

ATTACHMENT G

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July 17, 2015

Mr. Craig Halverson
Watson Land Company
22010 Wilmington Avenue
Carson, California 90745

RE: Revised Ordnance Investigative Services Report
Jupiter Project – Navajo Road
Apple Valley, California
Project No: 2006.34

Dear Mr. Halverson:

Northgate Environmental Management, Inc. (Northgate) is pleased to submit this revised report of our phased ordnance investigative services for the Jupiter Project Site located southwest of the intersection of Navajo Road and Lafayette Road in the City of Apple Valley, California (the Site) as shown on Figure 1.

BACKGROUND

The project Site consists of approximately 160 acres of undeveloped land. Northgate's updated Phase I Environmental Site Assessment (ESA), identified that a portion of the Site was formerly utilized by the United States (U.S.) Air Forces as part of a practice bombing range during the 1940s.

The Site is currently listed on the Formerly Used Defense Sites (FUDS) database, as the Victorville Precision Bombing Range No. 1 (PBR 1). The Department of Defense (DOD) is ultimately responsible for the further action recommended in Parson's 2008 Site Investigation report. In that report, Parsons concluded that "there is potential munitions constituents' contamination present in soil." They recommended that the munitions response site proceed to remedial investigation/feasibility study. However, since this Site is a "low risk" Site, it may be many years before the DOD through the U.S. Army Corps of Engineers (USACE) takes further action.

Northgate contacted the USACE and California EPA, Department of Toxic Substances Control (DTSC) to assess the willingness of these agencies to participate in the decision making and investigation/remediation of the Site. We were informed by the USACE that they do not have current plans to take action on this Site. DTSC stated that they are not involved and would only become involved if the owner requested their involvement.

Northgate performed the first phase of ordnance investigative services of the Site. The scope of these services included the following:

1. Perform a Site reconnaissance to assess the surface conditions focusing on the existing vegetation, presence or absence of ordnance related scrap or munitions and explosives of concern.
2. Perform a limited geophysical survey of the Site including:
 - a. Geophysical transect field surveying (at 125 feet spacing) using a towed EM-61, data acquisition, and data interpretation system;
 - b. A Instrument Verification Strip (IVS) for daily instrument functionality tests,
 - c. Preparation of maps showing data coverage, geophysical response, and anomaly density;
3. Evaluate the data collected and develop recommendations for additional work (if required).
4. Prepare a letter report presenting the results of the Site reconnaissance, the geophysical survey, and our recommended additional work.

The proposed project will be a warehouse facility with a 1,360,000 square-foot one story building and associated on-grade parking. The facility design also includes two on-Site detention basins that will at times contain stormwater. The detention basins will be approximately 10 to 20 feet deep. Grading for the project will consist of cutting 10 or more feet in areas and filling other portions with as much as 19 feet of soil. The building pad will consist mostly of fill except the northeastern corner where a few feet of cut is shown on the design drawings. In the former bombing target area, a portion of the area will remain at existing grades, a portion will be shaped through shallow cutting and filling to create a flatter more uniform area for future development and a portion will be lowered to create a roadway and stormwater transfer ditch. A 12-inch water main by-pass and a diversion ditch are also planned for this area.

SITE RECONNAISSANCE

A Site reconnaissance was performed by Northgate (Derrick Willis, Ted Splitter, and Stephen Parks) and Northgate's geophysical subcontractor, In-Depth (Armondo Lucero) (the Group) on May 26, 2015. The Site reconnaissance was performed by traversing the Site by



foot. The Site reconnaissance began in the northeast corner of the Site. In the northeast corner, a hole was noted that contained some metal debris. It was concluded that this is a remnant of the vehicle that had been found partially buried by Northgate during the Phase I Site reconnaissance in 2006. Leaving the northeast corner, the Group fanned out and proceeded to the northwest corner of the Site where the historic target is located. Evidence of the rings of the target is visible on the ground. The target has three rings, approximately 100 feet apart and the rings have a radius of 300 feet from the center of the target. Half of the target is located on the Site and half of the target is located on the property west of the Site.

As the Group approached the target area, numerous pieces of ordnance related scrap were noted on the ground surface or partially buried in the ground. The density of the scrap increased within the former target area.

The Group then proceeded in a fanned out configuration from the northwest corner to the south east corner diagonally across the Site. No ordnance scrap was noted after leaving the general target area. Occasional pieces of metal trash (cans and other debris) were observed. In the Southeast corner of the Site a bench mark was located. The Group then walked north along Navajo Road back and the eastern edge of the Site to the starting location.

GEOPHYSICAL SURVEY

A geophysical survey was performed at the Site between June 2nd and June 5, 2015. The geophysical survey consisted of three tasks including: 1) conducting an instrument verification strip (IVS); 2) performing a geophysical survey; and 3) processing the data and preparing data maps.

