

APPENDIX II-D

HEALTH RISK ASSESSMENT

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HEALTH RISK ASSESSMENT FOR THE ENVIRONMENTAL IMPACT REPORT

FOR THE

SHELL CARSON FACILITY ETHANOL (E10) PROJECT

CARSON, CALIFORNIA

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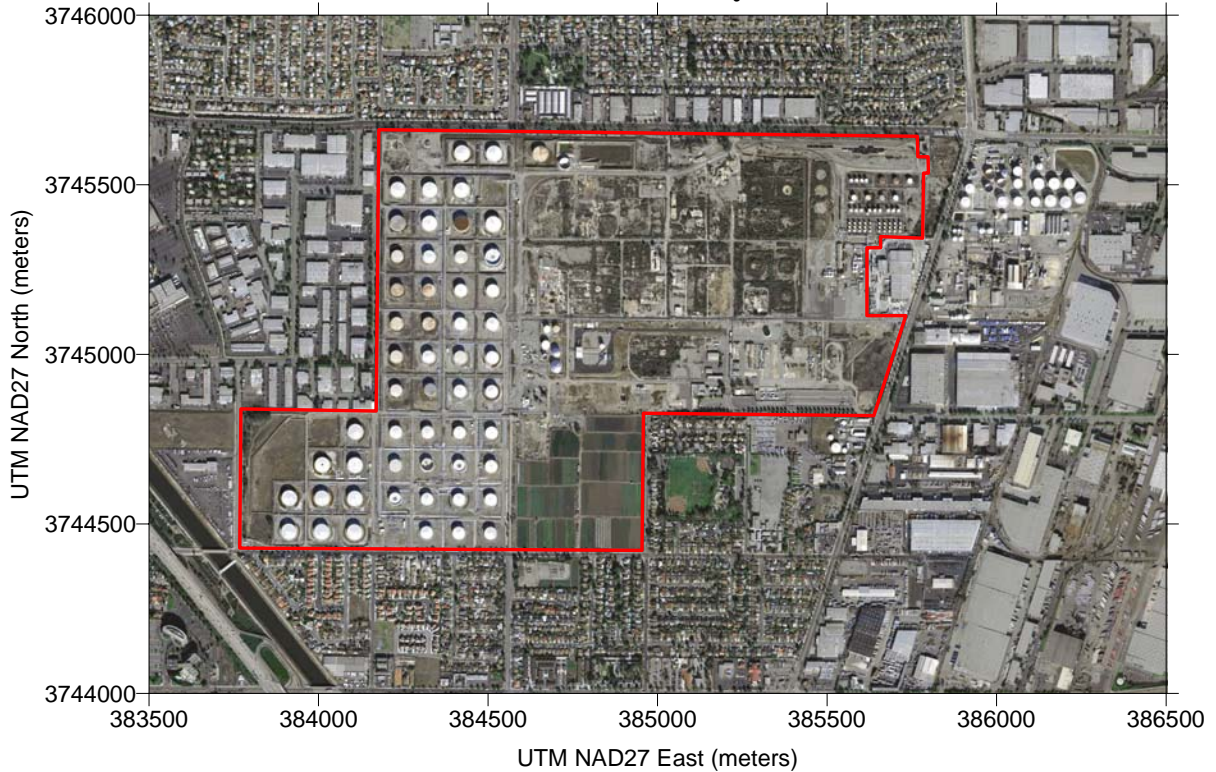
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- Attachment A Stationary Source Toxic Emissions Calculations
- Attachment B Truck Emissions Calculations
- Attachment C Truck Travel Volume Source Parameters
- Attachment D Receptor Information
- Attachment E Air Dispersion Modeling Files
- Attachment F Health Risk Assessment Files

1.0 INTRODUCTION**1.1 PROJECT DESCRIPTION OVERVIEW**

The Shell Carson Facility Ethanol (E10) Project will occur at the Shell Oil Products US (Shell) Carson Distribution Facility, shown in Figure 1. The purpose of the proposed project is to increase the facility's capacity to deliver denatured ethanol by tanker trucks to the southern California market. The increase in denatured ethanol delivery capacity is in response to an increase in the amount of ethanol required to be blended into gasoline to comply with the 2007 amendments to the California Air Resources Board (CARB) Phase 3 Reformulated Gasoline (RFG) requirements. The proposed project includes the following changes to the Carson Distribution Facility: 1) increase the ethanol throughput at an existing two-lane tanker truck loading rack; 2) convert up to four existing storage tanks from gasoline to ethanol service; 3) install one new ethanol tanker truck loading lane and associated ethanol loading rack; 4) expand the existing ethanol loading rack operations building; and 5) install one new gasoline storage tank to replace gasoline storage capacity that will be transferred to ethanol service.

Figure 1
Shell Carson Facility



1.2 PURPOSE OF ANALYSES

This Health Risk Assessment (HRA) was conducted to support the Environmental Impact Report (EIR) of the proposed project as required by the California Environmental Quality Act (CEQA). The HRA evaluates the risk associated with toxic air contaminant (TAC) emissions from all sources of the proposed project to determine if the project has the potential to produce significant human health risks. The approach used in this analysis is described later in this report and is based on written SCAQMD guidelines (SCAQMD 2003, 2005, 2009a) and discussions with SCAQMD staff.

2.0 BACKGROUND

2.1 HEALTH EFFECTS

2.1.1 Cancer Risk

Cancer risk is defined as the lifetime probability (chance) of developing cancer from exposure to a carcinogen, typically expressed as chances per million. Exposure to cancer-causing substances can be through direct inhalation or other pathway. The cancer risk associated with inhalation of a carcinogen can be estimated by multiplying the inhalation dose in units of milligram per kilogram-day (mg/kg-day) by an inhalation cancer potency factor $[(\text{mg}/\text{kg}/\text{day})^{-1}]$. Additional discussion of cancer risk calculations is provided in Sections 3.3 and 4.1.

For particulate-bound pollutants, exposure may be possible from indirect environmental pathways (non-inhalation pathways), such as deposition on the soil, followed by exposure through soil ingestion or absorption of the pollutant from soil adhered to the skin. Other ingestion pathways may be possible such as ingestion of crops grown in soil potentially affected by deposited air pollutants and transmittal of a dose to an infant by breast milk due to the mother's cumulative exposure. Non-inhalation cancer risk is calculated from cancer toxicity factors and exposure assumptions.

2.1.2 Non-cancer Risk

Non-cancer health risk refers to both acute (short-term) and chronic (long-term) adverse health effects other than cancer that may be associated with exposure to air toxics. The commonly employed regulatory metric for assessing noncancer effects is the hazard index (HI), the ratio of the estimated exposure level of an air toxic compound to a scientifically derived reference exposure level (REL) for the same compound. RELs generally represent the highest exposure level where no adverse effect has been observed or the lowest exposure level where the onset of an adverse effect has been observed, with the inclusion of a safety factor ranging from 10 to 1000, depending on the source and quality of the scientific data.

If the reported concentration or dose of a given chemical is less than its REL, then the hazard index will be less than 1.0. When more than one chemical is considered, it is assumed that the effects are additive provided the associated chemicals are expected to have an adverse impact on the same target organ system (respiratory system, liver, etc). Thus, chemical-specific hazard indices are summed to arrive at a hazard index for each target organ. For any organ system, a total hazard index exceeding 1.0 indicates a potential health effect. Noncancer RELs are discussed in more detail in Sections 3.3 and 4.2.

2.2 SIGNIFICANCE CRITERIA

Risks for the entire project that are less than the following regulatory thresholds are considered to be not significant and, therefore, acceptable:

- Cancer risk equal to or less than 10 in one million
- Chronic hazard index equal to or less than 1
- Acute hazard index equal to or less than 1

These metrics are generally applied to the maximally exposed individual (MEI). There are separate MEIs for residential exposure (i.e., residential areas) and for worker exposure (i.e., off-site work places). Residential exposure is for a worst-case exposure duration of 24 hours a day, 350 days a year for 70 years. For off-site work places, the exposure is 8 hours a day, 245 days a year for 40 years.

3.0 RISK ASSESSMENT APPROACH

Except as noted, this health risk assessment was performed following the Office of Environmental Health Hazard Assessment (OEHHA), *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA, 2003). As recommended by this guideline, the California Air Resources Board (CARB) Hotspots Analysis and Reporting Program (HARP) (CARB, 2010) was used to perform a refined health risk assessment for the project's stationary sources. HARP includes two modules: a dispersion module and a risk module. The HARP dispersion module currently incorporates the U.S. EPA Industrial Source Complex - Short Term Version 3 (ISCST3) air dispersion model, and the HARP risk module implements the Risk Assessment Guidelines developed by OEHHA. However, as allowed by current SCAQMD modeling guidelines (SCAQMD 2009a), the AMS/EPA Regulatory Model (AERMOD, v11353) (U.S. EPA 2004, 2011) was used as the air dispersion model for this HRA. Further discussion of AERMOD is contained in Section 3.2.1.

Cancer risks for project-related mobile source emissions of diesel exhaust particulate matter (DPM) were determined using an approach consistent with SCAQMD guidance for projects that generate a large number of trips of diesel-fueled mobile sources to the facility (SCAQMD 2003, 2005). In this approach, AERMOD is used to calculate concentrations of PM from mobile source diesel exhaust, and the resulting DPM concentrations are used to calculate cancer risks at each receptor. Further discussion of DPM is contained in Section 3.2.1.2.

In general, risk assessment involves four steps:

1. Hazard identification
2. Exposure assessment
3. Dose-response assessment
4. Risk characterization

Hazard identification involves identifying the project's potential sources of toxic air contaminants; determining whether each TAC is a carcinogen or is associated with other types of adverse health effects; and quantifying TAC emissions. Exposure assessment includes air dispersion modeling; identification of exposure routes; and estimation of exposure levels (dose). Dose-response requires identifying the relationship between exposure to a pollutant and the incidence of an adverse health effect in exposed populations. Finally, risk characterization combines the hazard identification, exposure assessment, dose-response assessment to estimate total cancer and non-cancer risk. The details of these four steps are presented below.

3.1 HAZARD IDENTIFICATION/ EMISSIONS ASSESSMENT

3.1.1 Project Emission Sources

The following sources from the proposed project have been identified as having toxic air contaminant emissions that should be included in this HRA:

- Expanded ethanol loading operations
- Increased use of the existing thermal oxidizer emissions control system near the ethanol loading racks
- A new gasoline storage tank
- Fugitive components associated with the sources above
- Diesel exhaust PM emissions from additional heavy duty tanker trucks that will visit the facility

The emissions from these sources can occur 24 hours a day, 365 days a year. The TACs emitted by the project, and included in the analysis, are listed in Table 1. The table also indicates which TACs are evaluated for cancer risk and for chronic non-cancer and acute health effects.

**Table 1
TACs Included in the HRA**

TAC	CAS Number	Cancer	Chronic	Acute
Benzene	71432	√	√	√
Ethyl benzene	100414	√	√	√
Hexane	110543		√	
Methanol	67561		√	√
Naphthalene	91203	√	√	
Styrene	100425		√	√
Toluene	108883		√	√
Xylenes	1330207		√	√
Diesel exhaust particulate matter	9901	√	√	

None of the emitted TACs are required to be evaluated for non-inhalation pathway exposure. The project will also potentially emit cumene (CAS# 98828), cyclohexane (CAS# 110827), and 1,2,4-trimethylbenzene (CAS# 95636), but under current OEHHA guidelines, these TACs are not evaluated in HRAs.

The proposed project would generate an increase in truck trips to the facility. Specifically, on a daily basis, there will be an increase of up to 144 truck trips to the ethanol loading racks relative to baseline. On an average basis, however, there will be an increase of 113 trucks per

day. These trips are assumed to be made by heavy-heavy-duty diesel trucks (HHDT-DSL, diesel trucks with greater than 33,001 pounds gross vehicle weight). These trucks emit diesel exhaust particulate matter (DPM), a TAC with cancer and chronic non-cancer impacts.

SCAQMD policy recommends that an air quality analysis for a project in which a site is visited by heavy heavy-duty trucks include 15 minutes of idling time, generally comprising five minutes of idling before entering the facility and 10 minutes of idling onsite to account for the activity and any onsite idling that may occur immediately before or after the activity. However, Shell has established strictly enforced requirements prohibiting on-site idling. No on-site idling violations were observed in 2009 or 2010. Therefore, the analysis includes five minutes per visit of heavy heavy-duty truck idling at the entrance gate to the facility.

3.1.2 Emission Calculation Approach

The toxic emissions for the project-related sources were estimated using SCAQMD-approved methods. Emissions from the loading racks are based on the increase in product loading (in 1,000 gallons/yr, for example), a Best Available Control Technology (BACT) emission factor for volatile organic compounds (VOC, lbs/1,000 gallons), and the weight fractions of each TAC in the displaced vapors from the truck tanks. The captured fraction of these vapors are controlled to a high degree and emitted at the thermal oxidizer stack. A very small fraction of the displaced vapors area assumed to escape vapor control and to be released at the loading racks. It has been assumed that the tanks of all arriving trucks contain gasoline vapors, which is conservative because in reality many of the trucks will have been in ethanol service for the previous load. The emissions from the new tank were calculated using the EPA Tanks 4.0.9d program. The new storage tank is assumed to be in gasoline service to replace a gasoline tank that will be switched from gasoline service to ethanol service for the project. Emissions from additional fugitive components (valves, flanges, drains, etc) associated with the new tank were calculated based on an estimate of the number of components to be added, VOC emission factors (lbs/yr/component), and liquid weight fractions of each TAC. Details regarding the calculated emission rates for the above sources are presented in Attachment A.

The PM₁₀ emission rates for project diesel-fueled trucks were developed using CARB's EMFAC2007 emission factor model (CARB, 2007). The following parameters were selected in EMFAC2007 to generate the necessary emission rate:

- Heavy-heavy-duty diesel trucks (HHDT-DSL)
- Los Angeles County
- Annual Average
- Applicable traveling speeds:
 - 5 mph within the ethanol loading facility

- 15 mph on other Carson Terminal roads
- 30 mph on Wilmington Ave.
- 35 mph on Del Amo Blvd. and Alameda St.

As allowed by SCAQMD (2009b), the DPM emission factors were averaged over 70 years for residential exposure and over 40 years for worker exposure, with both periods beginning with 2012. This is realistic because for the foreseeable future, EMFAC2007 DPM emission factors decrease with each passing year because new engines with required advanced control technologies will enter the fleet and displace older, less-controlled engines. For example, the EMFAC2007 DPM emission factors for 2020 are substantially lower than for 2010. More details of the truck-related emission calculations are presented in Attachment B.

3.2 EXPOSURE ASSESSMENT

The exposure assessment includes air dispersion modeling, identification of exposure routes, and estimation of exposure levels. In a typical exposure assessment, the air dispersion modeling is used to estimate normalized ground level concentrations based on an emission rate of one gram per second (" χ/Q " or Chi over Q). Since ambient air concentration is directly related to emission rate, the χ/Q is multiplied by the emission rate (in gram/sec) to obtain a ground level concentration (GLC) resulting from each emitted TAC. Potential pathways of exposure to off-site locations of interest by each substance are identified (e.g., inhalation, dermal) and algorithms are used to estimate the concentration in other exposure media (soil, water, vegetation, and animals) as appropriate. The potential exposure levels at these locations are then estimated for each substance.

For this assessment, a hybrid modeling approach was used because mobile source DPM emissions are a major contributor to the total calculated cancer risk. This is discussed further below.

3.2.1 Air Dispersion

To estimate χ/Q , HARP incorporates the Industrial Source Complex Short Term (ISCST3) air dispersion model. However, AMS/EPA Regulatory Model (AERMOD, v11383), the air dispersion model currently preferred by U.S. EPA and approved by the SCAQMD, was used for this analysis. AERMOD, like ISCST3, simulates the atmospheric transport and dilution of emissions from project sources. This mathematical model estimates dilution of emissions by diffusion and turbulent mixing with ambient air as the emissions travel downwind from a source. AERMOD can predict the resulting concentrations at specified locations of interest (commonly referred to as receptors). The model is capable of predicting impacts from any combination of point, area, and volume sources in terrain ranging from flat to complex.

3.2.1.1 Using AERMOD with HARP

The California air toxics programs that require evaluation of potential health risks are not based on Federal regulations, and therefore there is no requirement to strictly follow U.S. EPA modeling guidelines. However, the SCAQMD has approved the use of AERMOD for all refined modeling analyses, including health risk assessments. In anticipation of the need to use AERMOD in performing HRA's, the ARB has developed interim "OnRamp" software to allow AERMOD results to be used as input to HARP. The general approach to using AERMOD within the HARP framework using OnRamp is as follows:

- Use HARP to create an ISCST3 input file, and a HARP .SRC file.
- Create an AERMOD input file from the ISCST3 input file.
- Run AERMOD using the AERMOD input file and an AERMOD-ready meteorological data file; this step involves creating a large output file containing each source's impact at each receptor in PLOTFILE format.
- Use OnRamp to convert the AERMOD PLOTFILE output file into a HARP ".XOQ" file.
- Using the resulting .XOQ file, run the HARP risk module as usual.

The .XOQ file created by the HARP-embedded ISCST3 model contains the maximum contributions from each source at each receptor for averaging periods of 1 hour, 4 hours, 6 hours, 7 hours, 30 days, and annual. For simplicity, and to ensure conservatism, the .XOQ file for the current analysis was created using the option within OnRamp to substitute the AERMOD-generated maximum 1-hour contribution for the 4-hour, 6-hour, and 7-hour contributions. Notably, because the HARP model currently uses the 1-hour concentration for all acute impacts, this assumption does not affect the calculation of any acute health effects.

3.2.1.2 Using AERMOD to Determine Cancer Risk of Mobile Diesel Exhaust Particulates

For projects that generate a large number of diesel vehicle trips, the SCAQMD guidelines allow a simplified approach to calculating the cancer risk of DPM emissions. That approach does not require the use of the HARP risk assessment module. The approach is as follows:

- Use the air dispersion model (i.e., AERMOD) with the mobile source diesel exhaust PM emission rates to determine the annual average concentrations of DPM at each modeled receptor, saving the results in a PLOTFILE format.
- Copy the annual average DPM concentration results from the PLOTFILE output into a spreadsheet.
- Within the spreadsheet, determine cancer risk by multiplying the DPM concentrations at each receptor by a Unit Risk Value for residential exposure.
- To calculate cancer risk for off-site workplace exposure, multiply the DPM concentrations at each receptor by a Unit Risk Value appropriate for worker exposure.

Refer to Section 4.1 for the Unit Risk Values used. Project total cancer risks are calculated by adding the stationary source cancer risks exported from HARP to the mobile cancer risks on a receptor by receptor basis.

3.2.1.3 Project Sources

The project stationary sources identified in Section 3.1.1 were modeled using the parameters summarized in Tables 2, 3a, and 3b. Table 2 shows the parameters for the lone stationary point source, the thermal oxidizer, and for an idling truck. Tables 3a and 3b summarize the parameters for the area sources representing emissions from fugitive components (associated with the expanded rack and the new tank), uncaptured vapors from empty truck tanks, and the new tank. Figure 2 shows the model representation of the project point and area sources.

Project-related tanker trucks will enter the Carson Terminal from Wilmington Avenue via the existing Dominguez Avenue entrance road and follow the route shown in Figure 3 to the ethanol terminal. The trucks will take the same basic route back to Wilmington Avenue. Truck emissions traveling along roads within the facility are represented in the modeling by a series of volume sources consistent with SCAQMD guidance. With the exception of the coordinates, the source parameters specified for the modeling are the same for each on-site volume source because the sources are equally spaced along the route. The parameters that are the same for each source are specified in Table 4. Because a large number of volume sources was required to cover the on-site routes, the full set of release parameters, including coordinates, are provided in Attachment C.

Off-site truck emissions were also included in the analyses for travel along affected streets from the facility to the freeway onramps. Trucks leaving the facility will travel north on Wilmington Avenue to Del Amo Blvd, and turn right (east). All trucks will stay on Del Amo Blvd. until they reach Alameda Street. At that point, the trucks will either:

- Continue on Del Amo Blvd to the I-710 freeway,
- Turn north on Alameda St. to the SR-91 freeway, or
- Turn south on Alameda to the I-405 freeway.

It has been assumed that an equal number of trucks will travel to each of the three listed freeways as described above. These routes are plotted in Figure 4, and the volume source parameters common to each source are shown in Table 4. The full set of release parameters for off-site truck travel sources, including coordinates, are provided in Attachment C.

3.2.1.4 Terrain Characterization

AERMOD requires that each source in the analysis be categorized as being in either a rural or an urban setting. SCAQMD guidelines specify that all sources be designated as urban.

The AERMOD terrain processor (AERMAP) was used to calculate terrain elevations for each source and receptor from U.S. Geological Survey (USGS) 7.5 minute Digital Elevation Model (DEM) data. DEM data sets used for this analysis represent the Torrance, Long Beach, Inglewood, and Southgate quadrangles.

Table 2
Project Point Source Release Parameters

Source Description	Stack ID	Stack Height		Stack Gas Exit Temperature		Stack Gas Exit Velocity		Stack Diameter		UTM Coordinates (NAD27) Easting/Northing	
		(ft)	(m)	(°F)	(K)	(ft/s)	(m/s)	(ft)	(m)	(m)	(m)
Thermal Oxidizer	FTHOX	35.0	10.7	1250.	949.8	13.5	4.1	5.7	1.7	384850	3745060
Idling Truck	ETIDLEIN	12.0	3.7	200	366	0.3	0.1	0.3	0.1	385511	3744921

Table 3-A
Project Rectangular Area Source Release Parameters

Source Description	Model ID	Height Above Ground		X Dimension/		Y Dimension		UTM Coordinates* (NAD27) Easting/ Northing	
		(ft)	(m)	(ft)	(m)	(ft)	(m)	(m)	(ft)
Expanded Loading Rack Fugitives**	ETHRACK	3.28	1.0	32.81	10.0	102.4	31.2	384775.7	3744989.1
Tank-related Fugitives	TK734FUG	3.28	1.0	65.62	20.0	65.62	20	384030.3	3744737.2

* Southwest corner of rectangle

**Includes uncaptured vapors from empty truck tanks

Table 3-B
Project Circular Area Source Release Parameters

Source Description	Model ID	Height Above Ground		Radius		UTM Coordinates* (NAD27) Easting/ Northing	
		(ft)	(m)	(ft)	(m)	(m)	(ft)
New Tank	TK734	51.5	15.7	80.0	24.4	384016.9	3744780.8

* Center of circle

Note: The new tank will be equipped with a 30-foot high aerodynamic dome that will sit on top of the tank shell. Since the emissions are released at the interface between the shell and the dome, an area source at the top of the shell was judged to be the most appropriate way to model these emissions.

Table 4
Release Parameters for Volume Sources Representing Trucks in Transit

Source Description	Height Above Ground*		Spacing Between Sources		Horizontal Dimension (σ_{y0})		Vertical Dimension (σ_{z0})*	
	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
On-site Trucks in Transit	13.62	4.15	24	7.32	11.16	3.4025	4.56	1.39
Off-site Trucks in Transit	13.62	4.15	48	14.63	22.33	6.805	4.56	1.39

* Height Above Ground and Vertical Dimension are from CARB (2000), Appendix VII.

