

1R - 1648

# WORKPLANS

DATE:

10-11-07



Highlander Environmental Corp.

Midland, Texas  
2007 OCT 22 PM 1 29

CERTIFIED MAIL

RETURN RECEIPT NO. 7004 2510 0001 1869 0811

(off  
CAP)

October 11, 2007

Mr. Larry Johnson  
Oil Conservation Division- District I  
1625 N. French Drive  
Hobbs, New Mexico 88240

RE: **INVESTIGATION & CHARACTERIZATION WORK PLAN, CELERO ENERGY II, LP, DRICKEY QUEEN UNIT SALTWATER PLANT #3, UNIT H, SECTION 16, T-14-S, R-31-E, CHAVES COUNTY, NEW MEXICO.**

Mr. Johnson:

Celero Energy II, LP (Celero) has retained Highlander Environmental Corp. (Highlander) to address potential environmental concerns at the above-referenced site. In response, Highlander presents the following Investigation and Characterization Plan (ICP) for assessment and closure of an open pit.

**BACKGROUND & PREVIOUS WORK**

Celero retained Highlander Environmental (Highlander) of Midland, Texas to investigate this site as part of a due diligence in an acquisition of property operated by Palisades Asset Holding Company, LLC (Palisades). This production was originally developed in the mid-1950's. The primary surface owner in this Unit is the State of New Mexico, with the exception of one section of fee ownership. The site is shown on Figures 1 and 2.

**Hydrology**

Chaves County is located in the southeastern corner of New Mexico. The area is located in the High Plains Valley section of the Great Plains physiographic province. Rocks of Quaternary, Tertiary, and Triassic age are exposed and contain the principal aquifers. The most prominent aquifer is the Ogallala formation, which underlies the Llano Estacado and forms outliers south of it. Below the Cenozoic rocks are sandstones and shales of the Dockum group of Late Triassic age, from which small quantities of water are obtained. No usable groundwater is obtained from rocks older than the Triassic.

The Ogallala formation consists chiefly of sediments deposited by streams that had their headwaters in the mountainous regions to the west and northwest. The Ogallala formation rests unconformably upon an erosional surface of the underlying Triassic and Cretaceous rocks. The Ogallala is made of beds and lenses of clay, silt, sand, and gravel. Caliche occurs as a secondary deposit in many places in the formation.

Uncontaminated water from the Ogallala formation is high in silica (49 to 73 ppm), and contains moderate concentrations of calcium and magnesium. The dissolved solids content is relatively low, being typically less than 1,100 ppm. Water wells east of Mescalero Ridge derive their water from the Ogallala. The reported depth to groundwater in this area ranges from 100' to 200'. Water wells west of Mescalero Ridge derive water from the Triassic Dockum or Quaternary alluvium. No reported depths to groundwater were found for this area.

## **Regulatory**

Neither the New Mexico State Engineer's Office database nor the USGS database show any wells in Section 16, Township 14 South, Range 31 East. The New Mexico State Engineer's Office database does show wells in Sections 23 and 34, Township 14S, Range 31E, with reported depths to water from 260' to 275'. This site is located west of Mescalero Ridge, and any groundwater would be derived from the Triassic Dockum or Quaternary Alluvium. A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

### **Task 1 - Dewater Pit**

The DQU Saltwater Plant #3 pit is currently being dewatered. It appears that there is no liner in this pit. The residual sludge and tank bottom materials will be removed. The fluids will be placed into an existing SWD system or taken to disposal, while the sludge and tank bottom materials will be disposed of at the Gandy-Marley, Inc. landfill site in Lovington, New Mexico.

### **Task 2 - Evaluate Concentrations of Constituents of Concern in Soil**

Upon completion of the removal of the fluids and sludge, the underlying soils will be visually inspected for obvious signs of impact. Any soils excavated will be hauled to Gandy-Marley, Inc. for disposal. If necessary, the pit will be excavated to a point where the subsoil will support a soil boring rig that will be utilized to determine vertical extents. Additionally, soil boring may be performed around the perimeter of the pits to determine horizontal extents of impact. The information gathered will be evaluated to determine what, if any additional remediation/isolation techniques will be required at the Site. A copy of the NMOCD C-144 Pit Registration Form is attached.



### Task 3 – Groundwater Investigation/Closure Plan Preparation

Once Task 2 is completed, if the data indicates the potential for groundwater impact, one monitoring well will be installed at the site to evaluate groundwater. A pit closure plan will be presented to the NMOCD for this site.

Should you have any questions, please contact me at (432) 682-4559. Your prompt review of this submission is appreciated. Thank you for your attention to this matter.

