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SUBSIDENCE SURVEY FOR TEXAS BRINE COMPANY, LLC IN THE BAYOU CORNE AREA

May 2013

Fenstermaker Job. No. 2139115.00C

In February of 2013 Texas Brine Company, LLC retained C. H. Fenstermaker & Associates, LLC to perform surveying services in the Bayou Corne area of the Napoleonville Salt Dome Complex. The first survey was performed in February of 2013. This is the third survey in a series to be performed over the next year, if needed.

A Subsidence Survey (Vertical) began on May 20, 2013. The same two Sokkia SDL 1X Digital Levels with 3 meter Invar rods Model BIS30A were used in this survey as in the previous survey. Level Loops began on GPS 1, an existing NGS-style monument. The starting elevation for the Subsidence Survey at monument GPS 1 is 5.906. This elevation was held on the original survey in February and for previous historical surveys.

In all, 37 Level Loops were run all closing within 0.01 of a foot. Raw level data was processed using Foresite DXM software and adjusted using NGS Standards in an Excel Spreadsheet. A total of 93 features were surveyed during this session. Swamp based InSAR Reflectors were not included in this survey as they are read by the onsite airboat personnel on a regular basis.

Several issues need to be explained with this Subsidence Survey session. On loop 13 LADOT 524 nail was mislabeled as TP2. Several features in the Oxy Geismer 3 pad area were destroyed or marked off limits, TBM 30, TBC No. 2 Relief Well and ORW 12 Relief Well. On Monument BM 5, a datum point has been added that was not present on the past surveys. Relief Well No. 1 was being worked on during this survey. Three additional wells were surveyed in NSDORW 22, 23 and 24 were included in this survey.

Individual level runs can be found in Appendix A document entitled "Digital Level Adjustment Report May 2013".

A summary of final elevation data and a comparison to the previous survey in February and March of 2013 can be found in Appendix B in a document entitled "Vertical Survey of Wells, Monuments, LADOTD Nails, Geoprobe Wells and InSAR Reflectors May 2013"

A static survey was completed on three existing NGS Style monuments GPS 1, GPS 3 and GPS 4. In this survey a Trimble GPS receiver was set up over each monument on a 2 meter fixed height tripod. Data was logged for six to ten hours. The raw data was sent to the NGS OPUS website for processing of horizontal and vertical positions. A summary of the static logging sessions can be found in Appendix C entitled "OPUS Solution Report May 2013 Bayou Corne".

A follow up survey is scheduled for July of 2013.