Instrument Verification Strip

An IVS was constructed on the Site to verify that the geophysical detection system, (a Geonics EM-61[EM-61] metal detector), was operating properly. The IVS targets (metal pipes 1 inch in diameter and 4 inches long with caps) were buried at depths and orientations expected at the Site. The data observed was compared to historical measurements and physics-based model predictions. Adjacent measurements of site noise were also determined to assess whether targets of interest could be detected reliably at the depth of interest under the site conditions. The instrument was checked daily in the IVS before mapping began to verify the system was operating properly.



Geophysical Survey

The geophysical survey was performed using a tow-behind EM-61. The location of the EM-61 was tracked in real-time using precision global positioning system (GPS) equipment and was recorded during mapping with the survey data. The survey was performed in 21 transects taken in a north-south direction. The transects were approximately 125 feet apart as shown on Figure 2. The transect alignments vary from a straight line due to the equipment moving laterally to avoid vegetation or other obstructions during mapping. The two transects nearest Navajo Road were noted as having interference from nearby high voltage lines and were not used in the predicted anomaly density presentation. However, the anomalies detected in these two transects are shown on the digital geophysical mapping (DGM) map T-20 and T-21.

Data Maps

Two maps were prepared by In-Depth, Northgate's geophysical sub-consultant. Figure 2 is the DGM map showing the anomalies detected along the transects. The anomaly strength is coded in color and the anomaly can be compared against the color chart in the figure legend. Only anomalies with a response equal to or greater than 5.0 millivolts were selected as targets.

Figure 3 presents the predicted anomaly density. The predicted density is color coded where green is low or no anomalies and red is high 500 or more anomalies/acre. As in Figure 2, the two transects nearest Navajo Road were noted as having interference from nearby high voltage lines and were not used in the predicted anomaly density presentation.

FINDINGS AND RECOMMENDATIONS

General

The area in the northeast corner of the Site was previously noted to contain a partially buried vehicle. Most of the vehicle has been previously removed. Only a pit with some metal is still present. This area is within the zone where high voltage interference was noted during the geophysical survey. However, some anomalies were detected in the area and are shown on Figure 2. It is possible that other buried items could be present in this area. This area is also an area where proposed grading includes cuts up to approximately 10 or more feet deep. Excavation in this area could encounter other debris.



Site Reconnaissance

The findings of the Site reconnaissance was consistent with the documented history of the use of the Site contained in the Northgate Phase I Environmental Site Assessment Report, dated October 12, 2006. Specifically, the ordnance related scrap visible on the ground surface or partially buried at the Site was primarily found in relatively close proximity to the target in the northwest corner of the Site. All of the ordnance related scrap appeared to be associated with 100-pound sand-filled bombs equipped with spotting charges. No energetic materials were observed. No intact bombs were identified. No ordnance related scrap was noted in other areas of the Site.

Metallic items were seen during the reconnaissance in areas outside the vicinity of the bombing target. These items were non-ordnance related metal including car parts, cans and debris.

Geophysical Survey

The geophysical survey was performed in accordance with the Northgate proposal. The survey was successful in identifying the location and estimated density of surface and buried metal at the transect locations. Relatively high estimated metal density (greater than 250 anomalies /acre) are predicted in the target area and within 300 feet of the target area. All other areas of the Site were noted to have less anomalies per acre. No evidence was found to indicate the presence of ordnance related burial areas outside the target area. Because of the 125-foot spacing of the transects, there remains a possibility than an undetected burial area(s) could still exist. However, it is more likely that if there is a burial area, that it is located within the target area.

The results of the geophysical survey indicate that the northwestern wall of the proposed building is outside the high anomaly density area but density as high as 100 to 200 anomalies/acre may be present. This area is proposed to be filled to reach pad elevation. Recommendations are presented below to address recommended actions in proposed construction areas.

Data Maps

Figures 4 and 5 show the proposed development overlaid over the geophysical maps. These attachments are useful to assess where the features of the proposed development are relative to the anomaly locations and the anomaly density in these areas.