Figure 2
Modeled Point and Area Source Locations

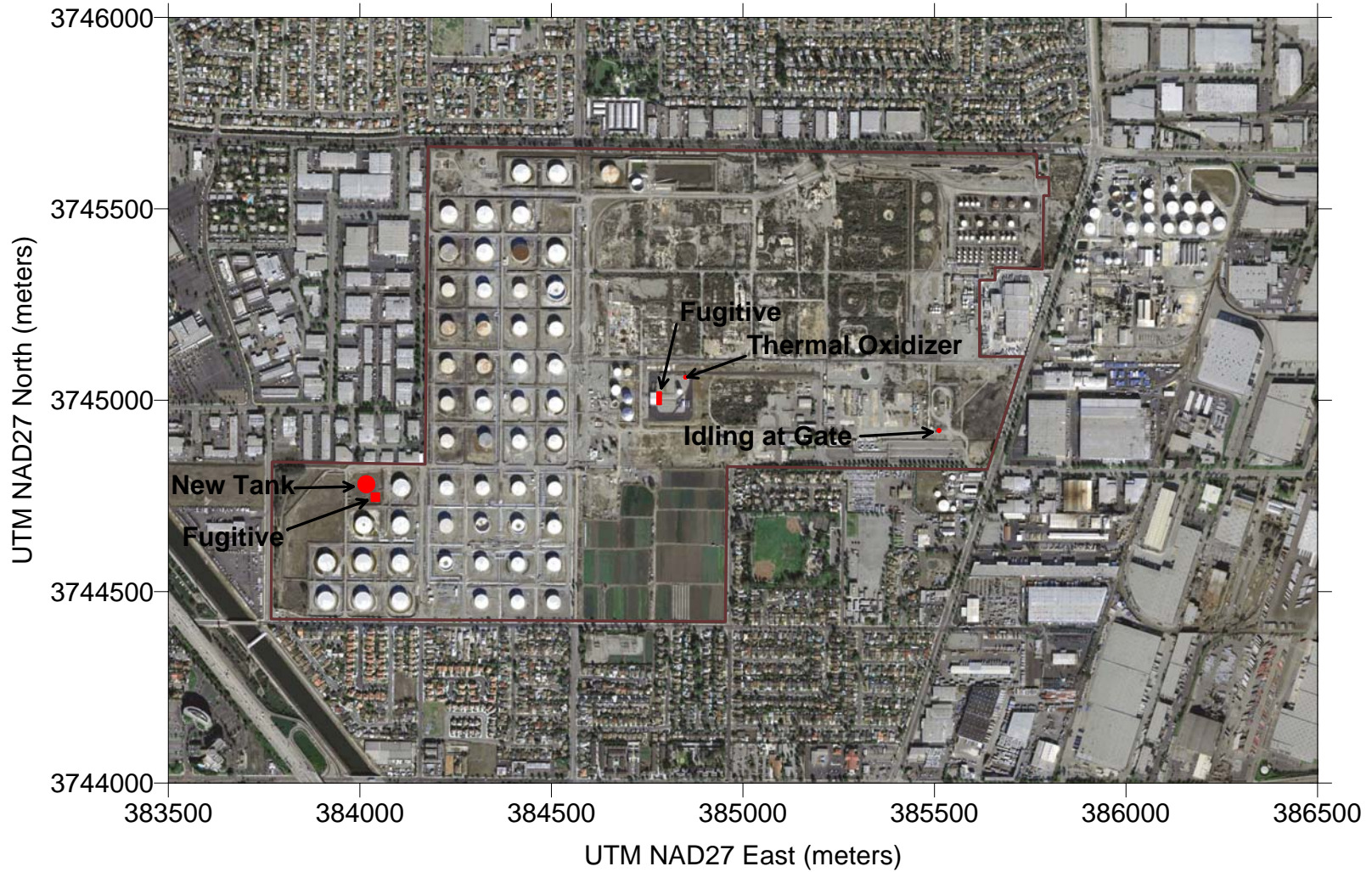


Figure 3
Modeled On-Site Volume Source Locations for Project Truck Emissions

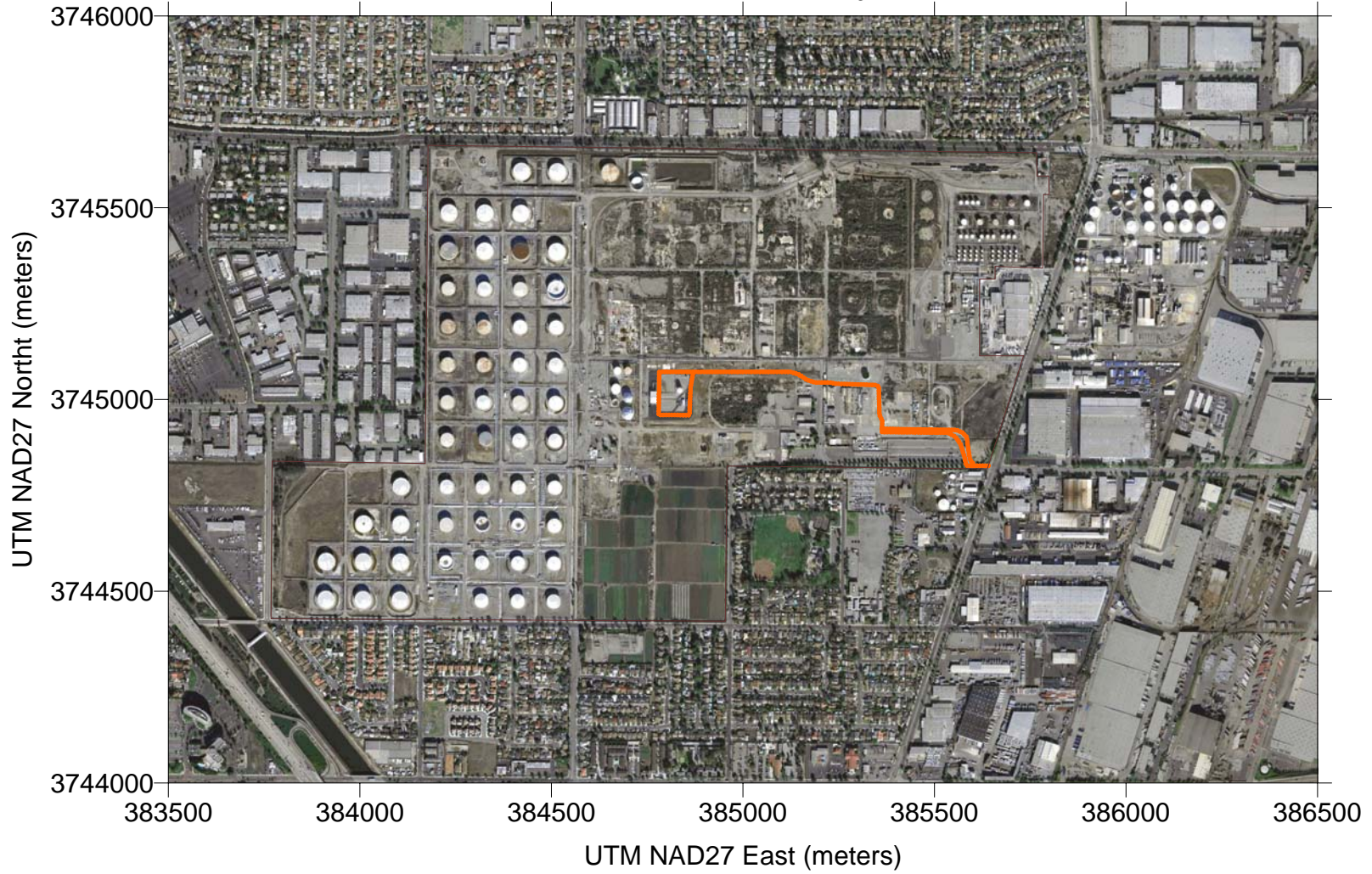
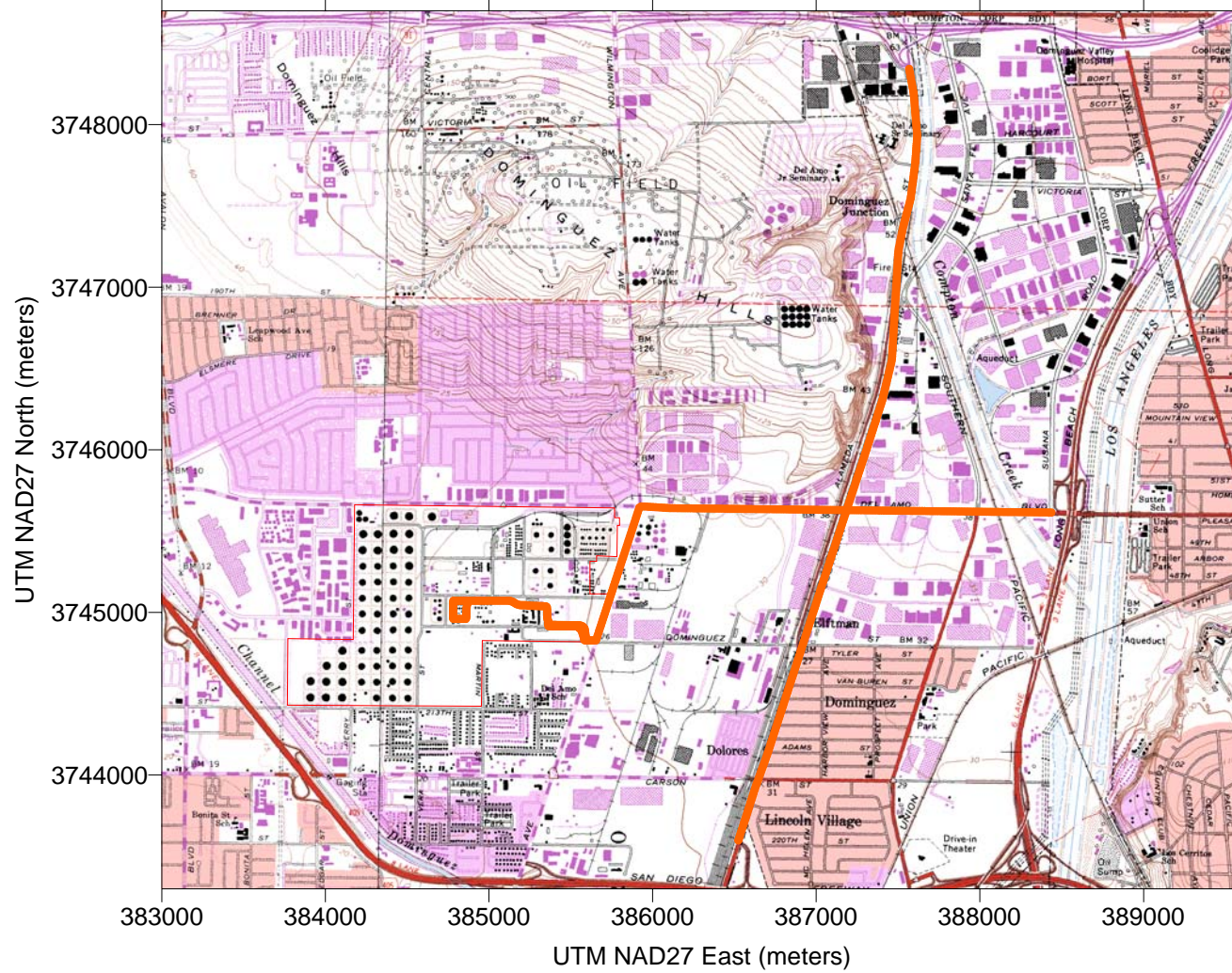


Figure 4
All Modeled Volume Sources for Project Truck Emissions



3.2.1.5 Building Downwash

When sources are located near or on buildings or structures, the dispersion of the plume can be influenced. The wake produced on the lee side of the structure can cause the plume to be pulled toward the ground near the structure resulting in higher concentrations. This is called building downwash. Stack heights that minimize downwash effects are designated good engineering practice (GEP) stack heights.

The effects of building downwash have been examined in this modeling analysis. AERMOD uses the EPA-approved Building Profile Input Program with Plume Rise Model Enhancements (BPIP-PRIME) to provide input for the downwash analysis. This program calculates the GEP formula stack heights and direction-specific building dimensions for input to the dispersion calculations. BPIP-PRIME requires the input of building coordinates and heights, and stack coordinates. The thermal oxidizer is the only project stationary point source. The building downwash effects for the thermal oxidizer stack were determined based on the dimensions of the nearby bladder tank.

3.2.1.6 Meteorological Data

The AERMOD-ready meteorological data set for years 2005-2007 for the SCAQMD's Long Beach monitoring station was used for the analysis. This data set was generated using AERMET, the AERMOD meteorological data preprocessor. The data were developed by SCAQMD and downloaded from their Meteorological Data webpage (SCAQMD, 2009c).

3.2.1.7 Receptors

Health risks such as cancer risk, chronic hazard index, and acute hazard index were calculated for a variety of receptor locations. Receptors of primary interest are those at residential locations, at sensitive population locations, and at off-site worker locations. However, in order to get a more complete picture of the patterns of exposure, and for consistency with the HARP software, concentrations and risk are also calculated along the fence line and at regularly spaced grid points throughout the modeling domain.

The receptors used to analyze project impacts include:

- Fence line receptors spaced 25 meters or less.
- 50 meter spaced receptors covering an area that extends 1.5 km in the east and west directions and 1 km in the north and south directions from a central location within the Shell property.
- Houses nearest to the facility in all directions and near the streets on which project trucks will travel between the freeways and the facility.
- Sensitive receptors nearest to the facility in all directions and near the streets on which trucks will travel between the freeways and the facility.

Sensitive receptor locations (schools, day care facilities, hospitals, and convalescent homes) were obtained via an internet search and the Google Earth database. The nearest sensitive receptors used in the project analysis are listed in Table 5.

Figure 5 shows the model representation of the fence line and grid receptors, and Figure 6 plots the residential and sensitive receptor locations nearest to project sources. A total of 3,161 receptors were included in the analysis. Coordinates of boundary, residential, and sensitive receptors are listed in Attachment D. Also listed in Attachment D are the grid-based receptors that are located within the Shell property; these on-site receptors are used solely for creating risk contours (see Section 5) and are not considered when assessing off-site impacts.

3.2.2 Exposure Pathways

A receptor can be hypothetically exposed to a substance through several different pathways. Generally, the primary environmental exposure pathway in a health risk assessment is direct inhalation of gaseous and particulate air pollutants. In addition, there is the potential for exposure via non-inhalation pathways due to the deposition of particulate pollutants in the environment. Potential non-inhalation exposure pathways include:

- Dermal (skin) absorption
- Soil ingestion
- Mother's milk
- Fish ingestion
- Home grown produce ingestion
- Pasture ingestion
- Drinking water ingestion
- Pigs, chickens, and/or eggs ingestion

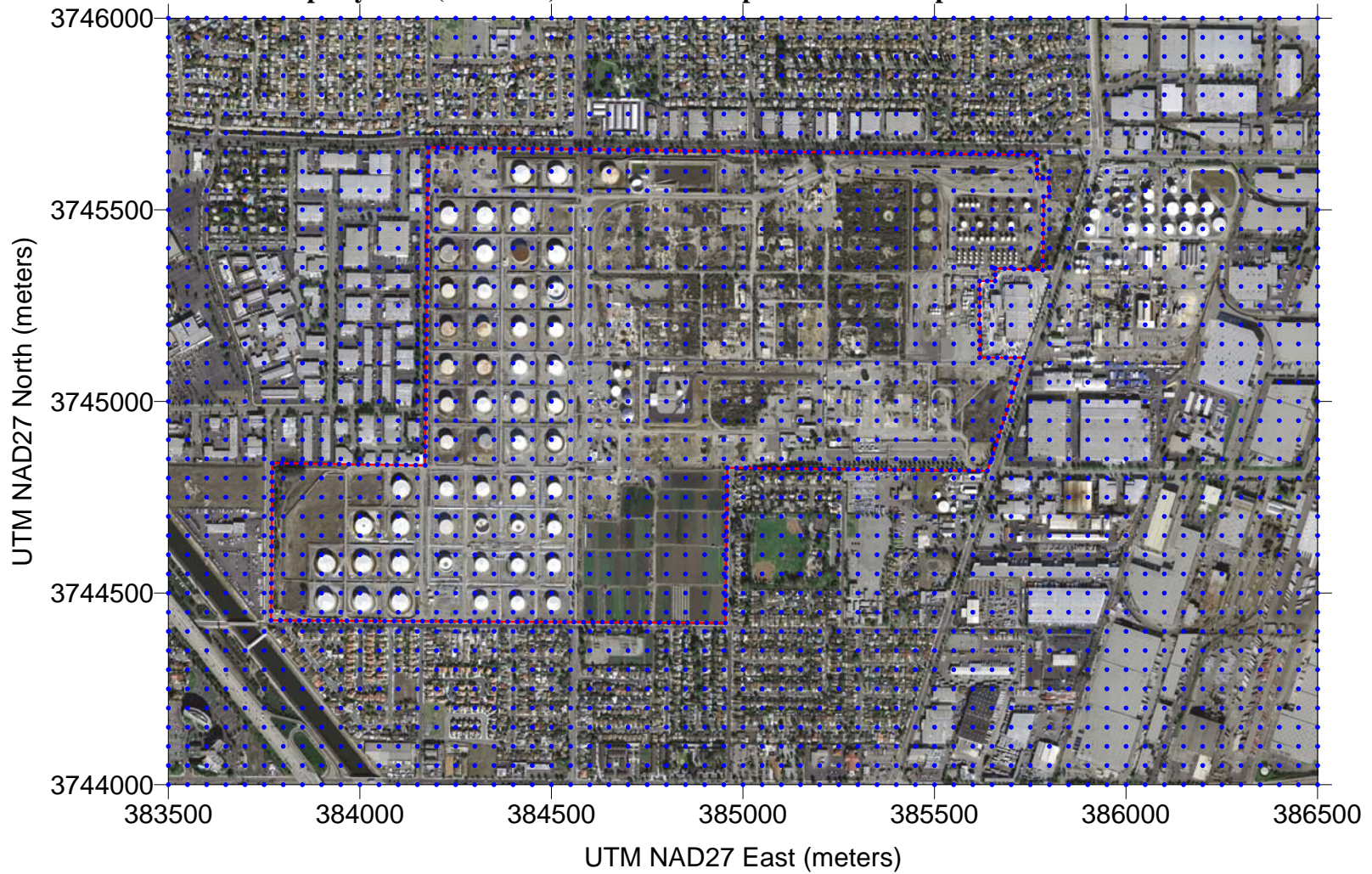
As stated in Section 3.1.1, none of the TACs expected to be emitted by the project have potential for exposure via non-inhalation pathways. Exposure to DPM is evaluated for the inhalation pathway only, consistent with OEHHA guidelines.

Table 5
Sensitive Receptors Nearest to Project Sources

Name (Receptor Number)	Address		Approximate Distance to Closest Fence Line	
	Street Address	City	Kilometers	Miles
Dominguez Seminary (3136-3138)	18127 South Alameda St	Compton	2.64*	1.64*
Del Amo School (3139-3142)	21228 Water St.	Carson	0.12-0.32	0.07-0.20
Dolphin Park Children's Center (3143)	21205 Water St.	Carson	0.23	0.14
Magnolia Science Academy (3144-3146)	1254 East Helmick St.	Carson	0.26	0.16
Eternal Word Graduate School (3147)	19819 Midtown Ave.	Carson	0.41	0.26
Golden Wings Academy (3148)	20715 Avalon Blvd.	Carson	0.74	0.46
New Millennium Secondary School (3149)	20700 Avalon Blvd.	Carson	0.40	0.25
Carson Montessori Academy (3150)	812 East Carson St.	Carson	0.55	0.34
InterCoast College (3151)	One Civic Plaza	Carson	0.29	0.18
Carnegie Middle School (3152-3154)	21820 Bonita St.	Carson	0.45	0.28
Curtiss Middle School (3155-3158)	1254 East Helmick St.	Carson	0.52	0.32
First Lutheran School (3159)	19707 South Central Avenue	Carson	0.48	0.30
Peace & Joy Christian School (3160)	940 East Dominguez St.	Carson	0.13	0.08
Friendship Children's Center (3161)	1717 East Carson St.	Carson	0.39	0.24

*This location is adjacent to the truck route to SR91.

Figure 5
Property Line (25 Meter) and 50 Meter Spaced Grid Receptor Locations



3.2.3 Exposure Dose

Based on the estimated concentrations in the air, soil, and plants, the HARP software calculates potential exposure levels to people through the various applicable pathways. The software uses the algorithms identified in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines (OEHHA, 2003). HARP was used for stationary source emissions only. As discussed in Section 3.2.1.2, the assessment of mobile source DPM health risks followed an alternative procedure that uses AERMOD directly and bypasses HARP.

3.3 DOSE-RESPONSE

The dose-response assessment describes the quantitative relationship between the amount of exposure of a person to a substance (the dose) and the incidence or occurrence of an adverse health impact (the response). For carcinogens, this information is quantified as a cancer potency slope. For noncarcinogens, dose-response information is characterized as a reference exposure level.

3.3.1 Carcinogens

OEHHA has developed cancer potency factors for inhalation and noninhalation pathways. The cancer potency factors represent an upper bound probability of developing cancer based on a continuous lifetime exposure to one milligram per kilogram of body weight of a substance. The cancer potency factor does not represent a threshold under which a person would not develop cancer, but instead is used to estimate the probability of developing cancer. OEHHA regularly updates cancer potency factors as new information becomes available. This assessment is based on the latest health tables made available by OEHHA.

3.3.2 Noncarcinogens

In addition to cancer potencies, OEHHA has also developed RELs for acute and chronic impacts. Unlike cancer potency factors, however, these RELs represent concentration thresholds at which no adverse noncancer health effects are anticipated. Since a substance may affect multiple organs or endpoints, each substance may have multiple RELs to represent each toxicological endpoint. However, the REL for the most sensitive endpoint is used to ensure the REL considers the most adverse potential impacts. The chronic RELs are based on a long term exposure of 8 years while the acute RELs are typically based on a one hour exposure. Chronic RELs have been developed for inhalation and noninhalation pathways while acute RELs have been developed only for the inhalation pathway. OEHHA regularly updates the RELs and this health risk assessment is based on the latest HARP health tables made available by OEHHA.

4.0 RISK CHARACTERIZATION

By combining the results from the exposure assessment and dose response assessment, the HARP software estimates potential cancer risk and noncancer risks. More specifically, the calculated doses and exposure pathway information are used with the cancer potency factors and RELs to quantify cancer and noncancer health impacts.

4.1 CARCINOGENS

The cancer health impacts are characterized as a cancer risk that represents the chances per million people of developing cancer. The cancer risk from each substance is added together to arrive at a total cancer risk. For residential and sensitive receptors, this analysis assumes exposure to substances for 24 hours a day, 350 days a year over a 70-year period as recommended by OEHHA. For offsite worker receptors, the HARP analysis uses the standard default OEHHA assumption that a worker is exposed 8 hours a day, 245 days a year for 40 years from a facility that operates continuously.

For the determination of health risks due to mobile source DPM emissions, the alternative approach utilized for this assessment also assumes continuous 70-year exposure for residential and sensitive receptors by applying a Unit Risk Value of $318.5 \times 10^{-6} [(\mu\text{g}/\text{m}^3)^{-1}]$ to determine cancer risk. For worker exposure, a Unit Risk Value of 62.9×10^{-6} is used, which is consistent with exposure of 8 hours a day, 245 days a year for 40 years to emissions from 24 hours a day, 365 days a year operations. These Unit Risk Values were calculated by the SCAQMD (e.g., SCAQMD, 2005) in a manner consistent with current OEHHA risk assessment procedures.

4.2 NONCARCINOGENS

The noncancer health impacts are characterized through a hazard index (HI). The HI for each toxicological endpoint or target organ system is calculated for each applicable substance. The total HI for each target organ system is equal to the sum of the HI from each substance. An HI of one or less indicates that adverse noncancer health impacts are not anticipated. The chronic HI calculations are based on an annual average exposure duration and the chronic REL. The acute HI are based on the highest short-term ground level air concentration and the acute REL. For this analysis, the HARP option to calculate a simple acute HI using the "Concurrent Maximum" method was selected; this option produces conservative results.

4.3 HARP ANALYSIS METHOD

As recommended by the SCAQMD, the Derived (Adjusted) point-estimate method was used in HARP to calculate risk from stationary sources. This option affects the way the cancer risk are calculated for residential exposure.

5.0 HEALTH RISK RESULTS

The predicted increases in off-site cancer risk are summarized along with chronic and acute hazard index values in Table 6. Health risk values are presented for the point of maximum impact (acute only), residential receptors, sensitive receptors, and potential off-site workplaces.¹

As shown, the maximum acute and chronic index values are well below the significance threshold of 1.0. Therefore, the noncancer health risks of the project are not significant.

The highest calculated cancer risks at residential, worker, and sensitive receptors are well below the 10 in one million threshold. Therefore, the project health risk impacts are not significant. Notably, the residential cancer risk value of 2.1 one million is greater than cancer risks for sensitive receptors and for worker exposure.

The locations of the maximally exposed individual resident, worker, and sensitive receptor for cancer risk are shown in Figure 7. Contours showing the areal distribution of predicted cancer risks for residential exposure are shown on Figure 8.

For informational purposes, Table 7 provides the contributions of DPM and benzene to the total cancer risks shown in Table 6. DPM is by far largest contributor to cancer risk. Together, DPM and benzene account for at least 99.5% of the total calculated cancer risks.

The calculated cancer risks at the sensitive receptors listed in Table 5 are given in Table 8. The cancer risks for these sensitive receptors range from <0.2 in one million to 1.6 in one million. If a sensitive population location is represented by more than one modeled receptor point, the risk shown in Table 8 is the highest of the calculated values.

¹ As noted in Section 3.2.1.7, health risk values were calculated at locations that included fence-line receptors. On the fence line, it is not appropriate to assume chronic workplace exposure because there are no full-time, long-term workers at these locations. Therefore, only receptors beyond the property line were used when adjusting the calculated risk for potential worker exposure using the HARP model (and the alternative procedure for mobile diesel sources).

Table 6
Summary of Maximum Project Cancer and Noncancer Risks

Receptor	Cancer Risk				Chronic Risk				Acute Risk			
	Increase Cases in-one-million	UTM Coordinates (NAD27)		Receptor Number	Hazard Index	UTM Coordinates (NAD27)		Receptor Number	Hazard Index	UTM Coordinates (NAD27)		Receptor Number
		Easting (m)	Northing (m)			Easting (m)	Northing (m)			Easting (m)	Northing (m)	
Point of Maximum Impact (PMI)-Excluding Onsite Grid Receptors*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	0.0023	384958	3744803	2531
Residential receptor	2.11	385252	3744805	2996	0.0070	385252	3744805	2996	0.0020	384983	3744789	2979
Off-site workplace receptor**	1.55	385700	3744900	1387	0.0196	385600	3744800	1507	0.0020	384983	3744789	2979
Sensitive Receptor	1.61	385380	3744700	3139	0.0055	385380	3744700	3139	0.0006	385199	3744602	3143

* The PMI is at a boundary location where the assumption of long-term exposure is not applicable.

**Worker exposure assumptions used to calculate off-site workplace cancer risk.

Figure 7
Locations of Maximum Cancer Risks

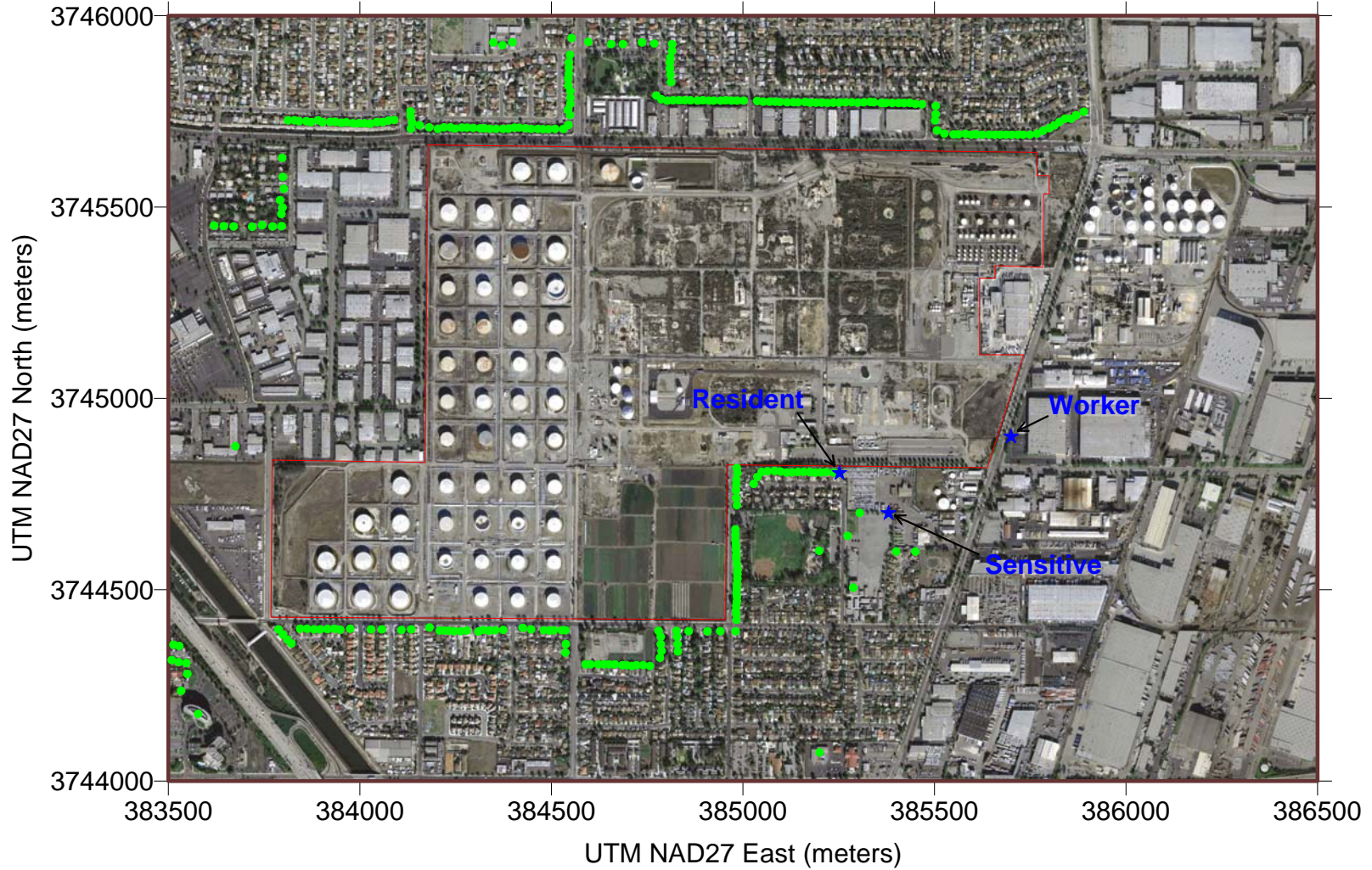
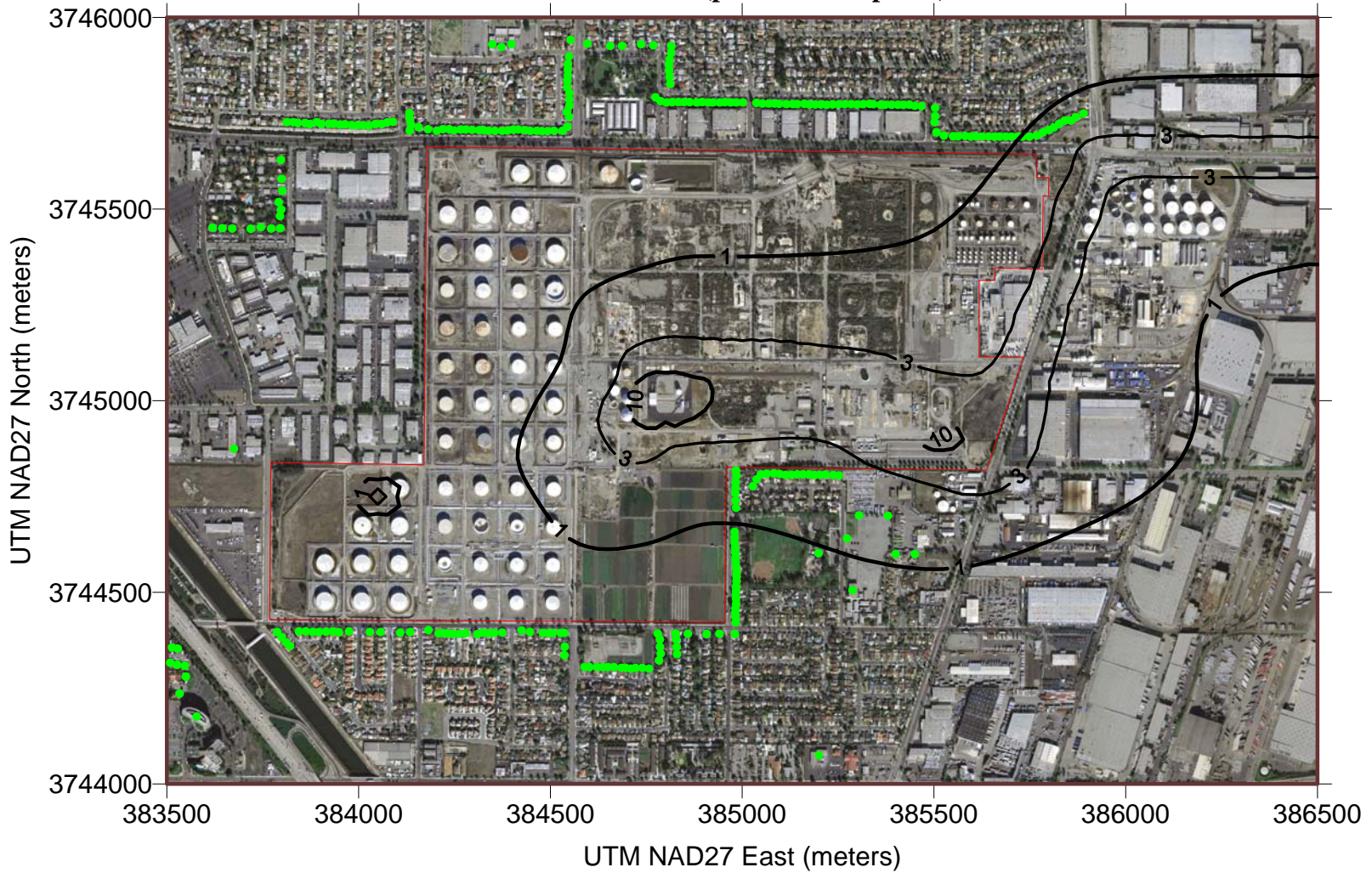


Figure 8
Contours of Cancer Risk (per million exposed)*



(*The contours represent residential exposure.)

