

August 22, 2019

John M. Carver Vice President Safety & Environmental Compliance El Dorado Chemical Company P.O. Box 1373 Oklahoma City, Oklahoma 73101

RE: AFIN: 70-00040; CAO LIS 06-153; former permit no. 0177-W 2018 Annual Groundwater Report for El Dorado Chemical Company El Dorado, Union County

Dear Mr. Carver:

This letter is in response to the February 17, 2018 El Dorado Chemical Company (EDCC) 2017 Annual Ground Water Report (Report) with additional information submitted May 1 and 2, 2018 in accordance with Consent Administrative Order (CAO) LIS 06-153 Condition 4 and in accordance with letters regarding sampling requirements dated October 2005, June, 2007, September, 2009 and July, 2011. This report summarizes the groundwater sampling events conducted in March, May, and September of 2017.

The Department has reviewed the Report and agrees that the mid-gradient and down-gradient wells that were sampled during these sampling events do not appear to show significantly increasing contaminant trends. These data are generally similar or within the same order of magnitude as previously-collected background well data. Trends over time observed in these wells appear to be decreasing. The highest concentrations at the wells nearest the recovery wells have shown significantly increasing trends over time (approximately one order of magnitude more than the down gradient well values within the production area). This indicates that the recovery wells are controlling the production area ground water and keeping these contaminants from migrating out of the production area. However, some of the down-gradient wells have shown ammonia concentrations of greater than 0.55 mg/L (as listed in the Remedial Action Work Plan) as well as other contaminants above clean-up levels during sampling in recent years. Since groundwater flow is to the south-east, shutting off the recovery wells could likely result in the down-gradient movement of contaminants.

EDCC should continue operating the recovery wells and should continue the current sampling and analysis schedule in accordance with the conditions and requirements of the sampling protocol outlined in Consent Administrative Order (CAO) LIS 06-153 and the subsequent sampling requirement letters listed above.

Please note that in the event additional information becomes available, the Department reserves the right to change the monitoring requirements.

Please note that all EDCC's groundwater remediation reports should be sent to:

Linda Hanson, P. G. Office of Water Quality-Permits 5301 Northshore Drive North Little Rock, AR 72218-5317

Also please include the following information in the regards section of your report cover letters and any other correspondence to the Office of Water Quality:

AFIN: 70-00040; CAO LIS 06-153; permit no. 0177-W

This information helps the Department track documents and expedite responses to submittals.

Thank you for you cooperation in this matter. If you have any questions, please contact Ms. Hanson at (501) 682-0646 or by e-mail at <u>hanson@adeq.state.ar.us</u>.

Sincerely,

Caleb Osborne, Associate Director Office of Water Quality

CO:lh

ec: Greg Withrow, General Manager, EDCC, <u>gwithrow@edc-ark.com</u> Edward L. Pearson, Environmental Technician, EDCC, <u>epearson@edc-ark.com</u> Lauren Marcella, Project Geologist, EMS, Inc., <u>lmarcella@env-mgt.com</u> Jamal Solaimanian, Ph.D., P.E., Engineer Supervisor Richard Healey, Enforcement Branch Manager File (CAO LIS 06-153; AFIN: 70-00040, former permit no. 0177-W)