technical reports that are:

   a. Prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, California Code of Regulations, sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

   b. Submitted with a statement acknowledging that the Discharger is responsible for the information in reports submitted on its behalf. The statement shall be signed by a principal executive officer of at least the level of senior vice-president (or his or her authorized representative) and include the following certification:

      "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

   c. Submitted in duplicate. When requested by Regional Board staff, technical and supporting data shall be submitted in electronic format to facilitate effective and efficient review of technical submittals.

7. **Monitoring and Reporting Program.** The Discharger shall comply with Monitoring and Reporting Program No. R5-2005-0715, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

8. **Directives and Determinations by the Executive Officer.** The Discharger shall make a good faith effort to fulfill all terms of this Order. If, for any reason, the Discharger fails to comply with this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or issue a complaint for administrative civil liability. Discharger performance pursuant to this Order shall be evaluated by, and terms of the Order may be extended or amended as directed by, the Executive Officer as follows:

   a. Based on the findings of the reports submitted as directed by this Order, the Executive Officer may require and assign compliance dates for additional technical reports pursuant to CWC sections 13304 and 13267 as necessary to investigate and cleanup and abate the discharge of waste. All directives of the Executive Officer pursuant to CWC section 13304 and 13267 shall be considered part of this Order.

   b. If, for any reason, the Discharger is unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule

submitted pursuant to this Order and approved by the Executive Officer, the Discharger may request, in writing, an extension of the due date specified. The extension request shall include justification for the delay. Any extension shall be at the discretion of the Executive Officer.

This Order is effective upon the date of signature.

for THOMAS R. PINKOS, Executive Officer

10-21-05
(Date)

Order Attachments:

Monitoring and Reporting Program

Attachment A, *Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports*

SJK/DKP 10/21/2005

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2005-0715
FOR
BAKER COMMODITIES, INC.
HANFORD HIDE SKINNING AND HIDE CURING FACILITY
KINGS COUNTY

This Monitoring and Reporting Program (MRP) is required pursuant to California Water Code section 13267. The Discharger shall submit within **30 days** following issuance of this MRP a flow schematic identifying sample locations and irrigation blocks specified in this MRP.

The Discharger shall not implement any changes to this MRP unless and until the Regional Board adopts or the Executive Officer issues a revised MRP. Changes to sample locations shall be established with concurrence of Regional Board's staff, and a description of the revised stations shall be submitted to the Regional Board and, following approval of the Executive Officer, attached by the Discharger to its copy of this Order. All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with Standard Provisions, Provisions for Monitoring. The results of analyses performed in accordance with specified test procedures, taken more frequently than required at the locations specified in this MRP, shall be reported to the Regional Board and used in determining compliance.

Field test instruments (such as pH) may be used provided that:

1. the operator is trained in the proper use of the instrument;
2. the instruments are calibrated prior to each use;
3. instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. field calibration reports are submitted as described in the "Reporting" section of this MRP.

Each laboratory report shall clearly identify the following:

1. analytical method;
2. measured value;
3. units;
4. what constituent a value is reported as;
5. method detection limit (MDL);
6. reporting limit (RL) (i.e., a practical quantitation limit or PQL); and
7. documentation of cation/anion balance for general minerals analysis of supply water and groundwater samples.

All laboratory results shall be reported down to the MDL. Non-detected results shall be reported as less than the MDL (<MDL). Results above the MDL, but below the concentration of the lowest calibration standard for multipoint calibration methods or below the reporting limit for other methods shall be flagged as estimated.

Analytical procedures shall comply with the methods and holding times specified in: *Methods for Chemical Analysis of Water and Wastes* (EPA-600/4-79-020, 1983); Methods *for Determination of Inorganic Substance in Environmental Samples* (EPA/600/R-93/100, 1993); Standard *Methods for the Examination of Water and Wastewater, 20th Edition* (WEF, APHA, AWWA); and *Soil, Plant and Water Reference Methods for the Western Region, 2003,* 2nd Edition, 2003 (hereafter Western Region Methods).

