



Final Report

Contract number: MS12073

EL TORO CNG INFRASTRUCTURE PROJECT

LAKE FOREST, CALIFORNIA

Titan NGV Fueling

August 24<sup>th</sup>, 2015

Prepared for the Mobile Source Air Pollution Review Committee (MSRC)

### Acknowledgments:

Titan NGV Fueling extends its thanks and appreciation to the following organizations for their efforts and contributions access of the El Toro CNG fueling infrastructure project completed in Lake Forest California:

- Mobile source air pollution review committee (MSRC) & and representatives from the South Coast air quality management District (SCAQMD)
- KPRS for construction and technical expertise
- Galileo Corporation for engineering and equipment expertise
- Infinite Group for design and engineering work

This report is submitted in fulfillment of grant requirements MS12073 and El Toro CNG Infrastructure Project by Titan NGV Fueling under the partial sponsorship of the mobile source air pollution reduction review committee (MSRC). Work was completed as of January 2015 for the Lake Forest CA location.

### Disclaimer:

Statements and conclusions in this report are those of the contractor and not necessarily those of the mobile source air pollution reduction new committee (MSRC) or the South Coast air quality management District (SCAQMD). Mention of commercial products, their sources or their uses in connection with material reported is not to be construed as either an actual or implied endorsement of such products.

### Project Description & Work Performed:

Titan NGV Fueling is a developer, owner and operator of CNG & LNG fueling stations across the United States. Our goal is to help the nation's fleets utilize natural gas as a clean sustainable alternative to traditional petroleum fueling products. Titan NGV Fueling has worked with many government entities, trade and professional groups to effectively deploy natural gas fueling solutions for the transportation industry. Titan NGV Fueling was awarded funds under the alternative structure grant program for the construction of the El Toro natural gas refueling station in Lake Forest California this report will focus on the successful completion of the El Toro CNG fueling station in Lake Forest California.

The Titan NGV Fueling station at 24201 El Toro Rd., Lake Forest California was completed and operational in January 2015. Project planning and implementation phase focused on infrastructure drawings, permits and design prior to the construction start date of April 2014. Installation of the fueling equipment included CNG dispensers, fuel station controls, card readers, computers system and CNG storage and compressors. The El Toro station has four CNG hoses at two dispensers.

Titan NGV Fueling develops, owns and operates this fuel station which is open to the public 24 hours a day 365 days a year. The development of this station at a previously abandoned property demonstrates Titan NGV Fueling commitment to the community and to clean air by providing the public with the ability to easily and conveniently refuel their natural gas vehicles. Commuter and fleet customers alike have stated that they are very happy the station is now open as there were no stations near by.

Titan NGV Fueling's policies, processes and procedures ensure that the natural gas facility has met rigorous industry and government safety standards. With our vendors, Galileo and KPRS, these areas were reiterated and addressed in the planning and design phase. Once open and operational Titan NGV Fueling held a grand opening on February 12<sup>th</sup> 2015 to celebrate the station's completion. City officials, representatives from MSRC and the California Energy Commission as well as many of the construction and design partners attended the event. In addition many natural gas vehicle owners and operators attended as well as the Orange County register, which sent a reporter to cover the event. The completion of the station encourages the community and local businesses to continue to invest in using natural gas as a petroleum alternative fuel.

#### Problems Encountered:

Planning, design, construction, operation and marketing of any new technologically advanced facility with integrated information technology systems can be successful but not without their learning experiences. The El Toro Station has had a few problems, which have been resolved. For example, the integrated dispenser credit card readers require a special code from the vendor to be loaded into the card reader in order for it to accept debit cards. The process to upgrade the card readers took several weeks to recognize, as it was an oversight. Once identified the card readers were upgraded to allow people to use debit cards. Also, systems integration issues as well as the equipment break-in period took longer than expected. Each time a problem was encountered a root analysis was performed to ensure the solution would be a long-term correction. The ongoing operation and maintenance of the filling station is now smooth but continues to be a source of learning as new minor problems present themselves and are subsequently resolved.

#### Emissions benefits:

At full implementation this project continues to reduce emissions and enhance air quality in the Southern California area. Since opening the El Toro location has contributed to the reduction of over 82 metric tons of CO<sub>2</sub> emissions by displacing diesel and gasoline with domestically produced low carbon natural gas. There has been over 37,400 GGE's of CNG dispensed at the El Toro station since opening in January 2015. Results of this dedicated retail station project are leading the way to a

cleaner energy future. Titan NGV Fueling is an advocate and supporter of using natural gas in commuter, light and heavy-duty equipment. Titan NGV Fueling is promoting the use of domestic fuel sources as well as educating users on benefits of CNG and supplying the technology to make access to CNG a reality for all potential users. Titan NGV Fueling knows that clean-air is essential to the preservation of our communities, environment and future generations. Titan NGV Fueling efforts are committed to supporting the goals of sustainable development, and if objection prevention.

Photographs and Outreach:

24201 El Toro Rd, Lake Forest CA 92630



Site prior to construction



Dispenser with MSRC sponsor information



Press Releases & Supporting Documents:

<http://www.oregister.com/articles/gas-651609-natural-station.html>

[http://www.cleantransportationfunding.org/media\\_center/newsletter\\_articles/view/firstcng-opens-the-first-of-what-it-hopes-will-be-many-titan-cng-stations-i](http://www.cleantransportationfunding.org/media_center/newsletter_articles/view/firstcng-opens-the-first-of-what-it-hopes-will-be-many-titan-cng-stations-i)

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<http://www.galileoar.com/en/news/titan-ngv-fueling-installed-a-gigabox-cng-compressor-at-its-new-station/72/>