Recommendations

Based on the results of the reconnaissance and the geophysical survey, it is Northgate's opinion that no further Munitions and Explosives of Concern (MEC) investigation is necessary. It is the intent of these recommendations to use clearance and avoidance as the primary techniques for construction at the Site. Using clearance and avoidance should mitigate the high density anomaly area and allow construction without further investigation. In addition, by placing a minimum of 2 feet of fill in the area that will be shaped through shallow cutting and filling, in the high anomaly area and following a Site Management Plan (SMP), the potential for future workers to come in contact with ordnance related materials is very low. The SMP would be prepared by Northgate following completion of construction and would contain the procedures and protocols for future excavations at the Site. Northgate has developed the following construction related recommendations to address intrusive activities and avoidance measures:

- During intrusive grading operations in the target area and within 300 feet of the target area, full time construction support using a two-man technician crew should be performed to identify any ordnance related scrap or MEC items;
- In the target area and within 300 feet of the target area where little or no filling is proposed, Northgate recommends that the area be cleared using excavation, stockpiling and sifting to remove the ordnance-related scrap metal. A depth of 2 feet is recommended for this operation. The cleared soil will then be returned to this area;
- Northgate recommends that the deeper cut areas (roadway and storm water transfer ditch) also be cleared using excavation and sifting. In these areas, a depth of 3 feet is recommended. At this depth, all or nearly all of the ordnance related materials are expected to be removed. If any materials remain they can be cleared using construction support because of the lower expected density;
- Intrusive work in the target area and within 300 feet of the target area for the utility trench excavation and for the deeper storm water transfer ditch (after clearance) should be performed by excavator or backhoe equipment and the construction support technician (UXO Technician II and Technician II) should be present during intrusive excavations;
- Ordnance related scrap encountered during intrusive excavations will be collected, inspected, properly handled, and disposed of by the construction support technicians;
- In the area(s) where fill will be placed in the target area and the area 300 feet outside the target area, the fill should be a minimum of 2 feet thick;
- Avoid coming in contact with ordnance related metal whenever possible;
- In proposed fill areas, utilize grading techniques that are not intrusive into the subgrade;



- Excavation of the soil for clearance and stockpiling operations can be performed using a dozer and loader to create the stockpiles for sifting; and
- If any items are identified as containing energetic materials, the MEC representatives will assess the item and take appropriate action.

CLOSING

We appreciate this opportunity to support you with MEC consulting services. Please feel welcome to contact me at (949) 716-0050, ext. 101, or via e-mail at derrick.willis@ngem.com should you have any questions.

Sincerely,
Northgate Environmental Management, Inc.