GROUNDWATER MONITORING

Prior to collecting samples and after measuring the water level, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 volumes of the standing water within the well casing and screen; or additionally the filter pack pore volume.

Samples shall be collected from approved monitoring wells and analyzed for the following constituents at the following frequency:

Constituent/Parameter	Units	Type of Sample	Frequency
Depth to groundwater	feet, to the nearest 0.01 foot	Measured	Semi-annualy[1]
Groundwater elevation	feet above mean sea level, to the nearest 0.01 foot	Calculated	Semi-annualy[1]
EC	µmhos/cm	Grab	Semi-annualy[1]
pH	pH Units	Grab	Semi-annualy[1]
TDS	mg/L	Grab	Semi-annualy[1]
Sodium	mg/L	Grab	Semi-annualy[1]
Chloride	mg/L	Grab	Semi-annualy[1]
Nitrate (as NO_3-N)	mg/L	Grab	Semi-annualy[1]
General Minerals[2]	mg/L	Grab	Annually[3]

[1] April and October
[2] General Minerals as referred to in this program shall include the constituents in the General Minerals Analyte List presented below
[3] October

General Minerals Analyte List [1,2]

Alkalinity (as $CaCO_3$)	pH
Bicarbonate (as $CaCO_3$)	Potassium
Calcium	Sodium
Carbonate (as $CaCO_3$)	Specific Electrical Conductivity (EC)
Chloride	Sulfate
Hardness (as $CaCO_3$)	Total Dissolved Solids (TDS)
Magnesium	

[1] General Minerals analyte lists may vary depending on the laboratory, but shall include at least the above analytes and properties. An anion cation balance shall accompany results.

[2] With the exception of effluent samples, samples placed in a bottle containing an acid preservative shall first be filtered through a 0.45 µm nominal pore size filter. If field filtering is not feasible, samples shall be collected in unpreserved bottles and submitted to the laboratory within 24-hours with a request (on the chain-of-custody form) to immediately filter then preserve the sample.

Semi-annual groundwater monitoring reports shall contain the following:

1. A statement certifying when monitoring instruments and devices used in monitoring groundwater were last calibrated, including identification of who performed the calibration.
2. A summary of groundwater monitoring in a format (both printed and electronic) selected in concurrence with Regional Board staff, including .
3. Contour maps showing the gradient and direction of groundwater flow under/around the waste management unit, based upon water level elevations taken prior to the collection of the water quality data for that quarter. The contour map shall be constructed using groundwater surface elevations from the Facility's monitoring wells;
4. Graphs of the laboratory analytical data for samples taken from approved wells within at least the previous five calendar years (as data become available). Each such graph shall plot the concentration of one or more waste constituents specified below over time for a given monitoring well, at a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum, rather than plotting mean values. For any given constituent, the scale for the background plots shall be the same as that used to plot downgradient data. Separate graphs shall show hydrologic equipotential gradients and equal concentration gradients for constituents below selected in concurrence with Regional Board staff.

Groundwater Constituents to Evaluate

Electrical Conductivity	TDS
Sodium	Nitrate (as N)
Cloride	

PERIODIC ELECTRICAL LEAK LOCATION SURVEY

The Discharger shall conduct an electrical leak location survey in accordance with procedures set forth in its approved QA/QC plan (Task 1.c), both concurrent with construction of the lined lagoons and periodically thereafter, but **no less than once every five years.**

REPORTING

The Discharger shall report monitoring data and information as required in this MRP and as required in the Standard Provisions and Reporting Requirements. All reports submitted in response to this MRP shall comply with the signatory requirements in Standard Provisions, General Reporting Requirements B.3. Monitoring reports shall be submitted to the Regional Board quarterly and shall be submitted by **1st day of the second month following the quarter the samples were collected** (i.e., the 1st Quarter report is due by 1 March).

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly whether the Discharger complies with waste discharge requirements. If the Discharger monitors any waste constituent or parameter at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the discharge monitoring report.

The above monitoring and reporting program shall take effect on 1 November 2005.

for THOMAS R. PINKOS, Executive Officer

10-21-05
(Date)

SJK/DKP 10/21/2005