

*Final*

**Phase I ESA Report  
Ivanpah Solar Electric Generating System  
San Bernardino County, California**

**Property Location:**

Off Interstate Freeway-15, North of Coliseum Road, San Bernardino County

Prepared for

**Bright Source Energy**

Prepared by



3 Hutton Center Drive, Suite 200  
Santa Ana, California 92707

August, 2007

# Contents

---

<b>Section</b>	<b>Page</b>
<b>Acronyms</b> .....	<b>v</b>
<b>Executive Summary</b> .....	<b>ES-1</b>
Findings and Recommendations .....	ES-1
<b>1. Introduction</b> .....	<b>1-1</b>
1.1 Purpose .....	1-1
1.2 Scope of Work .....	1-2
1.3 Significant Assumptions .....	1-2
1.4 Limitations and Exceptions .....	1-2
1.5 Special Terms and Conditions .....	1-2
1.6 User Reliance .....	1-3
<b>2. Site Description</b> .....	<b>1-1</b>
2.1 Location and Legal Description .....	2-1
2.2 Site and Vicinity General Characteristics .....	2-1
2.3 Current Use of the Subject Property .....	2-1
2.4 Description of Structures, Roads, and Other Site Improvements .....	2-1
2.5 Current Use of Adjoining Properties .....	2-2
<b>3. User Provided Information</b> .....	<b>2-1</b>
3.1 Title Records .....	3-1
3.2 Environmental Liens or Activity and Use Limitations .....	3-1
3.3 Specialized Knowledge .....	3-1
3.4 Commonly Known or Reasonably Ascertainable Information .....	3-1
3.5 Valuation Reduction for Environmental Issues .....	3-1
3.6 Owner, Property Manager, and Occupant Information .....	3-1
3.7 Reason for Performing Phase I .....	3-1
<b>4. Records Review</b> .....	<b>3-1</b>
4.1 Standard Environmental Record Sources .....	4-1
4.2 Additional Environmental Record Sources .....	4-3
4.3 Physical Setting Sources .....	4-3
4.3.1 Topography .....	4-3
4.3.2 Hydrology .....	4-3
4.3.3 Geology .....	4-3
4.4 Historical Use Information .....	4-3
4.4.1 Aerial Photographs .....	4-3
4.4.2 Historic Maps .....	4-4
<b>5. Site Reconnaissance</b> .....	<b>4-1</b>
5.1 Methodology and Limiting Conditions .....	5-1
5.2 Site Observations .....	5-1

5.2.1	Subject Property .....	5-1
5.2.2	Adjoining Properties.....	5-2
<b>6.</b>	<b>Interviews .....</b>	<b>5-1</b>
6.1	Interviews with Owners.....	6-1
6.2	Interviews with Occupants.....	6-1
6.3	Interviews with Local Government Officials.....	6-1
6.4	Interviews with Others.....	6-1
<b>7.</b>	<b>Findings and Recommendations.....</b>	<b>6-1</b>
<b>8.</b>	<b>Deviations.....</b>	<b>7-1</b>
<b>9.</b>	<b>References.....</b>	<b>8-1</b>
<b>10.</b>	<b>Signature Page .....</b>	<b>9-1</b>
<b>11.</b>	<b>Qualification of Environmental Professional.....</b>	<b>10-1</b>

## Appendixes

A	Historical Research Documentation
A1	Aerial Photos
A2	Historical Topographic Maps
B	Site Photographs
C	Special Contractual Conditions between User and Environmental Professional
D	Qualifications of Environmental Professional

## Tables

4-1 .....	Environmental Database Report Results
4-2 .....	Historical Aerial Photograph Review Summary
4-3 .....	Historical Topographic Maps Review Summary

## Figure

1	Site Map
---	----------

# Acronyms and Abbreviations

---

AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BLM	Bureau of Land Management
BSE	Bright Source Energy
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CERCLIS/NFRAP	CERCLIS No Further Remedial Action Planned
CHMIRS	California Hazardous Material Incident Report System
CORRACTS	RCRA Corrective Action Sites (see RCRA)
CDL	Clandestine Drug Labs
DOD	Department of Defense
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FINDS	Facility Index System
FUDS	Formerly Used Defense Sites
HMIRS	Hazardous Materials Information Reporting System
I-15	Interstate Highway 15
ICIS	Integrated Compliance Information System
LUCIS	Land Use Control Information System
LUST	leaking underground storage tank
MLTS	Material License Tracking System
MINES	Mines Master Index File
NPL	National Priority List
ODI	Open Dump Inventory

PADS	PCB Activity Database System
RAATS	RCRA Administrative Tracking System
REC	recognized environmental condition
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SWRCY	Recycling Information Listing
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
UST	underground storage tank
UMTRA	Uranium Mill Tailings Sites

# Executive Summary

---

CH2M HILL was tasked by Bright Source Energy Inc. (BrightSource), to conduct a Phase I Environmental Site Assessment (ESA) of the Ivanpah Solar Power Project site (hereby referred to as the Subject Property), located off of Interstate Highway 15 (I-15), north of Colosseum Road, San Bernardino County, California (Figure 1).

The Ivanpah Solar Electric Generating System (Ivanpah SEGS) is being proposed by BrightSource. The project will involve the construction of a solar power plant in southern California's Mojave Desert, near the Nevada border. The project will be located on land near the Ivanpah Dry Lake. The Subject Property is undeveloped land and is currently managed by the Bureau of Land Management (BLM). Area adjacent to the Subject Property includes other undeveloped lands and a golf club to the east of the Subject Property.

This report presents the results of the Phase I ESA and conclusions regarding the environmental conditions associated with the Subject Property.

## Findings and Recommendations

Based on records review, site reconnaissance, and interviews, the following findings were made in connection with the Subject Property:

- This Phase I ESA has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the Subject Property.
- Information regarding historical uses at the site was requested from BLM via telephone contact, however information was not received by CH2M HILL from BLM during the preparation of this assessment. If the land manager (BLM) is interviewed at a later date and the information provided is pertinent to potential adverse environmental conditions at the Site, an addendum to this report will be provided and modifications to the conclusions and recommendations (if required) will be presented. If the interview does not result in information pertinent to adverse environmental conditions, additional reporting regarding the interview will not be provided.
- One orphan site, the Colosseum Mine was identified on the Environmental Data Resources, Inc. (EDR) database as potentially being near the site. The site was not found during the site visit, and additional information regarding the Colosseum Mine, including location information was not available. If additional information is located, and is pertinent to potential adverse environmental conditions at the Site, an addendum to this report will be provided and modifications to the conclusions and recommendations (if required) will be presented. If the mine information does not result in information pertinent to adverse environmental conditions, additional reporting regarding the mine will not be provided.
- A potential leaseholder, Mr. David Hinkson, did not respond to mail or telephone interview requests during the preparation of this assessment. If the current property

owner is interviewed at a later date and the information provided is pertinent to potential adverse environmental conditions at the Site, an addendum to this report will be provided and modifications to the conclusions and recommendations (if required) will be presented. If the interview does not result in information pertinent to adverse environmental conditions, additional reporting regarding the interview will not be provided.

## SECTION 1

# Introduction

---

CH2M HILL was tasked by Bright Source Energy Inc. (BrightSource), to conduct a Phase I Environmental Site Assessment (ESA) of the Ivanpah Solar Electric Generating System site (hereby referred to as the Subject Property), located off of Interstate Highway 15 (I-15), north of Colosseum Road, San Bernardino County, California (Figure 1).

BrightSource is proposing to construct a solar power plant in southern California's Mojave Desert, near the Nevada border. The project will be located on land near the Ivanpah Dry Lake. The Subject Property is on undeveloped land and is currently managed by the Bureau of Land Management (BLM) (Figure 2). The area adjacent to the Subject Property includes other undeveloped lands and a golf course to the east of the Subject Property.

This report presents the results of the Phase I ESA and conclusions regarding environmental conditions at the Subject Property. The following sub-sections provide the purpose of this Phase I ESA and the scope of work.

## 1.1 Purpose

The primary purpose of this Phase I ESA is to identify recognized environmental conditions (RECs) or historical RECs at the Subject Property. As defined by American Society for Testing and Materials (ASTM) E 1527-05, the term REC means:

*"the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."*

As defined by ASTM, the term historical REC means:

*"environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently."*



## 1.2 Scope of Work

The scope of work for this Phase I ESA consists of the following four components, as specified in the ASTM guidelines for conducting an ESA:

- Records Review including review of the following historical information sources.
  - Aerial Photographs
  - Historical Topographic Maps
- Site Reconnaissance
- Interviews
- Preparation of a Phase I Report

In accordance with the ASTM Standard “nonscope considerations”, this Phase I ESA does not include the following items: lead in drinking water, radon, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, or high-voltage power lines.

## 1.3 Significant Assumptions

There are no significant assumptions for this ESA.

## 1.4 Limitations and Exceptions

Because of the undeveloped nature of the Subject area, Sanborn maps and city directory searches were not requested as part of the Environmental Data Resources, Inc. (EDR) package. Also, aerial photographs for only a single year were available and therefore only one year was reviewed for this Phase I ESA.

## 1.5 Special Terms and Conditions

This report has been prepared for the exclusive use of BrightSource, for the specific purpose of evaluating the potential environmental liability associated with the Subject Property. No warranty, expressed or implied, is made. CH2M HILL makes no representation regarding whether this investigation constitutes “all appropriate inquiry into the previous ownership and uses of this property consistent with good commercial or customary practice” as defined in Section 101(35)(B) of CERCLA. There are no beneficiaries of this report other than BrightSource, and no third party is entitled to rely upon this report without the written authorization of CH2M HILL and a written agreement limiting the liability of CH2M HILL.

CH2M HILL is not responsible for any claims, damages, or liabilities associated with the interpretation by third parties of these findings or reuse of the analysis, associated site data, or recommendations by third parties without the express written authorization of CH2M HILL. Limitations of this assessment may not be altered or waived without written consent of CH2M HILL.

It was beyond CH2M HILL's authorized scope of work to review: (1) lead in drinking water, (2) issues associated with worker health and safety, (3) issues pertaining to compliance with environmental regulations, or (4) liabilities associated with the offsite management of solid or hazardous wastes. It was also beyond CH2M HILL's authorized scope of work to conduct interviews with local government officials. The exclusion of the above items is not a representation of the relevance of these nonscope considerations to the Subject Property.

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. These services were performed consistent with our agreement with BrightSource. CH2M HILL does not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

This is a technical report and is not a legal representation or an interpretation of environmental laws; rules; regulations; or policies of local, state, or federal governmental agencies.

Any opinions or recommendations presented herein apply to site conditions existing when services were performed. CH2M HILL is unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces.

No investigation is thorough enough to exclude the presence of hazardous substances at a given site. If hazardous substances or hazardous conditions have not been identified during the assessment, such a finding should not be construed, therefore, as a guarantee of the absence of such substances or conditions, but rather as the result of the services performed within the scope and limitations of the work performed.

## **1.6 User Reliance**

CH2M HILL is not required to verify independently the information provided but may rely on information provided unless there is actual knowledge that certain information is incorrect or unless it is obvious that certain information is incorrect based on other information obtained in the Phase I Environmental Site Assessment.

## SECTION 2

# Site Description

---

This section provides general setting information for the Subject Property.

## 2.1 Location and Legal Description

The project will be located in an area managed by the Bureau of Land Management (BLM), near the Ivanpah Dry Lake, The Subject Property is about 40 miles south of Las Vegas and 4.5 miles south of California/Nevada border at Primm, Nevada. The project is just off the I-15 freeway and consists of approximately 5.25 square miles of undeveloped land (Figure 1). A title report was not obtained for the Subject Property.

## 2.2 Site and Vicinity General Characteristics

The Subject Property is currently undeveloped land, based on observations made during the site reconnaissance of the Subject Property and the adjoining properties on July 7, 2007. The Subject Property is mostly comprised of desert shrubs and grassed areas, and some dirt roads. The areas adjacent to the Subject Property are also undeveloped land, except for a golf course, located approximately 0.5 mile to the east of the Subject Property. The I-15 freeway is located to the east of the Property, running in a north-south direction.

## 2.3 Current Use of the Subject Property

The Subject Property is currently undeveloped vacant land.

## 2.4 Description of Structures, Roads, and Other Site Improvements

The Subject Property is bounded on the north, south, and west by undeveloped land. A golf course, along with its maintenance facility, is located to the immediate east of the Subject Property (between the I-15 freeway and the Subject property). Overhead electrical transmission lines run within the Subject property. A water well and pumping station for use by the golf course is located outside the Subject Property accessible from Coliseum Road. Coliseum Road is a dirt road that may be used for access to the Subject Property. From the I-15 freeway, the Yates Well Road exit leads to an intersection, and towards the left of this intersection is Coliseum Road. Some minor dirt roads branch off from Coliseum Road.

## **2.5 Current Use of Adjoining Properties**

The area adjacent to the east of the site is a golf course and a golf club, identified as the Primm Valley Golf Club. The adjacent property to the north, south, and west are undeveloped.

SECTION 3

## **User Provided Information**

---

### **3.1 Title Records**

No title record search was conducted as part of this Phase I ESA.

Based on the available historical use information, such as historical aerial photographs and historical topographical maps, the Subject Property has been undeveloped land since 1910.