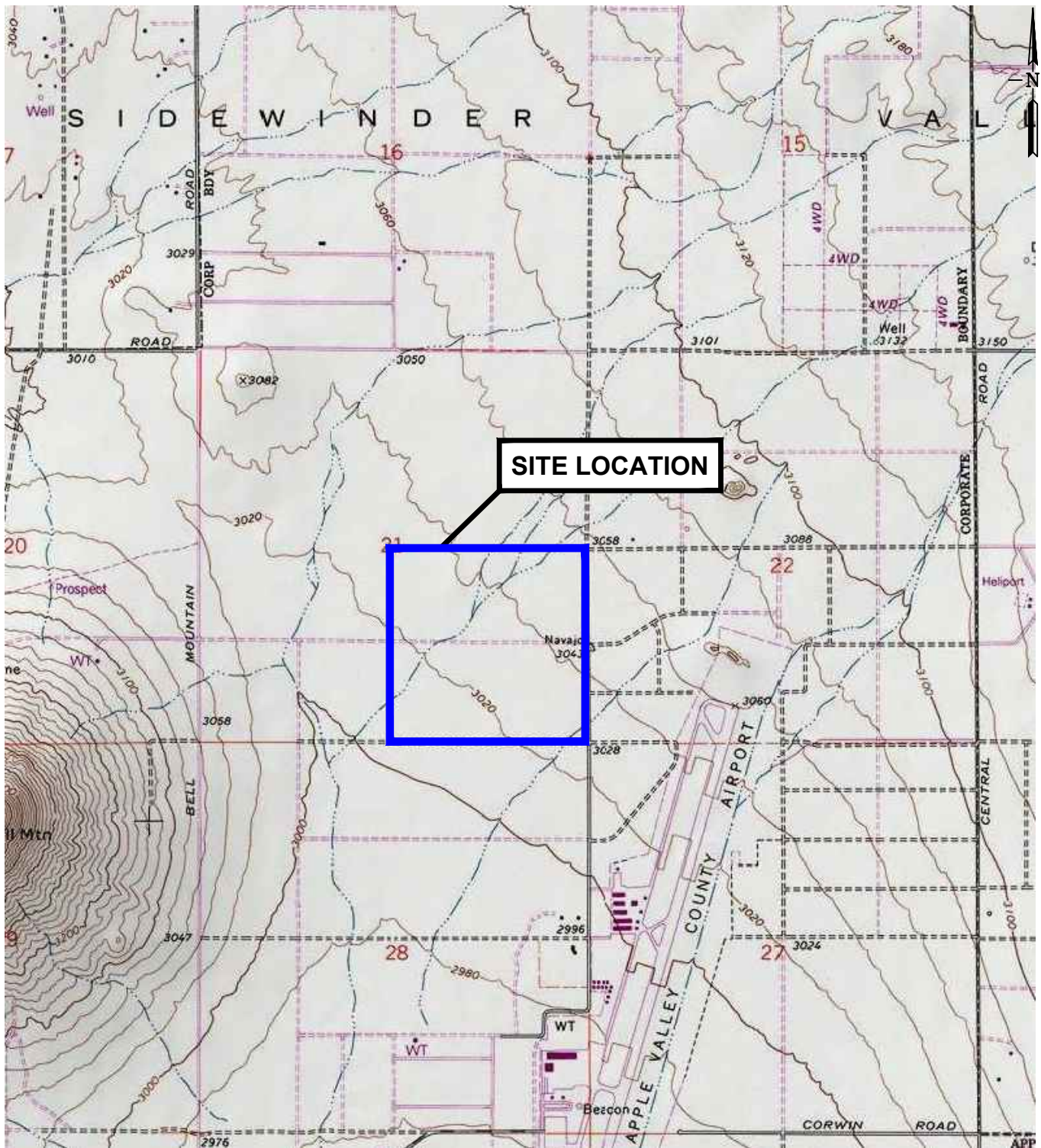
Derrick S. Willis
Principal



Ted Splitter, P.E., G.E.
Principal

Enclosures: Figures 1 through 5





Scale 1:24,000

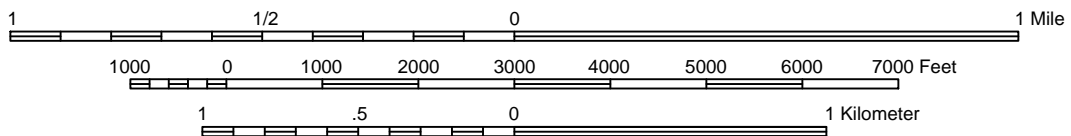


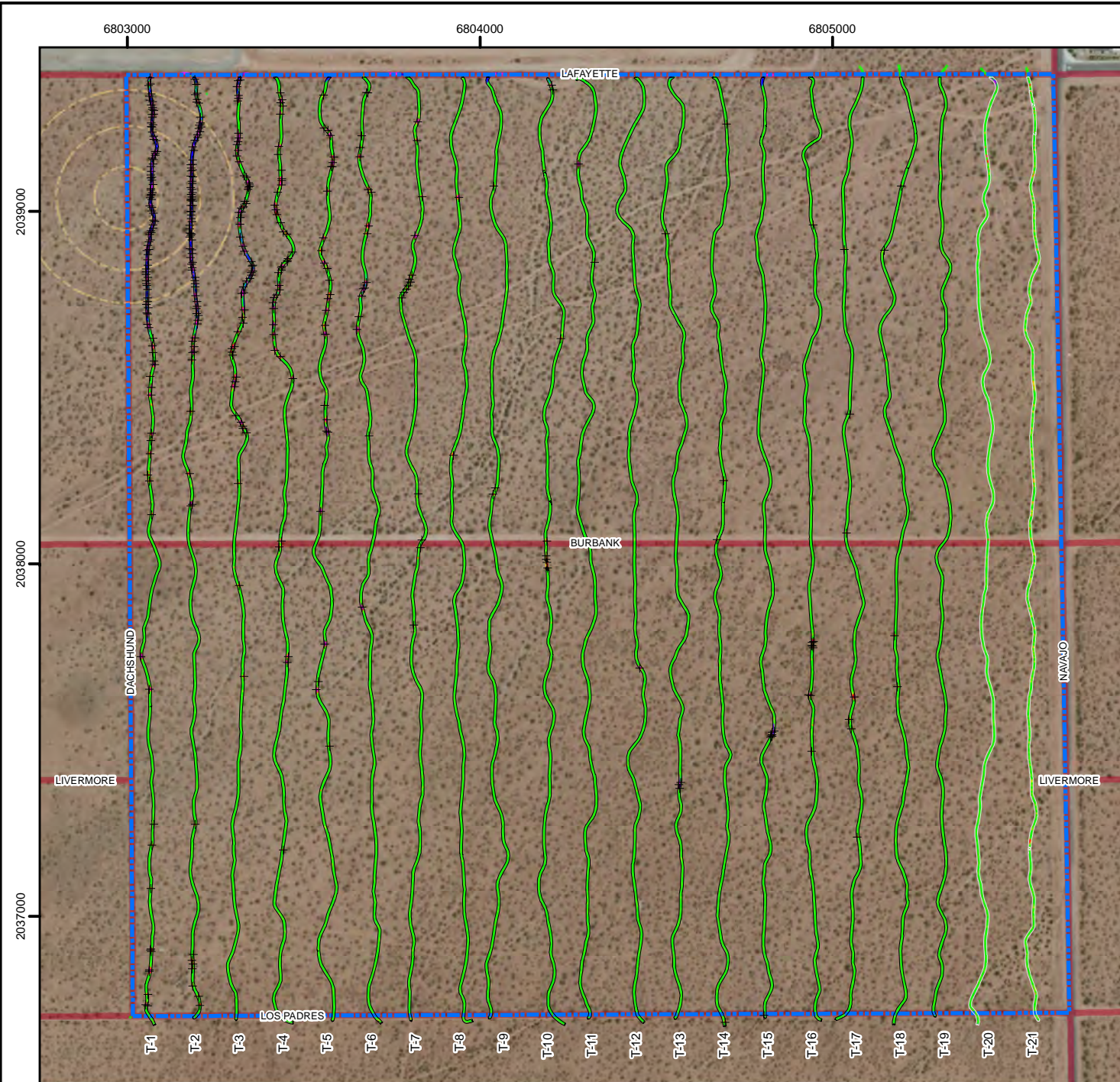
FIGURE 1
Site Location Map

Ordinance Investigative Services
Jupiter Project - Navajo Road
Apple Valley, California



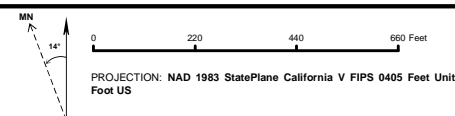
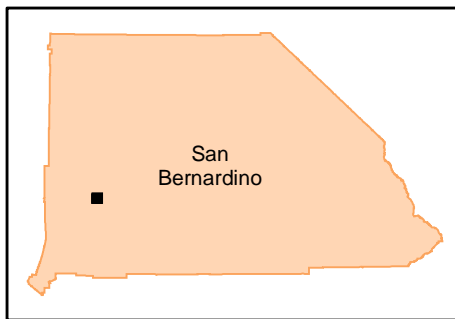
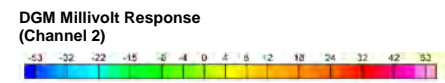
Project No. 2006.34

Source: National Geographic USGS TOPO! 2000