Table 7
Contribution of Diesel Exhaust Particulate Matter and Benzene to Cancer Risks

Chemical	Contribution (per cent)		
	Residential Receptor	Offsite Workplace Receptor	Sensitive Receptor
Diesel Exhaust PM	81.8%	96.2%	88.4%
Benzene	17.8%	3.7%	11.2%
Others	<0.5%	<0.1%	<0.5%

* The PMI is at a location where the assumption of residential exposure is not appropriate.

Table 8
Summary of Project Cancer Risks at Nearest Sensitive Receptors

Name*	Modeling Receptor No./Name	Increased Cancer Cases (in-one-million)
Dominguez Seminary	3138	0.83
Del Amo School	3139	1.61
Dolphin Park Children's Center	3143	0.95
Magnolia Science Academy	3144	0.27
Eternal Word Graduate School	3147	0.27
Golden Wings Academy	3148	0.13
New Millennium Secondary School	3149	0.18
Carson Montessori Academy	3150	0.16
InterCoast College	3151	0.20
Carnegie Middle School	3152	0.19
Curtiss Middle School	3155	0.25
First Lutheran School	3159	0.24
Peace & Joy Christian School	3160	0.25
Friendship Children's Center	3161	0.35

* See Table 5 for addresses of these sensitive receptors.

Attachment E contains the AERMOD input and output files. Attachment F has the HARP Risk module outputs with the calculated risks at each receptor, and the spreadsheet output with calculations of mobile diesel exhaust PM risks and total (stationary plus mobile) risks for each receptor. Attachments E and F are provided on CDROM.

6.0 CONCLUSIONS

A refined health risk assessment was performed using the HARP model for stationary sources and an alternative procedure for calculating cancer risk for mobile diesel source emissions. The results demonstrate that the potential cancer risk, chronic hazard index, and acute hazard index are less than the CEQA significance threshold. Therefore, the impact of air toxics emissions from the Shell E10 Project is not significant.

7.0 REFERENCES

- Office of Environmental Health Hazard Assessment (OEHHA). 2003. *Air Toxics Hot Spots Program Risk Assessment Guidelines*, August 2003.
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2007. EMFAC2007, Version 2.30. Calculating Emission Inventories for Vehicles in California, User's Guide, November 2006.
- South Coast Air Quality Management District (SCAQMD) 2003. Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, South Coast Air Quality Management District, August 2003.
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- 2009a. AQMD Modeling Guidance for AERMOD, South Coast Air Quality Management District, http://www.aqmd.gov/smog/metdata/AERMOD_ModelingGuidance.html.
- 2009b. Personal communications with James Koizumi, South Coast Air Quality Management District.
- 2009c. AQMD Meteorological Data for AERMOD, South Coast Air Quality Management District, <http://www.aqmd.gov/smog/metdata/AERMOD.html>.
- United States Environmental Protection Agency (U.S. EPA). 2004. User's Guide for the AMS/EPA Regulatory Model – AERMOD, EPA-454/B-03-001.
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ATTACHMENT A STATIONARY SOURCE TOXIC EMISSIONS CALCULATIONS

SHELL OIL PRODUCTS US CARSON, CA TERMINAL ETHANOL LOAD RACK EMISSIONS "INCREASE" CALCULATIONS

VOC Emission Factor*:	0.02	lbs VOC/1,000 gallon
Max Load Rate Increase:	1,140,552	gal/day
Max Load Rate Increase:	324,321,480	gal/year

* EF based on BACT guidelines from the BAAQMD website.

VOC Emissions Increase

Product VOC Emissions	Max Hourly (lbs)	Max Daily (lbs)	Annual (lbs)
VOC	0.00	22.81	6,486.43

Toxic Emissions Increase

Chemical	CAS #	Vapor Weight Fraction	Q (lb/hour)	Q (lb/year)
1,2,4 Trimethylbenzene	95-63-6	0.000165	0.00E+00	1.07E+00
Benzene	71-43-2	0.004315	0.00E+00	2.80E+01
Cyclohexane	110-82-7	0.000891	0.00E+00	5.78E+00
Ethylbenzene	100-41-4	0.000422	0.00E+00	2.74E+00
Hexane (-n)	110-54-3	0.007567	0.00E+00	4.91E+01
Isopropylbenzene	98-82-8	0.000024	0.00E+00	1.54E-01
Methanol	67-56-1	0.000639	0.00E+00	4.14E+00
Naphthalene	91-20-3	0.000003	0.00E+00	1.68E-02
Styrene	100-42-5	0.000018	0.00E+00	1.18E-01
Toluene	108-88-3	0.006249	0.00E+00	4.05E+01
Xylene (mixed isomers)	1330-20-7	0.002054	0.00E+00	1.33E+01

Note 1: Vapor weight fraction is the average of all months as calculated by TANKS 4.09d for a typical gasoline product (worst case).

Note 2: Gasoline speciation is used to estimate toxic content as tank trucks loading at the facility may have contained gasoline on the immediately previous load.

Calculation Methodology

	=0 lbs/hr. The thermal oxidizer already processes emissions at intervals exceeding 1 hour; although additional load rack emissions will be generated and sent to the bladder tank for interim storage, the quantity of emissions "processed" by the thermal oxidizer in a single hour will not change.
Max Hourly VOC Emissions:	
Max Daily VOC Emissions:	=(max daily load rate increase)/(1,000 gallons)*(VOC EF)
Annual Emissions:	=(max annual load rate increase)/(1,000 gallons)*(VOC EF)
Toxic Emissions:	=(VOC emissions)*(vapor weight fraction of gasoline)

Post Project Load Rate**	16,972,500	bbls/year
Post Project Load Rate**	52,500	bbls/day
Pre-Project Average Load Rate***	25,344	bbls/day
Load Rate Increase	27,156	bbls/day
Load Rate Increase	7,721,940	bbls/year

** Based on load rates requested by the permit application

*** Based on actual loading performed from January 15 to April 14, 2010

**SHELL OIL PRODUCTS US CARSON, CA TERMINAL
ETHANOL LOAD RACK EMISSIONS "INCREASE" CALCULATIONS
E-10 TRUCK FUGITIVE EMISSIONS**

Saturation Factor (S):	1	
Average True Vapor Pressure (P):	5.3	psia
Maximum True Vapor Pressure (P):	8.2	psia
Vapor Molecular Weight (M):	66	lb/lbmole
Temperature (T):	524	Rankine
Avg Uncontrolled Emission Factor (L):	8.27	lbs VOC/1,000 gallon
Max Uncontrolled Emission Factor (L):	12.87	lbs VOC/1,000 gallon
Truck Capture Efficiency*:	99.2%	(see AP-42)
Avg Truck Fugitives EF:	0.07	lbs VOC/1,000 gallon
Max Truck Fugitives EF:	0.10	lbs VOC/1,000 gallon
Max Load Rate Increase:	47,523	gal/hr
Max Load Rate Increase:	1,140,552	gal/day
Max Load Rate Increase:	324,321,480	gal/year

* Uncontrolled Emission Factor and Capture Efficiency based on EPA AP-42 Chapter

VOC Emissions

Product VOC Emissions	Max Hourly (lbs)	Max Daily (lbs)	Annual (lbs)
VOC	4.89	117.42	21,445.30

Toxic Emissions

Chemical	CAS #	Vapor Weight Fraction	Q (lb/hr)	Q (lb/year)
1,2,4 Trimethylbenzene	95-63-6	0.000165	8.07E-04	3.54E+00
Benzene	71-43-2	0.004315	2.11E-02	9.25E+01
Cyclohexane	110-82-7	0.000891	4.36E-03	1.91E+01
Ethylbenzene	100-41-4	0.000422	2.06E-03	9.04E+00
Hexane (-n)	110-54-3	0.007567	3.70E-02	1.62E+02
Isopropylbenzene	98-82-8	0.000024	1.17E-04	5.11E-01
Methanol	67-56-1	0.000639	3.12E-03	1.37E+01
Naphthalene	91-20-3	0.000003	1.26E-05	5.54E-02
Styrene	100-42-5	0.000018	8.89E-05	3.90E-01
Toluene	108-88-3	0.006249	3.06E-02	1.34E+02
Xylene (mixed isomers)	1330-20-7	0.002054	1.00E-02	4.40E+01

Note 1: Vapor weight fraction is the average of all months as calculated by TANKS 4.09d for a typical gasoline product (worst case).

Note 2: Gasoline speciation is used to estimate toxic content as tank trucks loading at the facility may have contained gasoline on the immediately previous load.

Calculation Methodology

Max Hourly VOC Emissions: $=(\text{max hourly load rate increase})/(1,000 \text{ gallons}) * (\text{Truck Fugitive EF})$
 Max Daily VOC Emissions: $=(\text{max daily load rate increase})/(1,000 \text{ gallons}) * (\text{Truck Fugitive EF})$
 Annual Emissions: $=(\text{max annual load rate increase})/(1,000 \text{ gallons}) * (\text{Truck Fugitive EF})$
 Toxic Emissions: $=(\text{VOC emissions}) * (\text{vapor weight fraction of gasoline})$

**SHELL OIL PRODUCTS US CARSON, CA TERMINAL
ETHANOL LOAD RACK FUGITIVE COMPONENT EMISSIONS CALCULATIONS**

Unit	Component	Quantity to be Installed	Screening Value	Emission Factor (lbs/yr)	Emissions (lbs/yr)	
Ethanol Rack (New Lane)	valves (bellows seal)	35	500	-	-	
	valves (light liquid)	15	500	4.5	68.2	
	valves (gas/vapor)	6	500	4.5	27.3	
	pumps (light liquid)	2	500	46.8	93.7	
	fittings (flanges, etc)	402	500	7.0	2,810.1	
	Connectors	-	500	2.9	-	
	Compressors	-	500	9.1	-	
	Drains	-	500	9.1	-	
	Other	-	500	9.1	-	
	PRVs	1	500	-	-	
	Totals					2,999.2
	Total VOC Fugitive Emissions (lbs/day):					8.2
Total VOC Fugitive Emissions (lbs/hr):					0.3	

LOAD RACK FUGITIVE COMPONENT TOXIC EMISSIONS SUMMARY - ETHANOL

Chemical	CAS #	Liquid Weight Fraction	Q (lb/hr)	Q (lb/year)
1,2,4 Trimethylbenzene	95-63-6	0.001200	4.11E-04	3.60E+00
Benzene	71-43-2	0.000600	2.05E-04	1.80E+00
Cyclohexane	110-82-7	0.000120	4.11E-05	3.60E-01
Ethylbenzene	100-41-4	0.000600	2.05E-04	1.80E+00
Hexane (-n)	110-54-3	0.000650	2.23E-04	1.95E+00
Isopropylbenzene	98-82-8	0.000075	2.57E-05	2.25E-01
Methanol	67-56-1	0.000070	2.40E-05	2.10E-01
Naphthalene	91-20-3	0.000150	5.14E-05	4.50E-01
Styrene	100-42-5	0.000039	1.34E-05	1.17E-01
Toluene	108-88-3	0.003000	1.03E-03	9.00E+00
Xylene (mixed isomers)	1330-20-7	0.003500	1.20E-03	1.05E+01
Ethanol	64-17-5	0.000600	2.05E-04	1.80E+00

Note 1: Liquid ethanol speciation is used to estimate toxic content as load rack piping will contain liquid ethanol product.

Note 2: Denatured ethanol contains ~5% gasoline product. The addition of gasoline introduces small amounts of toxics to the ethanol product as seen in the "Liquid Weight Fraction" above.

Calculation Methodology

Component Count: Estimated based on quantity of components installed at the existing two loading lanes
Emission Factors: Based on CAPCOA correlation equations and a screening value of 500 ppmv.
Emissions: =(quantity of components to be installed)*(emission factor)
Toxic Emissions: =(VOC emissions)*(liquid weight fraction of ethanol)

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: 734 (DEFR)
City: Long Beach
State: CA
Company: Equilon Enterprises LLC
Type of Tank: Domed External Floating Roof Tank
Description: Carson Terminal. New gasoline tank.

Tank Dimensions

Diameter (ft): 160.00
Volume (gallons): 6,636,000.00
Turnovers: 72.00

Paint Characteristics

Internal Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Condition: Good

Roof Characteristics

Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	22
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	41
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Float, Wiper	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2

Meteorological Data used in Emissions Calculations: Long Beach, California (Avg Atmospheric Pressure = 14.7 psia)

TANKS 4.0.9d
Emissions Report - Detail Format

Liquid Contents of Storage Tank

734 (DEFR) - Domed External Floating Roof Tank
Long Beach, CA

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Shell Gasoline <= 8.2 TVP (for permitting)	All	66.43	60.99	71.87	64.33	8.2000	N/A	N/A	66.0000			82.50	Option 1: VP60 = 8.2 VP70 = 8.2
1,2,4-Trimethylbenzene						0.0263	N/A	N/A	120.1900	0.0240	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3922	N/A	N/A	78.1100	0.0120	0.0025	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4382	N/A	N/A	84.1600	0.0024	0.0005	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1353	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.2563	N/A	N/A	86.1700	0.0130	0.0045	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isopropyl benzene						0.0610	N/A	N/A	120.2000	0.0015	0.0000	120.20	Option 2: A=6.93666, B=1460.793, C=207.78
Methyl alcohol						1.7607	N/A	N/A	32.0400	0.0014	0.0004	32.04	Option 2: A=7.897, B=1474.08, C=229.13
Naphthalene						0.0033	N/A	N/A	128.2000	0.0030	0.0000	128.20	Option 2: A=7.3729, B=1968.36, C=222.61
Styrene						0.0897	N/A	N/A	104.1500	0.0008	0.0000	104.15	Option 2: A=7.14, B=1574.51, C=224.09
Toluene						0.4021	N/A	N/A	92.1300	0.0600	0.0037	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						9.7603	N/A	N/A	65.8130	0.7999	0.9868	79.37	
Xylenes (mixed isomers)						0.1129	N/A	N/A	106.1700	0.0700	0.0012	106.17	Option 2: A=7.009, B=1462.266, C=215.11

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

734 (DEFR) - Domed External Floating Roof Tank
Long Beach, CA

Annual Emission Calculations

Rim Seal Losses (lb):	1,274.5851
Seal Factor A (lb-mole/ft-yr):	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ⁿ):	0.4000
Average Wind Speed (mph):	0.0000
Seal-related Wind Speed Exponent:	1.0000
Value of Vapor Pressure Function:	0.2012
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	8.2000
Tank Diameter (ft):	160.0000
Vapor Molecular Weight (lb/lb-mole):	66.0000
Product Factor:	1.0000
Withdrawal Losses (lb):	512.9118
Annual Net Throughput (gal/yr.):	477,792,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.1000
Tank Diameter (ft):	160.0000
Roof Fitting Losses (lb):	1,888.7757
Value of Vapor Pressure Function:	0.2012
Vapor Molecular Weight (lb/lb-mole):	66.0000
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	142.2600
Average Wind Speed (mph):	0.0000
Total Losses (lb):	3,676.2726

Roof Fitting/Status	Quantity	KF _a (lb-mole/yr)	Roof Fitting Loss Factors		m	Losses(lb)
			KF _b (lb-mole/(yr mph ⁿ))			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00		0.00	21.2431
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00		0.38	57.0908
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1	0.47	0.02		0.97	6.2402
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	22	1.20	0.14		0.65	350.5109
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	41	0.49	0.16		0.14	266.7335
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00		0.00	743.5080
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Float, Wiper	1	21.00	7.90		1.80	278.8155
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2	6.20	1.20		0.94	164.6339

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

734 (DEFR) - Domed External Floating Roof Tank
Long Beach, CA

Components	Losses(lbs)				Total Emissions
	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	
Shell Gasoline <= 8.2 TVP (for permitting)	1,274.59	512.91	1,888.78	0.00	3,676.27
1,2,4-Trimethylbenzene	0.12	12.31	0.18	0.00	12.61
Xylenes (mixed isomers)	1.54	35.90	2.28	0.00	39.72
Benzene	3.25	6.15	4.81	0.00	14.21
Cyclohexane	0.67	1.23	0.99	0.00	2.90
Ethylbenzene	0.32	6.15	0.47	0.00	6.94
Hexane (-n)	5.70	6.67	8.45	0.00	20.81
Isopropyl benzene	0.02	0.77	0.03	0.00	0.81
Methyl alcohol	0.48	0.72	0.71	0.00	1.91
Naphthalene	0.00	1.54	0.00	0.00	1.54
Styrene	0.01	0.40	0.02	0.00	0.43
Toluene	4.69	30.77	6.95	0.00	42.41
Unidentified Components	1,257.80	410.29	1,863.90	0.00	3,531.98

FUGITIVE COMPONENT COUNTS AND VOC EMISSIONS
New Storage Tank (734) Project

Component Type		Service	Total Existing Components	Number of Components Removed	Number of Components Added	Net Number of Components Added	Final Component Count	Screening Value	Emission Factor (lb/yr/ component)	Net Change in Annual VOC Emissions (lbs/yr)
Valves	Sealed Bellows	Gas/Vapor and Light Liquid	0	0	0	0	0	500	0	0.0
	AQMD Approved I&M Program	Fuel & Natural Gas	0	0	0	0	0	500	4.5	0.0
		Gas Vapor	0	0	0	0	0	500	4.5	0.0
		Light Liquid	0	0	10	10	10	500	4.5	45.5
		Heavy Liquid	0	0	0	0	0	500	4.5	0.0
Pumps	Sealless Type	Light Liquid	0	0	0	0	0	500	46.8	0.0
	Double Mechanical Seals or Equivalent	Light Liquid	0	0	0	0	0	500	46.8	0.0
	Single Mechanical Seal	Heavy Liquid	0	0	0	0	0	500	46.8	0.0
Compressor		Gas/Vapor	0	0	0	0	0	500	9.09	0.0
Flanges		All	0	0	11	11	11	500	6.99	76.9
Pressure Relief Valves		All	0	0	0	0	0	500	0	0.0
Process Drains		All	0	0	0	0	0	500	9.09	0.0
									Total lbs/year:	122
									Total lbs/day:	0.34

TOXIC EMISSIONS

Chemical	CAS #	Liquid Weight Percent	Emissions (lbs/hr)	Emissions (lbs/day)	Emissions (lbs/year)
1,2,4 Trimethylbenzene	95-63-6	2.4000E-02	3.3520E-04	8.0449E-03	2.9364E+00
Benzene	71-43-2	1.2000E-02	1.6760E-04	4.0224E-03	1.4682E+00
Cyclohexane	110-82-7	2.4000E-03	3.3520E-05	8.0449E-04	2.9364E-01
Ethylbenzene	100-41-4	1.2000E-02	1.6760E-04	4.0224E-03	1.4682E+00
Hexane (-n)	110-54-3	1.3000E-02	1.8157E-04	4.3577E-03	1.5905E+00
Isopropylbenzene	98-82-8	1.5000E-03	2.0950E-05	5.0281E-04	1.8352E-01
Methanol	67-56-1	1.4000E-03	1.9554E-05	4.6929E-04	1.7129E-01
Naphthalene	91-20-3	3.0000E-03	4.1900E-05	1.0056E-03	3.6705E-01
Styrene	100-42-5	7.8000E-04	1.0894E-05	2.6146E-04	9.5433E-02
Toluene	108-88-3	6.0000E-02	8.3801E-04	2.0112E-02	7.3410E+00
Xylene (mixed isomers)	1330-20-7	7.0000E-02	9.7768E-04	2.3464E-02	8.5645E+00

Note: Liquid gasoline speciation is used to estimate toxic content as storage tank piping will contain liquid gasoline product.

Calculation Methodology

Component Count: Estimate provided by Shell.
Emission Factors: Default factors provided by SCAQMD permitting staff
Emissions: =(quantity of components to be installed)*(emission factor)
Toxic Emissions: =(VOC emissions)*(liquid weight fraction of gasoline)

Truck emissions are represented in the dispersion model by a series of volume sources situated along the various on-site and off-site roads traveled by the trucks. The emission rate for each volume source is a function of the number of trucks per unit of time that passes over the road segment represented by the volume source, the length of this road segment, and the emission factor in mass per unit of length. For trucks traveling on site, the spacing between volume sources is 24 feet. For travel via off-site surface streets, which are much wider than the on-site roads, the spacing between volume sources was set to 48 feet. As an example, the on-site volume-source PM10 emission rate corresponding to 144 daily truck trips (with one pass per trip over the road segment represented by the source) is computed below using a 2010 emission factor for a heavy-heavy duty diesel truck (HHDDT) traveling at 15 mph.

$$ER_{\text{source}} = 1.232 \text{ g/mi} \times 144 \text{ trucks/day} \times \text{day}/24 \text{ hr} \times \text{hr}/3600 \text{ sec} \times \text{mi}/5280 \text{ ft} \times 24 \text{ ft/truck-source}$$

$$= 9.333 \times 10^{-6} \text{ g/sec (per source)}$$

PM10 Emission Factors (HDDT - EMFAC2007)				Units/Notes
Idle	0.303	0.423	1.775	gm/hr
@5 mph	0.248	0.360	2.087	g/mi
@15 mph	0.148	0.196	0.935	g/mi
Onsite "Length"	0.004545455	0.004545455	0.004545455	mi/pass/source
@30 mph	0.106	0.130	0.478	g/mi
@35 mph	0.106	0.128	0.432	g/mi
Offsite "Length"	0.009090909	0.009090909	0.009090909	mi/pass/source
Ethanol Trucks	113	113	113	trips/day
Year	2012 (70 years)	2012 (40 years)	2012	(averaging period)
Source ID	Residential CR g/sec	Worker CR g/sec	Chronic HI g/sec	pass/trip
EIN_0001	1.755E-06	2.331E-06	1.112E-05	2x
EIN_0006	1.755E-06	2.331E-06	1.112E-05	2x
EIN_0007	8.774E-07	1.165E-06	5.558E-06	1x
EIN_0048	8.774E-07	1.165E-06	5.558E-06	1x
OUT_0001	8.774E-07	1.165E-06	5.558E-06	1x
OUT_0042	8.774E-07	1.165E-06	5.558E-06	1x
E2W_0001	1.755E-06	2.331E-06	1.112E-05	2x
E2W_0082	1.755E-06	2.331E-06	1.112E-05	2x
E2W_0083	1.477E-06	2.139E-06	1.241E-05	1x
E2W_0136	1.477E-06	2.139E-06	1.241E-05	1x
WIL_0001	2.519E-06	3.089E-06	1.137E-05	2x
WIL_0060	2.519E-06	3.089E-06	1.137E-05	2x
DAC_0001	2.532E-06	3.040E-06	1.027E-05	2x
DAC_0086	2.532E-06	3.040E-06	1.027E-05	2x
DAE_0001	8.441E-07	1.013E-06	3.424E-06	2x/3
DAE_0086	8.441E-07	1.013E-06	3.424E-06	2x/3
ALS_0001	8.441E-07	1.013E-06	3.424E-06	2x/3
ALS_0146	8.441E-07	1.013E-06	3.424E-06	2x/3
ALN_0001	8.441E-07	1.013E-06	3.424E-06	2x/3
ALN_0189	8.441E-07	1.013E-06	3.424E-06	2x/3
ETIDLEIN	3.304E-05	4.606E-05	1.935E-04	NA

loop
loop

EMFAC 2007 (LBtrucks11-40WinterSC.xls)
 HHDT DPM Emission Factors

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Season : Annual

Area : Los Angeles (SC)

Temperature: 54F

Relative Humidity: 63%

Long Beach January Average per SCAQMD (1980)