### **3.2 Environmental Liens or Activity and Use Limitations**

No environmental liens were found for the Subject Property.

### **3.3 Specialized Knowledge**

No specialized knowledge pertaining to the Subject Property was identified.

### **3.4 Commonly Known or Reasonably Ascertainable Information**

No commonly known or reasonably ascertainable information pertaining to the Subject Property was identified.

### **3.5 Valuation Reduction for Environmental Issues**

No RECs or historical RECs have been identified for the Subject Property based on available information obtained. Therefore, no value reduction associated with the Subject Property appears to be warranted.

### **3.6 Owner, Property Manager, and Occupant Information**

The Subject Property is currently managed by BLM. In addition, upon reviewing the parcel maps for the site, one leaseholder, Mr. David Hinkson, may have a lease on the property as well.

### **3.7 Reason for Performing Phase I**

This ESA is being performed to determine the environmental conditions of the Subject Property prior to the transfer of the land and construction of a solar energy plant.

SECTION 4

# Records Review

The purpose of records review is to obtain and review records that help identify RECs and historical RECs associated with the Subject Property. Records were reviewed to obtain existing environmental information and the history of previous uses of the Subject Property. The following subsections summarize the results of the record reviews that were performed.

## 4.1 Standard Environmental Record Sources

CH2M HILL contracted with Environmental Data Resources, Inc. (EDR) to review available regulatory agency databases for sites within the various ASTM-prescribed radii of the property. The complete database search provided by EDR is included in Appendix A.

Table 4-1 summarizes the EDR database search results of sites identified within 1 mile of the Subject Property.

**TABLE 4-1**  
Environmental Database Report Results within 1 Mile of Subject Property

Record Source	Number of Sites Identified
<b>Federal ASTM Standard</b>	
NPL (National Priority List)	0
Proposed NPL	0
Delisted NPL list	0
NPL Liens	0
CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) list	0
CERCLIS/NFRAP (No Further Remedial Action Planned). Sites currently or formerly under review by EPA	0
RCRA CORRACTS facilities list	0
RCRA non-CORRACTS TSD facilities list	0
RCRA generators list	0
Institutional Control/Engineering Control Registries	0
ERNS – (Emergency Response Notification System) Notification of spills	0
Department of Defense (DOD)	0
Formerly Used Defense Sites (FUDS)	0
US Brownfields	0
Consent	0

**TABLE 4-1**  
Environmental Database Report Results within 1 Mile of Subject Property

Record Source	Number of Sites Identified
Records of Decision (ROD)	0
Uranium Mill Trailing Sites (UMTRA)	0
Open Dump Inventory (ODI)	0
Toxic Chemical Inventory System (TRIS)	0
Toxic Substances Control Act (TSCA)	0
FTTS	0
Section 7 Tracking Systems (SSTS)	0
Land Use Control Information System (LUCIS)	0
DOT OPS	0
Integrated Compliance Information System (ICIS)	0
HIST FTTS	0
Clandestine Drug Labs (CDL)	0
RADINFO	0
LIENS 2	0
PCB Activity Database System (PADS)	0
Material License Tracking System (MLTS)	0
Mines Master Index File (MINES)	0
Facility Index System (FINDS)	0
RCRA Administrative Action Tracking System (RAATS)	0
RADINFO	0
Hazardous Materials Information Reporting System (HMIRS)	0
State Hazardous Waste	0
SWRCY	0
State Landfill or Solid Waste Disposal Site	0
State LUST Lists	0
State Registered Storage Tank Lists	0
State Institutional Control/Engineering Control Registries	0
State Voluntary Cleanup Sites	0
State Brownfield Sites	0

For the above-referenced ASTM search parameters, the database report did not identify any site of significance within a 1-mile radius of the Subject Property. EDR identified 17 orphan

sites, which included a mine, Coliseum Mine. The site address for the Coliseum Mine provided by EDR is 1000 Coliseum Mine Road, Clark Mountain, Baker CA 92364. Attempts were made to locate the exact location of Coliseum Mine Site, however it was not located within a 2-mile distance from I-15 as determined by the historical topographic maps. Orphan sites are classified as sites with poor or inadequate address information in the referenced databases.

## **4.2 Additional Environmental Record Sources**

In addition to the environmental database review, records from other local, county, and state agencies were reviewed to obtain information on the adjoining property identified in the EDR report.

## **4.3 Physical Setting Sources**

### **4.3.1 Topography**

No hydrological information for the Subject Property was provided in the EDR report. Based on the observations during the Site visit, the Subject Property is located in an area that is generally flat; however, mountainous terrain surrounds the Subject Property.

### **4.3.2 Hydrology**

No hydrological information for the Subject Property was provided in the EDR report.

### **4.3.3 Geology**

No geological information for the Subject Property was provided in the EDR report.

## **4.4 Historical Use Information**

This section describes historical use information for the Subject Property and adjoining properties. Historical use information, including historical aerial photographs and historical topographic maps, was obtained from EDR (EDR, 2007).

### **4.4.1 Aerial Photographs**

Historical aerial photographs for 1994 were reviewed to assess historic land uses and identify the potential evidence of hazardous substance releases. These photographs were obtained from EDR and are provided in Appendix A. The results of the aerial photograph review are summarized in Table 4-2.



**TABLE 4-2**  
Historical Aerial Photographs Review Summary

Map Date	Findings
1994	The Subject Property and the surrounding area are undeveloped. Coliseum Road and several dirt roads are visible in the photograph.

#### 4.4.2 Historic Maps

In addition to the historical aerial photographs, historical topographic maps dated 1910, 1955, and 1985 were reviewed for the Subject Property. The results of the historical topographical map review are summarized in Table 4-3. Historical maps were obtained from EDR and are provided in Appendix A.

**TABLE 4-3**  
Historical Topographic Maps Review Summary

Map Date	Target Quad	Map Scale	Findings
1910	Ivanpah	1: 250,000	The location where the Subject Property is generally situated appears to be undeveloped land. Coliseum Mine and Breens Mine are located approximately 2 miles to the west of the Subject Property. Benson Mine is shown to the southwest of the Subject Property. Ivanpah Lake is located approximately 2 miles to the east of the Site.
1955	Roach Lake	1: 62,500	Site is still an undeveloped area. Coliseum Road and Yates Well road are visible, and 91 Freeway is located to the east of the Site. A well is shown near the intersection of Coliseum Road and Yates Well Road.
1985	Ivanpah Lake	1: 24,000	Part of the Subject Property is outside the coverage area. No major details are noted in the map.
1985	Ivanpah Lake	1: 24,000	No major changes to the Subject Property area are noted. A transmission line, running northeast-southwest, is shown in the map. The Coliseum Road is visible in the map.
1985	Ivanpah Lake	1: 24,000	I-15 Freeway and Yates Well Road are visible to the east of the Subject Property.

## SECTION 5

# Site Reconnaissance

---

As part of the Phase I ESA, CH2M HILL conducted a site reconnaissance of the Subject Property and adjoining properties. The following sub-sections provide a summary of the methodology used, site setting and site observations. No interviews were conducted during the site reconnaissance.

The purpose of the site reconnaissance was to:

- Observe the Subject Property and adjoining properties
- Identify potential recognized environmental conditions that may be present at the Subject Property and adjoining properties
- Assess current land uses of the Subject Property and adjoining properties

## 5.1 Methodology and Limiting Conditions

The site reconnaissance was performed by driving all roads present on the Subject Property and adjacent to the Subject Property. Some portions of the Subject property were inspected by walking due to the limited access by roads.

## 5.2 Site Observations

The site reconnaissance of the Subject Property and adjacent properties was performed on July 7, 2007, by Mr. Soomodh Abraham of CH2M HILL. Photographs taken during the site reconnaissance are included in Appendix B.

During the site reconnaissance of the Subject Property, any potential RECs associated with the following environmental features were noted and recorded.

### 5.2.1 Subject Property

The Subject Property is bounded on the north, south, and west by undeveloped land. The Primm Valley Golf Club, along with its maintenance facility, is located to the immediate east of the Subject Property (between the I-15 freeway and the Subject property). Overhead electrical transmission lines run within the Subject property. Coliseum Road is a dirt road that could be used for access to the Subject Property. From the I-15 freeway, the Yates Well Road exit leads to an intersection and towards the left of this intersection is the Coliseum Road. Some minor dirt roads branch off from the Coliseum Road.

#### 5.2.1.1 Onsite Hazardous Substance Use and Storage

No hazardous substances were observed on the Subject Property.

#### **5.2.1.2 Onsite Hazardous Waste Disposal**

No evidence of current or historical onsite hazardous waste disposal activities was observed during the site reconnaissance.

#### **5.2.1.3 Onsite Aboveground/Underground Storage Tanks**

No USTs or ASTs were observed at the Subject Property during the site reconnaissance.

#### **5.2.1.4 Onsite Pits, Sumps, Drywells, or Catch Basins**

No evidence of current or historical onsite pits, sumps, drywells, or catch basins was observed at the Subject Property during the site reconnaissance.

#### **5.2.1.5 Onsite Pole-Mounted Transformers**

No onsite pole-mounted transformers were observed during the site reconnaissance.

### **5.2.2 Adjoining Properties**

The area adjacent to the east of the site is the Primm Valley Golf Club. The adjacent property to the north, south, and west are undeveloped.

## SECTION 6

# Interviews

---

## 6.1 Interviews with Owners

BLM, the the federal agency responsible for managing the Subject Property, was contacted to obtain information regarding the past history of the Subject Property. CH2M HILL made several attempts to interview a BLM person knowledgeable with the Subject Property history; however, was unsuccessful in obtaining any pertinent information. CH2M HILL also attempted to contact a potential leaseholder, Mr. David Hinkson, by phone, letter, and site visit; however, CH2M HILL was not successful in contacting Mr. Hinkson.

## 6.2 Interviews with Occupants

The Subject Property is not developed and therefore has no structures or occupants.

## 6.3 Interviews with Local Government Officials

As part of this Phase I ESA, no interviews with Local Government Officials were performed as the site is remote, and located on BLM managed land. It is unlikely that agencies other than BLM would have knowledge of the Subject Property.

## 6.4 Interviews with Others

A brief interview was conducted with Mr. Rich Koffler, Head Professional - Primm Valley Golf Club. Mr. Koffler mentioned that no major activities have been observed at the Subject Property for the past five years. As per Mr. Koffler, recently an individual has bought a small piece of land adjacent to the Subject Property and resides in a recreational vehicle located within that land. Based on the interview with Mr. Koffler, no environmental concerns were identified for the Subject Property.

CH2M HILL made several attempts to contact the owners' representative of Primm Valley Golf Club, Mr. Paul Roshetko, by email correspondence; however, no response was received.

## SECTION 7

# Findings and Recommendations

---

CH2M HILL has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Subject Property. Any exceptions to, or deletions from, this practice are described in Section 10, Deviations.

Based on records review, site reconnaissance, and interviews, the following findings were made in connection with the Subject Property:

- This assessment has revealed no evidence of RECs in connection with the Subject Property.
- Information regarding historical uses at the site was requested from BLM via telephone contact, however information was not provided by BLM during the preparation of this assessment. If BLM is interviewed at a later date and the information provided is pertinent to potential adverse environmental conditions at the Site, an addendum to this report will be provided and modifications to the conclusions and recommendations (if required) will be presented. If the interview does not result in information pertinent to adverse environmental conditions, additional reporting regarding the interview will not be provided.
- One orphan site, the Coliseum Mine was identified on the Environmental Data Resources, Inc. (EDR) database as potentially being near the site. The site was not found during the site visit, and additional information regarding the Coliseum Mine, including location information was not available. If additional information is located, and is pertinent to potential adverse environmental conditions at the Site, an addendum to this report will be provided and modifications to the conclusions and recommendations (if required) will be presented. If the mine information does not result in information pertinent to adverse environmental conditions, additional reporting regarding the mine will not be provided. A potential leaseholder, Mr. David Hinkson, did not respond to mail or telephone interview requests during the preparation of this assessment. If the leaseholder is interviewed at a later date and the information provided is pertinent to potential adverse environmental conditions at the Site, an addendum to this report will be provided and modifications to the conclusions and recommendations (if required) will be presented. If the interview does not result in information pertinent to adverse environmental conditions, additional reporting regarding the interview will not be provided.

SECTION 8

## Deviations

---

Aside from the lack of a formal interview with BLM and a potential current leaseholder, Mr. David Hinkson, and contacting local agencies, no deviations from the ASTM-2005 standard are noted. If the current property owner is interviewed at a later date and the information provided is pertinent to potential adverse environmental conditions at the Site, an addendum to this report will be provided and modifications to the conclusions and recommendations (if required) will be presented. If the interview does not result in information pertinent to adverse environmental conditions, additional reporting regarding the interview will not be provided. Local agencies were not contacted due to the lack of activity at the site, the remoteness of the site, and the fact that the land is managed by BLM, a federal agency. Therefore it is anticipated that any information regarding the site would be available only from BLM.

SECTION 9

## References

---

American Society for Testing and Materials (ASTM). 2005. *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. Designation: E 1527-05.

EDR. 2007. *EDR Aerial Photographs, Ivanpah Solar Electric Generating System, Clark County, NV 89019*. July 11.

EDR. 2007. *EDR Historical Topographic Map Report, Ivanpah Solar Electric Generating System, Nipton, CA 92364*. July 6.