Victorville PBR #1
 Apple Valley, CA
 San Bernardino County
Figure 2
 Anomaly Distribution Map

- Legend**
- + Geophysical Anomaly
 - [Green Line] DGM Data Used
 - [Red Line] DGM Data Not Used
 - [Blue Dashed Box] Investigation Area
 - [Yellow Dashed Box] Former Bombing Target
 - [Red Line] Roads



DESIGNED BY: JK	FIGURE: 2	VERSION: 1.02
DRAWN BY: JK	SCALE: 1:4,993	PROJ NO: 15020
CHECKED BY: BH	DATE: 7/2/2015	
SUBMITTED BY: HC	FILE: F2_10_2_fig4_VictorvillePBR_v1.021_NG	

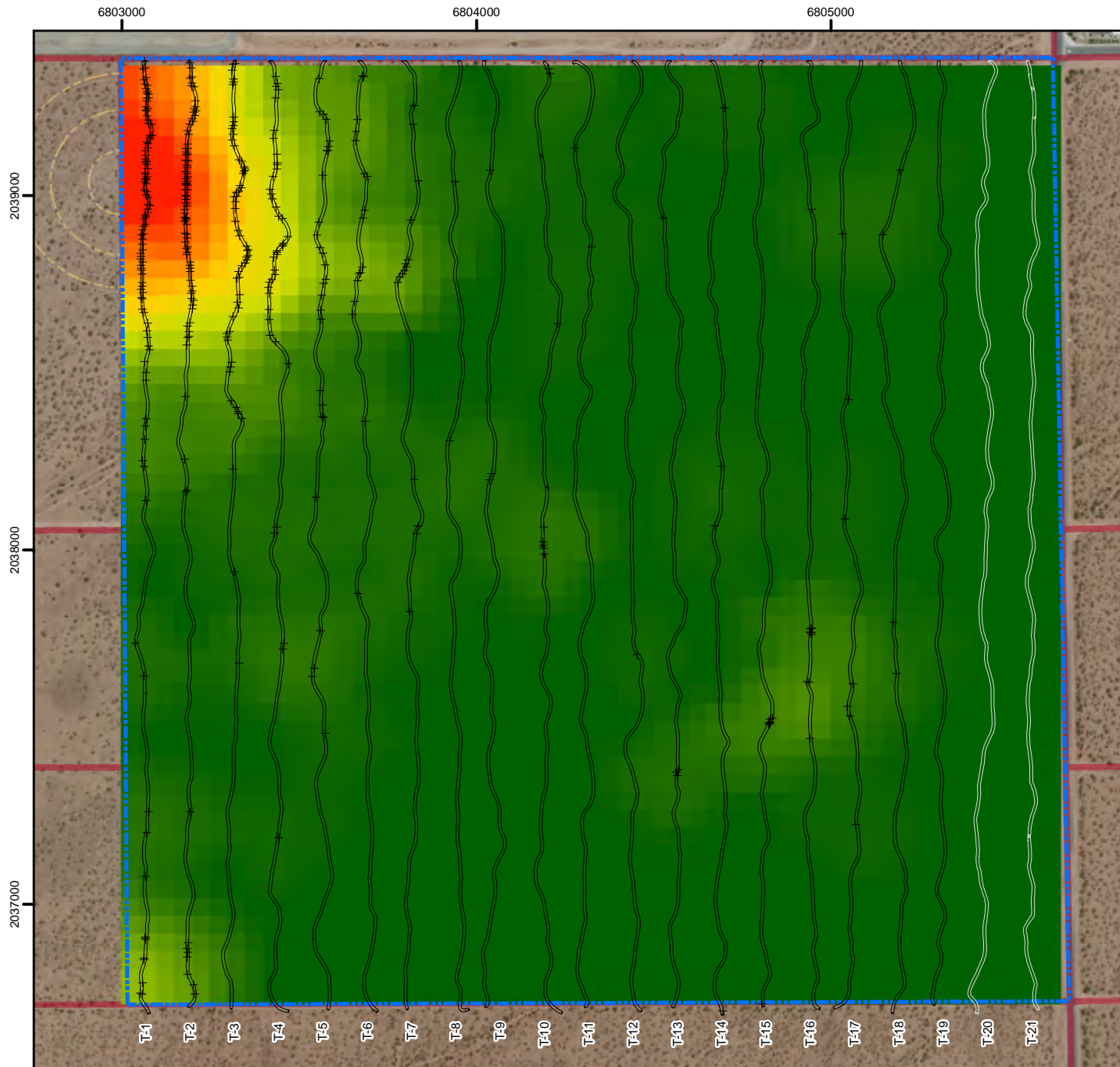
Abbreviations:
 DGM: Digital Geophysical Mapping