Year ==>	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Speed												
idle	1.775	1.582	1.395	1.222	1.075	0.944	0.829	0.727	0.638	0.559	0.493	0.435
5	2.087	1.763	1.466	1.202	0.994	0.824	0.684	0.567	0.471	0.391	0.328	0.277
10	1.421	1.205	1.007	0.831	0.692	0.578	0.485	0.407	0.342	0.289	0.247	0.212
15	0.935	0.797	0.67	0.558	0.47	0.397	0.338	0.288	0.247	0.213	0.186	0.163
20	0.656	0.562	0.476	0.4	0.341	0.292	0.251	0.218	0.19	0.167	0.148	0.133
25	0.553	0.476	0.406	0.343	0.294	0.254	0.220	0.192	0.169	0.15	0.135	0.123
30	0.478	0.415	0.356	0.304	0.263	0.229	0.200	0.177	0.158	0.141	0.128	0.118
35	0.432	0.377	0.327	0.281	0.246	0.216	0.192	0.171	0.154	0.14	0.128	0.118

Year ==>	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Speed												
idle	0.385	0.343	0.306	0.277	0.253	0.231	0.212	0.197	0.185	0.176	0.169	0.162
5	0.236	0.204	0.178	0.159	0.144	0.133	0.124	0.117	0.113	0.109	0.107	0.105
10	0.185	0.163	0.146	0.133	0.123	0.115	0.108	0.104	0.100	0.098	0.096	0.095
15	0.146	0.132	0.120	0.112	0.105	0.099	0.095	0.092	0.089	0.088	0.086	0.085
20	0.121	0.111	0.103	0.097	0.092	0.088	0.085	0.082	0.081	0.079	0.078	0.077
25	0.112	0.104	0.097	0.092	0.088	0.084	0.081	0.079	0.078	0.077	0.076	0.075
30	0.109	0.102	0.096	0.091	0.087	0.084	0.082	0.08	0.079	0.078	0.077	0.076
35	0.111	0.104	0.099	0.094	0.091	0.088	0.085	0.084	0.082	0.081	0.081	0.080

Year ==>	2036	2037	2038	2039	2040+
Speed					
idle	0.157	0.153	0.149	0.146	0.144
5	0.104	0.102	0.102	0.101	0.100
10	0.094	0.093	0.092	0.092	0.091
15	0.084	0.084	0.083	0.083	0.083
20	0.077	0.076	0.076	0.076	0.076
25	0.075	0.074	0.074	0.074	0.073
30	0.075	0.075	0.075	0.075	0.074
35	0.079	0.079	0.079	0.079	0.078

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
EIN_0001	385640.4	3744827.2	7.62	4.15	3.4025	1.39	0.0045455
EIN_0002	385633.1	3744827.3	7.62	4.15	3.4025	1.39	0.0045455
EIN_0003	385625.8	3744827.3	7.62	4.15	3.4025	1.39	0.0045455
EIN_0004	385618.5	3744827.3	7.62	4.15	3.4025	1.39	0.0045455
EIN_0005	385611.2	3744827.4	7.62	4.15	3.4025	1.39	0.0045455
EIN_0006	385604.0	3744827.7	7.62	4.15	3.4025	1.39	0.0045455
EIN_0007	385599.6	3744833.6	7.62	4.15	3.4025	1.39	0.0045455
EIN_0008	385595.3	3744839.4	7.62	4.15	3.4025	1.39	0.0045455
EIN_0009	385592.0	3744845.7	7.62	4.15	3.4025	1.39	0.0045455
EIN_0010	385590.9	3744853.0	7.62	4.15	3.4025	1.39	0.0045455
EIN_0011	385589.9	3744860.2	7.62	4.15	3.4025	1.39	0.0045455
EIN_0012	385588.8	3744867.5	7.62	4.15	3.4025	1.39	0.0045455
EIN_0013	385587.8	3744874.7	7.62	4.15	3.4025	1.39	0.0045455
EIN_0014	385586.7	3744881.9	7.62	4.15	3.4025	1.39	0.0045455
EIN_0015	385585.8	3744889.2	7.62	4.15	3.4025	1.39	0.0045455
EIN_0016	385584.8	3744896.4	7.62	4.15	3.4025	1.39	0.0045455
EIN_0017	385582.7	3744903.1	7.62	4.15	3.4025	1.39	0.0045455
EIN_0018	385577.7	3744908.4	7.62	4.15	3.4025	1.39	0.0045455
EIN_0019	385572.6	3744913.7	7.62	4.15	3.4025	1.39	0.0045455
EIN_0020	385566.0	3744916.7	7.62	4.15	3.4025	1.39	0.0045455
EIN_0021	385559.2	3744919.5	7.62	4.15	3.4025	1.39	0.0045455
EIN_0022	385552.1	3744920.7	7.62	4.15	3.4025	1.39	0.0045455
EIN_0023	385544.8	3744920.8	7.62	4.15	3.4025	1.39	0.0045455
EIN_0024	385537.5	3744920.8	7.62	4.15	3.4025	1.39	0.0045455
EIN_0025	385530.2	3744920.9	7.62	4.15	3.4025	1.39	0.0045455
EIN_0026	385522.9	3744920.9	7.62	4.15	3.4025	1.39	0.0045455
EIN_0027	385515.6	3744921.0	7.48	4.15	3.4025	1.39	0.0045455
EIN_0028	385508.3	3744921.1	7.32	4.15	3.4025	1.39	0.0045455
EIN_0029	385500.9	3744921.3	7.32	4.15	3.4025	1.39	0.0045455
EIN_0030	385493.6	3744921.4	7.32	4.15	3.4025	1.39	0.0045455
EIN_0031	385486.3	3744921.5	7.32	4.15	3.4025	1.39	0.0045455
EIN_0032	385479.0	3744921.6	7.32	4.15	3.4025	1.39	0.0045455
EIN_0033	385471.7	3744921.7	7.32	4.15	3.4025	1.39	0.0045455
EIN_0034	385464.4	3744921.8	7.32	4.15	3.4025	1.39	0.0045455
EIN_0035	385457.1	3744922.0	7.32	4.15	3.4025	1.39	0.0045455
EIN_0036	385449.7	3744922.1	7.32	4.15	3.4025	1.39	0.0045455
EIN_0037	385442.4	3744922.2	7.32	4.15	3.4025	1.39	0.0045455
EIN_0038	385435.1	3744922.3	7.32	4.15	3.4025	1.39	0.0045455
EIN_0039	385427.8	3744922.4	7.32	4.15	3.4025	1.39	0.0045455
EIN_0040	385420.5	3744922.5	7.32	4.15	3.4025	1.39	0.0045455
EIN_0041	385413.2	3744922.7	7.32	4.15	3.4025	1.39	0.0045455
EIN_0042	385405.9	3744922.8	7.32	4.15	3.4025	1.39	0.0045455
EIN_0043	385398.5	3744922.9	7.32	4.15	3.4025	1.39	0.0045455
EIN_0044	385391.2	3744923.0	7.32	4.15	3.4025	1.39	0.0045455
EIN_0045	385383.9	3744923.1	7.32	4.15	3.4025	1.39	0.0045455

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
EIN_0046	385376.6	3744923.3	7.32	4.15	3.4025	1.39	0.0045455
EIN_0047	385369.3	3744923.4	7.32	4.15	3.4025	1.39	0.0045455
EIN_0048	385362.6	3744923.5	7.32	4.15	3.4025	1.39	0.0045455
OUT_0001	385363.0	3744922.9	7.32	4.15	3.4025	1.39	0.0045455
OUT_0002	385363.0	3744915.5	7.32	4.15	3.4025	1.39	0.0045455
OUT_0003	385369.8	3744915.0	7.32	4.15	3.4025	1.39	0.0045455
OUT_0004	385377.1	3744914.9	7.32	4.15	3.4025	1.39	0.0045455
OUT_0005	385384.4	3744914.8	7.32	4.15	3.4025	1.39	0.0045455
OUT_0006	385391.7	3744914.8	7.32	4.15	3.4025	1.39	0.0045455
OUT_0007	385399.0	3744914.7	7.32	4.15	3.4025	1.39	0.0045455
OUT_0008	385406.3	3744914.6	7.32	4.15	3.4025	1.39	0.0045455
OUT_0009	385413.6	3744914.6	7.32	4.15	3.4025	1.39	0.0045455
OUT_0010	385421.0	3744914.5	7.32	4.15	3.4025	1.39	0.0045455
OUT_0011	385428.3	3744914.4	7.32	4.15	3.4025	1.39	0.0045455
OUT_0012	385435.6	3744914.4	7.32	4.15	3.4025	1.39	0.0045455
OUT_0013	385442.9	3744914.3	7.32	4.15	3.4025	1.39	0.0045455
OUT_0014	385450.2	3744914.2	7.32	4.15	3.4025	1.39	0.0045455
OUT_0015	385457.5	3744914.2	7.32	4.15	3.4025	1.39	0.0045455
OUT_0016	385464.8	3744914.1	7.32	4.15	3.4025	1.39	0.0045455
OUT_0017	385472.2	3744914.0	7.32	4.15	3.4025	1.39	0.0045455
OUT_0018	385479.5	3744914.0	7.32	4.15	3.4025	1.39	0.0045455
OUT_0019	385486.8	3744913.9	7.32	4.15	3.4025	1.39	0.0045455
OUT_0020	385494.1	3744913.8	7.32	4.15	3.4025	1.39	0.0045455
OUT_0021	385501.4	3744913.8	7.34	4.15	3.4025	1.39	0.0045455
OUT_0022	385508.7	3744913.7	7.48	4.15	3.4025	1.39	0.0045455
OUT_0023	385516.1	3744913.6	7.58	4.15	3.4025	1.39	0.0045455
OUT_0024	385523.4	3744913.6	7.62	4.15	3.4025	1.39	0.0045455
OUT_0025	385530.7	3744913.5	7.62	4.15	3.4025	1.39	0.0045455
OUT_0026	385537.6	3744911.9	7.62	4.15	3.4025	1.39	0.0045455
OUT_0027	385544.0	3744908.3	7.62	4.15	3.4025	1.39	0.0045455
OUT_0028	385550.4	3744904.8	7.62	4.15	3.4025	1.39	0.0045455
OUT_0029	385556.0	3744900.4	7.62	4.15	3.4025	1.39	0.0045455
OUT_0030	385560.3	3744894.4	7.62	4.15	3.4025	1.39	0.0045455
OUT_0031	385564.5	3744888.5	7.62	4.15	3.4025	1.39	0.0045455
OUT_0032	385568.1	3744882.2	7.62	4.15	3.4025	1.39	0.0045455
OUT_0033	385570.3	3744875.2	7.62	4.15	3.4025	1.39	0.0045455
OUT_0034	385572.5	3744868.2	7.62	4.15	3.4025	1.39	0.0045455
OUT_0035	385574.7	3744861.3	7.62	4.15	3.4025	1.39	0.0045455
OUT_0036	385577.0	3744854.3	7.62	4.15	3.4025	1.39	0.0045455
OUT_0037	385578.9	3744847.3	7.62	4.15	3.4025	1.39	0.0045455
OUT_0038	385580.2	3744840.1	7.62	4.15	3.4025	1.39	0.0045455
OUT_0039	385581.5	3744832.9	7.62	4.15	3.4025	1.39	0.0045455
OUT_0040	385584.7	3744827.9	7.62	4.15	3.4025	1.39	0.0045455
OUT_0041	385592.0	3744827.5	7.62	4.15	3.4025	1.39	0.0045455
OUT_0042	385599.3	3744827.1	7.62	4.15	3.4025	1.39	0.0045455

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
E2W_0001	385363.0	3744929.1	7.32	4.15	3.4025	1.39	0.0045455
E2W_0002	385363.3	3744936.4	7.32	4.15	3.4025	1.39	0.0045455
E2W_0003	385363.5	3744943.7	7.32	4.15	3.4025	1.39	0.0045455
E2W_0004	385360.7	3744950.4	7.32	4.15	3.4025	1.39	0.0045455
E2W_0005	385357.5	3744957.0	7.24	4.15	3.4025	1.39	0.0045455
E2W_0006	385356.2	3744964.0	7.2	4.15	3.4025	1.39	0.0045455
E2W_0007	385356.0	3744971.3	7.19	4.15	3.4025	1.39	0.0045455
E2W_0008	385355.8	3744978.6	7.19	4.15	3.4025	1.39	0.0045455
E2W_0009	385355.6	3744986.0	7.18	4.15	3.4025	1.39	0.0045455
E2W_0010	385355.4	3744993.3	7.18	4.15	3.4025	1.39	0.0045455
E2W_0011	385355.2	3745000.6	7.17	4.15	3.4025	1.39	0.0045455
E2W_0012	385355.0	3745007.9	7.16	4.15	3.4025	1.39	0.0045455
E2W_0013	385354.8	3745015.2	7.16	4.15	3.4025	1.39	0.0045455
E2W_0014	385354.6	3745022.5	7.15	4.15	3.4025	1.39	0.0045455
E2W_0015	385354.4	3745029.8	7.15	4.15	3.4025	1.39	0.0045455
E2W_0016	385351.6	3745035.3	7.06	4.15	3.4025	1.39	0.0045455
E2W_0017	385344.7	3745037.8	7.01	4.15	3.4025	1.39	0.0045455
E2W_0018	385337.4	3745038.0	7.01	4.15	3.4025	1.39	0.0045455
E2W_0019	385330.1	3745038.2	7.01	4.15	3.4025	1.39	0.0045455
E2W_0020	385322.8	3745038.5	7.01	4.15	3.4025	1.39	0.0045455
E2W_0021	385315.5	3745038.7	7.01	4.15	3.4025	1.39	0.0045455
E2W_0022	385308.1	3745038.9	7.01	4.15	3.4025	1.39	0.0045455
E2W_0023	385300.8	3745039.2	7.01	4.15	3.4025	1.39	0.0045455
E2W_0024	385293.5	3745039.4	7.01	4.15	3.4025	1.39	0.0045455
E2W_0025	385286.2	3745039.6	7.01	4.15	3.4025	1.39	0.0045455
E2W_0026	385278.9	3745039.9	7.01	4.15	3.4025	1.39	0.0045455
E2W_0027	385271.6	3745040.1	7.01	4.15	3.4025	1.39	0.0045455
E2W_0028	385264.3	3745040.3	7.01	4.15	3.4025	1.39	0.0045455
E2W_0029	385257.0	3745040.6	7.01	4.15	3.4025	1.39	0.0045455
E2W_0030	385249.7	3745040.8	7.01	4.15	3.4025	1.39	0.0045455
E2W_0031	385242.3	3745041.0	7.01	4.15	3.4025	1.39	0.0045455
E2W_0032	385235.2	3745042.5	7.01	4.15	3.4025	1.39	0.0045455
E2W_0033	385228.0	3745043.9	7.01	4.15	3.4025	1.39	0.0045455
E2W_0034	385220.7	3745044.3	7.01	4.15	3.4025	1.39	0.0045455
E2W_0035	385213.4	3745044.3	7.01	4.15	3.4025	1.39	0.0045455
E2W_0036	385206.1	3745044.3	7.01	4.15	3.4025	1.39	0.0045455
E2W_0037	385198.8	3745044.3	6.97	4.15	3.4025	1.39	0.0045455
E2W_0038	385191.5	3745044.3	6.75	4.15	3.4025	1.39	0.0045455
E2W_0039	385184.3	3745045.6	6.71	4.15	3.4025	1.39	0.0045455
E2W_0040	385177.3	3745047.7	6.71	4.15	3.4025	1.39	0.0045455
E2W_0041	385170.3	3745049.9	6.71	4.15	3.4025	1.39	0.0045455
E2W_0042	385163.8	3745052.9	6.71	4.15	3.4025	1.39	0.0045455
E2W_0043	385157.7	3745057.0	6.71	4.15	3.4025	1.39	0.0045455
E2W_0044	385151.7	3745061.1	6.71	4.15	3.4025	1.39	0.0045455
E2W_0045	385145.6	3745065.2	6.71	4.15	3.4025	1.39	0.0045455

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
E2W_0046	385138.6	3745067.4	6.71	4.15	3.4025	1.39	0.0045455
E2W_0047	385131.7	3745069.6	6.71	4.15	3.4025	1.39	0.0045455
E2W_0048	385124.7	3745071.8	6.71	4.15	3.4025	1.39	0.0045455
E2W_0049	385117.4	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0050	385110.1	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0051	385102.8	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0052	385095.5	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0053	385088.2	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0054	385080.9	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0055	385073.5	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0056	385066.2	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0057	385058.9	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0058	385051.6	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0059	385044.3	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0060	385037.0	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0061	385029.7	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0062	385022.3	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0063	385015.0	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0064	385007.7	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0065	385000.4	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0066	384993.1	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0067	384985.8	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0068	384978.4	3745072.2	6.71	4.15	3.4025	1.39	0.0045455
E2W_0069	384971.1	3745072.1	6.71	4.15	3.4025	1.39	0.0045455
E2W_0070	384963.8	3745072.1	6.52	4.15	3.4025	1.39	0.0045455
E2W_0071	384956.5	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0072	384949.2	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0073	384941.9	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0074	384934.6	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0075	384927.2	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0076	384919.9	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0077	384912.6	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0078	384905.3	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0079	384898.0	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0080	384890.7	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0081	384883.3	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0082	384876.0	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0083	384868.7	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0084	384861.4	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0085	384854.1	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0086	384846.8	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0087	384839.5	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0088	384832.1	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0089	384824.8	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0090	384817.5	3745072.1	6.4	4.15	3.4025	1.39	0.0045455

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
E2W_0091	384810.2	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0092	384802.9	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0093	384795.6	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0094	384788.3	3745072.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0095	384781.3	3745071.7	6.4	4.15	3.4025	1.39	0.0045455
E2W_0096	384781.2	3745064.4	6.4	4.15	3.4025	1.39	0.0045455
E2W_0097	384781.2	3745057.0	6.4	4.15	3.4025	1.39	0.0045455
E2W_0098	384781.1	3745049.7	6.4	4.15	3.4025	1.39	0.0045455
E2W_0099	384781.0	3745042.4	6.4	4.15	3.4025	1.39	0.0045455
E2W_0100	384780.9	3745035.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0101	384780.8	3745027.8	6.4	4.15	3.4025	1.39	0.0045455
E2W_0102	384780.8	3745020.5	6.4	4.15	3.4025	1.39	0.0045455
E2W_0103	384780.7	3745013.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0104	384780.6	3745005.8	6.4	4.15	3.4025	1.39	0.0045455
E2W_0105	384780.5	3744998.5	6.4	4.15	3.4025	1.39	0.0045455
E2W_0106	384780.4	3744991.2	6.4	4.15	3.4025	1.39	0.0045455
E2W_0107	384780.4	3744983.9	6.4	4.15	3.4025	1.39	0.0045455
E2W_0108	384780.3	3744976.6	6.4	4.15	3.4025	1.39	0.0045455
E2W_0109	384780.2	3744969.3	6.4	4.15	3.4025	1.39	0.0045455
E2W_0110	384780.1	3744961.9	6.4	4.15	3.4025	1.39	0.0045455
E2W_0111	384785.1	3744959.6	6.4	4.15	3.4025	1.39	0.0045455
E2W_0112	384792.4	3744959.6	6.4	4.15	3.4025	1.39	0.0045455
E2W_0113	384799.7	3744959.5	6.4	4.15	3.4025	1.39	0.0045455
E2W_0114	384807.1	3744959.4	6.4	4.15	3.4025	1.39	0.0045455
E2W_0115	384814.4	3744959.4	6.4	4.15	3.4025	1.39	0.0045455
E2W_0116	384821.7	3744959.3	6.4	4.15	3.4025	1.39	0.0045455
E2W_0117	384829.0	3744959.3	6.4	4.15	3.4025	1.39	0.0045455
E2W_0118	384836.3	3744959.2	6.4	4.15	3.4025	1.39	0.0045455
E2W_0119	384843.6	3744959.2	6.4	4.15	3.4025	1.39	0.0045455
E2W_0120	384851.0	3744959.1	6.4	4.15	3.4025	1.39	0.0045455
E2W_0121	384858.3	3744959.0	6.4	4.15	3.4025	1.39	0.0045455
E2W_0122	384860.4	3744964.4	6.4	4.15	3.4025	1.39	0.0045455
E2W_0123	384860.7	3744971.7	6.4	4.15	3.4025	1.39	0.0045455
E2W_0124	384861.1	3744979.0	6.4	4.15	3.4025	1.39	0.0045455
E2W_0125	384861.4	3744986.3	6.4	4.15	3.4025	1.39	0.0045455
E2W_0126	384861.7	3744993.6	6.4	4.15	3.4025	1.39	0.0045455
E2W_0127	384862.0	3745001.0	6.4	4.15	3.4025	1.39	0.0045455
E2W_0128	384862.3	3745008.3	6.4	4.15	3.4025	1.39	0.0045455
E2W_0129	384862.6	3745015.6	6.4	4.15	3.4025	1.39	0.0045455
E2W_0130	384862.9	3745022.9	6.4	4.15	3.4025	1.39	0.0045455
E2W_0131	384863.2	3745030.2	6.4	4.15	3.4025	1.39	0.0045455
E2W_0132	384864.3	3745037.4	6.4	4.15	3.4025	1.39	0.0045455
E2W_0133	384865.5	3745044.6	6.4	4.15	3.4025	1.39	0.0045455
E2W_0134	384866.8	3745051.8	6.4	4.15	3.4025	1.39	0.0045455
E2W_0135	384868.0	3745059.1	6.4	4.15	3.4025	1.39	0.0045455