Environmental Data Resources (EDR). 2007. *EDR DataMap Area Study, Ivanpah Solar Electric Generating System, Clark County, NV 89019*. July 3.

SECTION 10

# Signature Page

---

This Phase I ESA has been prepared under the direction of the following environmental professionals.

*"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of 40 Code of Federal Regulations (CFR) 312," and*

*"We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312."*

Prepared By

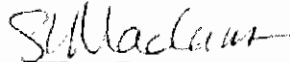


\_\_\_\_\_  
Soomodh Abraham  
Environmental Engineer  
CH2M HILL  
714-429-2000  
3 Hutton Center Drive, Suite 200  
Santa Ana, CA 92707

8/22/07

\_\_\_\_\_  
Date

Reviewed By



\_\_\_\_\_  
Sarah Madams  
Project Manager  
CH2M HILL  
916-286-0249  
2485 Natomas Park Drive, Suite 600  
Sacramento, CA 95833

8/22/07

\_\_\_\_\_  
Date



SECTION 11

## **Qualification of Environmental Professional**

---

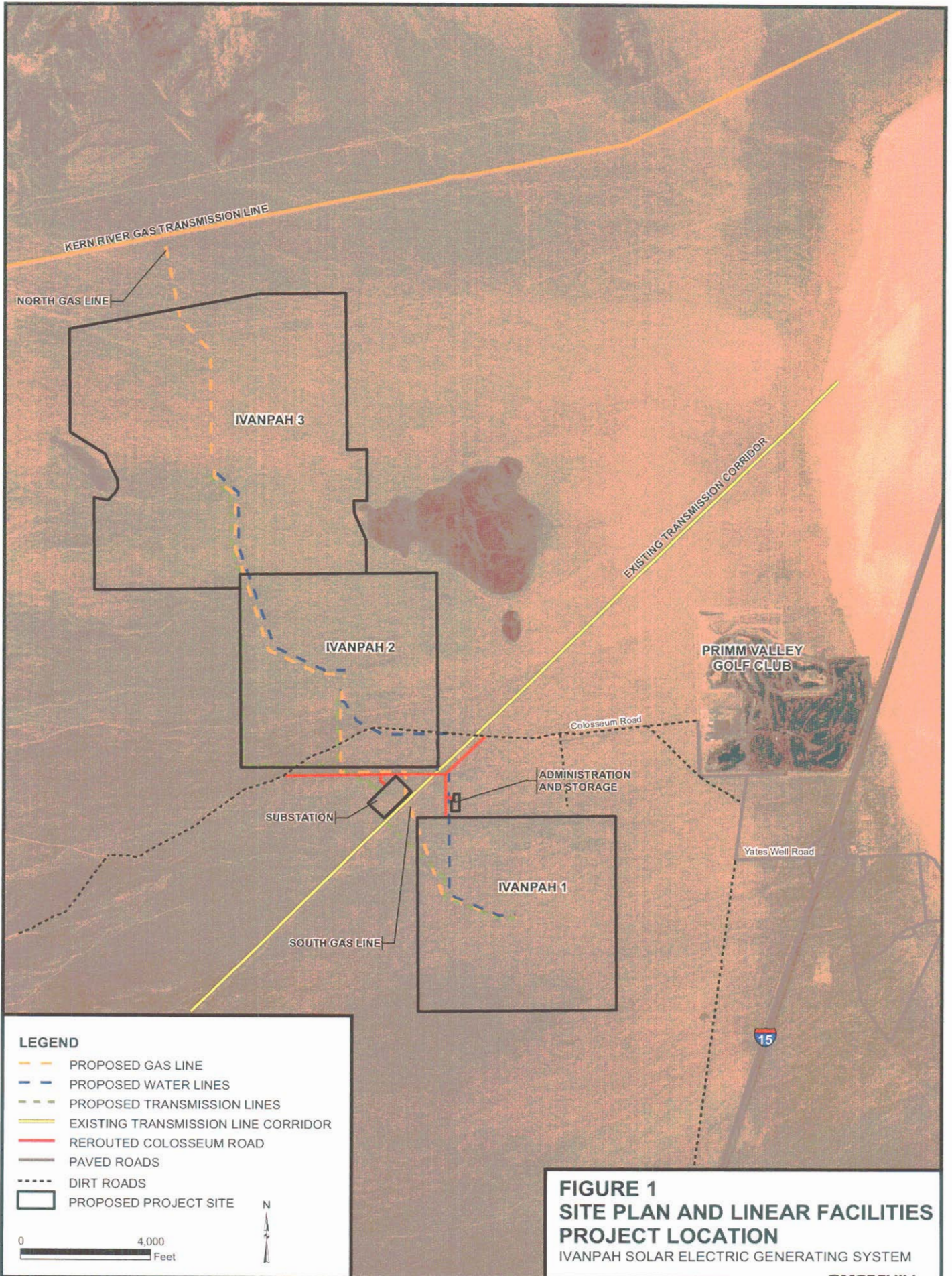
Soomodh Abraham has 5 years of experience in conducting Phase I and Phase II environmental site assessments, and Remedial Investigations/Feasibility Studies (RI/FS). He has performed Phase I and Phase II assessments for Honeywell International, NBC Universal and various other clients. He has also conducted Engineering Evaluation and Cost Estimation (EE/CA) for various Superfund Sites, including two projects where he acted as the technical lead for selecting remediation alternatives. Mr. Abraham has also been a Task Manager for various groundwater and soil gas sampling projects.

Sarah Madams has 7 years of experience in managing and conducting Phase I environmental site assessments and initial site assessments. She has completed numerous site assessments for government and private industry clients. She has experience in regulatory compliance, site investigations, and preparing environmental plans and permits. She routinely prepares environmental study reports that include descriptions and analyses of the significant environmental impacts of proposed projects, identifying alternatives and discussing Best Management Practices to avoid possible environmental damage.

**Figure**

---





**FIGURE 1**  
**SITE PLAN AND LINEAR FACILITIES**  
**PROJECT LOCATION**  
 IVANPAH SOLAR ELECTRIC GENERATING SYSTEM

APPENDIX A

# **Environmental Data Resources Report**

---





**EDR®** Environmental  
Data Resources Inc

**EDR DataMap®  
Area Study**

**Ivanpah Solar Electric Generating System  
Clark County, NV 89019**

**July 03, 2007**

**Inquiry number 01966016.1r**

**The Standard in  
Environmental Risk  
Information**

440 Wheelers Farms Road  
Milford, Connecticut 06461

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

**Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2006 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR).

### TARGET PROPERTY INFORMATION

#### ADDRESS

CLARK COUNTY, CA 89019  
CLARK COUNTY, NV 89019

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

#### FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
CORRACTS	Corrective Action Report
RCRA-TSDF	Resource Conservation and Recovery Act Information
RCRA-LQG	Resource Conservation and Recovery Act Information
RCRA-SQG	Resource Conservation and Recovery Act Information
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
SSTS	Section 7 Tracking Systems
LUCIS	Land Use Control Information System
DOT OPS	Incident and Accident Data
ICIS	Integrated Compliance Information System
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
US CDL	Clandestine Drug Labs
RADINFO	Radiation Information Database

## EXECUTIVE SUMMARY

<b>LIENS 2</b> .....	CERCLA Lien Information
<b>PADS</b> .....	PCB Activity Database System
<b>MLTS</b> .....	Material Licensing Tracking System
<b>MINES</b> .....	Mines Master Index File
<b>FINDS</b> .....	Facility Index System/Facility Registry System
<b>RAATS</b> .....	RCRA Administrative Action Tracking System

### STATE AND LOCAL RECORDS

<b>SHWS</b> .....	Sites Database
<b>SWF/LF</b> .....	Landfill List
<b>SWRCY</b> .....	Recycling Information Listing
<b>LUST</b> .....	Sites Database
<b>UST</b> .....	Underground Storage Tank List
<b>AST</b> .....	Aboveground Storage Tank List
<b>VCP</b> .....	Voluntary Cleanup Program Sites
<b>BROWNFIELDS</b> .....	Project Tracking Database
<b>NPDES</b> .....	Permitted Facility Listing
<b>AIRS</b> .....	Permitted Airs Facility Listing
<b>TIER 2</b> .....	Hazardous Materials Repository Information Data

### TRIBAL RECORDS

<b>INDIAN RESERV</b> .....	Indian Reservations
<b>INDIAN LUST</b> .....	Leaking Underground Storage Tanks on Indian Land
<b>INDIAN UST</b> .....	Underground Storage Tanks on Indian Land

### EDR PROPRIETARY RECORDS

**Manufactured Gas Plants**... EDR Proprietary Manufactured Gas Plants

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.



## **EXECUTIVE SUMMARY**

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

**MAP FINDINGS SUMMARY**

<u>Database</u>	<u>Total Plotted</u>
<b><u>FEDERAL RECORDS</u></b>	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
CERCLIS	0
CERC-NFRAP	0
CORRACTS	0
RCRA TSD	0
RCRA Lg. Quan. Gen.	0
RCRA Sm. Quan. Gen.	0
ERNS	0
HMIRS	0
US ENG CONTROLS	0
US INST CONTROL	0
DOD	0
FUDS	0
US BROWNFIELDS	0
CONSENT	0
ROD	0
UMTRA	0
ODI	0
TRIS	0
TSCA	0
FTTS	0
SSTS	0
LUCIS	0
DOT OPS	0
ICIS	0
HIST FTTS	0
CDL	0
RADINFO	0
LIENS 2	0
PADS	0
MLTS	0
MINES	0
FINDS	0
RAATS	0
<b><u>STATE AND LOCAL RECORDS</u></b>	
State Haz. Waste	0
State Landfill	0
SWRCY	0
LUST	0
UST	0
AST	0
VCP	0
BROWNFIELDS	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
NPDES	0
AIRS	0
TIER 2	0
<b><u>TRIBAL RECORDS</u></b>	
INDIAN RESERV	0
INDIAN LUST	0
INDIAN UST	0
<b><u>EDR PROPRIETARY RECORDS</u></b>	
Manufactured Gas Plants	0

### NOTES:

Sites may be listed in more than one database

**MAP FINDINGS**

Map ID  
Direction  
Distance  
Distance (ft.) Site

EDR ID Number  
Database(s) EPA ID Number

NO SITES FOUND

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BAKER	1000593563	COLOSSEUM MINE	1000 COLOSSEUM MINE ROAD CLARK MOUNTAIN	92364	FINDS, RCRA-LQG
CLARK COUNTY	S108250295	QUE WEST TRANSPORT	INTERSTATE 15 @ MILE MARKER 024		SHWS
CLARK COUNTY	S108250101	FNF CONSTRUCTION	INTERSTATE 15 @ MILE MARKER 044		SHWS
CLARK COUNTY	S108250160	INTERPOINT TRANSPORTATION MOBILE SOURCE	INTERSTATE 15 @ EXIT 064		SHWS
CLARK COUNTY	S108250226	NELLIS AIR FORCE BASE	AREA 2, TANK 10-116		SHWS
CLARK COUNTY	S108250227	NELLIS AIR FORCE BASE	AREA 2, TANK 10-322		SHWS
CLARK COUNTY	S108250156	INDIAN SPRINGS AIR FORCE BASE	BOX CANYON		SHWS
CLARK COUNTY	S108250003	AMERICAN SAFETY INSTITUTE	U.S. HIGHWAY 95 @ U.S. HIGHWAY 93		SHWS
CLARK COUNTY	S108250110	FREHNER CONSTRUCTION	STATE ROUTE 376 @ MILE POST 8		SHWS
GOODSPRINGS	S103675761	AT&T - POTOSI ROAD	MT. POTOSI	89019	SHWS
GOODSPRINGS	S103875632	FAA - RCLR QDS	(6020 SOUTH SPENCER #B-13)	89019	SHWS
JEAN	U003380607	JEAN DEVELOPMENT	HIGHWAY 91	89019	UST
JEAN	U003380525	GOLD STRIKE AUTO/TRUCK PLAZA	GOODSPRINGS RD, HWY 53	89019	UST
JEAN	U003380866	JEAN HONOR CAMP - CLOSED	JEAN PRISON ROAD	89019	SHWS, UST
LAS VEGAS	S108250006	ARCO #5310	2784 SOUTH LAS VEGAS BOULEVARD	89019	SHWS, LUST
NIPTON	U004050689	ST-CAL TRANS/MTN PASS	94200 CLARK MT RD	92364	UST
SANDY VALLEY	1000984394	OSAGE MILLSITE	NE 1/4 SW 1/4 S 27, T24S, R57E	89019	CERCLIS, FINDS

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## **FEDERAL RECORDS**

### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/25/2007	Source: EPA
Date Data Arrived at EDR: 01/31/2007	Telephone: N/A
Date Made Active in Reports: 03/12/2007	Last EDR Contact: 05/03/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

### **NPL Site Boundaries**

#### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/27/2006	Source: EPA
Date Data Arrived at EDR: 11/01/2006	Telephone: N/A
Date Made Active in Reports: 11/22/2006	Last EDR Contact: 05/03/2007
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

### **DELISTED NPL: National Priority List Deletions**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/20/2007	Source: EPA
Date Data Arrived at EDR: 05/03/2007	Telephone: N/A
Date Made Active in Reports: 06/25/2007	Last EDR Contact: 05/03/2007
Number of Days to Update: 53	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 05/21/2007
Number of Days to Update: 56	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: No Update Planned

