NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REVIEW REPORT

MDL Consulting, Inc.
5100 Westheimer, Suite 200
Houston, TX 77056

On behalf of Sprint-Nextel

North Weslaco

Site ID: RG74X340
Parcel ID: R324949
712 W. Mile 12 North
Weslaco, TX 78596

Project: 15611

April 21, 2010
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1.0 EXECUTIVE SUMMARY

Sims & Associates, LLC has completed a National Environmental Policy Act (NEPA) Review for the following firm:

MDL Consulting, Inc.
5100 Westheimer, Suite 200
Houston, TX 77056

On behalf of Sprint-Nextel

at the following subject site located at:

**North Weslaco**

Site ID: RG74X340
Parcel ID: R324949
712 W. Mile 12 North
Weslaco, TX 78596

The subject property is approximately 5 acres developed property owned by Cresencio and Gwendolyn Ramirez and is located the City of Weslaco, TX. There are several buildings associated with this property. According to the Client, the proposed action is construction of a 180 foot monopole and equipment cabinet located in the southeast corner of the property. The new tower will be located in a fenced compound that is 75 feet by 75 feet. Approximately 300 feet of trenching will be required for power.

The site is located along a paved road and therefore, extensive grading and improvement will not be required. Vehicle access to the subject property is provided via Highway Mile 12 Road and Mile 5½ Road. The site is located in a rural residential area.

This NEPA Review was conducted in accordance with Federal Communications Commission (FCC) rules for implementing NEPA; 47 CFR 1.1301 to 1.1319 (a).

Based on the data obtained during the site visit, interviews with persons familiar with the site and its history, review of environmental database and historical materials, no recognized environmental conditions were identified for the site. The NEPA Review determined that the preparation and filing of a NEPA Flood Zone Environmental Assessment (EA) will be required since the site is located in a FEMA designated flood Zone A.
The following is a listing of elements researched during this National Environmental Policy Act (NEPA) review process:

1. **National Park Service Lands**: This facility provides information on lands federally administered by the National Park Service. This includes National Historic Landmarks and National Parks. The subject site was not identified as located within National Park Service Lands.

2. **National Forest Service Lands**: This facility provides information on lands federally administered by the National Forest Service. The subject site was not identified as being within National Forest Service Lands.

3. **National Parkways and Scenic Rivers**: This facility provides information on the locations of federally administered parkways and wild and scenic rivers. The subject site was not identified as being within a National Parkway or located adjacent to a wild and scenic river.

4. **Bureau of Land Management Wilderness Areas**: This facility provides information on the locations of federally administered Lands and Wilderness Areas. The subject site was not identified as being within federally administered Lands or Wilderness Areas.

5. **State Parks, Forests and Wilderness Areas**: A search of this database of state level locations of known Parks, Forests, Conservation Areas, Game lands, Wildlife Preserves, Protected Lands, Recreation Areas, Trust Lands and Wilderness Areas indicated that the subject site was not identified as located within a State Park, Forest or Wilderness Area.

6. **National Wildlife Refuges**: This facility provides information on the locations of National Wildlife Refuges as administered by the United States Fish and Wildlife Service. The subject site was not identified as being within a National Wildlife Refuge.

7. **National Register of Historic Places**: This facility provides information including an official list of districts, sites, buildings, structures, and objects significant in American History, architecture, archaeology, engineering and culture. The subject site is not listed in the National Register of Historic Places.

8. **Floodplain Areas**: This database is developed and managed by the Federal Emergency Management Agency (FEMA). The subject property was identified as a “Zone A”, area within of a 100-year flood zone.

9. **Endangered Species**: This facility provides information on whether or not the site is located in a designated critical habitat. Based on observations made during the site
visit, the subject site is a previously disturbed area adjacent to other rural residential properties and agricultural lands. At the time of the site visit, it did not appear to contain endangered species. The USFWS did not identify any threatened and endangered species within 1 mile of the site.

10. **Native American Religious Sites/State Historic Preservation Office:** This database is provided by the Bureau of Indian Affairs and the State Historic Preservation Officer (SHPO). Based on observations made during the site visit, there were no indications of Native American/Hawaiian Religious Sites, petroglyphs, artifacts, or burial grounds. The site was registered with the Tower Construction Notification System (TCNS) and information was sent to the respective interested Native American Groups per the TCNS system. SHPO was also contacted regarding the site and a copy of the letter written to SHPO is also included in the appendix.

11. **Significant Change in Surface Features:** This facility provides information on wetland fill, deforestation or water diversion. Based on the development and usage of the property, wetlands, deforestation, and water diversion are not issues.

12. **High Intensity White Lights:** The proposed monopole will not use high intensity lights for tower illumination or site development unless required by Federal, state or local jurisdictions.
An evaluation of information obtained from research by Sims & Associates, LLC after February 26, 2010 was used to complete this NEPA Checklist.