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
E2W_0136	384869.2	3745066.3	6.4	4.15	3.4025	1.39	0.0045455
WIL_0001	385918.5	3745643.9	8.53	4.15	6.805	1.39	0.0090909
WIL_0002	385914.0	3745630.0	8.35	4.15	6.805	1.39	0.0090909
WIL_0003	385909.5	3745616.0	8.23	4.15	6.805	1.39	0.0090909
WIL_0004	385905.0	3745602.1	8.23	4.15	6.805	1.39	0.0090909
WIL_0005	385900.5	3745588.2	8.23	4.15	6.805	1.39	0.0090909
WIL_0006	385896.0	3745574.3	8.23	4.15	6.805	1.39	0.0090909
WIL_0007	385891.5	3745560.4	7.98	4.15	6.805	1.39	0.0090909
WIL_0008	385887.0	3745546.5	8	4.15	6.805	1.39	0.0090909
WIL_0009	385882.5	3745532.5	7.94	4.15	6.805	1.39	0.0090909
WIL_0010	385878.0	3745518.6	7.92	4.15	6.805	1.39	0.0090909
WIL_0011	385873.5	3745504.7	7.92	4.15	6.805	1.39	0.0090909
WIL_0012	385868.9	3745490.8	7.92	4.15	6.805	1.39	0.0090909
WIL_0013	385864.4	3745476.9	7.92	4.15	6.805	1.39	0.0090909
WIL_0014	385859.9	3745462.9	7.92	4.15	6.805	1.39	0.0090909
WIL_0015	385855.4	3745449.0	7.92	4.15	6.805	1.39	0.0090909
WIL_0016	385850.9	3745435.1	7.92	4.15	6.805	1.39	0.0090909
WIL_0017	385846.4	3745421.2	7.92	4.15	6.805	1.39	0.0090909
WIL_0018	385841.9	3745407.3	7.92	4.15	6.805	1.39	0.0090909
WIL_0019	385837.4	3745393.4	7.92	4.15	6.805	1.39	0.0090909
WIL_0020	385832.9	3745379.4	7.92	4.15	6.805	1.39	0.0090909
WIL_0021	385828.4	3745365.5	7.92	4.15	6.805	1.39	0.0090909
WIL_0022	385823.8	3745351.6	7.92	4.15	6.805	1.39	0.0090909
WIL_0023	385819.3	3745337.7	7.92	4.15	6.805	1.39	0.0090909
WIL_0024	385814.8	3745323.8	7.92	4.15	6.805	1.39	0.0090909
WIL_0025	385810.3	3745309.8	7.92	4.15	6.805	1.39	0.0090909
WIL_0026	385805.8	3745295.9	7.85	4.15	6.805	1.39	0.0090909
WIL_0027	385801.3	3745282.0	7.92	4.15	6.805	1.39	0.0090909
WIL_0028	385796.8	3745268.1	7.83	4.15	6.805	1.39	0.0090909
WIL_0029	385792.3	3745254.2	7.69	4.15	6.805	1.39	0.0090909
WIL_0030	385787.8	3745240.3	7.85	4.15	6.805	1.39	0.0090909
WIL_0031	385783.3	3745226.3	7.72	4.15	6.805	1.39	0.0090909
WIL_0032	385778.8	3745212.4	7.82	4.15	6.805	1.39	0.0090909
WIL_0033	385774.2	3745198.5	7.78	4.15	6.805	1.39	0.0090909
WIL_0034	385769.7	3745184.6	7.92	4.15	6.805	1.39	0.0090909
WIL_0035	385765.2	3745170.7	7.92	4.15	6.805	1.39	0.0090909
WIL_0036	385760.7	3745156.7	7.92	4.15	6.805	1.39	0.0090909
WIL_0037	385756.2	3745142.8	7.92	4.15	6.805	1.39	0.0090909
WIL_0038	385751.7	3745128.9	7.92	4.15	6.805	1.39	0.0090909
WIL_0039	385747.2	3745115.0	7.92	4.15	6.805	1.39	0.0090909
WIL_0040	385742.7	3745101.1	7.92	4.15	6.805	1.39	0.0090909
WIL_0041	385738.2	3745087.2	7.92	4.15	6.805	1.39	0.0090909
WIL_0042	385733.7	3745073.2	7.92	4.15	6.805	1.39	0.0090909
WIL_0043	385729.1	3745059.3	7.92	4.15	6.805	1.39	0.0090909
WIL_0044	385724.6	3745045.4	7.92	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
WIL_0045	385720.1	3745031.5	7.92	4.15	6.805	1.39	0.0090909
WIL_0046	385715.6	3745017.6	7.82	4.15	6.805	1.39	0.0090909
WIL_0047	385711.1	3745003.6	7.92	4.15	6.805	1.39	0.0090909
WIL_0048	385706.6	3744989.7	7.82	4.15	6.805	1.39	0.0090909
WIL_0049	385702.1	3744975.8	7.68	4.15	6.805	1.39	0.0090909
WIL_0050	385697.6	3744961.9	7.62	4.15	6.805	1.39	0.0090909
WIL_0051	385693.1	3744948.0	7.62	4.15	6.805	1.39	0.0090909
WIL_0052	385688.6	3744934.1	7.62	4.15	6.805	1.39	0.0090909
WIL_0053	385684.1	3744920.1	7.62	4.15	6.805	1.39	0.0090909
WIL_0054	385679.5	3744906.2	7.62	4.15	6.805	1.39	0.0090909
WIL_0055	385675.0	3744892.3	7.62	4.15	6.805	1.39	0.0090909
WIL_0056	385670.5	3744878.4	7.62	4.15	6.805	1.39	0.0090909
WIL_0057	385666.0	3744864.5	7.62	4.15	6.805	1.39	0.0090909
WIL_0058	385661.5	3744850.5	7.62	4.15	6.805	1.39	0.0090909
WIL_0059	385657.0	3744836.6	7.62	4.15	6.805	1.39	0.0090909
WIL_0060	385654.0	3744827.5	7.62	4.15	6.805	1.39	0.0090909
DAC_0001	387174.0	3745629.1	10.67	4.15	6.805	1.39	0.0090909
DAC_0002	387159.4	3745629.2	10.67	4.15	6.805	1.39	0.0090909
DAC_0003	387144.8	3745629.4	10.82	4.15	6.805	1.39	0.0090909
DAC_0004	387130.2	3745629.6	11.27	4.15	6.805	1.39	0.0090909
DAC_0005	387115.5	3745629.7	12.02	4.15	6.805	1.39	0.0090909
DAC_0006	387100.9	3745629.9	12.19	4.15	6.805	1.39	0.0090909
DAC_0007	387086.3	3745630.1	12.08	4.15	6.805	1.39	0.0090909
DAC_0008	387071.6	3745630.2	11.89	4.15	6.805	1.39	0.0090909
DAC_0009	387057.0	3745630.4	11.58	4.15	6.805	1.39	0.0090909
DAC_0010	387042.4	3745630.6	11.58	4.15	6.805	1.39	0.0090909
DAC_0011	387027.8	3745630.7	11.28	4.15	6.805	1.39	0.0090909
DAC_0012	387013.1	3745630.9	11.26	4.15	6.805	1.39	0.0090909
DAC_0013	386998.5	3745631.1	10.97	4.15	6.805	1.39	0.0090909
DAC_0014	386983.9	3745631.2	10.97	4.15	6.805	1.39	0.0090909
DAC_0015	386969.2	3745631.4	10.97	4.15	6.805	1.39	0.0090909
DAC_0016	386954.6	3745631.6	10.97	4.15	6.805	1.39	0.0090909
DAC_0017	386940.0	3745631.8	10.67	4.15	6.805	1.39	0.0090909
DAC_0018	386925.3	3745631.9	10.67	4.15	6.805	1.39	0.0090909
DAC_0019	386910.7	3745632.1	10.67	4.15	6.805	1.39	0.0090909
DAC_0020	386896.1	3745632.3	10.43	4.15	6.805	1.39	0.0090909
DAC_0021	386881.5	3745632.4	10.37	4.15	6.805	1.39	0.0090909
DAC_0022	386866.8	3745632.6	10.36	4.15	6.805	1.39	0.0090909
DAC_0023	386852.2	3745632.8	10.36	4.15	6.805	1.39	0.0090909
DAC_0024	386837.6	3745632.9	10.36	4.15	6.805	1.39	0.0090909
DAC_0025	386822.9	3745633.1	10.36	4.15	6.805	1.39	0.0090909
DAC_0026	386808.3	3745633.3	10.36	4.15	6.805	1.39	0.0090909
DAC_0027	386793.7	3745633.4	10.36	4.15	6.805	1.39	0.0090909
DAC_0028	386779.1	3745633.6	10.17	4.15	6.805	1.39	0.0090909
DAC_0029	386764.4	3745633.8	10.17	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
DAC_0030	386749.8	3745633.9	10.18	4.15	6.805	1.39	0.0090909
DAC_0031	386735.2	3745634.1	10.36	4.15	6.805	1.39	0.0090909
DAC_0032	386720.5	3745634.3	10.65	4.15	6.805	1.39	0.0090909
DAC_0033	386705.9	3745634.4	10.79	4.15	6.805	1.39	0.0090909
DAC_0034	386691.3	3745634.6	11.1	4.15	6.805	1.39	0.0090909
DAC_0035	386676.6	3745634.8	11.42	4.15	6.805	1.39	0.0090909
DAC_0036	386662.0	3745635.0	11.55	4.15	6.805	1.39	0.0090909
DAC_0037	386647.4	3745635.1	11.78	4.15	6.805	1.39	0.0090909
DAC_0038	386632.8	3745635.3	11.89	4.15	6.805	1.39	0.0090909
DAC_0039	386618.1	3745635.5	11.89	4.15	6.805	1.39	0.0090909
DAC_0040	386603.5	3745635.6	12.09	4.15	6.805	1.39	0.0090909
DAC_0041	386588.9	3745635.8	12.19	4.15	6.805	1.39	0.0090909
DAC_0042	386574.2	3745636.0	12.12	4.15	6.805	1.39	0.0090909
DAC_0043	386559.6	3745636.1	11.88	4.15	6.805	1.39	0.0090909
DAC_0044	386545.0	3745636.3	11.68	4.15	6.805	1.39	0.0090909
DAC_0045	386530.4	3745636.5	11.48	4.15	6.805	1.39	0.0090909
DAC_0046	386515.7	3745636.6	11.04	4.15	6.805	1.39	0.0090909
DAC_0047	386501.1	3745636.8	10.33	4.15	6.805	1.39	0.0090909
DAC_0048	386486.5	3745637.0	9.97	4.15	6.805	1.39	0.0090909
DAC_0049	386471.8	3745637.1	9.97	4.15	6.805	1.39	0.0090909
DAC_0050	386457.2	3745637.3	9.67	4.15	6.805	1.39	0.0090909
DAC_0051	386442.6	3745637.5	9.9	4.15	6.805	1.39	0.0090909
DAC_0052	386427.9	3745637.6	10	4.15	6.805	1.39	0.0090909
DAC_0053	386413.3	3745637.8	10.22	4.15	6.805	1.39	0.0090909
DAC_0054	386398.7	3745638.0	10.31	4.15	6.805	1.39	0.0090909
DAC_0055	386384.1	3745638.2	10.36	4.15	6.805	1.39	0.0090909
DAC_0056	386369.4	3745638.3	10.67	4.15	6.805	1.39	0.0090909
DAC_0057	386354.8	3745638.5	10.49	4.15	6.805	1.39	0.0090909
DAC_0058	386340.2	3745638.7	10.36	4.15	6.805	1.39	0.0090909
DAC_0059	386325.5	3745638.8	10.33	4.15	6.805	1.39	0.0090909
DAC_0060	386310.9	3745639.0	10.33	4.15	6.805	1.39	0.0090909
DAC_0061	386296.3	3745639.2	10.03	4.15	6.805	1.39	0.0090909
DAC_0062	386281.6	3745639.3	9.8	4.15	6.805	1.39	0.0090909
DAC_0063	386267.0	3745639.5	9.74	4.15	6.805	1.39	0.0090909
DAC_0064	386252.4	3745639.7	9.51	4.15	6.805	1.39	0.0090909
DAC_0065	386237.8	3745639.8	9.38	4.15	6.805	1.39	0.0090909
DAC_0066	386223.1	3745640.0	9.14	4.15	6.805	1.39	0.0090909
DAC_0067	386208.5	3745640.2	9.14	4.15	6.805	1.39	0.0090909
DAC_0068	386193.9	3745640.3	9.14	4.15	6.805	1.39	0.0090909
DAC_0069	386179.2	3745640.5	9.12	4.15	6.805	1.39	0.0090909
DAC_0070	386164.6	3745640.7	8.86	4.15	6.805	1.39	0.0090909
DAC_0071	386150.0	3745640.8	8.84	4.15	6.805	1.39	0.0090909
DAC_0072	386135.4	3745641.0	8.84	4.15	6.805	1.39	0.0090909
DAC_0073	386120.7	3745641.2	8.84	4.15	6.805	1.39	0.0090909
DAC_0074	386106.1	3745641.4	8.84	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
DAC_0075	386091.5	3745642.2	8.84	4.15	6.805	1.39	0.0090909
DAC_0076	386076.9	3745643.1	8.84	4.15	6.805	1.39	0.0090909
DAC_0077	386062.3	3745644.1	8.84	4.15	6.805	1.39	0.0090909
DAC_0078	386047.7	3745645.0	8.84	4.15	6.805	1.39	0.0090909
DAC_0079	386033.1	3745645.9	8.84	4.15	6.805	1.39	0.0090909
DAC_0080	386018.5	3745646.8	8.84	4.15	6.805	1.39	0.0090909
DAC_0081	386003.9	3745647.8	8.84	4.15	6.805	1.39	0.0090909
DAC_0082	385989.3	3745648.7	8.84	4.15	6.805	1.39	0.0090909
DAC_0083	385974.7	3745649.6	8.83	4.15	6.805	1.39	0.0090909
DAC_0084	385960.1	3745650.6	8.54	4.15	6.805	1.39	0.0090909
DAC_0085	385945.5	3745651.5	8.53	4.15	6.805	1.39	0.0090909
DAC_0086	385930.9	3745652.4	8.53	4.15	6.805	1.39	0.0090909
DAE_0001	388436.7	3745614.2	13.41	4.15	6.805	1.39	0.0090909
DAE_0002	388422.1	3745614.4	13.41	4.15	6.805	1.39	0.0090909
DAE_0003	388407.4	3745614.6	13.11	4.15	6.805	1.39	0.0090909
DAE_0004	388392.8	3745614.8	13.11	4.15	6.805	1.39	0.0090909
DAE_0005	388378.2	3745614.9	12.92	4.15	6.805	1.39	0.0090909
DAE_0006	388363.5	3745615.1	12.8	4.15	6.805	1.39	0.0090909
DAE_0007	388348.9	3745615.3	12.46	4.15	6.805	1.39	0.0090909
DAE_0008	388334.3	3745615.4	12.11	4.15	6.805	1.39	0.0090909
DAE_0009	388319.6	3745615.6	11.74	4.15	6.805	1.39	0.0090909
DAE_0010	388305.0	3745615.8	11.15	4.15	6.805	1.39	0.0090909
DAE_0011	388290.4	3745615.9	10.02	4.15	6.805	1.39	0.0090909
DAE_0012	388275.8	3745616.1	8.59	4.15	6.805	1.39	0.0090909
DAE_0013	388261.1	3745616.3	7.47	4.15	6.805	1.39	0.0090909
DAE_0014	388246.5	3745616.5	7.4	4.15	6.805	1.39	0.0090909
DAE_0015	388231.9	3745616.6	7.5	4.15	6.805	1.39	0.0090909
DAE_0016	388217.2	3745616.8	8.09	4.15	6.805	1.39	0.0090909
DAE_0017	388202.6	3745617.0	8.83	4.15	6.805	1.39	0.0090909
DAE_0018	388188.0	3745617.1	9.68	4.15	6.805	1.39	0.0090909
DAE_0019	388173.4	3745617.3	11.03	4.15	6.805	1.39	0.0090909
DAE_0020	388158.7	3745617.5	11.99	4.15	6.805	1.39	0.0090909
DAE_0021	388144.1	3745617.7	12.19	4.15	6.805	1.39	0.0090909
DAE_0022	388129.5	3745617.8	12.19	4.15	6.805	1.39	0.0090909
DAE_0023	388114.8	3745618.0	12.19	4.15	6.805	1.39	0.0090909
DAE_0024	388100.2	3745618.2	12.19	4.15	6.805	1.39	0.0090909
DAE_0025	388085.6	3745618.3	12.06	4.15	6.805	1.39	0.0090909
DAE_0026	388070.9	3745618.5	12.4	4.15	6.805	1.39	0.0090909
DAE_0027	388056.3	3745618.7	13.52	4.15	6.805	1.39	0.0090909
DAE_0028	388041.7	3745618.9	13.72	4.15	6.805	1.39	0.0090909
DAE_0029	388027.1	3745619.0	13.41	4.15	6.805	1.39	0.0090909
DAE_0030	388012.4	3745619.2	13.41	4.15	6.805	1.39	0.0090909
DAE_0031	387997.8	3745619.4	13.41	4.15	6.805	1.39	0.0090909
DAE_0032	387983.2	3745619.5	13.41	4.15	6.805	1.39	0.0090909
DAE_0033	387968.5	3745619.7	13.36	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
DAE_0034	387953.9	3745619.9	13.11	4.15	6.805	1.39	0.0090909
DAE_0035	387939.3	3745620.0	13.11	4.15	6.805	1.39	0.0090909
DAE_0036	387924.7	3745620.2	13.11	4.15	6.805	1.39	0.0090909
DAE_0037	387910.0	3745620.4	13.11	4.15	6.805	1.39	0.0090909
DAE_0038	387895.4	3745620.6	12.81	4.15	6.805	1.39	0.0090909
DAE_0039	387880.8	3745620.7	12.8	4.15	6.805	1.39	0.0090909
DAE_0040	387866.1	3745620.9	12.8	4.15	6.805	1.39	0.0090909
DAE_0041	387851.5	3745621.1	12.8	4.15	6.805	1.39	0.0090909
DAE_0042	387836.9	3745621.2	12.71	4.15	6.805	1.39	0.0090909
DAE_0043	387822.3	3745621.4	12.5	4.15	6.805	1.39	0.0090909
DAE_0044	387807.6	3745621.6	12.5	4.15	6.805	1.39	0.0090909
DAE_0045	387793.0	3745621.8	12.5	4.15	6.805	1.39	0.0090909
DAE_0046	387778.4	3745621.9	12.5	4.15	6.805	1.39	0.0090909
DAE_0047	387763.7	3745622.1	12.5	4.15	6.805	1.39	0.0090909
DAE_0048	387749.1	3745622.3	12.25	4.15	6.805	1.39	0.0090909
DAE_0049	387734.5	3745622.4	12.19	4.15	6.805	1.39	0.0090909
DAE_0050	387719.8	3745622.6	12.19	4.15	6.805	1.39	0.0090909
DAE_0051	387705.2	3745622.8	12.19	4.15	6.805	1.39	0.0090909
DAE_0052	387690.6	3745623.0	11.9	4.15	6.805	1.39	0.0090909
DAE_0053	387676.0	3745623.1	11.89	4.15	6.805	1.39	0.0090909
DAE_0054	387661.3	3745623.3	11.89	4.15	6.805	1.39	0.0090909
DAE_0055	387646.7	3745623.5	11.89	4.15	6.805	1.39	0.0090909
DAE_0056	387632.1	3745623.6	11.89	4.15	6.805	1.39	0.0090909
DAE_0057	387617.4	3745623.8	11.89	4.15	6.805	1.39	0.0090909
DAE_0058	387602.8	3745624.0	11.89	4.15	6.805	1.39	0.0090909
DAE_0059	387588.2	3745624.1	11.89	4.15	6.805	1.39	0.0090909
DAE_0060	387573.6	3745624.3	11.78	4.15	6.805	1.39	0.0090909
DAE_0061	387558.9	3745624.5	11.58	4.15	6.805	1.39	0.0090909
DAE_0062	387544.3	3745624.7	11.58	4.15	6.805	1.39	0.0090909
DAE_0063	387529.7	3745624.8	11.58	4.15	6.805	1.39	0.0090909
DAE_0064	387515.0	3745625.0	11.58	4.15	6.805	1.39	0.0090909
DAE_0065	387500.4	3745625.2	11.58	4.15	6.805	1.39	0.0090909
DAE_0066	387485.8	3745625.3	11.58	4.15	6.805	1.39	0.0090909
DAE_0067	387471.1	3745625.5	11.58	4.15	6.805	1.39	0.0090909
DAE_0068	387456.5	3745625.7	11.36	4.15	6.805	1.39	0.0090909
DAE_0069	387441.9	3745625.9	11.28	4.15	6.805	1.39	0.0090909
DAE_0070	387427.3	3745626.0	11.28	4.15	6.805	1.39	0.0090909
DAE_0071	387412.6	3745626.2	11.28	4.15	6.805	1.39	0.0090909
DAE_0072	387398.0	3745626.4	11.26	4.15	6.805	1.39	0.0090909
DAE_0073	387383.4	3745626.5	11.04	4.15	6.805	1.39	0.0090909
DAE_0074	387368.7	3745626.7	10.97	4.15	6.805	1.39	0.0090909
DAE_0075	387354.1	3745626.9	10.97	4.15	6.805	1.39	0.0090909
DAE_0076	387339.5	3745627.1	10.97	4.15	6.805	1.39	0.0090909
DAE_0077	387324.9	3745627.2	10.93	4.15	6.805	1.39	0.0090909
DAE_0078	387310.2	3745627.4	10.67	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
DAE_0079	387295.6	3745627.6	10.67	4.15	6.805	1.39	0.0090909
DAE_0080	387281.0	3745627.7	10.67	4.15	6.805	1.39	0.0090909
DAE_0081	387266.3	3745627.9	10.67	4.15	6.805	1.39	0.0090909
DAE_0082	387251.7	3745628.1	10.67	4.15	6.805	1.39	0.0090909
DAE_0083	387237.1	3745628.2	10.67	4.15	6.805	1.39	0.0090909
DAE_0084	387222.4	3745628.4	10.67	4.15	6.805	1.39	0.0090909
DAE_0085	387207.8	3745628.6	10.67	4.15	6.805	1.39	0.0090909
DAE_0086	387193.2	3745628.8	10.67	4.15	6.805	1.39	0.0090909
ALS_0001	386523.6	3743597.5	8.84	4.15	6.805	1.39	0.0090909
ALS_0002	386528.1	3743611.4	8.83	4.15	6.805	1.39	0.0090909
ALS_0003	386532.6	3743625.3	8.68	4.15	6.805	1.39	0.0090909
ALS_0004	386537.0	3743639.3	8.34	4.15	6.805	1.39	0.0090909
ALS_0005	386541.5	3743653.2	8.23	4.15	6.805	1.39	0.0090909
ALS_0006	386545.9	3743667.1	8.23	4.15	6.805	1.39	0.0090909
ALS_0007	386550.4	3743681.1	8.23	4.15	6.805	1.39	0.0090909
ALS_0008	386554.8	3743695.0	8.23	4.15	6.805	1.39	0.0090909
ALS_0009	386559.3	3743708.9	8.23	4.15	6.805	1.39	0.0090909
ALS_0010	386563.8	3743722.9	8.23	4.15	6.805	1.39	0.0090909
ALS_0011	386568.2	3743736.8	8.4	4.15	6.805	1.39	0.0090909
ALS_0012	386572.7	3743750.7	8.53	4.15	6.805	1.39	0.0090909
ALS_0013	386577.1	3743764.7	8.68	4.15	6.805	1.39	0.0090909
ALS_0014	386581.6	3743778.6	8.84	4.15	6.805	1.39	0.0090909
ALS_0015	386586.0	3743792.5	9.14	4.15	6.805	1.39	0.0090909
ALS_0016	386590.5	3743806.5	9.14	4.15	6.805	1.39	0.0090909
ALS_0017	386595.0	3743820.4	9.14	4.15	6.805	1.39	0.0090909
ALS_0018	386599.4	3743834.3	9.14	4.15	6.805	1.39	0.0090909
ALS_0019	386603.9	3743848.3	9.14	4.15	6.805	1.39	0.0090909
ALS_0020	386608.3	3743862.2	9.14	4.15	6.805	1.39	0.0090909
ALS_0021	386612.8	3743876.1	9.14	4.15	6.805	1.39	0.0090909
ALS_0022	386617.2	3743890.1	9.14	4.15	6.805	1.39	0.0090909
ALS_0023	386621.7	3743904.0	9.14	4.15	6.805	1.39	0.0090909
ALS_0024	386626.2	3743917.9	9.14	4.15	6.805	1.39	0.0090909
ALS_0025	386630.8	3743931.8	9.14	4.15	6.805	1.39	0.0090909
ALS_0026	386635.7	3743945.6	9.14	4.15	6.805	1.39	0.0090909
ALS_0027	386640.7	3743959.4	9.14	4.15	6.805	1.39	0.0090909
ALS_0028	386645.6	3743973.1	9.14	4.15	6.805	1.39	0.0090909
ALS_0029	386650.6	3743986.9	9.14	4.15	6.805	1.39	0.0090909
ALS_0030	386655.5	3744000.7	9.14	4.15	6.805	1.39	0.0090909
ALS_0031	386660.4	3744014.5	9.14	4.15	6.805	1.39	0.0090909
ALS_0032	386665.4	3744028.2	9.14	4.15	6.805	1.39	0.0090909
ALS_0033	386670.3	3744042.0	9.14	4.15	6.805	1.39	0.0090909
ALS_0034	386675.2	3744055.8	9.14	4.15	6.805	1.39	0.0090909
ALS_0035	386680.2	3744069.5	9.14	4.15	6.805	1.39	0.0090909
ALS_0036	386685.1	3744083.3	9.14	4.15	6.805	1.39	0.0090909
ALS_0037	386690.0	3744097.1	9.14	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
ALS_0038	386695.0	3744110.9	9.14	4.15	6.805	1.39	0.0090909
ALS_0039	386699.9	3744124.6	9.14	4.15	6.805	1.39	0.0090909
ALS_0040	386704.8	3744138.4	9.14	4.15	6.805	1.39	0.0090909
ALS_0041	386709.3	3744152.4	9.14	4.15	6.805	1.39	0.0090909
ALS_0042	386713.7	3744166.3	9.14	4.15	6.805	1.39	0.0090909
ALS_0043	386718.2	3744180.2	9.14	4.15	6.805	1.39	0.0090909
ALS_0044	386722.7	3744194.1	9.14	4.15	6.805	1.39	0.0090909
ALS_0045	386727.2	3744208.1	9.14	4.15	6.805	1.39	0.0090909
ALS_0046	386731.6	3744222.0	9.14	4.15	6.805	1.39	0.0090909
ALS_0047	386736.1	3744235.9	9.14	4.15	6.805	1.39	0.0090909
ALS_0048	386740.6	3744249.9	9.14	4.15	6.805	1.39	0.0090909
ALS_0049	386745.1	3744263.8	9.14	4.15	6.805	1.39	0.0090909
ALS_0050	386749.5	3744277.7	9.14	4.15	6.805	1.39	0.0090909
ALS_0051	386754.0	3744291.7	9.14	4.15	6.805	1.39	0.0090909
ALS_0052	386758.5	3744305.6	9.14	4.15	6.805	1.39	0.0090909
ALS_0053	386763.0	3744319.5	9.14	4.15	6.805	1.39	0.0090909
ALS_0054	386767.4	3744333.4	9.14	4.15	6.805	1.39	0.0090909
ALS_0055	386771.9	3744347.4	9.14	4.15	6.805	1.39	0.0090909
ALS_0056	386776.4	3744361.3	9.14	4.15	6.805	1.39	0.0090909
ALS_0057	386780.8	3744375.2	9.14	4.15	6.805	1.39	0.0090909
ALS_0058	386785.3	3744389.2	9.14	4.15	6.805	1.39	0.0090909
ALS_0059	386789.8	3744403.1	9.14	4.15	6.805	1.39	0.0090909
ALS_0060	386794.3	3744417.0	9.14	4.15	6.805	1.39	0.0090909
ALS_0061	386798.7	3744431.0	9.14	4.15	6.805	1.39	0.0090909
ALS_0062	386803.2	3744444.9	9.14	4.15	6.805	1.39	0.0090909
ALS_0063	386807.7	3744458.8	9.14	4.15	6.805	1.39	0.0090909
ALS_0064	386812.2	3744472.7	9.14	4.15	6.805	1.39	0.0090909
ALS_0065	386816.6	3744486.7	9.14	4.15	6.805	1.39	0.0090909
ALS_0066	386821.1	3744500.6	9.14	4.15	6.805	1.39	0.0090909
ALS_0067	386825.6	3744514.5	9.14	4.15	6.805	1.39	0.0090909
ALS_0068	386830.1	3744528.5	9.14	4.15	6.805	1.39	0.0090909
ALS_0069	386834.5	3744542.4	9.14	4.15	6.805	1.39	0.0090909
ALS_0070	386839.0	3744556.3	9.14	4.15	6.805	1.39	0.0090909
ALS_0071	386843.5	3744570.2	9.14	4.15	6.805	1.39	0.0090909
ALS_0072	386847.9	3744584.2	9.14	4.15	6.805	1.39	0.0090909
ALS_0073	386852.4	3744598.1	9.14	4.15	6.805	1.39	0.0090909
ALS_0074	386856.9	3744612.0	9.14	4.15	6.805	1.39	0.0090909
ALS_0075	386861.4	3744626.0	9.14	4.15	6.805	1.39	0.0090909
ALS_0076	386865.8	3744639.9	9.14	4.15	6.805	1.39	0.0090909
ALS_0077	386870.3	3744653.8	9.14	4.15	6.805	1.39	0.0090909
ALS_0078	386874.8	3744667.8	9.27	4.15	6.805	1.39	0.0090909
ALS_0079	386879.3	3744681.7	9.45	4.15	6.805	1.39	0.0090909
ALS_0080	386883.7	3744695.6	9.45	4.15	6.805	1.39	0.0090909
ALS_0081	386888.2	3744709.5	9.45	4.15	6.805	1.39	0.0090909
ALS_0082	386892.7	3744723.5	9.45	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
ALS_0083	386897.2	3744737.4	9.45	4.15	6.805	1.39	0.0090909
ALS_0084	386901.6	3744751.3	9.45	4.15	6.805	1.39	0.0090909
ALS_0085	386906.1	3744765.3	9.45	4.15	6.805	1.39	0.0090909
ALS_0086	386910.6	3744779.2	9.45	4.15	6.805	1.39	0.0090909
ALS_0087	386915.0	3744793.1	9.45	4.15	6.805	1.39	0.0090909
ALS_0088	386919.5	3744807.1	9.45	4.15	6.805	1.39	0.0090909
ALS_0089	386924.0	3744821.0	9.75	4.15	6.805	1.39	0.0090909
ALS_0090	386928.5	3744834.9	9.75	4.15	6.805	1.39	0.0090909
ALS_0091	386932.9	3744848.8	9.75	4.15	6.805	1.39	0.0090909
ALS_0092	386937.4	3744862.8	10.06	4.15	6.805	1.39	0.0090909
ALS_0093	386941.9	3744876.7	10.06	4.15	6.805	1.39	0.0090909
ALS_0094	386946.4	3744890.6	10.36	4.15	6.805	1.39	0.0090909
ALS_0095	386950.8	3744904.6	10.36	4.15	6.805	1.39	0.0090909
ALS_0096	386955.3	3744918.5	10.36	4.15	6.805	1.39	0.0090909
ALS_0097	386959.8	3744932.4	10.66	4.15	6.805	1.39	0.0090909
ALS_0098	386964.3	3744946.4	10.67	4.15	6.805	1.39	0.0090909
ALS_0099	386968.7	3744960.3	10.67	4.15	6.805	1.39	0.0090909
ALS_0100	386973.2	3744974.2	10.67	4.15	6.805	1.39	0.0090909
ALS_0101	386977.7	3744988.1	10.67	4.15	6.805	1.39	0.0090909
ALS_0102	386982.1	3745002.1	10.67	4.15	6.805	1.39	0.0090909
ALS_0103	386986.6	3745016.0	10.67	4.15	6.805	1.39	0.0090909
ALS_0104	386991.1	3745029.9	10.67	4.15	6.805	1.39	0.0090909
ALS_0105	386995.6	3745043.9	10.67	4.15	6.805	1.39	0.0090909
ALS_0106	387000.0	3745057.8	10.67	4.15	6.805	1.39	0.0090909
ALS_0107	387004.5	3745071.7	10.67	4.15	6.805	1.39	0.0090909
ALS_0108	387009.0	3745085.6	10.67	4.15	6.805	1.39	0.0090909
ALS_0109	387013.5	3745099.6	10.67	4.15	6.805	1.39	0.0090909
ALS_0110	387017.9	3745113.5	10.67	4.15	6.805	1.39	0.0090909
ALS_0111	387022.4	3745127.4	10.67	4.15	6.805	1.39	0.0090909
ALS_0112	387026.9	3745141.4	10.67	4.15	6.805	1.39	0.0090909
ALS_0113	387031.4	3745155.3	10.67	4.15	6.805	1.39	0.0090909
ALS_0114	387035.9	3745169.2	10.67	4.15	6.805	1.39	0.0090909
ALS_0115	387040.4	3745183.1	10.67	4.15	6.805	1.39	0.0090909
ALS_0116	387044.9	3745197.0	10.67	4.15	6.805	1.39	0.0090909
ALS_0117	387049.4	3745211.0	10.67	4.15	6.805	1.39	0.0090909
ALS_0118	387054.0	3745224.9	10.67	4.15	6.805	1.39	0.0090909
ALS_0119	387058.5	3745238.8	10.67	4.15	6.805	1.39	0.0090909
ALS_0120	387063.0	3745252.7	10.67	4.15	6.805	1.39	0.0090909
ALS_0121	387067.6	3745266.6	10.67	4.15	6.805	1.39	0.0090909
ALS_0122	387072.1	3745280.5	10.67	4.15	6.805	1.39	0.0090909
ALS_0123	387076.6	3745294.4	10.67	4.15	6.805	1.39	0.0090909
ALS_0124	387081.2	3745308.3	10.67	4.15	6.805	1.39	0.0090909
ALS_0125	387085.7	3745322.2	10.67	4.15	6.805	1.39	0.0090909
ALS_0126	387090.2	3745336.2	10.67	4.15	6.805	1.39	0.0090909
ALS_0127	387094.7	3745350.1	10.67	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
ALS_0128	387099.3	3745364.0	10.67	4.15	6.805	1.39	0.0090909
ALS_0129	387103.8	3745377.9	10.67	4.15	6.805	1.39	0.0090909
ALS_0130	387108.3	3745391.8	10.67	4.15	6.805	1.39	0.0090909
ALS_0131	387112.9	3745405.7	10.67	4.15	6.805	1.39	0.0090909
ALS_0132	387117.4	3745419.6	10.67	4.15	6.805	1.39	0.0090909
ALS_0133	387121.9	3745433.5	10.67	4.15	6.805	1.39	0.0090909
ALS_0134	387126.4	3745447.5	10.67	4.15	6.805	1.39	0.0090909
ALS_0135	387131.0	3745461.4	10.67	4.15	6.805	1.39	0.0090909
ALS_0136	387135.5	3745475.3	10.67	4.15	6.805	1.39	0.0090909
ALS_0137	387140.0	3745489.2	10.67	4.15	6.805	1.39	0.0090909
ALS_0138	387144.6	3745503.1	10.67	4.15	6.805	1.39	0.0090909
ALS_0139	387149.1	3745517.0	10.67	4.15	6.805	1.39	0.0090909
ALS_0140	387153.6	3745530.9	10.67	4.15	6.805	1.39	0.0090909
ALS_0141	387158.1	3745544.8	10.67	4.15	6.805	1.39	0.0090909
ALS_0142	387162.7	3745558.7	10.67	4.15	6.805	1.39	0.0090909
ALS_0143	387167.2	3745572.7	10.67	4.15	6.805	1.39	0.0090909
ALS_0144	387171.7	3745586.6	10.67	4.15	6.805	1.39	0.0090909
ALS_0145	387176.3	3745600.5	10.67	4.15	6.805	1.39	0.0090909
ALS_0146	387180.8	3745614.4	10.67	4.15	6.805	1.39	0.0090909
ALN_0001	387567.7	3748342.7	15.14	4.15	6.805	1.39	0.0090909
ALN_0002	387570.4	3748328.3	14.61	4.15	6.805	1.39	0.0090909
ALN_0003	387573.0	3748314.0	14.63	4.15	6.805	1.39	0.0090909
ALN_0004	387575.6	3748299.6	14.59	4.15	6.805	1.39	0.0090909
ALN_0005	387578.2	3748285.2	14.56	4.15	6.805	1.39	0.0090909
ALN_0006	387580.8	3748270.8	15.17	4.15	6.805	1.39	0.0090909
ALN_0007	387583.4	3748256.4	15.55	4.15	6.805	1.39	0.0090909
ALN_0008	387586.1	3748242.0	15.91	4.15	6.805	1.39	0.0090909
ALN_0009	387588.7	3748227.6	16.53	4.15	6.805	1.39	0.0090909
ALN_0010	387591.3	3748213.2	16.75	4.15	6.805	1.39	0.0090909
ALN_0011	387593.9	3748198.8	16.95	4.15	6.805	1.39	0.0090909
ALN_0012	387596.1	3748184.4	16.82	4.15	6.805	1.39	0.0090909
ALN_0013	387597.3	3748169.8	16.99	4.15	6.805	1.39	0.0090909
ALN_0014	387598.5	3748155.2	17.05	4.15	6.805	1.39	0.0090909
ALN_0015	387599.7	3748140.6	17.07	4.15	6.805	1.39	0.0090909
ALN_0016	387600.9	3748126.0	16.92	4.15	6.805	1.39	0.0090909
ALN_0017	387602.1	3748111.4	16.7	4.15	6.805	1.39	0.0090909
ALN_0018	387603.3	3748096.9	16.6	4.15	6.805	1.39	0.0090909
ALN_0019	387604.5	3748082.3	16.46	4.15	6.805	1.39	0.0090909
ALN_0020	387605.7	3748067.7	16.46	4.15	6.805	1.39	0.0090909
ALN_0021	387606.9	3748053.1	16.46	4.15	6.805	1.39	0.0090909
ALN_0022	387608.1	3748038.5	16.46	4.15	6.805	1.39	0.0090909
ALN_0023	387609.3	3748024.0	16.46	4.15	6.805	1.39	0.0090909
ALN_0024	387610.5	3748009.4	16.46	4.15	6.805	1.39	0.0090909
ALN_0025	387611.7	3747994.8	16.46	4.15	6.805	1.39	0.0090909
ALN_0026	387612.9	3747980.2	16.46	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
ALN_0027	387614.1	3747965.6	16.69	4.15	6.805	1.39	0.0090909
ALN_0028	387615.3	3747951.0	16.76	4.15	6.805	1.39	0.0090909
ALN_0029	387616.5	3747936.5	16.76	4.15	6.805	1.39	0.0090909
ALN_0030	387616.3	3747921.9	16.76	4.15	6.805	1.39	0.0090909
ALN_0031	387615.2	3747907.3	16.76	4.15	6.805	1.39	0.0090909
ALN_0032	387614.2	3747892.7	16.76	4.15	6.805	1.39	0.0090909
ALN_0033	387613.1	3747878.1	16.72	4.15	6.805	1.39	0.0090909
ALN_0034	387612.1	3747863.5	16.48	4.15	6.805	1.39	0.0090909
ALN_0035	387611.0	3747848.9	16.46	4.15	6.805	1.39	0.0090909
ALN_0036	387610.0	3747834.3	16.46	4.15	6.805	1.39	0.0090909
ALN_0037	387608.9	3747819.7	16.19	4.15	6.805	1.39	0.0090909
ALN_0038	387607.8	3747805.1	16.15	4.15	6.805	1.39	0.0090909
ALN_0039	387606.8	3747790.5	16.15	4.15	6.805	1.39	0.0090909
ALN_0040	387605.7	3747776.0	16.15	4.15	6.805	1.39	0.0090909
ALN_0041	387604.7	3747761.4	16.15	4.15	6.805	1.39	0.0090909
ALN_0042	387602.9	3747746.8	16.15	4.15	6.805	1.39	0.0090909
ALN_0043	387601.0	3747732.3	16.15	4.15	6.805	1.39	0.0090909
ALN_0044	387599.1	3747717.8	16.15	4.15	6.805	1.39	0.0090909
ALN_0045	387597.3	3747703.3	16.01	4.15	6.805	1.39	0.0090909
ALN_0046	387595.4	3747688.8	16.01	4.15	6.805	1.39	0.0090909
ALN_0047	387593.5	3747674.3	16.15	4.15	6.805	1.39	0.0090909
ALN_0048	387591.6	3747659.8	16.15	4.15	6.805	1.39	0.0090909
ALN_0049	387589.8	3747645.3	16.15	4.15	6.805	1.39	0.0090909
ALN_0050	387587.9	3747630.8	16.15	4.15	6.805	1.39	0.0090909
ALN_0051	387586.0	3747616.3	16.15	4.15	6.805	1.39	0.0090909
ALN_0052	387584.1	3747601.7	15.9	4.15	6.805	1.39	0.0090909
ALN_0053	387582.3	3747587.2	15.85	4.15	6.805	1.39	0.0090909
ALN_0054	387580.4	3747572.7	15.85	4.15	6.805	1.39	0.0090909
ALN_0055	387578.5	3747558.2	15.85	4.15	6.805	1.39	0.0090909
ALN_0056	387576.7	3747543.7	15.85	4.15	6.805	1.39	0.0090909
ALN_0057	387573.0	3747529.5	15.75	4.15	6.805	1.39	0.0090909
ALN_0058	387569.3	3747515.4	15.54	4.15	6.805	1.39	0.0090909
ALN_0059	387565.5	3747501.3	15.54	4.15	6.805	1.39	0.0090909
ALN_0060	387561.8	3747487.1	15.24	4.15	6.805	1.39	0.0090909
ALN_0061	387558.0	3747473.0	15.24	4.15	6.805	1.39	0.0090909
ALN_0062	387554.3	3747458.8	15.24	4.15	6.805	1.39	0.0090909
ALN_0063	387550.5	3747444.7	15.24	4.15	6.805	1.39	0.0090909
ALN_0064	387546.8	3747430.5	15.24	4.15	6.805	1.39	0.0090909
ALN_0065	387543.1	3747416.4	15.24	4.15	6.805	1.39	0.0090909
ALN_0066	387539.3	3747402.3	15.24	4.15	6.805	1.39	0.0090909
ALN_0067	387535.6	3747388.1	15.24	4.15	6.805	1.39	0.0090909
ALN_0068	387531.8	3747374.0	15.24	4.15	6.805	1.39	0.0090909
ALN_0069	387528.7	3747359.7	15.24	4.15	6.805	1.39	0.0090909
ALN_0070	387525.9	3747345.3	15.24	4.15	6.805	1.39	0.0090909
ALN_0071	387523.0	3747331.0	15.24	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
ALN_0072	387520.2	3747316.6	15.24	4.15	6.805	1.39	0.0090909
ALN_0073	387517.3	3747302.3	15.24	4.15	6.805	1.39	0.0090909
ALN_0074	387514.5	3747287.9	15.24	4.15	6.805	1.39	0.0090909
ALN_0075	387511.6	3747273.6	15.24	4.15	6.805	1.39	0.0090909
ALN_0076	387508.8	3747259.2	15.24	4.15	6.805	1.39	0.0090909
ALN_0077	387505.9	3747244.9	15.24	4.15	6.805	1.39	0.0090909
ALN_0078	387503.1	3747230.5	15.24	4.15	6.805	1.39	0.0090909
ALN_0079	387501.2	3747216.0	15.24	4.15	6.805	1.39	0.0090909
ALN_0080	387500.4	3747201.4	15.24	4.15	6.805	1.39	0.0090909
ALN_0081	387499.5	3747186.8	15.15	4.15	6.805	1.39	0.0090909
ALN_0082	387498.6	3747172.2	15.18	4.15	6.805	1.39	0.0090909
ALN_0083	387497.8	3747157.6	15.24	4.15	6.805	1.39	0.0090909
ALN_0084	387496.9	3747143.0	15.24	4.15	6.805	1.39	0.0090909
ALN_0085	387496.1	3747128.4	15.24	4.15	6.805	1.39	0.0090909
ALN_0086	387495.2	3747113.8	15.24	4.15	6.805	1.39	0.0090909
ALN_0087	387494.4	3747099.2	15.24	4.15	6.805	1.39	0.0090909
ALN_0088	387493.5	3747084.6	15.24	4.15	6.805	1.39	0.0090909
ALN_0089	387492.6	3747070.0	15.24	4.15	6.805	1.39	0.0090909
ALN_0090	387491.8	3747055.4	15.24	4.15	6.805	1.39	0.0090909
ALN_0091	387490.9	3747040.8	15.24	4.15	6.805	1.39	0.0090909
ALN_0092	387490.1	3747026.2	15.24	4.15	6.805	1.39	0.0090909
ALN_0093	387489.2	3747011.6	15.24	4.15	6.805	1.39	0.0090909
ALN_0094	387488.3	3746997.0	15.24	4.15	6.805	1.39	0.0090909
ALN_0095	387487.5	3746982.4	15.24	4.15	6.805	1.39	0.0090909
ALN_0096	387486.6	3746967.8	15.24	4.15	6.805	1.39	0.0090909
ALN_0097	387485.8	3746953.2	15.24	4.15	6.805	1.39	0.0090909
ALN_0098	387484.9	3746938.5	15.24	4.15	6.805	1.39	0.0090909
ALN_0099	387484.0	3746923.9	15.24	4.15	6.805	1.39	0.0090909
ALN_0100	387483.2	3746909.3	15.24	4.15	6.805	1.39	0.0090909
ALN_0101	387482.3	3746894.7	15.24	4.15	6.805	1.39	0.0090909
ALN_0102	387481.5	3746880.1	15.24	4.15	6.805	1.39	0.0090909
ALN_0103	387480.6	3746865.5	15.24	4.15	6.805	1.39	0.0090909
ALN_0104	387479.7	3746850.9	15.23	4.15	6.805	1.39	0.0090909
ALN_0105	387478.9	3746836.3	14.94	4.15	6.805	1.39	0.0090909
ALN_0106	387478.0	3746821.7	14.94	4.15	6.805	1.39	0.0090909
ALN_0107	387477.2	3746807.1	14.91	4.15	6.805	1.39	0.0090909
ALN_0108	387476.3	3746792.5	14.68	4.15	6.805	1.39	0.0090909
ALN_0109	387475.5	3746777.9	14.6	4.15	6.805	1.39	0.0090909
ALN_0110	387474.6	3746763.3	14.37	4.15	6.805	1.39	0.0090909
ALN_0111	387473.8	3746748.7	14.33	4.15	6.805	1.39	0.0090909
ALN_0112	387472.9	3746734.1	14.33	4.15	6.805	1.39	0.0090909
ALN_0113	387472.1	3746719.5	14.33	4.15	6.805	1.39	0.0090909
ALN_0114	387471.2	3746704.9	14.33	4.15	6.805	1.39	0.0090909
ALN_0115	387470.4	3746690.3	14.04	4.15	6.805	1.39	0.0090909
ALN_0116	387469.5	3746675.7	14.02	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
ALN_0117	387468.7	3746661.0	14.02	4.15	6.805	1.39	0.0090909
ALN_0118	387467.8	3746646.4	13.72	4.15	6.805	1.39	0.0090909
ALN_0119	387467.0	3746631.8	13.72	4.15	6.805	1.39	0.0090909
ALN_0120	387466.1	3746617.2	13.72	4.15	6.805	1.39	0.0090909
ALN_0121	387465.3	3746602.6	13.72	4.15	6.805	1.39	0.0090909
ALN_0122	387464.4	3746588.0	13.72	4.15	6.805	1.39	0.0090909
ALN_0123	387463.6	3746573.4	13.72	4.15	6.805	1.39	0.0090909
ALN_0124	387462.7	3746558.8	13.72	4.15	6.805	1.39	0.0090909
ALN_0125	387460.4	3746544.4	13.72	4.15	6.805	1.39	0.0090909
ALN_0126	387457.1	3746530.2	13.72	4.15	6.805	1.39	0.0090909
ALN_0127	387453.7	3746515.9	13.72	4.15	6.805	1.39	0.0090909
ALN_0128	387450.4	3746501.7	13.72	4.15	6.805	1.39	0.0090909
ALN_0129	387447.0	3746487.4	13.72	4.15	6.805	1.39	0.0090909
ALN_0130	387443.6	3746473.2	13.72	4.15	6.805	1.39	0.0090909
ALN_0131	387440.3	3746459.0	13.72	4.15	6.805	1.39	0.0090909
ALN_0132	387436.9	3746444.7	13.72	4.15	6.805	1.39	0.0090909
ALN_0133	387433.6	3746430.5	13.72	4.15	6.805	1.39	0.0090909
ALN_0134	387430.2	3746416.2	13.72	4.15	6.805	1.39	0.0090909
ALN_0135	387426.9	3746402.0	13.72	4.15	6.805	1.39	0.0090909
ALN_0136	387423.5	3746387.8	13.72	4.15	6.805	1.39	0.0090909
ALN_0137	387420.1	3746373.5	13.72	4.15	6.805	1.39	0.0090909
ALN_0138	387416.8	3746359.3	13.72	4.15	6.805	1.39	0.0090909
ALN_0139	387413.4	3746345.0	13.72	4.15	6.805	1.39	0.0090909
ALN_0140	387410.1	3746330.8	13.72	4.15	6.805	1.39	0.0090909
ALN_0141	387406.7	3746316.6	13.72	4.15	6.805	1.39	0.0090909
ALN_0142	387403.0	3746302.4	13.72	4.15	6.805	1.39	0.0090909
ALN_0143	387398.6	3746288.5	13.72	4.15	6.805	1.39	0.0090909
ALN_0144	387394.2	3746274.5	13.72	4.15	6.805	1.39	0.0090909
ALN_0145	387389.7	3746260.6	13.72	4.15	6.805	1.39	0.0090909
ALN_0146	387385.3	3746246.7	13.72	4.15	6.805	1.39	0.0090909
ALN_0147	387380.9	3746232.7	13.72	4.15	6.805	1.39	0.0090909
ALN_0148	387376.4	3746218.8	13.72	4.15	6.805	1.39	0.0090909
ALN_0149	387372.0	3746204.8	13.72	4.15	6.805	1.39	0.0090909
ALN_0150	387367.6	3746190.9	13.72	4.15	6.805	1.39	0.0090909
ALN_0151	387363.1	3746176.9	13.69	4.15	6.805	1.39	0.0090909
ALN_0152	387358.7	3746163.0	13.5	4.15	6.805	1.39	0.0090909
ALN_0153	387354.3	3746149.1	13.41	4.15	6.805	1.39	0.0090909
ALN_0154	387349.8	3746135.1	13.41	4.15	6.805	1.39	0.0090909
ALN_0155	387345.4	3746121.2	13.41	4.15	6.805	1.39	0.0090909
ALN_0156	387341.0	3746107.2	13.41	4.15	6.805	1.39	0.0090909
ALN_0157	387336.5	3746093.3	13.41	4.15	6.805	1.39	0.0090909
ALN_0158	387332.1	3746079.3	13.41	4.15	6.805	1.39	0.0090909
ALN_0159	387327.7	3746065.4	13.3	4.15	6.805	1.39	0.0090909
ALN_0160	387323.2	3746051.5	13.14	4.15	6.805	1.39	0.0090909
ALN_0161	387318.8	3746037.5	13.04	4.15	6.805	1.39	0.0090909