## **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/27/2007	Source: EPA
Date Data Arrived at EDR: 03/21/2007	Telephone: 703-412-9810
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 06/20/2007
Number of Days to Update: 37	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

## **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 03/21/2007	Source: EPA
Date Data Arrived at EDR: 04/27/2007	Telephone: 703-412-9810
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

## **CORRACTS: Corrective Action Report**

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/14/2007	Source: EPA
Date Data Arrived at EDR: 03/20/2007	Telephone: 800-424-9346
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 06/04/2007
Number of Days to Update: 38	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: Quarterly

## **RCRA: Resource Conservation and Recovery Act Information**

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/13/2006	Source: EPA
Date Data Arrived at EDR: 06/28/2006	Telephone: (415) 495-8895
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 06/05/2007
Number of Days to Update: 56	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Quarterly

## **ERNS: Emergency Response Notification System**

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2006	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/24/2007	Telephone: 202-267-2180
Date Made Active in Reports: 03/12/2007	Last EDR Contact: 04/24/2007
Number of Days to Update: 47	Next Scheduled EDR Contact: 07/23/2007
	Data Release Frequency: Annually

## **HMIRS: Hazardous Materials Information Reporting System**

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/05/2007	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 04/17/2007	Telephone: 202-366-4555
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 04/17/2007
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Annually

## **US ENG CONTROLS: Engineering Controls Sites List**

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 04/20/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/26/2007	Telephone: 703-603-8905
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Varies

## **US INST CONTROL: Sites with Institutional Controls**

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 04/20/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/26/2007	Telephone: 703-603-8905
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Varies



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **DOD:** Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 703-692-8801
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 05/11/2007
Number of Days to Update: 62	Next Scheduled EDR Contact: 08/06/2007
	Data Release Frequency: Semi-Annually

### **FUDS:** Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2005	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 09/20/2006	Telephone: 202-528-4285
Date Made Active in Reports: 11/22/2006	Last EDR Contact: 07/02/2007
Number of Days to Update: 63	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Varies

### **US BROWNFIELDS:** A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/04/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/04/2007	Telephone: 202-566-2777
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 06/11/2007
Number of Days to Update: 51	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Semi-Annually

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/23/2006	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 03/06/2007	Telephone: Varies
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 04/23/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/23/2007
	Data Release Frequency: Varies

### **ROD:** Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/27/2007	Source: EPA
Date Data Arrived at EDR: 03/27/2007	Telephone: 703-416-0223
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 31	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **UMTRA: Uranium Mill Tailings Sites**

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 11/08/2006	Telephone: 505-845-0011
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 06/22/2007
Number of Days to Update: 82	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Varies

## **ODI: Open Dump Inventory**

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## **TRIS: Toxic Chemical Release Inventory System**

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2004	Source: EPA
Date Data Arrived at EDR: 06/22/2006	Telephone: 202-566-0250
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 06/19/2007
Number of Days to Update: 62	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Annually

## **TSCA: Toxic Substances Control Act**

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002	Source: EPA
Date Data Arrived at EDR: 04/14/2006	Telephone: 202-260-5521
Date Made Active in Reports: 05/30/2006	Last EDR Contact: 04/16/2007
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Every 4 Years

## **FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 02/26/2007	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-566-1667
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

## **FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 02/26/2007	Source: EPA
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-566-1667
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2005	Source: EPA
Date Data Arrived at EDR: 03/13/2007	Telephone: 202-564-4203
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 04/12/2007
Number of Days to Update: 45	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Annually

## LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/08/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/12/2007	Telephone: 202-564-6023
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 32	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

## RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 05/01/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/03/2007	Telephone: 202-343-9775
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 05/03/2007
Number of Days to Update: 22	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

## CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/01/2006	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 01/08/2007	Telephone: 202-307-1000
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 06/29/2007
Number of Days to Update: 3	Next Scheduled EDR Contact: 09/24/2007
	Data Release Frequency: Quarterly

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **ICIS:** Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/21/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/03/2007	Telephone: 202-564-5088
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 06/22/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Quarterly

## **LUCIS:** Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 06/11/2007
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Varies

## **DOT OPS:** Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 02/14/2007	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 02/28/2007	Telephone: 202-366-4595
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 05/30/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/27/2007
	Data Release Frequency: Varies

## **PADS:** PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/17/2006	Source: EPA
Date Data Arrived at EDR: 11/29/2006	Telephone: 202-566-0500
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 06/08/2007
Number of Days to Update: 43	Next Scheduled EDR Contact: 08/06/2007
	Data Release Frequency: Annually

## **MLTS:** Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/05/2007	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 04/25/2007	Telephone: 301-415-7169
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Quarterly

## **MINES:** Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/06/2007	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 03/28/2007	Telephone: 303-231-5959
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 06/28/2007
Number of Days to Update: 47	Next Scheduled EDR Contact: 09/24/2007
	Data Release Frequency: Semi-Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **FINDS:** Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/18/2007	Source: EPA
Date Data Arrived at EDR: 01/23/2007	Telephone: (415) 947-8000
Date Made Active in Reports: 02/27/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Quarterly

### **RAATS:** RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/04/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: No Update Planned

### **BRS:** Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005	Source: EPA/NTIS
Date Data Arrived at EDR: 03/06/2007	Telephone: 800-424-9346
Date Made Active in Reports: 04/13/2007	Last EDR Contact: 06/12/2007
Number of Days to Update: 38	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Biennially

### **USGS WATER WELLS:** National Water Information System (NWIS)

This database consists of well records in the United States. Available site descriptive information includes well location information (latitude and longitude, well depth, site use, water use, and aquifer).

Date of Government Version: 03/25/2005	Source: USGS
Date Data Arrived at EDR: 03/25/2005	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: 03/25/2005
Number of Days to Update: 0	Next Scheduled EDR Contact: N/A
	Data Release Frequency: N/A

### **PWS:** Public Water System Data

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 02/24/2000	Source: EPA
Date Data Arrived at EDR: 04/27/2005	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: 05/21/2007
Number of Days to Update: 0	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: N/A

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STATE AND LOCAL RECORDS

### **SHWS:** Sites Database

A listing of correction action sites.

Date of Government Version: 04/04/2007  
Date Data Arrived at EDR: 04/18/2007  
Date Made Active in Reports: 05/14/2007  
Number of Days to Update: 26

Source: Department of Conservation and Natural Resources  
Telephone: 775-687-5872  
Last EDR Contact: 04/18/2007  
Next Scheduled EDR Contact: 07/16/2007  
Data Release Frequency: Varies

### **SWF/LF:** Landfill List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/04/2007  
Date Data Arrived at EDR: 12/28/2006  
Date Made Active in Reports: 01/30/2007  
Number of Days to Update: 33

Source: Department of Conservation and Natural Resources  
Telephone: 775-687-5872  
Last EDR Contact: 06/29/2007  
Next Scheduled EDR Contact: 09/24/2007  
Data Release Frequency: Annually

### **SWRCY:** Recycling Information Listing

A listing of recycling facilities in Nevada.

Date of Government Version: 01/23/2007  
Date Data Arrived at EDR: 04/10/2007  
Date Made Active in Reports: 05/14/2007  
Number of Days to Update: 34

Source: Department of Environmental Protection  
Telephone: 775-687-9463  
Last EDR Contact: 06/15/2007  
Next Scheduled EDR Contact: 09/10/2007  
Data Release Frequency: Varies

### **LUST:** Sites Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/04/2007  
Date Data Arrived at EDR: 04/18/2007  
Date Made Active in Reports: 05/14/2007  
Number of Days to Update: 26

Source: Department of Conservation and Natural Resources  
Telephone: 775-687-5872  
Last EDR Contact: 04/18/2007  
Next Scheduled EDR Contact: 07/16/2007  
Data Release Frequency: Varies

### **UST:** Underground Storage Tank List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 04/04/2007  
Date Data Arrived at EDR: 04/17/2007  
Date Made Active in Reports: 05/11/2007  
Number of Days to Update: 24

Source: Department of Conservation and Natural Resources  
Telephone: 775-687-5872  
Last EDR Contact: 01/17/2007  
Next Scheduled EDR Contact: 04/16/2007  
Data Release Frequency: Varies

### **AST:** Aboveground Storage Tank List

Registered Aboveground Storage Tanks.

Date of Government Version: 01/10/2000  
Date Data Arrived at EDR: 01/11/2000  
Date Made Active in Reports: 02/16/2000  
Number of Days to Update: 36

Source: Department of Conservation and Natural Resources  
Telephone: 775-687-5872  
Last EDR Contact: 04/12/2007  
Next Scheduled EDR Contact: 07/16/2007  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **VCP: Voluntary Cleanup Program Sites**

The Voluntary Cleanup Program provides relief from liability to owners who undertake cleanups of contaminated properties under the oversight of the Nevada Division of Environmental Protection.

Date of Government Version: 04/30/2007	Source: Department of Conservation & Natural Resources
Date Data Arrived at EDR: 05/01/2007	Telephone: 775-687-9381
Date Made Active in Reports: 06/06/2007	Last EDR Contact: 04/30/2007
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Varies

## **BROWNFIELDS: Project Tracking Database**

Brownfields sites included in the Project Tracking Database. The term "brownfields" is used to describe abandoned, idled, or underused industrial or commercial properties taken out of productive use because of real or perceived risks from environmental contamination. The State of Nevada has initiated Brownfields, a land-recycling program, to provide an opportunity to redevelop these undesirable properties and revitalize communities.

Date of Government Version: 04/04/2007	Source: Division of Environmental Protection
Date Data Arrived at EDR: 04/18/2007	Telephone: 775-687-9384
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 04/18/2007
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Varies

## **NPDES: Permitted Facility Listing**

A listing of permitted wastewater facilities.

Date of Government Version: 11/07/2006	Source: Department of Environmental Protection
Date Data Arrived at EDR: 11/07/2006	Telephone: 775-687-9414
Date Made Active in Reports: 12/15/2006	Last EDR Contact: 04/16/2007
Number of Days to Update: 38	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Varies

## **AIRS: Permitted Airs Facility Listing**

A listing of permitted Airs facilities and their associated emissions information.

Date of Government Version: 08/29/2006	Source: Division of Environmental Protection
Date Data Arrived at EDR: 08/31/2006	Telephone: 775-687-9359
Date Made Active in Reports: 10/10/2006	Last EDR Contact: 05/30/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Varies

## **TIER 2: Hazardous Materials Repository Information Data**

Emergency Planning and Community Right-to-Know Act (EPCRA) required facilities which store or manufacture hazardous materials to prepare and submit a chemical inventory report by March 1st of each year to the State Emergency Response Commission (SERC), LEPC and the local fire department. The inventory form must include information on all hazardous chemicals present at the facility during the previous calendar year in amounts that meet or exceed thresholds.

Date of Government Version: 05/21/2007	Source: State Emergency Response Commission
Date Data Arrived at EDR: 05/23/2007	Telephone: 775-687-6973
Date Made Active in Reports: 07/03/2007	Last EDR Contact: 04/16/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Semi-Annually

## **TRIBAL RECORDS**

### **INDIAN RESERV: Indian Reservations**

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 02/06/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 05/11/2007
Number of Days to Update: 339	Next Scheduled EDR Contact: 08/06/2007
	Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **INDIAN LUST R8:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/19/2007	Source: EPA Region 8
Date Data Arrived at EDR: 02/27/2007	Telephone: 303-312-6271
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 36	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

## **INDIAN LUST R7:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/06/2006	Source: EPA Region 7
Date Data Arrived at EDR: 10/04/2006	Telephone: 913-551-7003
Date Made Active in Reports: 11/08/2006	Last EDR Contact: 05/21/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

## **INDIAN LUST R6:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/04/2005	Source: EPA Region 6
Date Data Arrived at EDR: 01/21/2005	Telephone: 214-665-6597
Date Made Active in Reports: 02/28/2005	Last EDR Contact: 05/21/2007
Number of Days to Update: 38	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

## **INDIAN LUST R4:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Minnesota, Mississippi and North Carolina.

Date of Government Version: 03/20/2007	Source: EPA Region 4
Date Data Arrived at EDR: 04/16/2007	Telephone: 404-562-8677
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Semi-Annually

## **INDIAN LUST R1:** Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006	Source: EPA Region 1
Date Data Arrived at EDR: 12/01/2006	Telephone: 617-918-1313
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 59	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

## **INDIAN LUST R10:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 03/01/2007	Source: EPA Region 10
Date Data Arrived at EDR: 03/01/2007	Telephone: 206-553-2857
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

## **INDIAN LUST R9:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/30/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/30/2007	Telephone: 415-972-3372
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R10: Underground Storage Tanks on Indian Land

Date of Government Version: 03/01/2007	Source: EPA Region 10
Date Data Arrived at EDR: 03/01/2007	Telephone: 206-553-2857
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

## INDIAN UST R9: Underground Storage Tanks on Indian Land

Date of Government Version: 03/26/2007	Source: EPA Region 9
Date Data Arrived at EDR: 03/27/2007	Telephone: 415-972-3368
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 31	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

## INDIAN UST R4: Underground Storage Tanks on Indian Land

Date of Government Version: 03/20/2007	Source: EPA Region 4
Date Data Arrived at EDR: 04/16/2007	Telephone: 404-562-9424
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Semi-Annually

## INDIAN UST R6: Underground Storage Tanks on Indian Land

Date of Government Version: 01/11/2007	Source: EPA Region 6
Date Data Arrived at EDR: 01/12/2007	Telephone: 214-665-7591
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 17	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Semi-Annually

## INDIAN UST R1: Underground Storage Tanks on Indian Land

A listing of underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006	Source: EPA, Region 1
Date Data Arrived at EDR: 12/01/2006	Telephone: 617-918-1313
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 59	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

## INDIAN UST R5: Underground Storage Tanks on Indian Land

Date of Government Version: 12/02/2004	Source: EPA Region 5
Date Data Arrived at EDR: 12/29/2004	Telephone: 312-886-6136
Date Made Active in Reports: 02/04/2005	Last EDR Contact: 05/21/2007
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

## INDIAN UST R8: Underground Storage Tanks on Indian Land

Date of Government Version: 02/19/2007	Source: EPA Region 8
Date Data Arrived at EDR: 02/27/2007	Telephone: 303-312-6137
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 36	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

## INDIAN UST R7: Underground Storage Tanks on Indian Land

Date of Government Version: 09/06/2006	Source: EPA Region 7
Date Data Arrived at EDR: 10/04/2006	Telephone: 913-551-7003
Date Made Active in Reports: 11/08/2006	Last EDR Contact: 05/21/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## EDR PROPRIETARY RECORDS

### **Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants**

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## COUNTY RECORDS

### **WASHOE COUNTY:**

#### **Underground Storage Tank in Washoe County**

A listing of underground storage tank sites located in Washoe County.