The following is a checklist of items required by the FCC:

<table>
<thead>
<tr>
<th>NEPA Category</th>
<th>Task Description</th>
<th>Section</th>
<th>YES</th>
<th>NO</th>
<th>Exempt from review</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Designated Wilderness Area</td>
<td>Is the proposed site to be located in an officially designated wilderness area?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Designated Wildlife Preserve</td>
<td>Is the proposed site to be located in an officially designated wildlife preserve?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Threatened or Endangered Species/Critical Habitat</td>
<td>Will the proposed site affect listed threatened or endangered species or designated critical habitats; or is it likely to jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats, as determined by the Secretary of the Interior pursuant to the Endangered Species Act of 1973?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Historic Place (NRHP &amp; SHPO)</td>
<td>Will the proposed site affect districts, sites, buildings, structures or objects, significant in American history, architecture, archaeology, engineering or culture, which are listed, or are eligible for listing, in the National Register of Historic Places?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Tribal Religious Sites</td>
<td>Will the proposed site affect Indian religious sites?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Flood Plain</td>
<td>Is the proposed site located in a Flood Plain?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Wetlands/ACE waterways</td>
<td>Will the proposed site’s construction involve significant change in surface features per the U.S. Army Corps of Engineers (e.g., wetland fill, deforestation or water diversion)?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. High intensity white lights</td>
<td>Are the proposed site’s antenna towers and/or supporting structures to be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Public Involvement</td>
<td>Has the public responded to notification of this proposed action?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Radiofrequency</td>
<td>Will the antenna structure equal or exceed total power of 2000 Watts ERP (3280 EIRP) and have antennae located less than 10 meters above the ground?</td>
<td>NA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Sims & Associates - LLC
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Site Type:  
- [x] Raw Land
- [ ] Tower Colo
- [ ] Rooftop
- [ ] Tower Replacement

Site ID: RG74C340
North Weslaco

Site location: 712 W. Mile 12 North
Weslaco, TX 78596

---

NEPA Land Use Checklist

______________________________ ________________
NEPA Checklist Preparer Date

April 21, 2010
Site Manager-Client Date
2.0 NATIONAL ENVIRONMENTAL POLICY ACT

2.1 NEPA REVIEW

The National Environmental Policy Act (NEPA) requires federal agencies to evaluate the potential impacts to the environment from projects in and under their jurisdiction and have developed guidelines for NEPA Review. The Federal Communications Commission (FCC) rules for implementing NEPA are found at Title 47 of the Code of Federal Regulations (CFR), Part 1, Subpart I, rule sections 1.1301 to 1.1319. In addition, Section 106 of the National Historic Preservation Act of 1966, as codified at 36 CFR Part 800, regulates assessment of cultural resources for all federal undertakings.

The environmental topics pursuant to 47 CFR, Sections 1.13011.1319 include the evaluation of project impacts to prehistoric and historic resources (archaeological and historical structures), threatened or endangered species (listed, candidate and critical habitat), migratory birds, wilderness areas, wildlife preserves, flood plains, and surface features (wetlands).

This NEPA Review identifies whether a proposed facility will require the preparation and filing of an Environmental Assessment (EA) in accordance with FCC regulations. If any of the following questions are found to be in the affirmative, an EA must be filed with the FCC to further evaluate the identified potential environmental impacts prior to proceeding with the proposed construction.

The subject site is located in the City of Weslaco, Hidalgo County, Texas. On February 26, 2010 Rachael Blair of Sims & Associates, LLC conducted a site visit. The site is located on developed property owned by Lee Beam. A site Topographic Map and Site Map are presented in Appendix A. The latitude and longitude for the site are 26° 13’ 35.81” N; 97° 59’ 55.57” W, as provided by the client.
2.2 **Wilderness Areas**

Will the proposed facility be located in an officially designated wilderness area?

No


*Finding(s):* The Site is not located in an officially designated wilderness area.

2.3 **Wildlife Preserves**

Will the proposed facility be located in an officially designated wildlife preserve?

No

*Source:* Site observations, U.S. Geological Survey (USGS) 7.5-Minute Series Topographic Quadrangle, and U.S. Department of Interior (DOI) National Atlas (Appendix D-1)

*Finding(s):* The Site is not located in an officially designated wildlife preserve.

2.4 **Protected Species**

Will the proposed facility affect listed or proposed threatened or endangered species or designated critical habitats?

No

*Source:* Site observations, consultation with the U.S. Fish and Wildlife Service (USFWS) (Appendix D-1).