<u>Source ID</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>	<u>Elevation (m)</u>	<u>Release Ht (m)</u>	<u>Sigma Y (m)</u>	<u>Sigma Z (m)</u>	<u>"Length" (mile)</u>
ALN_0162	387314.4	3746023.6	12.86	4.15	6.805	1.39	0.0090909
ALN_0163	387309.9	3746009.6	12.8	4.15	6.805	1.39	0.0090909
ALN_0164	387305.4	3745995.7	12.67	4.15	6.805	1.39	0.0090909
ALN_0165	387300.8	3745981.8	12.5	4.15	6.805	1.39	0.0090909
ALN_0166	387296.3	3745967.9	12.43	4.15	6.805	1.39	0.0090909
ALN_0167	387291.7	3745954.0	12.19	4.15	6.805	1.39	0.0090909
ALN_0168	387287.2	3745940.1	12.19	4.15	6.805	1.39	0.0090909
ALN_0169	387282.6	3745926.2	12.19	4.15	6.805	1.39	0.0090909
ALN_0170	387278.1	3745912.3	12.19	4.15	6.805	1.39	0.0090909
ALN_0171	387273.5	3745898.4	12.19	4.15	6.805	1.39	0.0090909
ALN_0172	387268.9	3745884.5	12.19	4.15	6.805	1.39	0.0090909
ALN_0173	387264.4	3745870.6	12.19	4.15	6.805	1.39	0.0090909
ALN_0174	387259.8	3745856.7	12.19	4.15	6.805	1.39	0.0090909
ALN_0175	387255.3	3745842.8	12.19	4.15	6.805	1.39	0.0090909
ALN_0176	387250.7	3745828.9	12.19	4.15	6.805	1.39	0.0090909
ALN_0177	387246.2	3745815.0	12.19	4.15	6.805	1.39	0.0090909
ALN_0178	387241.6	3745801.1	12.19	4.15	6.805	1.39	0.0090909
ALN_0179	387237.1	3745787.2	12.19	4.15	6.805	1.39	0.0090909
ALN_0180	387232.5	3745773.3	12.19	4.15	6.805	1.39	0.0090909
ALN_0181	387228.0	3745759.4	12.18	4.15	6.805	1.39	0.0090909
ALN_0182	387223.4	3745745.5	12	4.15	6.805	1.39	0.0090909
ALN_0183	387218.9	3745731.6	11.89	4.15	6.805	1.39	0.0090909
ALN_0184	387214.3	3745717.6	11.34	4.15	6.805	1.39	0.0090909
ALN_0185	387209.7	3745703.7	10.78	4.15	6.805	1.39	0.0090909
ALN_0186	387205.2	3745689.8	10.67	4.15	6.805	1.39	0.0090909
ALN_0187	387200.6	3745675.9	10.67	4.15	6.805	1.39	0.0090909
ALN_0188	387196.1	3745662.0	10.67	4.15	6.805	1.39	0.0090909
ALN_0189	387191.9	3745649.3	10.67	4.15	6.805	1.39	0.0090909

Boundary Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2502	BOUNDARY	385638.1	3744819.0
2503	BOUNDARY	385613.8	3744819.3
2504	BOUNDARY	385589.6	3744819.5
2505	BOUNDARY	385565.3	3744819.8
2506	BOUNDARY	385541.0	3744820.1
2507	BOUNDARY	385516.8	3744820.4
2508	BOUNDARY	385492.5	3744820.6
2509	BOUNDARY	385468.2	3744820.9
2510	BOUNDARY	385444.0	3744821.2
2511	BOUNDARY	385419.7	3744821.4
2512	BOUNDARY	385395.5	3744821.7
2513	BOUNDARY	385371.2	3744822.0
2514	BOUNDARY	385346.9	3744822.3
2515	BOUNDARY	385322.7	3744822.5
2516	BOUNDARY	385298.4	3744822.8
2517	BOUNDARY	385274.1	3744823.1
2518	BOUNDARY	385249.9	3744823.3
2519	BOUNDARY	385225.6	3744823.6
2520	BOUNDARY	385201.3	3744823.9
2521	BOUNDARY	385177.1	3744824.2
2522	BOUNDARY	385152.8	3744824.4
2523	BOUNDARY	385128.5	3744824.7
2524	BOUNDARY	385104.3	3744825.0
2525	BOUNDARY	385080.0	3744825.2
2526	BOUNDARY	385055.8	3744825.5
2527	BOUNDARY	385031.5	3744825.8
2528	BOUNDARY	385007.2	3744826.1
2529	BOUNDARY	384983.0	3744826.3
2530	BOUNDARY	384958.7	3744826.6
2531	BOUNDARY	384958.4	3744802.8
2532	BOUNDARY	384958.1	3744779.0
2533	BOUNDARY	384957.9	3744755.2
2534	BOUNDARY	384957.6	3744731.4
2535	BOUNDARY	384957.3	3744707.6
2536	BOUNDARY	384957.0	3744683.8
2537	BOUNDARY	384956.8	3744660.0
2538	BOUNDARY	384956.5	3744636.2
2539	BOUNDARY	384956.2	3744612.5
2540	BOUNDARY	384955.9	3744588.7
2541	BOUNDARY	384955.7	3744564.9
2542	BOUNDARY	384955.4	3744541.1
2543	BOUNDARY	384955.1	3744517.3
2544	BOUNDARY	384954.8	3744493.5
2545	BOUNDARY	384954.6	3744469.7
2546	BOUNDARY	384954.3	3744445.9
2547	BOUNDARY	384954.0	3744422.1
2548	BOUNDARY	384929.3	3744422.2
2549	BOUNDARY	384904.6	3744422.4
2550	BOUNDARY	384879.9	3744422.5

Boundary Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2551	BOUNDARY	384855.2	3744422.6
2552	BOUNDARY	384830.5	3744422.8
2553	BOUNDARY	384805.8	3744422.9
2554	BOUNDARY	384781.1	3744423.1
2555	BOUNDARY	384756.3	3744423.2
2556	BOUNDARY	384731.6	3744423.3
2557	BOUNDARY	384706.9	3744423.5
2558	BOUNDARY	384682.2	3744423.6
2559	BOUNDARY	384657.5	3744423.8
2560	BOUNDARY	384632.8	3744423.9
2561	BOUNDARY	384608.1	3744424.0
2562	BOUNDARY	384583.4	3744424.2
2563	BOUNDARY	384558.7	3744424.3
2564	BOUNDARY	384534.0	3744424.4
2565	BOUNDARY	384509.3	3744424.6
2566	BOUNDARY	384484.6	3744424.7
2567	BOUNDARY	384459.9	3744424.9
2568	BOUNDARY	384435.2	3744425.0
2569	BOUNDARY	384410.5	3744425.1
2570	BOUNDARY	384385.8	3744425.3
2571	BOUNDARY	384361.0	3744425.4
2572	BOUNDARY	384336.3	3744425.5
2573	BOUNDARY	384311.6	3744425.7
2574	BOUNDARY	384286.9	3744425.8
2575	BOUNDARY	384262.2	3744426.0
2576	BOUNDARY	384237.5	3744426.1
2577	BOUNDARY	384212.8	3744426.2
2578	BOUNDARY	384188.1	3744426.4
2579	BOUNDARY	384163.4	3744426.5
2580	BOUNDARY	384138.7	3744426.6
2581	BOUNDARY	384114.0	3744426.8
2582	BOUNDARY	384089.3	3744426.9
2583	BOUNDARY	384064.6	3744427.1
2584	BOUNDARY	384039.9	3744427.2
2585	BOUNDARY	384015.2	3744427.3
2586	BOUNDARY	383990.5	3744427.5
2587	BOUNDARY	383965.8	3744427.6
2588	BOUNDARY	383941.0	3744427.7
2589	BOUNDARY	383916.3	3744427.9
2590	BOUNDARY	383891.6	3744428.0
2591	BOUNDARY	383866.9	3744428.2
2592	BOUNDARY	383842.2	3744428.3
2593	BOUNDARY	383817.5	3744428.4
2594	BOUNDARY	383792.8	3744428.6
2595	BOUNDARY	383768.1	3744428.7
2596	BOUNDARY	383768.3	3744452.8
2597	BOUNDARY	383768.4	3744476.9
2598	BOUNDARY	383768.6	3744501.1
2599	BOUNDARY	383768.8	3744525.2