Date of Government Version: 03/26/2007  
Date Data Arrived at EDR: 03/27/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 23

Source: Washoe County Department of Environmental Health  
Telephone: 775-328-2493  
Last EDR Contact: 06/25/2007  
Next Scheduled EDR Contact: 09/24/2007  
Data Release Frequency: Quarterly

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### **CT MANIFEST: Hazardous Waste Manifest Data**

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2004  
Date Data Arrived at EDR: 02/17/2006  
Date Made Active in Reports: 04/07/2006  
Number of Days to Update: 49

Source: Department of Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 06/13/2007  
Next Scheduled EDR Contact: 09/10/2007  
Data Release Frequency: Annually

### **NY MANIFEST: Facility and Manifest Data**

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/26/2006  
Date Data Arrived at EDR: 11/29/2006  
Date Made Active in Reports: 01/05/2007  
Number of Days to Update: 37

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 06/01/2007  
Next Scheduled EDR Contact: 08/27/2007  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

**AHA Hospitals:**

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

**Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

**Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

**Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

**Private Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

**Daycare Centers: Child Care Facility List**

Source: Department of Human Resources

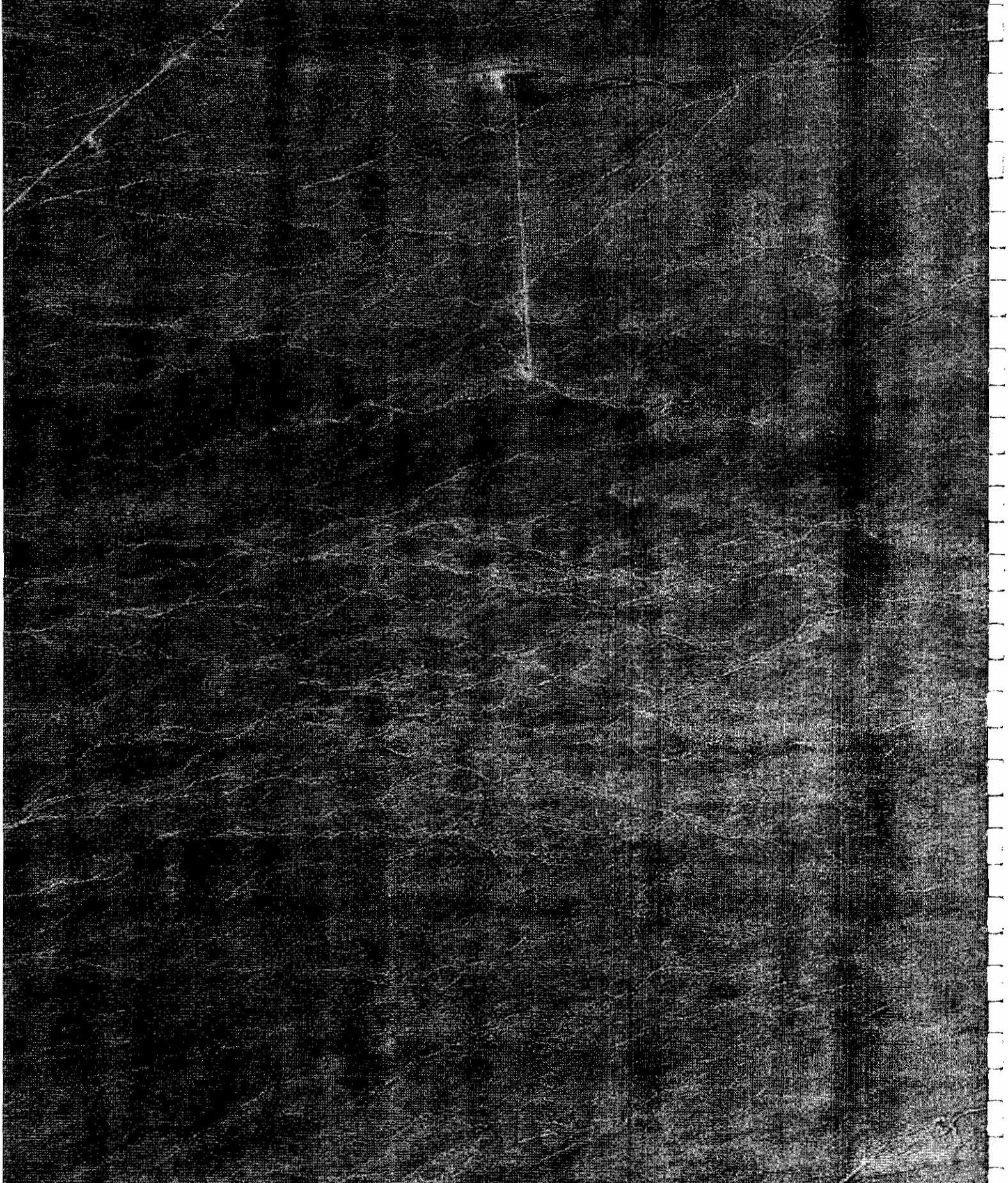
Telephone: 775-684-1100

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

### STREET AND ADDRESS INFORMATION

© 2007 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.



INQUIRY #: 1972824.1

YEAR: 1994

| = 833'





INQUIRY #: 1972824.1

YEAR: 1994

| = 833'



INQUIRY #: 1972824.1

YEAR: 1994

| = 833'





INQUIRY #: 1972824.1

YEAR: 1994

| = 833'





**EDR**® Environmental  
Data Resources Inc

# **EDR Historical Topographic Map Report**

**Ivanpah Solar Electric Generating  
System**

**Ivanpah Solar Electric Generating  
System**

**Nipton, CA 92364**

**Inquiry Number: 1972824.2**

**July 06, 2007**

**The Standard in  
Environmental Risk  
Information**

440 Wheelers Farms Rd  
Milford, Connecticut 06461

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)



# EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

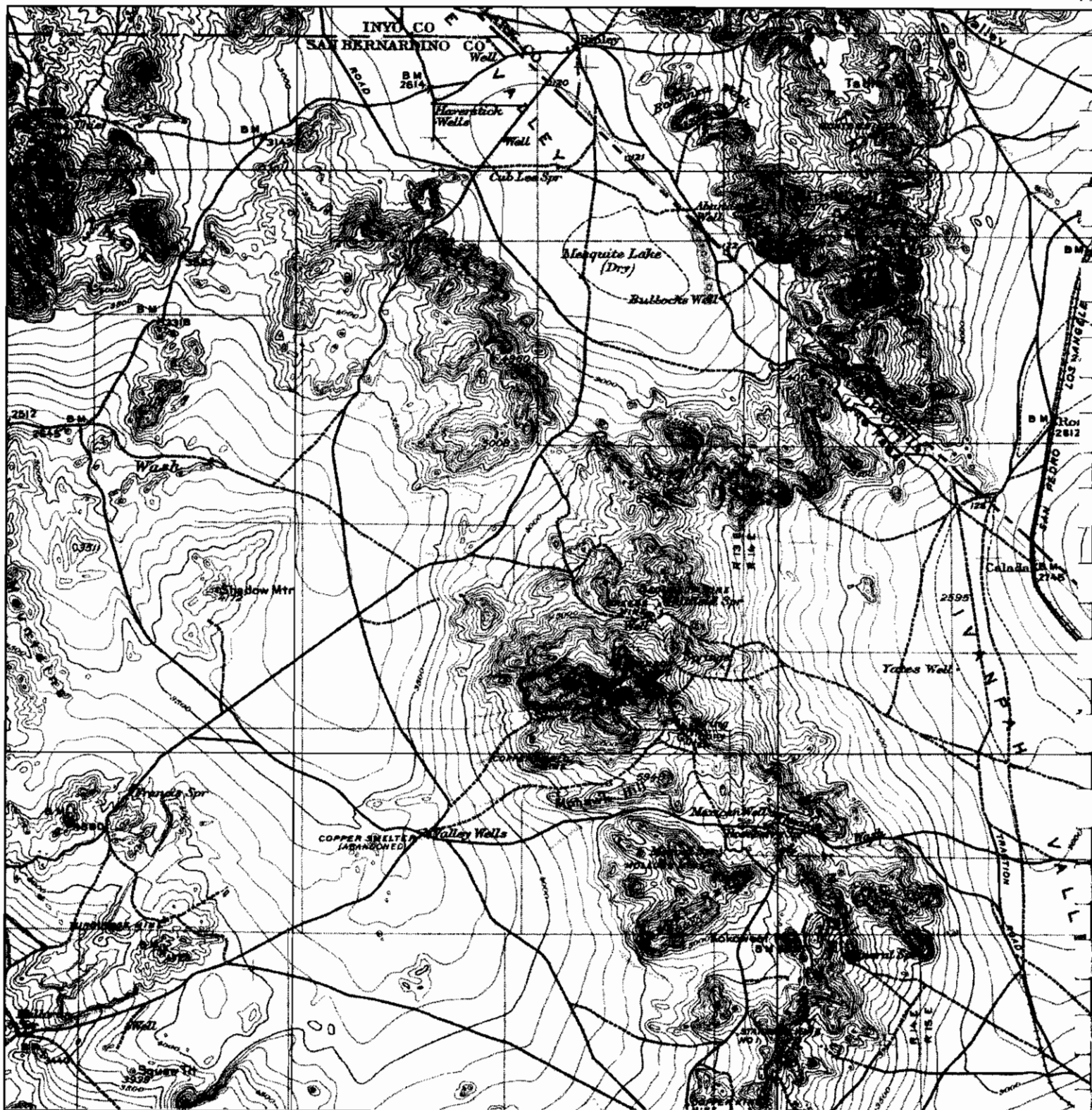
## **Disclaimer - Copyright and Trademark Notice**


This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2007 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

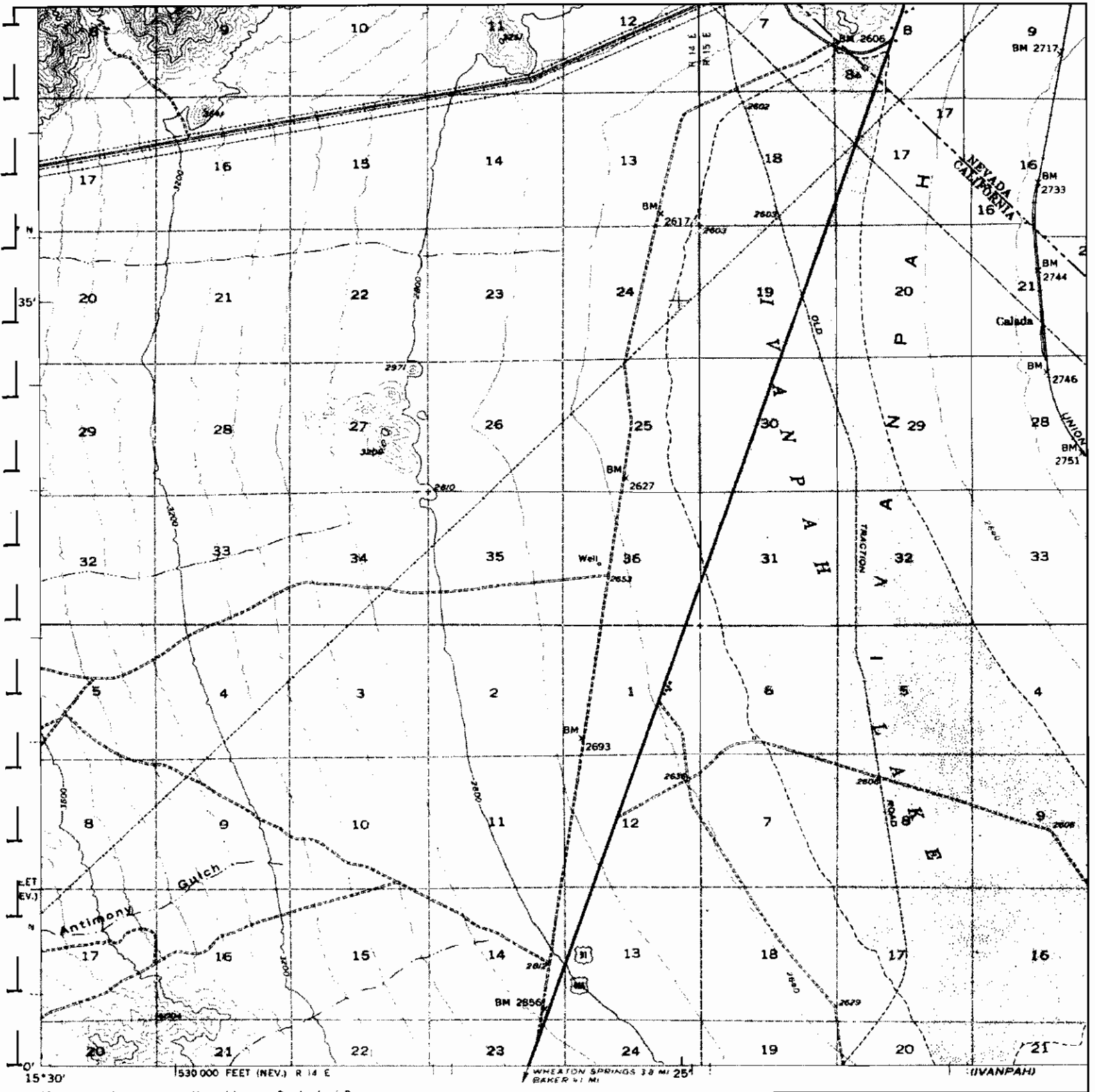
EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