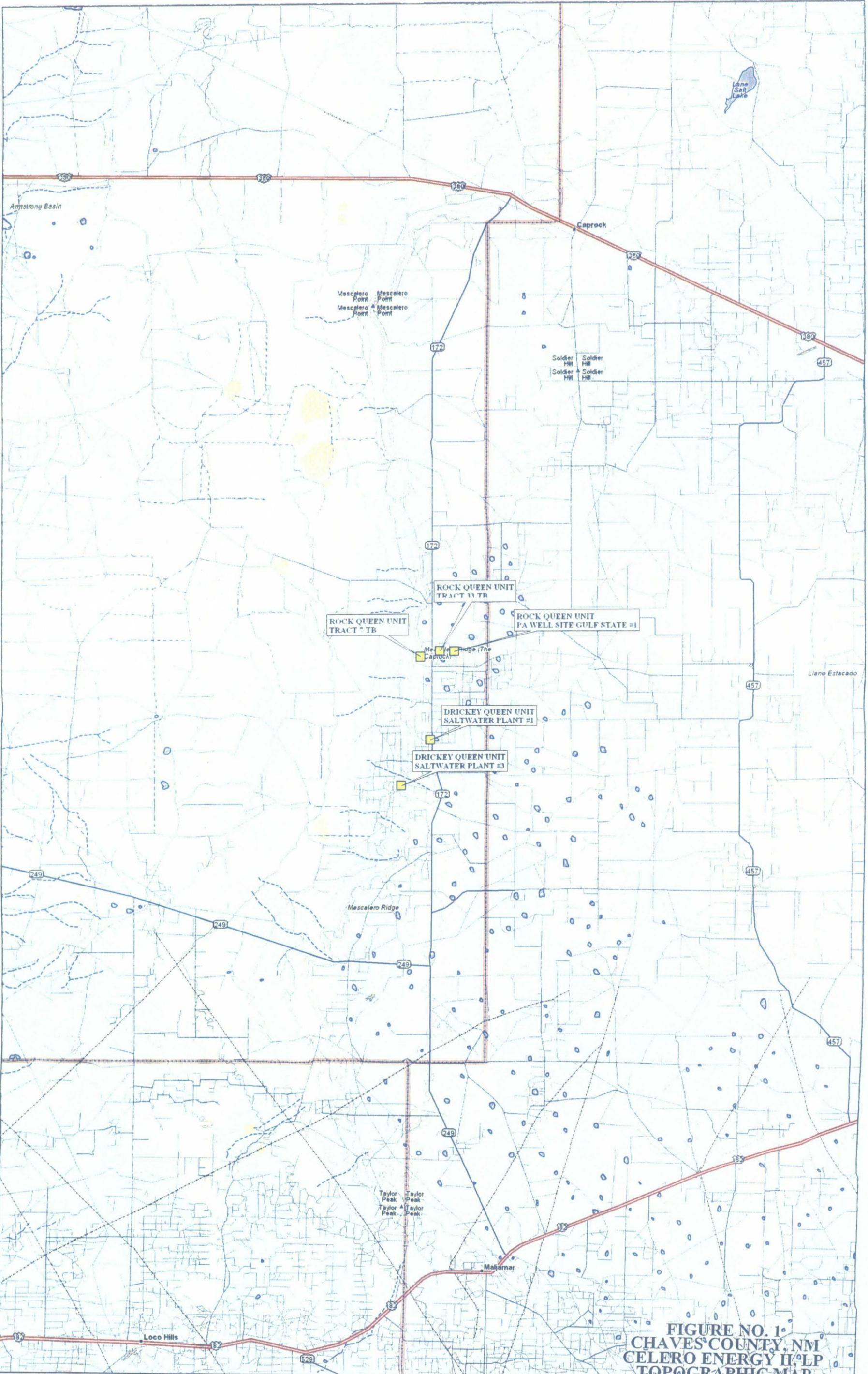
Highlander Environmental Corp.