Boundary Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2600	BOUNDARY	383768.9	3744549.3
2601	BOUNDARY	383769.1	3744573.4
2602	BOUNDARY	383769.3	3744597.6
2603	BOUNDARY	383769.4	3744621.7
2604	BOUNDARY	383769.6	3744645.8
2605	BOUNDARY	383769.7	3744669.9
2606	BOUNDARY	383769.9	3744694.1
2607	BOUNDARY	383770.1	3744718.2
2608	BOUNDARY	383770.2	3744742.3
2609	BOUNDARY	383770.4	3744766.4
2610	BOUNDARY	383770.6	3744790.6
2611	BOUNDARY	383770.7	3744814.7
2612	BOUNDARY	383770.9	3744838.8
2613	BOUNDARY	383795.9	3744838.4
2614	BOUNDARY	383820.9	3744838.1
2615	BOUNDARY	383845.8	3744837.8
2616	BOUNDARY	383870.8	3744837.4
2617	BOUNDARY	383895.8	3744837.0
2618	BOUNDARY	383920.8	3744836.7
2619	BOUNDARY	383945.8	3744836.4
2620	BOUNDARY	383970.8	3744836.0
2621	BOUNDARY	383995.7	3744835.6
2622	BOUNDARY	384020.7	3744835.3
2623	BOUNDARY	384045.7	3744835.0
2624	BOUNDARY	384070.7	3744834.6
2625	BOUNDARY	384095.7	3744834.2
2626	BOUNDARY	384120.6	3744833.9
2627	BOUNDARY	384145.6	3744833.6
2628	BOUNDARY	384170.6	3744833.2
2629	BOUNDARY	384170.8	3744857.6
2630	BOUNDARY	384171.0	3744882.0
2631	BOUNDARY	384171.3	3744906.4
2632	BOUNDARY	384171.5	3744930.8
2633	BOUNDARY	384171.7	3744955.1
2634	BOUNDARY	384171.9	3744979.5
2635	BOUNDARY	384172.2	3745003.9
2636	BOUNDARY	384172.4	3745028.3
2637	BOUNDARY	384172.6	3745052.7
2638	BOUNDARY	384172.8	3745077.1
2639	BOUNDARY	384173.1	3745101.5
2640	BOUNDARY	384173.3	3745125.9
2641	BOUNDARY	384173.5	3745150.2
2642	BOUNDARY	384173.7	3745174.6
2643	BOUNDARY	384174.0	3745199.0
2644	BOUNDARY	384174.2	3745223.4
2645	BOUNDARY	384174.4	3745247.8
2646	BOUNDARY	384174.6	3745272.2
2647	BOUNDARY	384174.8	3745296.6
2648	BOUNDARY	384175.1	3745321.0

Boundary Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2649	BOUNDARY	384175.3	3745345.4
2650	BOUNDARY	384175.5	3745369.7
2651	BOUNDARY	384175.7	3745394.1
2652	BOUNDARY	384176.0	3745418.5
2653	BOUNDARY	384176.2	3745442.9
2654	BOUNDARY	384176.4	3745467.3
2655	BOUNDARY	384176.6	3745491.7
2656	BOUNDARY	384176.9	3745516.1
2657	BOUNDARY	384177.1	3745540.5
2658	BOUNDARY	384177.3	3745564.8
2659	BOUNDARY	384177.5	3745589.2
2660	BOUNDARY	384177.8	3745613.6
2661	BOUNDARY	384178.0	3745638.0
2662	BOUNDARY	384178.2	3745662.4
2663	BOUNDARY	384203.0	3745662.1
2664	BOUNDARY	384227.8	3745661.8
2665	BOUNDARY	384252.7	3745661.5
2666	BOUNDARY	384277.5	3745661.2
2667	BOUNDARY	384302.3	3745660.9
2668	BOUNDARY	384327.1	3745660.6
2669	BOUNDARY	384351.9	3745660.3
2670	BOUNDARY	384376.8	3745660.0
2671	BOUNDARY	384401.6	3745659.7
2672	BOUNDARY	384426.4	3745659.4
2673	BOUNDARY	384451.2	3745659.1
2674	BOUNDARY	384476.0	3745658.8
2675	BOUNDARY	384500.9	3745658.5
2676	BOUNDARY	384525.7	3745658.2
2677	BOUNDARY	384550.5	3745657.9
2678	BOUNDARY	384575.3	3745657.5
2679	BOUNDARY	384600.1	3745657.2
2680	BOUNDARY	384625.0	3745656.9
2681	BOUNDARY	384649.8	3745656.6
2682	BOUNDARY	384674.6	3745656.3
2683	BOUNDARY	384699.4	3745656.0
2684	BOUNDARY	384724.2	3745655.7
2685	BOUNDARY	384749.1	3745655.4
2686	BOUNDARY	384773.9	3745655.1
2687	BOUNDARY	384798.7	3745654.8
2688	BOUNDARY	384823.5	3745654.5
2689	BOUNDARY	384848.3	3745654.2
2690	BOUNDARY	384873.2	3745653.9
2691	BOUNDARY	384898.0	3745653.6
2692	BOUNDARY	384922.8	3745653.3
2693	BOUNDARY	384947.6	3745653.0
2694	BOUNDARY	384972.5	3745652.7
2695	BOUNDARY	384997.3	3745652.4
2696	BOUNDARY	385022.1	3745652.1
2697	BOUNDARY	385046.9	3745651.8

Boundary Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2698	BOUNDARY	385071.7	3745651.5
2699	BOUNDARY	385096.6	3745651.2
2700	BOUNDARY	385121.4	3745650.9
2701	BOUNDARY	385146.2	3745650.6
2702	BOUNDARY	385171.0	3745650.3
2703	BOUNDARY	385195.8	3745650.0
2704	BOUNDARY	385220.7	3745649.7
2705	BOUNDARY	385245.5	3745649.4
2706	BOUNDARY	385270.3	3745649.1
2707	BOUNDARY	385295.1	3745648.8
2708	BOUNDARY	385319.9	3745648.5
2709	BOUNDARY	385344.8	3745648.2
2710	BOUNDARY	385369.6	3745647.9
2711	BOUNDARY	385394.4	3745647.5
2712	BOUNDARY	385419.2	3745647.2
2713	BOUNDARY	385444.0	3745646.9
2714	BOUNDARY	385468.9	3745646.6
2715	BOUNDARY	385493.7	3745646.3
2716	BOUNDARY	385518.5	3745646.0
2717	BOUNDARY	385543.3	3745645.7
2718	BOUNDARY	385568.1	3745645.4
2719	BOUNDARY	385593.0	3745645.1
2720	BOUNDARY	385617.8	3745644.8
2721	BOUNDARY	385642.6	3745644.5
2722	BOUNDARY	385667.4	3745644.2
2723	BOUNDARY	385692.2	3745643.9
2724	BOUNDARY	385717.1	3745643.6
2725	BOUNDARY	385741.9	3745643.3
2726	BOUNDARY	385766.7	3745643.0
2727	BOUNDARY	385767.0	3745622.8
2728	BOUNDARY	385767.3	3745602.7
2729	BOUNDARY	385767.6	3745582.5
2730	BOUNDARY	385782.7	3745582.5
2731	BOUNDARY	385797.8	3745582.5
2732	BOUNDARY	385798.3	3745558.4
2733	BOUNDARY	385798.8	3745534.3
2734	BOUNDARY	385784.6	3745534.3
2735	BOUNDARY	385784.2	3745510.3
2736	BOUNDARY	385783.9	3745486.3
2737	BOUNDARY	385783.5	3745462.4
2738	BOUNDARY	385783.2	3745438.4
2739	BOUNDARY	385782.8	3745414.4
2740	BOUNDARY	385782.5	3745390.5
2741	BOUNDARY	385782.1	3745366.5
2742	BOUNDARY	385781.8	3745342.5
2743	BOUNDARY	385757.0	3745343.4
2744	BOUNDARY	385732.3	3745344.4
2745	BOUNDARY	385707.5	3745345.3
2746	BOUNDARY	385682.8	3745346.3

Boundary Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2747	BOUNDARY	385658.0	3745347.2
2748	BOUNDARY	385658.0	3745330.7
2749	BOUNDARY	385658.0	3745314.1
2750	BOUNDARY	385637.7	3745314.1
2751	BOUNDARY	385617.4	3745314.1
2752	BOUNDARY	385617.4	3745291.8
2753	BOUNDARY	385617.4	3745269.6
2754	BOUNDARY	385617.4	3745247.3
2755	BOUNDARY	385617.4	3745225.1
2756	BOUNDARY	385617.4	3745202.8
2757	BOUNDARY	385617.4	3745180.6
2758	BOUNDARY	385617.4	3745158.3
2759	BOUNDARY	385617.4	3745136.1
2760	BOUNDARY	385617.4	3745113.8
2761	BOUNDARY	385640.4	3745113.8
2762	BOUNDARY	385663.5	3745113.8
2763	BOUNDARY	385686.5	3745113.8
2764	BOUNDARY	385709.6	3745113.8
2765	BOUNDARY	385732.6	3745113.8
2766	BOUNDARY	385725.3	3745091.1
2767	BOUNDARY	385718.1	3745068.4
2768	BOUNDARY	385710.8	3745045.8
2769	BOUNDARY	385703.5	3745023.1
2770	BOUNDARY	385696.3	3745000.4
2771	BOUNDARY	385689.0	3744977.7
2772	BOUNDARY	385681.7	3744955.1
2773	BOUNDARY	385674.4	3744932.4
2774	BOUNDARY	385667.2	3744909.7
2775	BOUNDARY	385659.9	3744887.0
2776	BOUNDARY	385652.6	3744864.4
2777	BOUNDARY	385645.4	3744841.7

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1747	RESIDENTIAL	385400.0	3744600.0
1748	RESIDENTIAL	385450.0	3744600.0
2778	RESIDENTIAL	385889.9	3745749.5
2779	RESIDENTIAL	385869.8	3745739.9
2780	RESIDENTIAL	385856.7	3745731.1
2781	RESIDENTIAL	385841.0	3745731.1
2782	RESIDENTIAL	385826.2	3745722.4
2783	RESIDENTIAL	385813.1	3745713.7
2784	RESIDENTIAL	385800.0	3745706.7
2785	RESIDENTIAL	385783.4	3745699.7
2786	RESIDENTIAL	385767.7	3745691.8
2787	RESIDENTIAL	385749.4	3745689.2
2788	RESIDENTIAL	385731.0	3745689.2
2789	RESIDENTIAL	385717.9	3745689.2
2790	RESIDENTIAL	385701.3	3745689.2
2791	RESIDENTIAL	385686.5	3745689.2
2792	RESIDENTIAL	385670.8	3745689.2
2793	RESIDENTIAL	385656.8	3745689.2
2794	RESIDENTIAL	385642.0	3745689.2
2795	RESIDENTIAL	385623.6	3745689.2
2796	RESIDENTIAL	385608.8	3745690.1
2797	RESIDENTIAL	385595.7	3745689.2
2798	RESIDENTIAL	385580.9	3745691.0
2799	RESIDENTIAL	385562.5	3745690.1
2800	RESIDENTIAL	385549.4	3745690.1
2801	RESIDENTIAL	385525.9	3745691.8
2802	RESIDENTIAL	385506.7	3745700.6
2803	RESIDENTIAL	385501.4	3745726.8
2804	RESIDENTIAL	385503.2	3745742.5
2805	RESIDENTIAL	385503.2	3745764.3
2806	RESIDENTIAL	385467.4	3745768.7
2807	RESIDENTIAL	385449.9	3745769.5
2808	RESIDENTIAL	385436.0	3745772.2
2809	RESIDENTIAL	385420.2	3745772.2
2810	RESIDENTIAL	385406.3	3745772.2
2811	RESIDENTIAL	385389.7	3745772.2
2812	RESIDENTIAL	385372.2	3745772.2
2813	RESIDENTIAL	385360.9	3745772.2
2814	RESIDENTIAL	385341.7	3745773.9
2815	RESIDENTIAL	385332.1	3745774.8
2816	RESIDENTIAL	385315.5	3745773.9
2817	RESIDENTIAL	385299.8	3745773.0
2818	RESIDENTIAL	385284.1	3745773.9
2819	RESIDENTIAL	385267.5	3745773.9
2820	RESIDENTIAL	385251.4	3745773.0
2821	RESIDENTIAL	385235.7	3745773.0
2822	RESIDENTIAL	385219.9	3745772.2
2823	RESIDENTIAL	385205.1	3745773.0
2824	RESIDENTIAL	385190.3	3745773.0

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2825	RESIDENTIAL	385175.4	3745773.0
2826	RESIDENTIAL	385161.8	3745774.8
2827	RESIDENTIAL	385143.5	3745773.9
2828	RESIDENTIAL	385132.2	3745773.9
2829	RESIDENTIAL	385115.6	3745773.9
2830	RESIDENTIAL	385096.4	3745774.8
2831	RESIDENTIAL	385084.1	3745775.7
2832	RESIDENTIAL	385069.3	3745775.7
2833	RESIDENTIAL	385052.7	3745775.7
2834	RESIDENTIAL	385037.0	3745777.4
2835	RESIDENTIAL	385002.1	3745778.3
2836	RESIDENTIAL	384984.6	3745778.3
2837	RESIDENTIAL	384969.8	3745778.3
2838	RESIDENTIAL	384954.5	3745779.1
2839	RESIDENTIAL	384941.5	3745778.3
2840	RESIDENTIAL	384923.1	3745778.3
2841	RESIDENTIAL	384911.8	3745778.3
2842	RESIDENTIAL	384895.2	3745779.1
2843	RESIDENTIAL	384881.2	3745778.3
2844	RESIDENTIAL	384862.9	3745779.1
2845	RESIDENTIAL	384848.0	3745779.1
2846	RESIDENTIAL	384833.2	3745779.1
2847	RESIDENTIAL	384817.5	3745779.1
2848	RESIDENTIAL	384801.8	3745778.3
2849	RESIDENTIAL	384786.9	3745781.8
2850	RESIDENTIAL	384773.8	3745791.4
2851	RESIDENTIAL	384549.4	3745802.9
2852	RESIDENTIAL	384549.4	3745785.9
2853	RESIDENTIAL	384549.4	3745769.8
2854	RESIDENTIAL	384542.9	3745753.6
2855	RESIDENTIAL	384548.6	3745740.7
2856	RESIDENTIAL	384544.5	3745714.8
2857	RESIDENTIAL	384531.6	3745704.3
2858	RESIDENTIAL	384509.8	3745704.3
2859	RESIDENTIAL	384492.0	3745703.5
2860	RESIDENTIAL	384477.5	3745703.5
2861	RESIDENTIAL	384464.5	3745704.3
2862	RESIDENTIAL	384446.8	3745704.3
2863	RESIDENTIAL	384431.4	3745705.9
2864	RESIDENTIAL	384415.3	3745707.5
2865	RESIDENTIAL	384402.3	3745707.5
2866	RESIDENTIAL	384387.8	3745705.1
2867	RESIDENTIAL	384374.1	3745704.3
2868	RESIDENTIAL	384355.5	3745704.3
2869	RESIDENTIAL	384338.5	3745704.3
2870	RESIDENTIAL	384325.6	3745705.9
2871	RESIDENTIAL	384314.3	3745705.9
2872	RESIDENTIAL	384295.7	3745706.7
2873	RESIDENTIAL	384278.7	3745707.5

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2874	RESIDENTIAL	384265.8	3745707.5
2875	RESIDENTIAL	384248.0	3745705.1
2876	RESIDENTIAL	384236.7	3745708.4
2877	RESIDENTIAL	384219.7	3745708.4
2878	RESIDENTIAL	384203.6	3745704.3
2879	RESIDENTIAL	384181.0	3745708.4
2880	RESIDENTIAL	384155.9	3745714.0
2881	RESIDENTIAL	384133.3	3745705.1
2882	RESIDENTIAL	384136.5	3745720.5
2883	RESIDENTIAL	384132.5	3745737.4
2884	RESIDENTIAL	384132.5	3745750.4
2885	RESIDENTIAL	384089.7	3745727.7
2886	RESIDENTIAL	384075.1	3745726.1
2887	RESIDENTIAL	384059.8	3745722.1
2888	RESIDENTIAL	384043.6	3745722.1
2889	RESIDENTIAL	384026.7	3745718.1
2890	RESIDENTIAL	384011.3	3745718.9
2891	RESIDENTIAL	383996.8	3745718.9
2892	RESIDENTIAL	383981.4	3745718.9
2893	RESIDENTIAL	383964.4	3745721.3
2894	RESIDENTIAL	383951.5	3745720.5
2895	RESIDENTIAL	383935.4	3745722.9
2896	RESIDENTIAL	383922.4	3745722.9
2897	RESIDENTIAL	383902.2	3745722.1
2898	RESIDENTIAL	383890.9	3745726.9
2899	RESIDENTIAL	383872.8	3745722.1
2900	RESIDENTIAL	383860.7	3745724.5
2901	RESIDENTIAL	383841.3	3745724.5
2902	RESIDENTIAL	383829.2	3745726.9
2903	RESIDENTIAL	383812.2	3745726.9
2904	RESIDENTIAL	383797.3	3745628.8
2905	RESIDENTIAL	383798.9	3745578.7
2906	RESIDENTIAL	383801.3	3745548.0
2907	RESIDENTIAL	383791.6	3745518.1
2908	RESIDENTIAL	383798.1	3745498.7
2909	RESIDENTIAL	383794.8	3745481.8
2910	RESIDENTIAL	383795.6	3745450.2
2911	RESIDENTIAL	383772.2	3745449.4
2912	RESIDENTIAL	383744.8	3745452.7
2913	RESIDENTIAL	383718.9	3745448.6
2914	RESIDENTIAL	383670.4	3745449.4
2915	RESIDENTIAL	383644.6	3745450.2
2916	RESIDENTIAL	383619.5	3745451.9
2917	RESIDENTIAL	383787.6	3744396.7
2918	RESIDENTIAL	383844.1	3744398.3
2919	RESIDENTIAL	383861.9	3744398.3
2920	RESIDENTIAL	383880.5	3744396.7
2921	RESIDENTIAL	383896.6	3744396.7
2922	RESIDENTIAL	383915.2	3744397.5

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2923	RESIDENTIAL	383933.0	3744398.3
2924	RESIDENTIAL	383948.3	3744395.9
2925	RESIDENTIAL	383975.0	3744398.3
2926	RESIDENTIAL	384029.1	3744396.7
2927	RESIDENTIAL	384057.4	3744396.7
2928	RESIDENTIAL	384108.3	3744395.1
2929	RESIDENTIAL	384134.2	3744396.7
2930	RESIDENTIAL	384181.8	3744401.5
2931	RESIDENTIAL	384208.5	3744393.4
2932	RESIDENTIAL	384219.8	3744393.4
2933	RESIDENTIAL	384231.9	3744393.4
2934	RESIDENTIAL	384244.8	3744391.8
2935	RESIDENTIAL	384262.6	3744391.8
2936	RESIDENTIAL	384278.8	3744393.4
2937	RESIDENTIAL	384309.5	3744391.0
2938	RESIDENTIAL	384322.4	3744395.1
2939	RESIDENTIAL	384337.8	3744393.4
2940	RESIDENTIAL	384353.1	3744394.3
2941	RESIDENTIAL	384374.3	3744395.1
2942	RESIDENTIAL	384425.2	3744400.7
2943	RESIDENTIAL	384447.0	3744396.7
2944	RESIDENTIAL	384480.1	3744394.3
2945	RESIDENTIAL	384496.3	3744393.4
2946	RESIDENTIAL	384506.0	3744394.3
2947	RESIDENTIAL	384527.0	3744394.3
2948	RESIDENTIAL	384536.7	3744394.3
2949	RESIDENTIAL	384779.6	3744392.6
2950	RESIDENTIAL	384826.5	3744392.6
2951	RESIDENTIAL	384858.2	3744392.1
2952	RESIDENTIAL	384907.2	3744391.5
2953	RESIDENTIAL	384940.6	3744392.1
2954	RESIDENTIAL	384981.0	3744391.5
2955	RESIDENTIAL	384983.2	3744421.7
2956	RESIDENTIAL	384983.2	3744435.7
2957	RESIDENTIAL	384981.6	3744445.4
2958	RESIDENTIAL	384982.7	3744457.8
2959	RESIDENTIAL	384984.3	3744470.1
2960	RESIDENTIAL	384984.3	3744482.0
2961	RESIDENTIAL	384983.2	3744492.2
2962	RESIDENTIAL	384984.3	3744503.5
2963	RESIDENTIAL	384984.3	3744515.4
2964	RESIDENTIAL	384985.3	3744528.8
2965	RESIDENTIAL	384985.3	3744541.2
2966	RESIDENTIAL	384985.3	3744553.6
2967	RESIDENTIAL	384984.3	3744567.4
2968	RESIDENTIAL	384982.7	3744581.4
2969	RESIDENTIAL	384982.7	3744591.1
2970	RESIDENTIAL	384982.1	3744604.5
2971	RESIDENTIAL	384981.6	3744616.9

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
2972	RESIDENTIAL	384980.5	3744629.3
2973	RESIDENTIAL	384980.5	3744643.3
2974	RESIDENTIAL	384980.5	3744657.9
2975	RESIDENTIAL	384984.3	3744720.7
2976	RESIDENTIAL	384982.7	3744740.1
2977	RESIDENTIAL	384982.1	3744759.5
2978	RESIDENTIAL	384982.7	3744774.5
2979	RESIDENTIAL	384983.2	3744788.5
2980	RESIDENTIAL	384985.3	3744805.2
2981	RESIDENTIAL	384983.7	3744818.7
2982	RESIDENTIAL	385037.6	3744795.0
2983	RESIDENTIAL	385048.9	3744807.9
2984	RESIDENTIAL	385064.0	3744809.6
2985	RESIDENTIAL	385082.3	3744810.6
2986	RESIDENTIAL	385097.9	3744809.0
2987	RESIDENTIAL	385113.0	3744806.3
2988	RESIDENTIAL	385128.1	3744806.9
2989	RESIDENTIAL	385143.2	3744807.9
2990	RESIDENTIAL	385158.2	3744807.9
2991	RESIDENTIAL	385173.9	3744807.9
2992	RESIDENTIAL	385187.9	3744806.3
2993	RESIDENTIAL	385202.4	3744806.9
2994	RESIDENTIAL	385216.9	3744807.4
2995	RESIDENTIAL	385236.9	3744806.3
2996	RESIDENTIAL	385252.0	3744805.2
2997	RESIDENTIAL	386961.6	3744775.6
2998	RESIDENTIAL	386953.0	3744755.7
2999	RESIDENTIAL	386949.6	3744740.3
3000	RESIDENTIAL	386939.4	3744702.2
3001	RESIDENTIAL	386930.3	3744690.9
3002	RESIDENTIAL	386926.3	3744662.4
3003	RESIDENTIAL	386910.9	3744620.1
3004	RESIDENTIAL	386910.4	3744601.4
3005	RESIDENTIAL	386892.2	3744570.7
3006	RESIDENTIAL	386887.6	3744533.8
3007	RESIDENTIAL	386875.7	3744505.4
3008	RESIDENTIAL	386869.4	3744494.0
3009	RESIDENTIAL	386858.6	3744457.0
3010	RESIDENTIAL	386851.8	3744448.2
3011	RESIDENTIAL	386849.5	3744435.7
3012	RESIDENTIAL	386850.1	3744426.1
3013	RESIDENTIAL	386847.3	3744410.2
3014	RESIDENTIAL	386832.5	3744370.4
3015	RESIDENTIAL	386822.2	3744358.2
3016	RESIDENTIAL	386820.0	3744344.6
3017	RESIDENTIAL	386817.7	3744336.0
3018	RESIDENTIAL	386812.6	3744321.3
3019	RESIDENTIAL	386807.4	3744288.8
3020	RESIDENTIAL	386799.5	3744277.5

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
3021	RESIDENTIAL	386794.9	3744259.9
3022	RESIDENTIAL	386794.4	3744242.3
3023	RESIDENTIAL	386780.1	3744210.8
3024	RESIDENTIAL	386779.0	3744192.6
3025	RESIDENTIAL	386771.0	3744180.6
3026	RESIDENTIAL	386768.8	3744170.4
3027	RESIDENTIAL	386768.2	3744161.9
3028	RESIDENTIAL	386755.7	3744124.7
3029	RESIDENTIAL	386745.5	3744109.9
3030	RESIDENTIAL	386747.2	3744095.1
3031	RESIDENTIAL	386727.3	3744047.3
3032	RESIDENTIAL	386818.2	3743951.8
3033	RESIDENTIAL	386816.5	3743903.4
3034	RESIDENTIAL	386816.5	3743853.9
3035	RESIDENTIAL	386814.8	3743828.3
3036	RESIDENTIAL	386800.6	3743828.3
3037	RESIDENTIAL	386777.9	3743828.3
3038	RESIDENTIAL	386760.2	3743828.3
3039	RESIDENTIAL	386744.9	3743826.1
3040	RESIDENTIAL	386731.8	3743827.2
3041	RESIDENTIAL	386714.7	3743826.6
3042	RESIDENTIAL	386694.3	3743826.6
3043	RESIDENTIAL	386641.9	3743792.0
3044	RESIDENTIAL	386635.1	3743770.4
3045	RESIDENTIAL	386632.3	3743753.9
3046	RESIDENTIAL	386618.6	3743737.4
3047	RESIDENTIAL	386621.5	3743723.2
3048	RESIDENTIAL	386620.3	3743705.6
3049	RESIDENTIAL	386616.9	3743688.6
3050	RESIDENTIAL	386628.3	3743671.6
3051	RESIDENTIAL	386604.4	3743663.1
3052	RESIDENTIAL	386631.1	3743656.8
3053	RESIDENTIAL	386611.8	3743638.6
3054	RESIDENTIAL	386612.9	3743630.1
3055	RESIDENTIAL	387261.5	3748010.8
3056	RESIDENTIAL	387266.4	3747977.9
3057	RESIDENTIAL	387283.4	3747940.2
3058	RESIDENTIAL	387291.9	3747907.4
3059	RESIDENTIAL	387304.1	3747874.6
3060	RESIDENTIAL	387312.6	3747845.4
3061	RESIDENTIAL	387329.6	3747810.1
3062	RESIDENTIAL	387338.1	3747783.4
3063	RESIDENTIAL	387351.5	3747748.1
3064	RESIDENTIAL	387356.4	3747703.1
3065	RESIDENTIAL	387366.1	3747667.9
3066	RESIDENTIAL	387385.5	3747624.1
3067	RESIDENTIAL	387353.9	3747624.1
3068	RESIDENTIAL	387324.7	3747626.5
3069	RESIDENTIAL	387276.1	3747626.5