# Historical Topographic Map



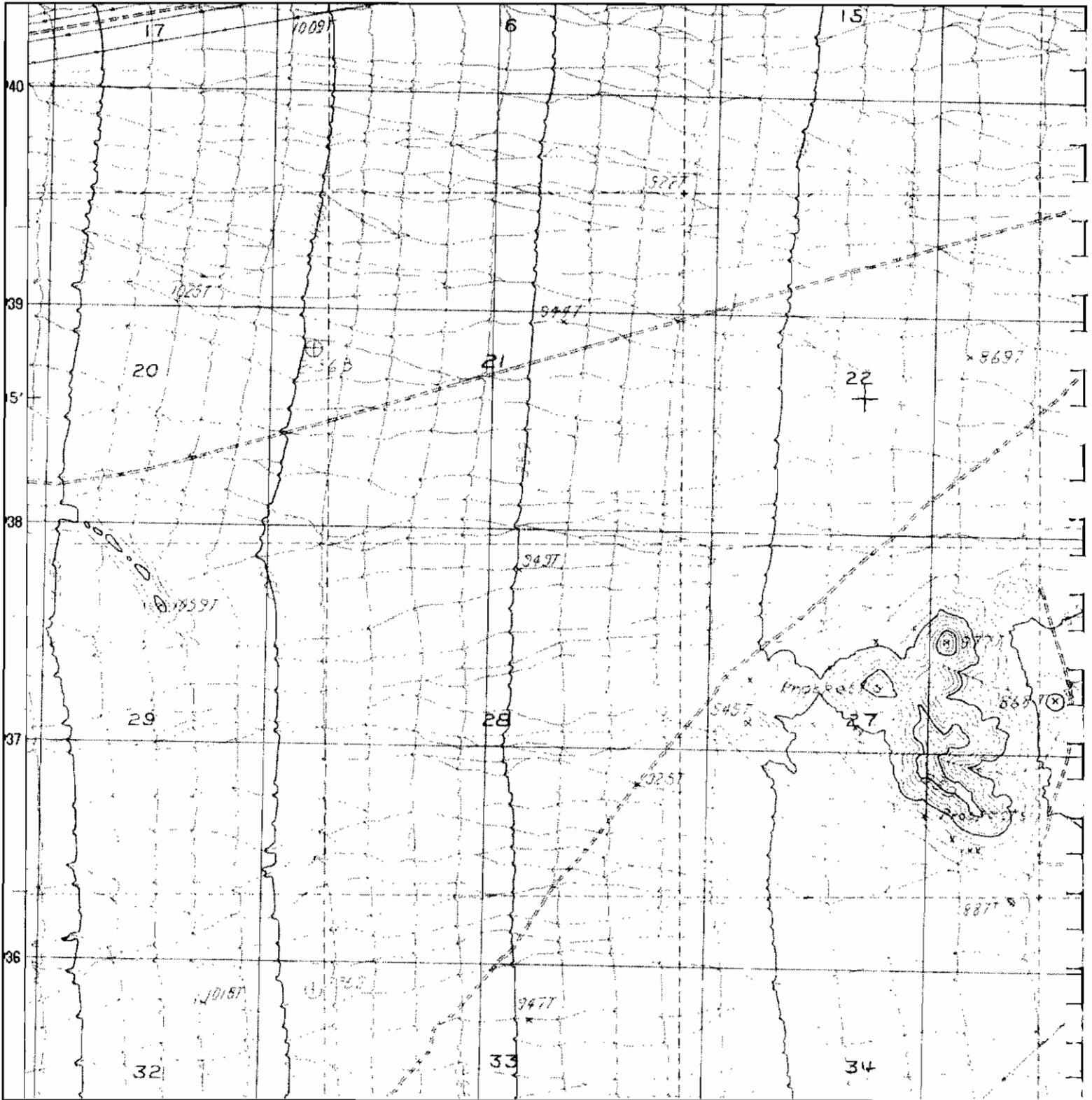
<p>N</p> 	TARGET QUAD	SITE NAME:	Ivanpah Solar Electric Generating System	CLIENT:	CH2M Hill, Inc.
	NAME: IVANPAH	ADDRESS:	Ivanpah Solar Electric Generating System	CONTACT:	Sarah Madams
	MAP YEAR: 1910	LAT/LONG:	35.5666 / 115.4666	INQUIRY#:	1972824.2
	SERIES: 60			RESEARCH DATE:	07/06/2007
SCALE: 1:250000					


# Historical Topographic Map



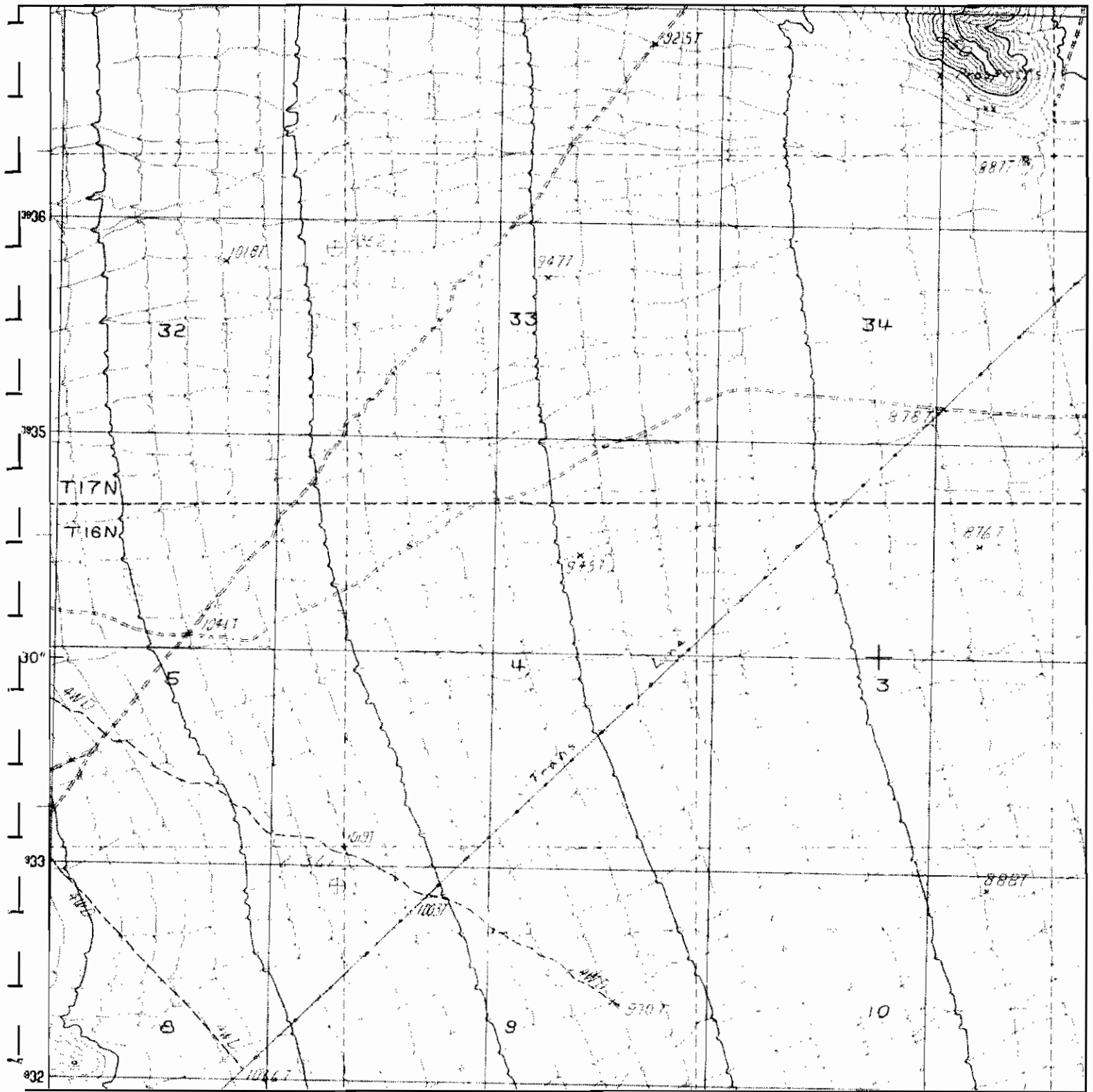
	<b>TARGET QUAD</b> NAME: ROACH LAKE MAP YEAR: 1955	<b>SITE NAME:</b> Ivanpah Solar Electric Generating System <b>ADDRESS:</b> Ivanpah Solar Electric Generating System Nipton, CA 92364 <b>LAT/LONG:</b> 35.5666 / 115.4666	<b>CLIENT:</b> CH2M Hill, Inc. <b>CONTACT:</b> Sarah Madams <b>INQUIRY#:</b> 1972824.2 <b>RESEARCH DATE:</b> 07/06/2007
	SERIES: 15 SCALE: 1:62500		

# Historical Topographic Map



<b>N</b> 	<b>TARGET QUAD</b> NAME: IVANPAH LAKE MAP YEAR: 1985	SITE NAME: Ivanpah Solar Electric Generating System ADDRESS: Ivanpah Solar Electric Generating System Nipton, CA 92364	CLIENT: CH2M Hill, Inc. CONTACT: Sarah Madams INQUIRY#: 1972824.2 RESEARCH DATE: 07/06/2007
	SERIES: 7.5 SCALE: 1:24000	LAT/LONG: 35.5666 / 115.4666	