Notes:
 1) anomalies with a response greater or equal to 5.0 millivolts were selected as targets.
 2) transect 20 and 21 anomaly data was not used due to signal interference from nearby high voltage power lines.

Sources:
 Roads (San Bernardo County, 2015)

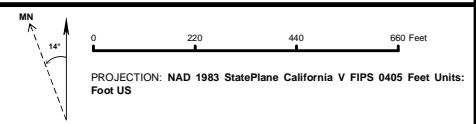
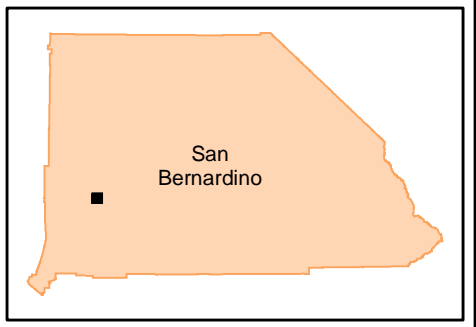


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Victorville PBR #1
 Apple Valley, CA
 San Bernardino County
Figure 3
 Anomaly Density

- Legend**
- + Geophysical Anomaly
 - DGM Data Used
 - DGM Data Not Used
 - ▭ Investigation Area
 - ▭ Former Bombing Target
 - Roads
 - High : 500
 - Low : 0



