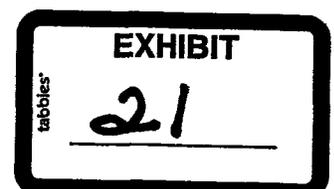


CEMVN-OD-SE

August 19, 2014

Memorandum for Record

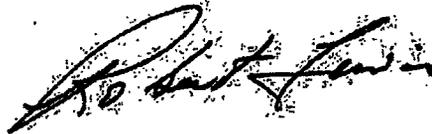
- 1. Subject:** Geological Review (GR) findings for the Helis Oil & Gas Company (Helis) application Corps file # MVN-2013-02952-ETT currently under review.
- 2. Proposed Site Location:** North of Interstate-12, east of LA Highway 1088, abutting the west side of Log Cabin Road, at Latitude: 30.38806, Longitude - 89.97917, in St. Tammany Parish, Louisiana.
- 3. Authority:** Section 404 of the Clean Water Act (33 U.S.C. 1344).
- 4. Basic Project Purpose:** Subsurface hydraulic fracturing of the Tuscaloosa Shale Play for exploration and future development of oil and gas.
- 5. Public Notice (PN):** A PN was issued on April 14, 2014, with two subsequent time extensions to the comment period. Comment period ended June 16, 2014.
- 6. PN Description of Work:** Clear, grade, excavate, and fill to construct a 10.55 acre drilling well pad to be used for subsurface hydraulic fracturing for the exploration and potential future extraction of oil and gas. As proposed the project would discharge approximately 28,953 cubic yards of materials into \pm 9.46 acres of wetlands. The applicant proposes to compensate for unavoidable wetland impacts that would result from this proposal by purchasing the appropriate credits from a Corps approved mitigation bank.
- 7. GR Meeting:** On July 29, 2014, at the request of the Corps of Engineers, New Orleans District (CEMVN) the Louisiana Geological Survey's (LGS) John Johnston facilitated a meeting for the purpose of discussing and assessing the Helis proposed project site, referenced above, as a viable exploratory and production site requiring the \pm 9.46 acres of direct to wetland impacts. In attendance were representatives from the Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Department of Environmental Quality (DEQ) and US Environmental Protection Agency (EPA via phone) along with representatives for Helis and CEMVN. Mr. Johnston analyzed the data presented by Helis at that meeting and determined (with agreement from Helis representatives) that the site had no more than a 50% chance of becoming a viable production site. Based on that finding the LGS recommended that Helis submit revised plans for a reduced footprint fill pad that would allow Helis to drill an exploratory vertical well for the purpose of collecting samples and data for further assessing the viability of the site for oil and gas production. The LDWF, DEQ, EPA and CEMVN all agreed with the LGS recommendation.



8. CEMVN 404 Assessment of Current Facts: CEMVN has determined that in light of the expert analysis and recommendation provided by the LGS that proceeding with a 404 review of the proposed project as a production site requiring ±9.46 acres of wetland impacts rather than an exploratory site requiring 3.2 acres of wetland fill would be speculative and not in accordance with the 404 (b) (1) Guidelines of the Clean Water ACT. Authorization of the full production fill pad would also not comply with the Corps Regulatory Guidance i.e. 33 CFR Parts 320-332. CEMVN determined the project purpose to be "installation of an exploratory/vertical well to determine viability of the project site as a gas and oil production site".

Status/Conclusion: In consideration of the GR findings CEMVN requested that the applicant submit revised plans for only an exploratory well with a maximum 3.2 acres of fill for a well pad as recommended by the LGS. To date revised plans have not been received by this office. Upon receipt of revised plans CEMVN will republish a PN with the revised plans and project purpose. The data and samples to be collected with the exploratory well will require a follow up GR with LGS, Helis, the other interested agencies and CEMVN in order to proceed with analysis of any further wetland impacts beyond the 3.2 acres for the exploratory well.

Prepared by:



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of MVN-2013-02952-ETT