# Historical Topographic Map

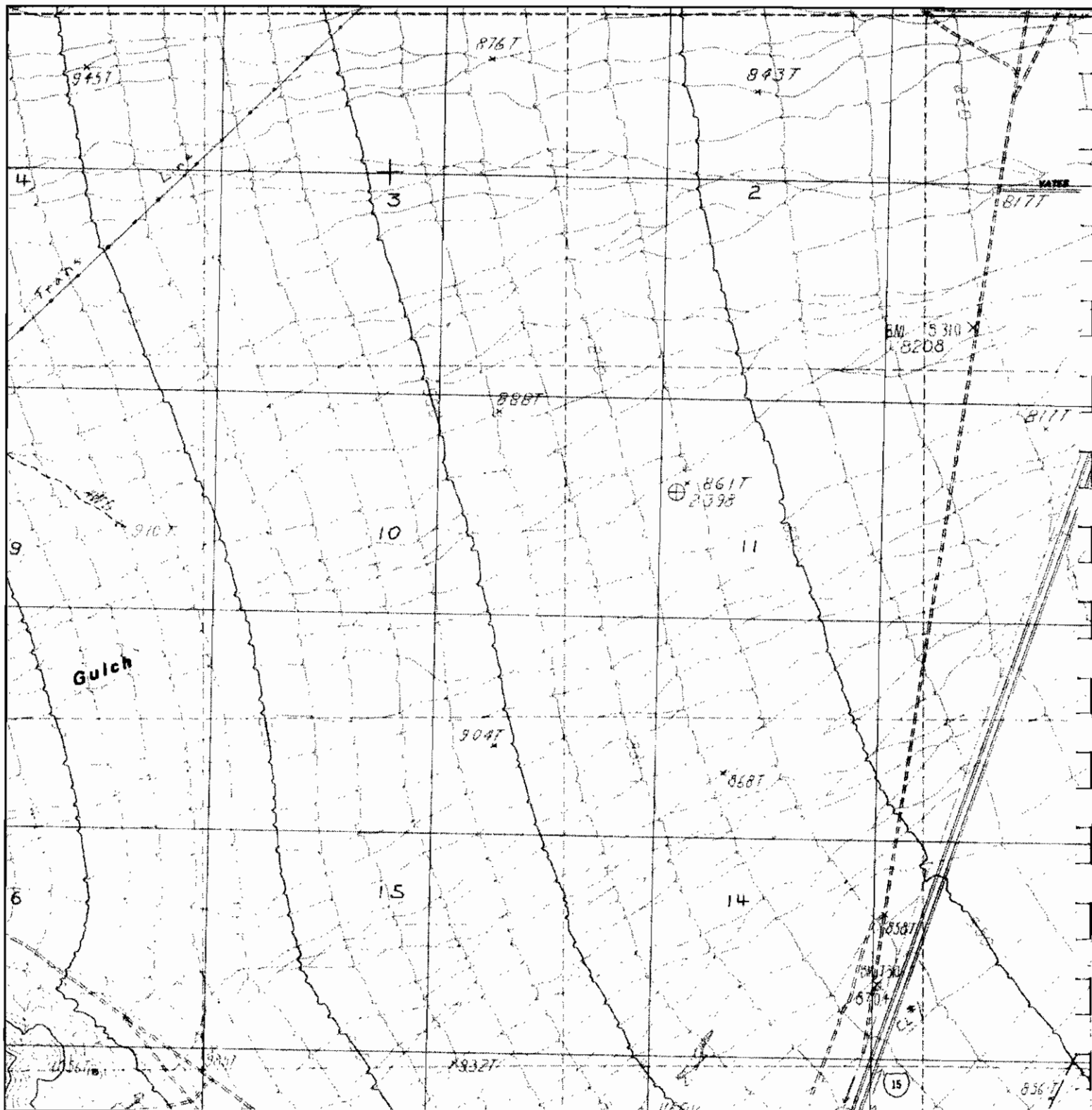



TARGET QUAD  
 NAME: IVANPAH LAKE  
 MAP YEAR: 1985  
 SERIES: 7.5  
 SCALE: 1:24000

SITE NAME: Ivanpah Solar Electric Generating System  
 ADDRESS: Ivanpah Solar Electric Generating System  
 Nipton, CA 92364  
 LAT/LONG: 35.5666 / 115.4666

CLIENT: CH2M Hill, Inc.  
 CONTACT: Sarah Madams  
 INQUIRY#: 1972824.2  
 RESEARCH DATE: 07/06/2007

# Historical Topographic Map



<b>N</b> 	<b>TARGET QUAD</b> NAME: IVANPAH LAKE MAP YEAR: 1985	<b>SITE NAME:</b> Ivanpah Solar Electric Generating System <b>ADDRESS:</b> Ivanpah Solar Electric Generating System Nipton, CA 92364	<b>CLIENT:</b> CH2M Hill, Inc. <b>CONTACT:</b> Sarah Madams <b>INQUIRY#:</b> 1972824.2 <b>RESEARCH DATE:</b> 07/06/2007
	SERIES: 7.5 SCALE: 1:24000	<b>LAT/LONG:</b> 35.5666 / 115.4666	

APPENDIX B

# Site Photographs

---





Figure 1: Picture of water well taken from Yates Well Road, facing west.



Figure 2: Picture of the Subject Property taken from Yates Well Road, facing north





Figure 3: Picture of the Subject Property taken from Yates Well Road, facing south



Figure 4: Picture of the Subject Property taken from Yates Well Road, facing east





Figure 5: Picture taken from in front of Primm Valley Golf Course maintenance building, facing west



Figure 6: Picture of the Subject Property taken from Densmore Drive, facing west



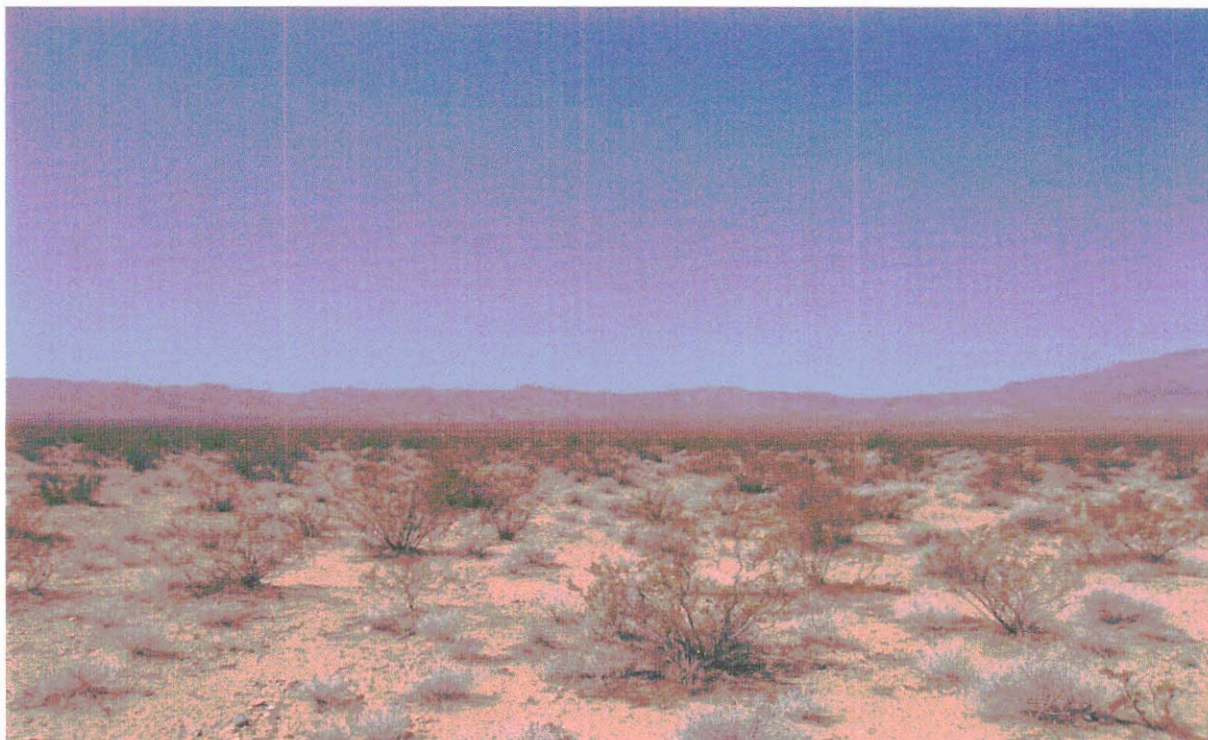


Figure 7: Picture of the Subject Property taken from within the Site, facing south

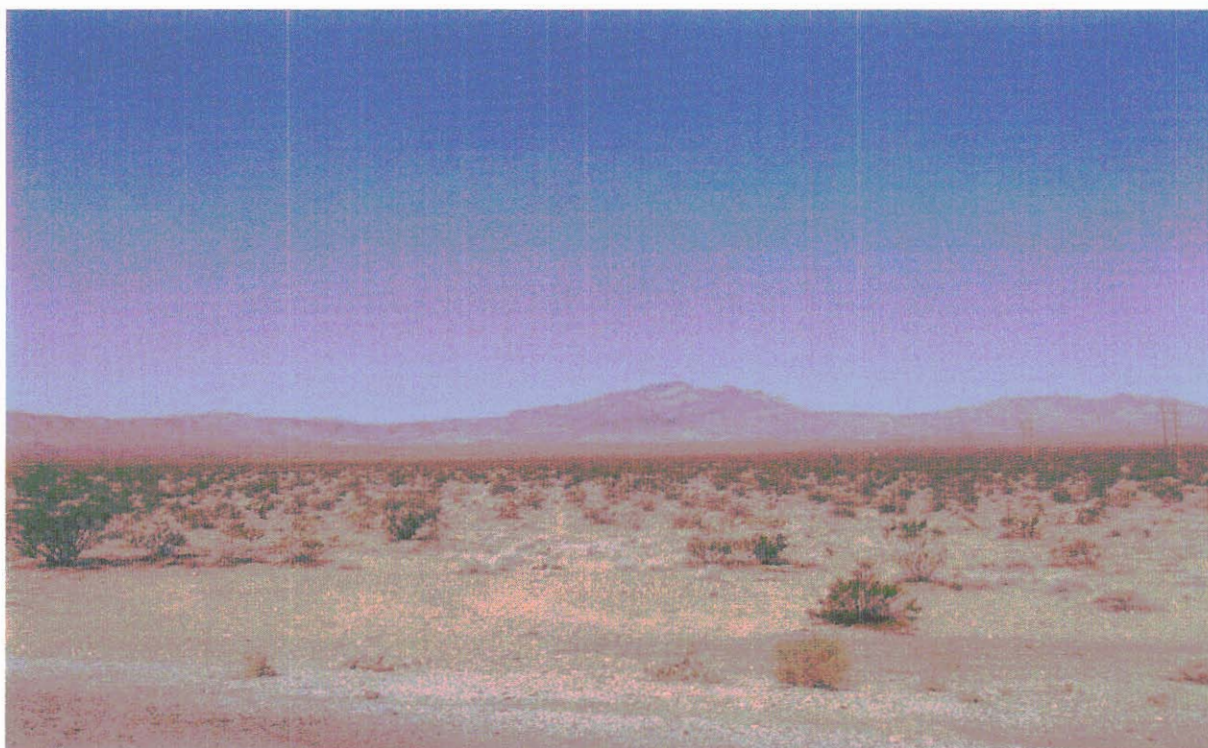


Figure 8: Picture of the Subject Property taken from within the Site, facing west





Figure 9: Picture of the Subject Property taken from Yates Well Road, facing east

APPENDIX C

**Special Contractual Conditions Between User  
and Environmental Professional**

---

# Special Contractual Conditions Between User and Environmental Professional

---

## Limitation of Liability:

- a. CH2M HILL services shall be governed by the negligence standard for professional services, measured as of the time those services are performed.
- b. To the maximum extent permitted by law, CH2M HILL liability for damages for any cause or combination of causes, which arise from CH2M HILL's services provided under this letter proposal, even if caused by breach of contract or warranty, tort including negligence, or any other cause of action will, in the aggregate, not exceed the fee of this project. This limitation of liability will not limit in any way CH2M HILL's indemnification obligations under Section 6.8.1 of the reference AGREEMENT
- c. As used herein, CH2M HILL includes any affiliated corporations, subcontractors, and any of its officers or employees.
- d. BrightSource waives all claims against CH2M HILL, including those for latent defects, that are not brought within two years of substantial completion of the work or final payment to CH2M HILL, whichever is later.
- e. The limitations of liability will apply whether CH2M HILL's liability arises under breach of contract or warranty; tort, including negligence; strict liability; statutory liability; or any other cause of action; except the limitations will not apply to willful misconduct or negligence for limitations of liability or negligence for indemnification. Said limitations shall apply to CH2M HILL's officers, affiliated corporations, employees, and subcontractors. The law of the State of California shall govern the validity of this AGREEMENT, its interpretations and performance, and any other claims related to it.

## Third Party Beneficiary:

- a. This proposed scope of services gives no rights or benefits to anyone other than BrightSource and CH2M HILL and has no third party beneficiaries. CH2M HILL's services are defined solely by this proposed scope of services, and not by any other contract or agreement that may be associated with the Project except for the referenced AGREEMENT.
- b. All work products will be prepared for the exclusive use of BrightSource and its wholly-owned subsidiaries, for specific application to the property described in the proposed scope of services. This Phase I is not for a property transfer, but solely for use as part of the Application for Certification being prepared for submission to the California Energy Commission. No warranty, expressed or implied, is made. There

are no beneficiaries of the work products other than BrightSource, and no other person or entity is entitled to rely upon the work products without the written consent of CH2M HILL. Any unauthorized assignment of related work product shall be void and unenforceable.

It is beyond CH2M HILL's scope of work for this task to review or examine: (1) materials containing asbestos; (2) the presence of radon; (3) the presence of lead-based paint; (4) lead in drinking water; (5) identification or delineation of jurisdictional wetlands; (6) issues associated with worker health and safety; (7) issues pertaining to compliance with environmental regulations; or (8) liabilities associated with the offsite management of solid or hazardous wastes.

Unless specifically identified in the Scope of Work, cost estimates for clean up and identification of parties potentially responsible for the clean up of hazardous substance releases are not included.

At BrightSources direction, CH2M HILL will not perform any surface or subsurface sampling and cannot, therefore, give any assurance as to the absence or presence of surface or subsurface contamination.

This report will be based, in part, on unverified preliminary information supplied to CH2M HILL from several sources during the project; therefore, CH2M HILL cannot guarantee its completeness or accuracy.

The CH2M HILL staff who perform the site assessment are not attorneys; therefore, the final report is not a legal representation or interpretation of environmental laws, rules, regulations, or policies of local, state or federal government agencies.

CH2M HILL makes no representation regarding whether this investigation constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined under Section 101(35)(B) of CERCLA.

Any opinions or recommendations presented apply to site conditions existing when services were performed. CH2M HILL cannot report on, or accurately predict, events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces.

CH2M HILL assumes no responsibility for conditions it is not authorized to investigate, or which are not in our specific Scope of Work.

CH2M HILL's services shall not include directly or indirectly storing, arranging for or actually transporting, disposing, treating or monitoring hazardous substances, hazardous materials, hazardous wastes or hazardous oils.

CH2M HILL's services shall not include an independent verification of the quality of work conducted and information provided by independent laboratories or other independent contractors retained by CH2M HILL in connection with CH2M HILL's services provided to BrightSource.