DESIGNED BY: JK	FIGURE: 3	VERSION: 1.02
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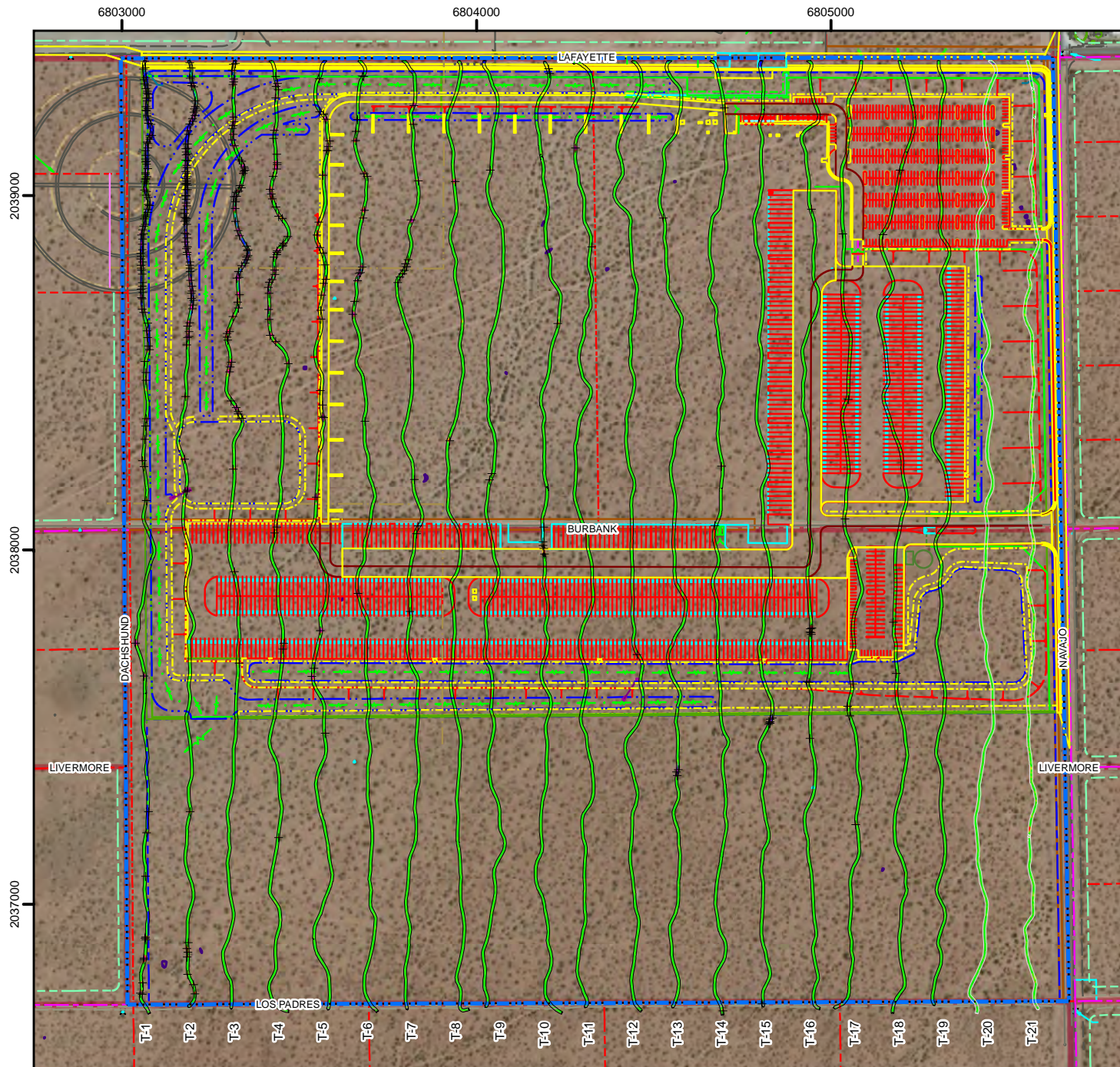
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 DGM: Digital Geophysical Mapping

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 Roads (San Bernardo County, 2015)

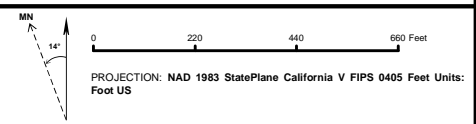
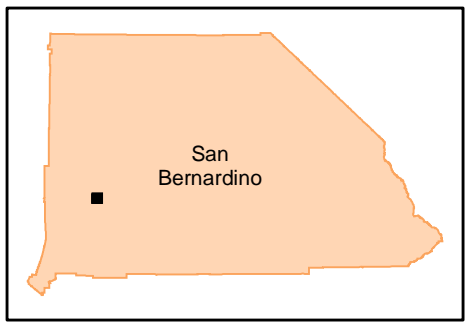
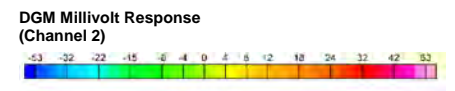


2006.24



Victorville PBR #1
 Apple Valley, CA
 San Bernardino County
Figure 4
 Anomaly Distribution Map

- Legend**
- + Geophysical Anomaly
 - ▭ DGM Data Used
 - ▭ DGM Data Not Used
 - ▭ Investigation Area
 - ▭ Former Bombing Target
 - ▭ Roads