Timothy M. Reed, P.G.  
Vice President

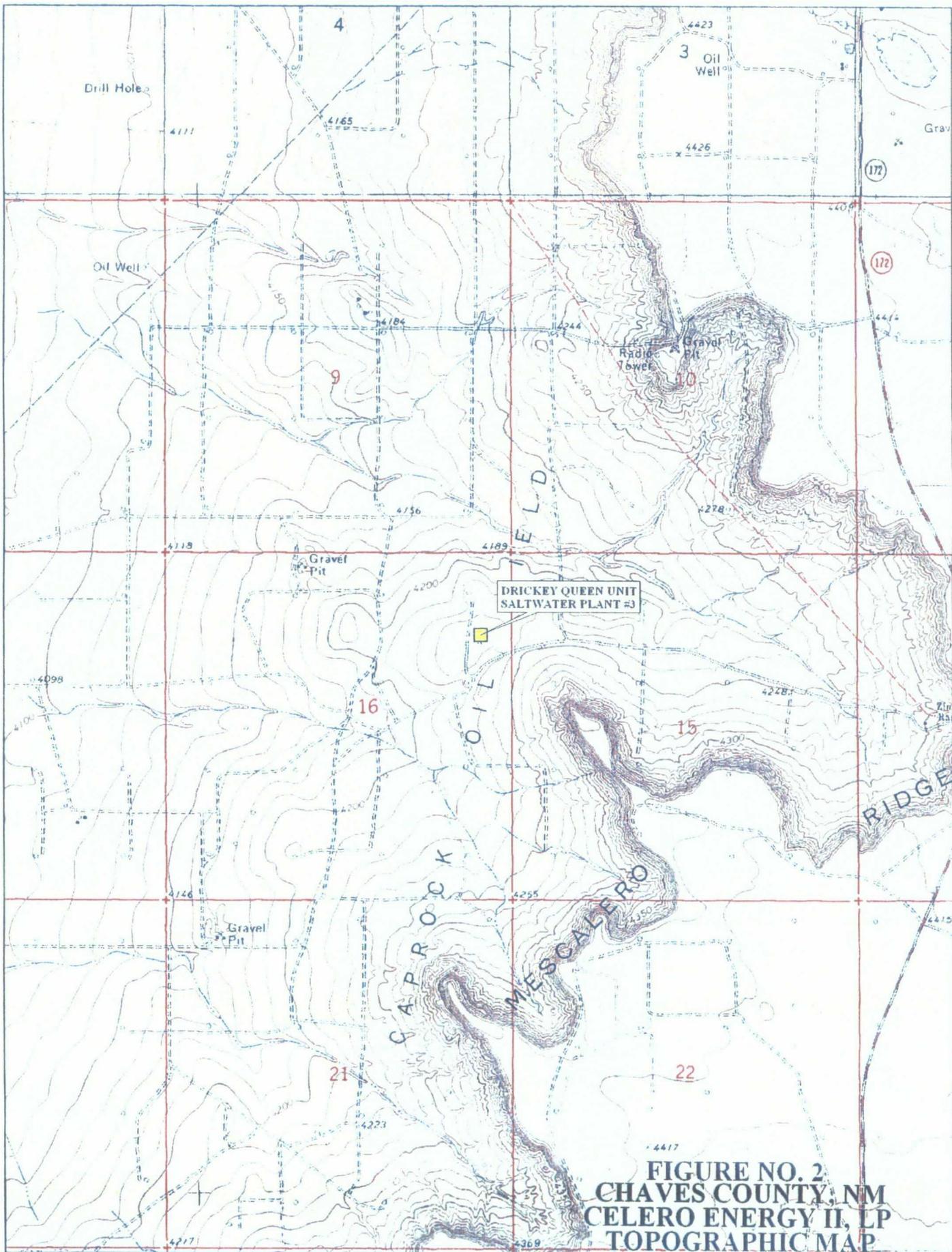
cc: Wayne Price – NMOCD, Santa Fe





**FIGURE NO. 1  
CHAVES COUNTY, NM  
CELERO ENERGY II, LP  
TOPOGRAPHIC MAP.**

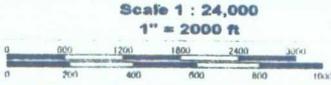




**FIGURE NO. 2  
CHAVES COUNTY, NM  
CELERO ENERGY II, LP  
TOPOGRAPHIC MAP**



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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

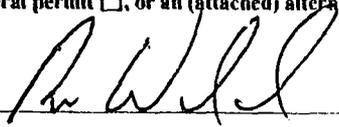
Is pit or below-grade tank covered by a "general plan"? Yes  No   
Type of action: Registration of a pit or below-grade tank  Closure of a pit or below-grade tank

Operator: Celero Energy II, LP		Telephone: (432) 686-1883		e-mail address: bwoodard@celeroenergy.com	
Address: 400 West Illinois, Suite 1604, Midland, Texas 79701					
Facility or well name: Drickey Queen Unit Saltwater Plant # 3 API #: _____ U/L or Qtr/Qtr H Sec 16 T-14-S R-31-E					
County: Chaves		Latitude 33.13221 N		Longitude 103.80971 W	
NAD: 1927 <input checked="" type="checkbox"/> 1983 <input type="checkbox"/>					
Surface Owner: Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input checked="" type="checkbox"/> Indian <input type="checkbox"/>					
<b>Pit</b>			<b>Below-grade tank</b>		
Type: Drilling <input type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input checked="" type="checkbox"/>			Volume: _____ bbl Type of fluid: _____		
Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/>			Construction material: _____		
Liner type: None Thickness <b>Unknown</b> mil Clay <input type="checkbox"/>			Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not.		
Pit Volume 5,000 bbl					
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)			Less than 50 feet		(20 points)
			50 feet or more, but less than 100 feet		(10 points)
			100 feet or more		( 0 points) <b>0</b>
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)			Yes		(20 points)
			No		( 0 points) <b>0</b>
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)			Less than 200 feet		(20 points)
			200 feet or more, but less than 1000 feet		(10 points) <b>10</b>
			1000 feet or more		( 0 points)
<b>Ranking Score (Total Points)</b>					<b>10</b>

**If this is a pit closure:** (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite  offsite  If offsite, name of facility \_\_\_\_\_ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No  Yes  If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: This registration is for information purposes only. This pit was constructed in the 1960's and were inventoried, but never registered in 1997.  
This pit is out of service and a work plan for closure is being prepared.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit , or an (attached) alternative OCD-approved plan . See above

Date: 6-15-2007  
Printed Name/Title **Bruce Woodard, Engineer** Signature 

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:  
Printed Name/Title \_\_\_\_\_ Signature \_\_\_\_\_ Date: \_\_\_\_\_