APPENDIX D

# Qualifications of Environmental Professional



# **Sarah Madams**

## **Regulatory Compliance Specialist**

### **Education**

B.S., Environmental Toxicology

### **Relevant Experience**

Ms. Madams has more than 9 years of professional experience including project management, regulatory compliance, permitting, public involvement/community relations, data collection and analysis, database management, compliance audits, document preparation, and technical writing. For the last 5 years, Ms. Madams has served as the Deputy Project Manager for power plant licensing work performed by CH2M HILL. Her expertise includes working with multidisciplinary teams to assess the environmental impacts of power plant projects on the environment. These assessments include impacts to air, biological and cultural resources, land uses, noise, socioeconomics, public health, water and visual resources, soils and geology, and paleontology.

### **Representative Projects**

**AFC for AES Highgrove Power Plant (2004).** Project Coordinator for the AFC for a 100-MW power plant. She reviewed applications, coordinated multidisciplinary data requests and responses, and served as liaison and coordinated efforts between CEC project management and staff.

**Application for Certification, Los Esteros Critical Energy Facility, Calpine C\*Power, San Jose, California (2002 to 2003).** Project Coordinator for the AFC for a 180-MW power plant. The project required the preparation of numerous other studies/documents to satisfy the CEC staff request. These studies/documents included the preparation of a General Plan amendment and planned development zoning applications, archaeological and paleontological survey reports, and biological resource protection permits. Ms. Madams assisted with the development and implementation of biological, cultural, and paleontological resource monitoring programs; risk management plan; and traffic and transportation management plan. The plant is currently in operation.

**Application for Certification, San Francisco Electric Reliability Project, San Francisco Public Utilities Commission, California (2003 to present).** Project Coordinator/Deputy Project Manager for the AFC for a 145-MW simple-cycle power plant. She reviewed applications, coordinated multidisciplinary data requests and responses, attended public workshops, and prepared a site investigation report for the process water route. Assisted in preparation of Hazardous Materials and Hazardous Waste Sections for the AFC. In addition, she served as liaison and coordinated efforts between CEC project management and staff.

**Small Power Plant Exemption, MID Electric Generation Station (MEGS), Modesto Irrigation District, California (2003).** Project Coordinator for the SPPE for a 95-MW peaking plant. She reviewed applications, coordinated multidisciplinary data requests and responses, and served as liaison and coordinated efforts between CEC project management and staff.

**Application for Certification, Walnut Energy Center, Turlock Irrigation District, California (2002 to 2003).** Project Coordinator for the AFC for a 250-MW combined cycle power plant. She reviewed applications, coordinated multidisciplinary data requests and responses, and coordinated efforts between CEC project management and CH2M HILL staff. Ms. Madams assisted with the development of the security plan and emergency response plan.

**Application for Certification, Salton Sea Unit 6 Geothermal Power Plant, Mid-American Energy Holding Company, Imperial County, California (2002 to 2004).** Project Coordinator for the licensing of the 185-MW geothermal power plant. The power plant design was based on the flash geothermal power plant process, which produces both solid and liquid byproducts that required disposal. The project site was in a rural area of Imperial County, but was adjacent to a National Wildlife Refuge that supports significant populations of avian species. The licensing process involved the review of all environmental areas, and specifically focused on waste disposal, air quality, hazardous materials handling, and biological resources. Ms. Madams was responsible for the development and tracking of data response submittals requested by the CEC. The project was successfully completed, with a license issued by the CEC.

**Air Quality Audits, SMUD, California (2004).** Conducted air quality audits of the Central Valley Finance Authority's Carson Energy Facility and McClellan Gas Turbine Facility. Responsibilities included assisting with the development of the pre-audit checklist and field interview forms, conducting field interviews and audits, and assisting with summarizing and presenting findings in the final audit report.

**Initial Study, August Substation, Turlock Irrigation District, California (2004).** Managed the preparation of an Initial Study for the construction and operation of a proposed substation in Hilmar. The IS evaluated all environmental resources and identified mitigation for significant impacts. She also prepared the hazardous materials portion of the IS.

**Environmental Assessment, Sierra Army Depot, Herlong, California (2003).** Assisted in preparation of the hazardous materials impacts and mitigation for the Environmental Assessment for the Child Development Center and Railroad Loop project at Sierra Army Depot. The EA evaluated the potential impacts on biological resources, hazardous materials, and visual resources for the two proposed projects.

**Environmental Assessment, Federal Highway Administration, Hyampom, California (2003 to present).** Prepared the hazardous materials impacts and mitigation for the Environmental Assessment for the reconstruction of California Forest Highway 114 in the Shasta-Trinity National Forest. An initial site assessment for the route was prepared in conjunction with the EA.

# **Soomodh Abraham**

## **Environmental Engineer**

### **Education**

M.S., Civil and Environmental Engineering, Utah State University, Logan, Utah, 2001

B.S., Civil Engineering, College of Engineering, Trivandrum, India, 1997

### **Relevant Experience**

Mr. Soomodh Abraham has five years of experience in the environmental industry. Mr. Abraham has been an engineer for a variety of environmental projects, including feasibility studies, site assessment and remediation, phase I and phase II investigations, due diligence, and property divestment investigations. He has worked closely with various regulatory agencies such as California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC), California Regional Water Quality Control Board (RWQCB), South Coast Air Quality Management District (SCAQMD), Los Angeles Department of Environmental Health, Riverside County Health Department, San Bernardino County Department of Fire, Riverside County HAZMAT, and Vernon Department of Health.

Mr. Abraham has managed operation and maintenance data and air quality permits for various remediation systems. He was also involved with various field activities such as soil and groundwater sampling, lithologic logging, enhanced leak detection testing, overseeing subcontractors for well installations, well development, subsurface clearance, and geophysical survey. Mr. Abraham was involved in preparing bid packages, selecting subcontractors and scheduling field activities. Mr. Abraham has performed groundwater modeling for various sites. Mr. Abraham has experience in working with various drilling methods including hollow stem auger, air rotary, sonic drilling, and air percussion.

### **Representative Projects**

**Engineering Evaluation and Cost Analysis (EE/CA), Los Angeles County Sheriff's Department-Temple Station, California.** Conducted an EE/CA at Los Angeles County Sheriff's Department-Temple Station, as part of United States Environmental Protection Agency's (EPA) investigation within Alhambra Area 3 Superfund Site. Various remediation technologies were evaluated as part of the EE/CA, for addressing VOC and petroleum hydrocarbon contamination. The site was impacted with both petroleum hydrocarbons and chlorinated solvents. Selected various remediation technologies for the remediation of soil and groundwater contamination. The technologies were screened based on effectiveness and cost. A spreadsheet was prepared, with various remediation scenarios and costs associated with the technologies and assumptions used for cost preparation.

**Engineering Evaluation and Cost Analysis (EE/CA), PGA North Superfund Site, Phoenix, Arizona.** Worked as technical lead for PGA North Superfund Site located in Phoenix, Arizona. The Site was (is) contaminated with TCE and perchlorate. Due to the proximity of residential buildings towards the TCE and perchlorate plume, an EE/CA was conducted to recommend additional remediation measures necessary to control the plume migration. The project activities involved working closely with EPA and potential responsible party (PRP). Several remediation technologies were considered and feasible ones were selected for cost calculations.

**Soil Gas Investigation Report, Alhambra Area 3 Superfund Site.** Per EPA's request, a soil investigation study was conducted for Alhambra Area 3 Superfund Site. Data collected by various PRPs within Area 3 showed increasing soil gas concentrations with depth at some of locations. To identify the reason (s) for these increasing soil gas concentrations, a detailed research of various literatures, text books, and articles was conducted. Based on this research, various possibilities for this soil gas behavior were noted. Also, soil gas data from the PRPs were thoroughly studied and individual site details were gathered.

**Groundwater Sampling, Puente Valley Operable Unit, California.** As part of EPA's semi-annual groundwater sampling for the Puente Valley Operable Unit, groundwater monitoring and sampling of several EPA installed monitoring wells was conducted. The tasks involved preparing contract documents and sampling forms, coordinating with EPA laboratory, local regulatory agencies, various subcontractors and CH2M HILL technicians, and procuring sample bottles and sampling equipment.

**Operation and Maintenance Data Management, Boeing Realty Corporation (BRC) - Former Building 10.** Intermediate Soil Vapor Extraction, California— Managed Operation and Maintenance Data for Refrigeration/Condensation soil vapor extraction system operations at the Former Boeing Building 10 facility. Data obtained from the technician were evaluated, organized, and inputted in to an excel spreadsheet. The O&M data was discussed with the project manager on a weekly basis. A start-up report, with 30 days of compiled field data and site details, was prepared for South Coast Air Quality Management District. Prepared Monthly Status Report for BRC and Quarterly Report for Regional Water Board.

**Task Manager, Soil Gas Investigation, Puente Valley Operable Unit, California.** Prepared a field sampling plan and a quality assurance and project plan for Puente Valley Operable Unit soil gas investigation. Tasks included identifying soil gas sampling locations, assisting in preparing figures, working with health and safety officer for preparing health and safety documents, coordinating with the client, and report writing.

**Remediation System Design. Former Honeywell North Hollywood Facility, North Hollywood.** Former Honeywell North Hollywood Facility (Site) has been impacted with hexavalent chromium and volatile organic compounds. As part of the regulatory requirement, various remediation efforts have been conducted at the Site. Mr. Abraham was involved in preparing cost estimates for remediation activities and in obtaining design details for ion exchange resin process and chemical in-situ operations. Mr. Abraham also assisted in performing an infiltration basin test at the Site.

**Environmental Cost Design. Confidential Client.** Assisted in preparing a detailed cost estimate for a property acquisition. The property was detected with contamination in soil and shallow groundwater. A cost estimate was prepared for addressing the soil contamination and the impact of trichloroethylene (TCE) in shallow and vinyl chloride (VC) in deep groundwater. The estimate included further investigation, sewer flushing, excavation, and remediation for both soil and groundwater. A best case scenario and a worst case scenario were formulated as per client's request.

An excel spreadsheet was utilized for preparing the cost estimate. Costs for all activities were obtained from various vendors, subcontractors, design manual, and previous experience. Total cost for best and worst case scenario was calculated and the cost was adjusted for present value.

**Environmental Compliance. GE Engine Services Facility, Ontario, California.** For decommissioning GE Engine Services facility, a site visit was conducted to perform a document review and to evaluate various environmental aspects and steps needed to perform prior to the decommissioning. An interview was conducted with GE Engine Services personnel and historical files were reviewed to identify potential environmental concerns. UST locations, waste water treatment plant, hazardous waste storage area, transformer locations, spray booth area, and lateral sewer lines were identified for further review. Asbestos and lead removal documents were reviewed to identify the locations of existing and removed asbestos and lead. Also, all permits associated with the facility were reviewed to verify their compliance.

GE/NBC Universal – Various Locations. Assisted Project Manager in conducting various environmental compliance activities including preparing business plans, CUPA forms, business inventory checklists, and site audits. To complete these tasks, site visits, questionnaires, correspondence with regulatory agencies, and research were performed.

**Groundwater Sampling. Former Honeywell North Hollywood Facility, North Hollywood.** Conducted groundwater sampling at Former Honeywell North Hollywood facility using Barcad pumps. Multi-nested groundwater monitoring wells, having up to six barcads, were sampled during the event. Liquid nitrogen and compressed nitrogen gas were utilized for the sampling. Nitrogen was pressurized in to each barcad at various pressures through tubing connected to the barcad. The pressure for each barcad was adjusted using a pressure gauge and a control box. Simultaneous purging of the multi-nested well was performed and the groundwater was purged through different tubing in to a drum/bucket prior to sampling.

**Air Sparge Pilot Test. ExxonMobil, Chino Hills, CA.** Conducted an air sparge pilot test, as per the direction of San Bernardino County Department of Fire, at a Mobil Gas Station impacted with petroleum hydrocarbons and fuel oxygenates such as methyl tertiary butyl ether (MtBE) and tertiary butyl ether (tBA). Mr. Abraham rented an air compressor, constructed necessary well head assemblies and pipe fittings, and conducted the 8-hour air sparge pilot test. Groundwater levels prior to and after the test, applied pressure, induced pressure, and flow rates were noted during the test. Data obtained during the test were evaluated to determine the feasibility of air sparging at the Site.

**Soil Vapor Extraction Pilot Test. ExxonMobil, Various Locations.** Assisted in conducting soil vapor extraction (SVE) pilot tests for various Mobil gas stations. The work included scheduling subcontractors for mobile SVE systems. Readings such as flow rate, system-applied vacuum, induced vacuum, water level measurements, and VOC readings were noted. Data obtained during the test were used to calculate radius of influence and feasible vacuum for system operation.

**Phase I Environmental Assessments. GE/NBC Universal-Variou Radio Stations and Transmitter Towers.** Phase I environmental assessment was performed for various radio stations and transmitter locations. Aerial photograph, historical data of the Site and neighboring properties, aerial photographs, fire maps, and topographical maps were obtained from a third party provider to further investigate. Site visits were also conducted as part of the investigation. During the site visits the site personnel were interviewed using a GE/NBC universal questionnaire and photographs of the site were taken to prepare a photographic log of the site. A report was prepared based upon the findings including areas of contamination, if any, and recommendations were proposed.