DESIGNED BY: JK	FIGURE: 4	VERSION: 1.02
DRAWN BY: JK	SCALE: 1:4,993	PROJ NO: 15020
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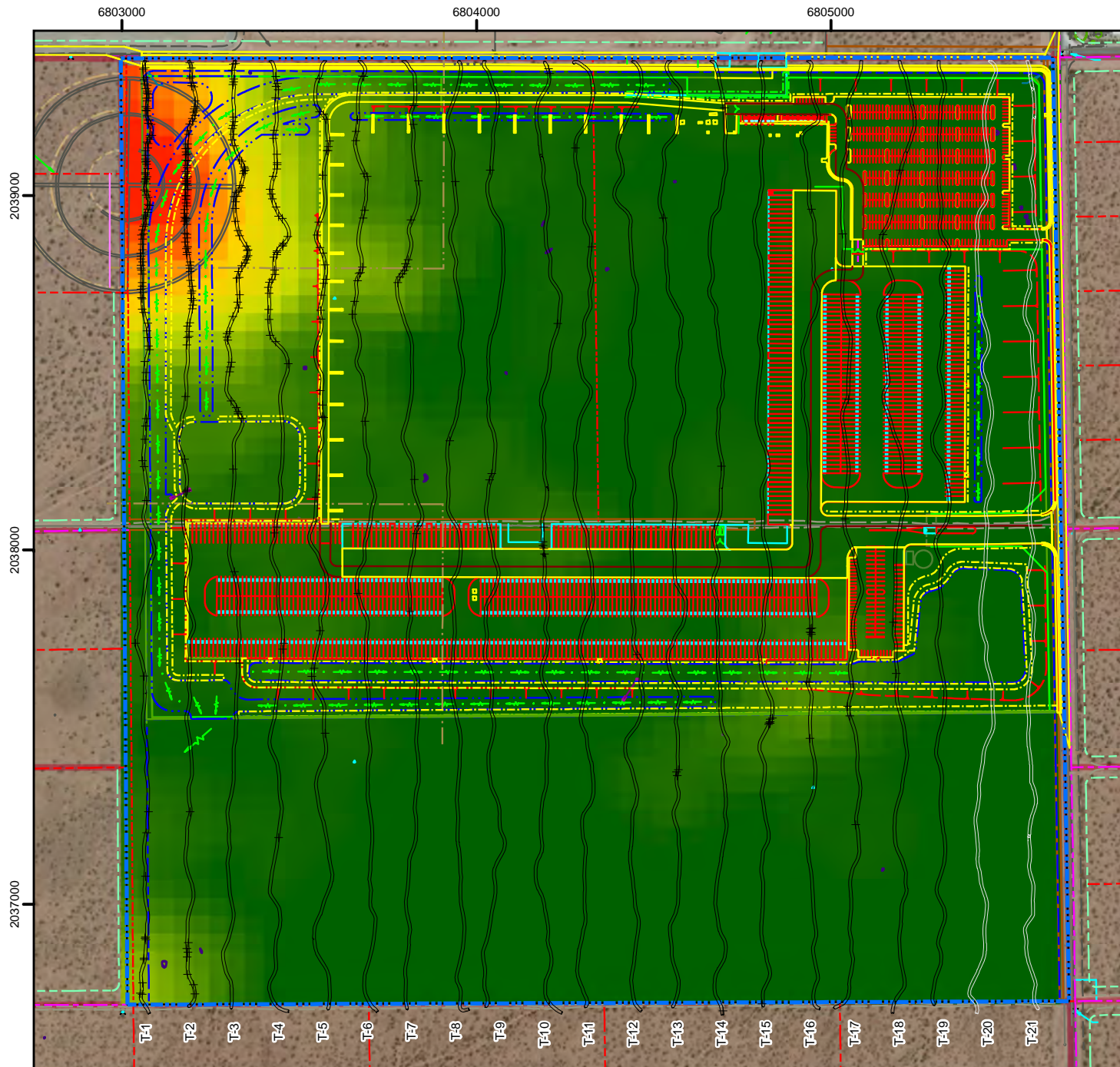
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Sources:
 Roads (San Bernardo County, 2015)

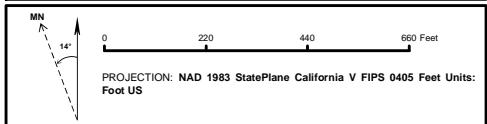
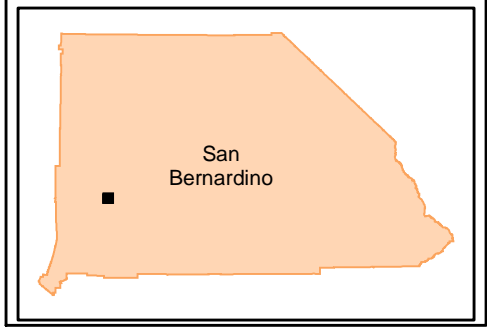


2006.24



Victorville PBR #1
 Apple Valley, CA
 San Bernardino County
Figure 5
 Anomaly Density

- Legend**
- + Geophysical Anomaly
 - DGM Data Used
 - DGM Data Not Used
 - ▭ Investigation Area
 - ▭ Former Bombing Target
 - Roads
 - High : 500
 - Low : 0



DESIGNED BY: JK	FIGURE: 5	VERSION: 1.02
DRAWN BY: JK	SCALE: 1:4,993	PROJ NO: 15020
CHECKED BY: BH	DATE: 7/2/2015	
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 Roads (San Bernardo County, 2015)



2006.24