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
3070	RESIDENTIAL	387234.8	3747626.5
3071	RESIDENTIAL	387204.4	3747624.1
3072	RESIDENTIAL	387122.3	3746563.1
3073	RESIDENTIAL	387123.9	3746526.8
3074	RESIDENTIAL	387135.0	3746417.7
3075	RESIDENTIAL	387098.6	3746417.7
3076	RESIDENTIAL	387068.6	3746417.7
3077	RESIDENTIAL	384588.8	3744305.3
3078	RESIDENTIAL	384601.9	3744305.3
3079	RESIDENTIAL	384621.6	3744305.3
3080	RESIDENTIAL	384636.9	3744305.3
3081	RESIDENTIAL	384650.0	3744305.3
3082	RESIDENTIAL	384665.3	3744305.3
3083	RESIDENTIAL	384684.9	3744303.1
3084	RESIDENTIAL	384695.9	3744303.1
3085	RESIDENTIAL	384709.6	3744301.0
3086	RESIDENTIAL	384722.1	3744303.1
3087	RESIDENTIAL	384739.6	3744303.1
3088	RESIDENTIAL	384757.0	3744300.9
3089	RESIDENTIAL	384785.4	3744377.3
3090	RESIDENTIAL	384785.4	3744357.7
3091	RESIDENTIAL	384787.6	3744340.2
3092	RESIDENTIAL	384783.3	3744322.7
3093	RESIDENTIAL	384537.7	3744358.3
3094	RESIDENTIAL	384536.4	3744335.8
3095	RESIDENTIAL	385027.9	3744777.1
3096	RESIDENTIAL	384828.0	3744377.7
3097	RESIDENTIAL	384829.0	3744357.3
3098	RESIDENTIAL	384830.0	3744338.9
3099	RESIDENTIAL	384812.0	3745826.8
3100	RESIDENTIAL	384810.6	3745845.8
3101	RESIDENTIAL	384809.1	3745861.8
3102	RESIDENTIAL	384809.1	3745877.8
3103	RESIDENTIAL	384810.6	3745890.9
3104	RESIDENTIAL	384814.9	3745908.4
3105	RESIDENTIAL	384814.9	3745925.9
3106	RESIDENTIAL	384768.3	3745927.3
3107	RESIDENTIAL	384736.3	3745930.2
3108	RESIDENTIAL	384686.8	3745925.9
3109	RESIDENTIAL	384656.2	3745925.9
3110	RESIDENTIAL	384596.5	3745931.7
3111	RESIDENTIAL	384544.0	3745818.1
3112	RESIDENTIAL	384544.0	3745835.6
3113	RESIDENTIAL	384545.5	3745848.7
3114	RESIDENTIAL	384545.5	3745864.7
3115	RESIDENTIAL	384545.5	3745877.8
3116	RESIDENTIAL	384548.4	3745898.2
3117	RESIDENTIAL	384552.8	3745941.9
3118	RESIDENTIAL	383799.3	3744383.2

Residential & Sensitive Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
3119	RESIDENTIAL	383810.9	3744370.1
3120	RESIDENTIAL	383821.1	3744359.9
3121	RESIDENTIAL	383528.2	3744353.3
3122	RESIDENTIAL	383513.3	3744356.6
3123	RESIDENTIAL	383492.6	3744354.6
3124	RESIDENTIAL	383492.0	3744369.5
3125	RESIDENTIAL	383493.3	3744385.7
3126	RESIDENTIAL	383492.0	3744401.2
3127	RESIDENTIAL	383442.1	3744404.5
3128	RESIDENTIAL	383547.0	3744308.7
3129	RESIDENTIAL	383526.9	3744311.2
3130	RESIDENTIAL	383508.8	3744316.4
3131	RESIDENTIAL	383549.6	3744280.2
3132	RESIDENTIAL	383533.4	3744236.2
3133	RESIDENTIAL	383414.8	3744404.0
3134	RESIDENTIAL	383373.7	3744405.6
3135	SENSITIVE	387313.8	3744883.9
3136	SENSITIVE	387474.2	3747889.0
3137	SENSITIVE	387394.0	3747910.4
3138	SENSITIVE	387538.4	3747728.6
3139	SENSITIVE	385380.0	3744700.0
3140	SENSITIVE	385304.8	3744700.9
3141	SENSITIVE	385273.1	3744640.9
3142	SENSITIVE	385287.9	3744505.9
3143	SENSITIVE	385198.8	3744602.0
3144	SENSITIVE	384398.3	3745930.8
3145	SENSITIVE	384372.3	3745923.1
3146	SENSITIVE	384348.4	3745930.1
3147	SENSITIVE	384686.4	3746078.9
3148	SENSITIVE	383172.3	3745284.5
3149	SENSITIVE	383485.3	3745092.4
3150	SENSITIVE	383389.3	3743944.7
3151	SENSITIVE	383577.8	3744176.0
3152	SENSITIVE	383656.1	3743976.0
3153	SENSITIVE	383588.5	3743976.0
3154	SENSITIVE	383588.5	3743876.4
3155	SENSITIVE	384423.1	3746033.1
3156	SENSITIVE	384313.0	3746033.1
3157	SENSITIVE	384377.4	3746187.8
3158	SENSITIVE	384375.3	3746124.5
3159	SENSITIVE	384548.7	3746148.3
3160	SENSITIVE	383675.0	3744875.0
3161	SENSITIVE	385200.0	3744075.0

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
442	GRID	384200	3745650
443	GRID	384250	3745650
444	GRID	384300	3745650
445	GRID	384350	3745650
446	GRID	384400	3745650
447	GRID	384450	3745650
448	GRID	384500	3745650
449	GRID	384550	3745650
450	GRID	384600	3745650
451	GRID	384650	3745650
452	GRID	384700	3745650
453	GRID	384750	3745650
454	GRID	384800	3745650
455	GRID	384850	3745650
456	GRID	384900	3745650
457	GRID	384950	3745650
458	GRID	385000	3745650
459	GRID	385050	3745650
460	GRID	385100	3745650
461	GRID	385150	3745650
503	GRID	384200	3745600
504	GRID	384250	3745600
505	GRID	384300	3745600
506	GRID	384350	3745600
507	GRID	384400	3745600
508	GRID	384450	3745600
509	GRID	384500	3745600
510	GRID	384550	3745600
511	GRID	384600	3745600
512	GRID	384650	3745600
513	GRID	384700	3745600
514	GRID	384750	3745600
515	GRID	384800	3745600
516	GRID	384850	3745600
517	GRID	384900	3745600
518	GRID	384950	3745600
519	GRID	385000	3745600
520	GRID	385050	3745600
521	GRID	385100	3745600
522	GRID	385150	3745600
523	GRID	385200	3745600
524	GRID	385250	3745600
525	GRID	385300	3745600
526	GRID	385350	3745600
527	GRID	385400	3745600
528	GRID	385450	3745600
529	GRID	385500	3745600
530	GRID	385550	3745600
531	GRID	385600	3745600

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
532	GRID	385650	3745600
533	GRID	385700	3745600
534	GRID	385750	3745600
564	GRID	384200	3745550
565	GRID	384250	3745550
566	GRID	384300	3745550
567	GRID	384350	3745550
568	GRID	384400	3745550
569	GRID	384450	3745550
570	GRID	384500	3745550
571	GRID	384550	3745550
572	GRID	384600	3745550
573	GRID	384650	3745550
574	GRID	384700	3745550
575	GRID	384750	3745550
576	GRID	384800	3745550
577	GRID	384850	3745550
578	GRID	384900	3745550
579	GRID	384950	3745550
580	GRID	385000	3745550
581	GRID	385050	3745550
582	GRID	385100	3745550
583	GRID	385150	3745550
584	GRID	385200	3745550
585	GRID	385250	3745550
586	GRID	385300	3745550
587	GRID	385350	3745550
588	GRID	385400	3745550
589	GRID	385450	3745550
590	GRID	385500	3745550
591	GRID	385550	3745550
592	GRID	385600	3745550
593	GRID	385650	3745550
594	GRID	385700	3745550
595	GRID	385750	3745550
625	GRID	384200	3745500
626	GRID	384250	3745500
627	GRID	384300	3745500
628	GRID	384350	3745500
629	GRID	384400	3745500
630	GRID	384450	3745500
631	GRID	384500	3745500
632	GRID	384550	3745500
633	GRID	384600	3745500
634	GRID	384650	3745500
635	GRID	384700	3745500
636	GRID	384750	3745500
637	GRID	384800	3745500
638	GRID	384850	3745500

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
639	GRID	384900	3745500
640	GRID	384950	3745500
641	GRID	385000	3745500
642	GRID	385050	3745500
643	GRID	385100	3745500
644	GRID	385150	3745500
645	GRID	385200	3745500
646	GRID	385250	3745500
647	GRID	385300	3745500
648	GRID	385350	3745500
649	GRID	385400	3745500
650	GRID	385450	3745500
651	GRID	385500	3745500
652	GRID	385550	3745500
653	GRID	385600	3745500
654	GRID	385650	3745500
655	GRID	385700	3745500
656	GRID	385750	3745500
686	GRID	384200	3745450
687	GRID	384250	3745450
688	GRID	384300	3745450
689	GRID	384350	3745450
690	GRID	384400	3745450
691	GRID	384450	3745450
692	GRID	384500	3745450
693	GRID	384550	3745450
694	GRID	384600	3745450
695	GRID	384650	3745450
696	GRID	384700	3745450
697	GRID	384750	3745450
698	GRID	384800	3745450
699	GRID	384850	3745450
700	GRID	384900	3745450
701	GRID	384950	3745450
702	GRID	385000	3745450
703	GRID	385050	3745450
704	GRID	385100	3745450
705	GRID	385150	3745450
706	GRID	385200	3745450
707	GRID	385250	3745450
708	GRID	385300	3745450
709	GRID	385350	3745450
710	GRID	385400	3745450
711	GRID	385450	3745450
712	GRID	385500	3745450
713	GRID	385550	3745450
714	GRID	385600	3745450
715	GRID	385650	3745450
716	GRID	385700	3745450

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
717	GRID	385750	3745450
747	GRID	384200	3745400
748	GRID	384250	3745400
749	GRID	384300	3745400
750	GRID	384350	3745400
751	GRID	384400	3745400
752	GRID	384450	3745400
753	GRID	384500	3745400
754	GRID	384550	3745400
755	GRID	384600	3745400
756	GRID	384650	3745400
757	GRID	384700	3745400
758	GRID	384750	3745400
759	GRID	384800	3745400
760	GRID	384850	3745400
761	GRID	384900	3745400
762	GRID	384950	3745400
763	GRID	385000	3745400
764	GRID	385050	3745400
765	GRID	385100	3745400
766	GRID	385150	3745400
767	GRID	385200	3745400
768	GRID	385250	3745400
769	GRID	385300	3745400
770	GRID	385350	3745400
771	GRID	385400	3745400
772	GRID	385450	3745400
773	GRID	385500	3745400
774	GRID	385550	3745400
775	GRID	385600	3745400
776	GRID	385650	3745400
777	GRID	385700	3745400
778	GRID	385750	3745400
808	GRID	384200	3745350
809	GRID	384250	3745350
810	GRID	384300	3745350
811	GRID	384350	3745350
812	GRID	384400	3745350
813	GRID	384450	3745350
814	GRID	384500	3745350
815	GRID	384550	3745350
816	GRID	384600	3745350
817	GRID	384650	3745350
818	GRID	384700	3745350
819	GRID	384750	3745350
820	GRID	384800	3745350
821	GRID	384850	3745350
822	GRID	384900	3745350
823	GRID	384950	3745350

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
824	GRID	385000	3745350
825	GRID	385050	3745350
826	GRID	385100	3745350
827	GRID	385150	3745350
828	GRID	385200	3745350
829	GRID	385250	3745350
830	GRID	385300	3745350
831	GRID	385350	3745350
832	GRID	385400	3745350
833	GRID	385450	3745350
834	GRID	385500	3745350
835	GRID	385550	3745350
836	GRID	385600	3745350
837	GRID	385650	3745350
838	GRID	385700	3745350
839	GRID	385750	3745350
869	GRID	384200	3745300
870	GRID	384250	3745300
871	GRID	384300	3745300
872	GRID	384350	3745300
873	GRID	384400	3745300
874	GRID	384450	3745300
875	GRID	384500	3745300
876	GRID	384550	3745300
877	GRID	384600	3745300
878	GRID	384650	3745300
879	GRID	384700	3745300
880	GRID	384750	3745300
881	GRID	384800	3745300
882	GRID	384850	3745300
883	GRID	384900	3745300
884	GRID	384950	3745300
885	GRID	385000	3745300
886	GRID	385050	3745300
887	GRID	385100	3745300
888	GRID	385150	3745300
889	GRID	385200	3745300
890	GRID	385250	3745300
891	GRID	385300	3745300
892	GRID	385350	3745300
893	GRID	385400	3745300
894	GRID	385450	3745300
895	GRID	385500	3745300
896	GRID	385550	3745300
897	GRID	385600	3745300
930	GRID	384200	3745250
931	GRID	384250	3745250
932	GRID	384300	3745250
933	GRID	384350	3745250

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
934	GRID	384400	3745250
935	GRID	384450	3745250
936	GRID	384500	3745250
937	GRID	384550	3745250
938	GRID	384600	3745250
939	GRID	384650	3745250
940	GRID	384700	3745250
941	GRID	384750	3745250
942	GRID	384800	3745250
943	GRID	384850	3745250
944	GRID	384900	3745250
945	GRID	384950	3745250
946	GRID	385000	3745250
947	GRID	385050	3745250
948	GRID	385100	3745250
949	GRID	385150	3745250
950	GRID	385200	3745250
951	GRID	385250	3745250
952	GRID	385300	3745250
953	GRID	385350	3745250
954	GRID	385400	3745250
955	GRID	385450	3745250
956	GRID	385500	3745250
957	GRID	385550	3745250
958	GRID	385600	3745250
991	GRID	384200	3745200
992	GRID	384250	3745200
993	GRID	384300	3745200
994	GRID	384350	3745200
995	GRID	384400	3745200
996	GRID	384450	3745200
997	GRID	384500	3745200
998	GRID	384550	3745200
999	GRID	384600	3745200
1000	GRID	384650	3745200
1001	GRID	384700	3745200
1002	GRID	384750	3745200
1003	GRID	384800	3745200
1004	GRID	384850	3745200
1005	GRID	384900	3745200
1006	GRID	384950	3745200
1007	GRID	385000	3745200
1008	GRID	385050	3745200
1009	GRID	385100	3745200
1010	GRID	385150	3745200
1011	GRID	385200	3745200
1012	GRID	385250	3745200
1013	GRID	385300	3745200
1014	GRID	385350	3745200

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1015	GRID	385400	3745200
1016	GRID	385450	3745200
1017	GRID	385500	3745200
1018	GRID	385550	3745200
1019	GRID	385600	3745200
1052	GRID	384200	3745150
1053	GRID	384250	3745150
1054	GRID	384300	3745150
1055	GRID	384350	3745150
1056	GRID	384400	3745150
1057	GRID	384450	3745150
1058	GRID	384500	3745150
1059	GRID	384550	3745150
1060	GRID	384600	3745150
1061	GRID	384650	3745150
1062	GRID	384700	3745150
1063	GRID	384750	3745150
1064	GRID	384800	3745150
1065	GRID	384850	3745150
1066	GRID	384900	3745150
1067	GRID	384950	3745150
1068	GRID	385000	3745150
1069	GRID	385050	3745150
1070	GRID	385100	3745150
1071	GRID	385150	3745150
1072	GRID	385200	3745150
1073	GRID	385250	3745150
1074	GRID	385300	3745150
1075	GRID	385350	3745150
1076	GRID	385400	3745150
1077	GRID	385450	3745150
1078	GRID	385500	3745150
1079	GRID	385550	3745150
1080	GRID	385600	3745150
1113	GRID	384200	3745100
1114	GRID	384250	3745100
1115	GRID	384300	3745100
1116	GRID	384350	3745100
1117	GRID	384400	3745100
1118	GRID	384450	3745100
1119	GRID	384500	3745100
1120	GRID	384550	3745100
1121	GRID	384600	3745100
1122	GRID	384650	3745100
1123	GRID	384700	3745100
1124	GRID	384750	3745100
1125	GRID	384800	3745100
1126	GRID	384850	3745100
1127	GRID	384900	3745100

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1128	GRID	384950	3745100
1129	GRID	385000	3745100
1130	GRID	385050	3745100
1131	GRID	385100	3745100
1132	GRID	385150	3745100
1133	GRID	385200	3745100
1134	GRID	385250	3745100
1135	GRID	385300	3745100
1136	GRID	385350	3745100
1137	GRID	385400	3745100
1138	GRID	385450	3745100
1139	GRID	385500	3745100
1140	GRID	385550	3745100
1141	GRID	385600	3745100
1142	GRID	385650	3745100
1143	GRID	385700	3745100
1174	GRID	384200	3745050
1175	GRID	384250	3745050
1176	GRID	384300	3745050
1177	GRID	384350	3745050
1178	GRID	384400	3745050
1179	GRID	384450	3745050
1180	GRID	384500	3745050
1181	GRID	384550	3745050
1182	GRID	384600	3745050
1183	GRID	384650	3745050
1184	GRID	384700	3745050
1185	GRID	384750	3745050
1186	GRID	384800	3745050
1187	GRID	384850	3745050
1188	GRID	384900	3745050
1189	GRID	384950	3745050
1190	GRID	385000	3745050
1191	GRID	385050	3745050
1192	GRID	385100	3745050
1193	GRID	385150	3745050
1194	GRID	385200	3745050
1195	GRID	385250	3745050
1196	GRID	385300	3745050
1197	GRID	385350	3745050
1198	GRID	385400	3745050
1199	GRID	385450	3745050
1200	GRID	385500	3745050
1201	GRID	385550	3745050
1202	GRID	385600	3745050
1203	GRID	385650	3745050
1204	GRID	385700	3745050
1235	GRID	384200	3745000
1236	GRID	384250	3745000

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1237	GRID	384300	3745000
1238	GRID	384350	3745000
1239	GRID	384400	3745000
1240	GRID	384450	3745000
1241	GRID	384500	3745000
1242	GRID	384550	3745000
1243	GRID	384600	3745000
1244	GRID	384650	3745000
1245	GRID	384700	3745000
1246	GRID	384750	3745000
1247	GRID	384800	3745000
1248	GRID	384850	3745000
1249	GRID	384900	3745000
1250	GRID	384950	3745000
1251	GRID	385000	3745000
1252	GRID	385050	3745000
1253	GRID	385100	3745000
1254	GRID	385150	3745000
1255	GRID	385200	3745000
1256	GRID	385250	3745000
1257	GRID	385300	3745000
1258	GRID	385350	3745000
1259	GRID	385400	3745000
1260	GRID	385450	3745000
1261	GRID	385500	3745000
1262	GRID	385550	3745000
1263	GRID	385600	3745000
1264	GRID	385650	3745000
1265	GRID	385700	3745000
1296	GRID	384200	3744950
1297	GRID	384250	3744950
1298	GRID	384300	3744950
1299	GRID	384350	3744950
1300	GRID	384400	3744950
1301	GRID	384450	3744950
1302	GRID	384500	3744950
1303	GRID	384550	3744950
1304	GRID	384600	3744950
1305	GRID	384650	3744950
1306	GRID	384700	3744950
1307	GRID	384750	3744950
1308	GRID	384800	3744950
1309	GRID	384850	3744950
1310	GRID	384900	3744950
1311	GRID	384950	3744950
1312	GRID	385000	3744950
1313	GRID	385050	3744950
1314	GRID	385100	3744950
1315	GRID	385150	3744950

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<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1316	GRID	385200	3744950
1317	GRID	385250	3744950
1318	GRID	385300	3744950
1319	GRID	385350	3744950
1320	GRID	385400	3744950
1321	GRID	385450	3744950
1322	GRID	385500	3744950
1323	GRID	385550	3744950
1324	GRID	385600	3744950
1325	GRID	385650	3744950
1357	GRID	384200	3744900
1358	GRID	384250	3744900
1359	GRID	384300	3744900
1360	GRID	384350	3744900
1361	GRID	384400	3744900
1362	GRID	384450	3744900
1363	GRID	384500	3744900
1364	GRID	384550	3744900
1365	GRID	384600	3744900
1366	GRID	384650	3744900
1367	GRID	384700	3744900
1368	GRID	384750	3744900
1369	GRID	384800	3744900
1370	GRID	384850	3744900
1371	GRID	384900	3744900
1372	GRID	384950	3744900
1373	GRID	385000	3744900
1374	GRID	385050	3744900
1375	GRID	385100	3744900
1376	GRID	385150	3744900
1377	GRID	385200	3744900
1378	GRID	385250	3744900
1379	GRID	385300	3744900
1380	GRID	385350	3744900
1381	GRID	385400	3744900
1382	GRID	385450	3744900
1383	GRID	385500	3744900
1384	GRID	385550	3744900
1385	GRID	385600	3744900
1386	GRID	385650	3744900
1418	GRID	384200	3744850
1419	GRID	384250	3744850
1420	GRID	384300	3744850
1421	GRID	384350	3744850
1422	GRID	384400	3744850
1423	GRID	384450	3744850
1424	GRID	384500	3744850
1425	GRID	384550	3744850
1426	GRID	384600	3744850

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<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1427	GRID	384650	3744850
1428	GRID	384700	3744850
1429	GRID	384750	3744850
1430	GRID	384800	3744850
1431	GRID	384850	3744850
1432	GRID	384900	3744850
1433	GRID	384950	3744850
1434	GRID	385000	3744850
1435	GRID	385050	3744850
1436	GRID	385100	3744850
1437	GRID	385150	3744850
1438	GRID	385200	3744850
1439	GRID	385250	3744850
1440	GRID	385300	3744850
1441	GRID	385350	3744850
1442	GRID	385400	3744850
1443	GRID	385450	3744850
1444	GRID	385500	3744850
1445	GRID	385550	3744850
1446	GRID	385600	3744850
1447	GRID	385650	3744850
1471	GRID	383800	3744800
1472	GRID	383850	3744800
1473	GRID	383900	3744800
1474	GRID	383950	3744800
1475	GRID	384000	3744800
1476	GRID	384050	3744800
1477	GRID	384100	3744800
1478	GRID	384150	3744800
1479	GRID	384200	3744800
1480	GRID	384250	3744800
1481	GRID	384300	3744800
1482	GRID	384350	3744800
1483	GRID	384400	3744800
1484	GRID	384450	3744800
1485	GRID	384500	3744800
1486	GRID	384550	3744800
1487	GRID	384600	3744800
1488	GRID	384650	3744800
1489	GRID	384700	3744800
1490	GRID	384750	3744800
1491	GRID	384800	3744800
1492	GRID	384850	3744800
1493	GRID	384900	3744800
1494	GRID	384950	3744800
1532	GRID	383800	3744750
1533	GRID	383850	3744750
1534	GRID	383900	3744750
1535	GRID	383950	3744750

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1536	GRID	384000	3744750
1537	GRID	384050	3744750
1538	GRID	384100	3744750
1539	GRID	384150	3744750
1540	GRID	384200	3744750
1541	GRID	384250	3744750
1542	GRID	384300	3744750
1543	GRID	384350	3744750
1544	GRID	384400	3744750
1545	GRID	384450	3744750
1546	GRID	384500	3744750
1547	GRID	384550	3744750
1548	GRID	384600	3744750
1549	GRID	384650	3744750
1550	GRID	384700	3744750
1551	GRID	384750	3744750
1552	GRID	384800	3744750
1553	GRID	384850	3744750
1554	GRID	384900	3744750
1555	GRID	384950	3744750
1593	GRID	383800	3744700
1594	GRID	383850	3744700
1595	GRID	383900	3744700
1596	GRID	383950	3744700
1597	GRID	384000	3744700
1598	GRID	384050	3744700
1599	GRID	384100	3744700
1600	GRID	384150	3744700
1601	GRID	384200	3744700
1602	GRID	384250	3744700
1603	GRID	384300	3744700
1604	GRID	384350	3744700
1605	GRID	384400	3744700
1606	GRID	384450	3744700
1607	GRID	384500	3744700
1608	GRID	384550	3744700
1609	GRID	384600	3744700
1610	GRID	384650	3744700
1611	GRID	384700	3744700
1612	GRID	384750	3744700
1613	GRID	384800	3744700
1614	GRID	384850	3744700
1615	GRID	384900	3744700
1616	GRID	384950	3744700
1654	GRID	383800	3744650
1655	GRID	383850	3744650
1656	GRID	383900	3744650
1657	GRID	383950	3744650
1658	GRID	384000	3744650

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1659	GRID	384050	3744650
1660	GRID	384100	3744650
1661	GRID	384150	3744650
1662	GRID	384200	3744650
1663	GRID	384250	3744650
1664	GRID	384300	3744650
1665	GRID	384350	3744650
1666	GRID	384400	3744650
1667	GRID	384450	3744650
1668	GRID	384500	3744650
1669	GRID	384550	3744650
1670	GRID	384600	3744650
1671	GRID	384650	3744650
1672	GRID	384700	3744650
1673	GRID	384750	3744650
1674	GRID	384800	3744650
1675	GRID	384850	3744650
1676	GRID	384900	3744650
1677	GRID	384950	3744650
1715	GRID	383800	3744600
1716	GRID	383850	3744600
1717	GRID	383900	3744600
1718	GRID	383950	3744600
1719	GRID	384000	3744600
1720	GRID	384050	3744600
1721	GRID	384100	3744600
1722	GRID	384150	3744600
1723	GRID	384200	3744600
1724	GRID	384250	3744600
1725	GRID	384300	3744600
1726	GRID	384350	3744600
1727	GRID	384400	3744600
1728	GRID	384450	3744600
1729	GRID	384500	3744600
1730	GRID	384550	3744600
1731	GRID	384600	3744600
1732	GRID	384650	3744600
1733	GRID	384700	3744600
1734	GRID	384750	3744600
1735	GRID	384800	3744600
1736	GRID	384850	3744600
1737	GRID	384900	3744600
1738	GRID	384950	3744600
1776	GRID	383800	3744550
1777	GRID	383850	3744550
1778	GRID	383900	3744550
1779	GRID	383950	3744550
1780	GRID	384000	3744550
1781	GRID	384050	3744550

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<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1782	GRID	384100	3744550
1783	GRID	384150	3744550
1784	GRID	384200	3744550
1785	GRID	384250	3744550
1786	GRID	384300	3744550
1787	GRID	384350	3744550
1788	GRID	384400	3744550
1789	GRID	384450	3744550
1790	GRID	384500	3744550
1791	GRID	384550	3744550
1792	GRID	384600	3744550
1793	GRID	384650	3744550
1794	GRID	384700	3744550
1795	GRID	384750	3744550
1796	GRID	384800	3744550
1797	GRID	384850	3744550
1798	GRID	384900	3744550
1799	GRID	384950	3744550
1837	GRID	383800	3744500
1838	GRID	383850	3744500
1839	GRID	383900	3744500
1840	GRID	383950	3744500
1841	GRID	384000	3744500
1842	GRID	384050	3744500
1843	GRID	384100	3744500
1844	GRID	384150	3744500
1845	GRID	384200	3744500
1846	GRID	384250	3744500
1847	GRID	384300	3744500
1848	GRID	384350	3744500
1849	GRID	384400	3744500
1850	GRID	384450	3744500
1851	GRID	384500	3744500
1852	GRID	384550	3744500
1853	GRID	384600	3744500
1854	GRID	384650	3744500
1855	GRID	384700	3744500
1856	GRID	384750	3744500
1857	GRID	384800	3744500
1858	GRID	384850	3744500
1859	GRID	384900	3744500
1860	GRID	384950	3744500
1898	GRID	383800	3744450
1899	GRID	383850	3744450
1900	GRID	383900	3744450
1901	GRID	383950	3744450
1902	GRID	384000	3744450
1903	GRID	384050	3744450
1904	GRID	384100	3744450

On-site Grid Receptors

<u>Index</u>	<u>Type</u>	<u>UTM X (m)</u>	<u>UTM Y (m)</u>
1905	GRID	384150	3744450
1906	GRID	384200	3744450
1907	GRID	384250	3744450
1908	GRID	384300	3744450
1909	GRID	384350	3744450
1910	GRID	384400	3744450
1911	GRID	384450	3744450
1912	GRID	384500	3744450
1913	GRID	384550	3744450
1914	GRID	384600	3744450
1915	GRID	384650	3744450
1916	GRID	384700	3744450
1917	GRID	384750	3744450
1918	GRID	384800	3744450
1919	GRID	384850	3744450
1920	GRID	384900	3744450
1921	GRID	384950	3744450

The AERMOD input and output files are available upon request from the SCAQMD.

The HARP input and output files are available upon request from the SCAQMD.