*Finding(s):* There were no federally listed threatened or endangered species or critical habitat present at the Site that would be adversely affected by the proposed project. The USFWS recommendation published in Interim Guidelines for Recommendations on Communication Tower Sitting, Construction, Operation, and Decommissioning (2001) state the USFWS prefers towers less than 199 feet tall. The siting and design process for this project did conform to all the USFWS recommendations. The use of white strobe lights in accordance with Federal Aviation Administration (FAA) guidelines, and down-shielded security lights are a standard
recommendation from the USFWS and necessary to minimize or eliminate impacts to migratory birds.

Considering all available information and recommended mitigation measures, the project will have no effect on protected species and critical habitat.

2.4.1 Bird Strikes

Will the proposed tower facility require consultation pertaining to Bird Strikes?

No

Source: An Informal Biological Assessment (IBA) was performed by a qualified biologist. Furthermore, a review of USFWS, Division of Migratory Bird Management: The ABCs of Avoiding Bird Collisions at Communication Towers; The Next Step (Manville, 2000), the New Mexico Department of Game and Fish Guidelines for Migrating Birds Mortality From Communications Towers Conservation Services Division (July, 2001) and The USFWS recommendation published in Interim Guidelines for Recommendations on Communication Tower Siting, Construction, Operation, and Decommissioning (2001) state that the USFWS prefers towers less than 199 feet tall.

According to the proposed tower plans, it is determined that the proposed facility is under the 199 feet and will have No Effect or minimal effect on bird strike mortality rates.

2.5 Archaeological and Historical Resources

Will the proposed facility affect districts, sites, buildings, structures or objects significant in American history, architecture, archaeology, engineering, or culture, that are listed, or eligible for listing, in the National Register of Historic Places?

No

Source: Review of State Historic Preservation Officer (SHPO) files, archaeological testing, public involvement, and Local Government and SHPO consultation (Appendix D-2).

Finding(s): Based on the information provided, SHPO finds that this project will have no effect on any sites, structures or objects listed on, or determined eligible for listing on the National Register of Historic Places. In the event that archaeological materials are encountered prior to or during construction of the facilities, SHPO must be contacted.
Archaeological materials consist of any items, fifty years or older, which were made or used by man. These items include stone projectile points (arrowheads), ceramic shards, bricks, worked wood, bone and stone, metal and glass objects, and human skeletal remains. These materials could be present on the ground surface and/or under the ground.

2.6 **Indian Religious Sites**

Will the proposed facility affect an Indian religious site?

No

*Source:* Map location review, Indian Reservations in the Continental United States Bureau of Indian Affairs Map, and consultation with federally recognized tribes and NHG through the TCNS system (Appendix D-3).

*Finding(s):* Because of the nature of this undertaking, little potential exists to affect Indian and NHG Religious sites. Current land use in the surrounding area was considered. It was determined through this review, and tribal consultation, as outlined in the National Programmatic Agreement, that the above referenced project is unlikely to affect Indian and NHG Religious Sites. In the event that archaeological materials are encountered prior to or during construction of the facilities, SHPO must be contacted. Archaeological materials can consist of any items, fifty years or older, which were made or used by man. These items include stone projectile points (arrowheads), ceramic shards, bricks, worked wood, bone and stone, metal and glass objects, and human skeletal remains. These materials could be present on the ground surface and/or under the ground.

2.7 **Flood Plains**

Will the proposed facility be located in a 100-year flood plain?

Yes

*Source:* Site observations and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) 4803340450C.

*Finding(s):* The site is located in Zone A indicating that the area is within a 100-year flood zone (Appendix D).
2.8  **Wetlands**

Will construction of the proposed facility involve a significant change in surface features (e.g. wetland fill or water diversion)?

No


*Finding(s):* Because of the scope of the proposed project activities, the current Site conditions and review of applicable source data, significant changes in surface features such as wetland fill, water diversion and deforestation will not be required for this project.

2.9  **High Intensity White Lights**

Will construction of the proposed facility involve the use of high intensity white lights?

No

*Source:* The use of white strobe lights in accordance with Federal Aviation Administration (FAA) guidelines, and down-shielded security lights are a standard

*Finding:* Construction plans provided to Sims & Associates, LLC do not address the use of high intensity white lights on this project.

2.10  **Public Involvement**

Have any source, agency, citizen, or entity provided or inquired concerning the proposed actions?

No

*Source:* Newspaper ads explaining the proposed action were placed three consecutive weeks in the local newspaper (Appendix D).

*Findings:* There were no responses to newspaper ads placed in local newspapers concerning the proposed actions.
3.0 CONCLUSIONS

Sims & Associates has completed the NEPA review in compliance with 47 CFR Ch. I 1.1307 (a) 1-8. With respect to radio frequency exposure, engineers with expertise in this area should be consulted. This review was written primarily from readily available sources of public information. Sims & Associates can only warrant information received from the site inspection itself and not third-party regulatory information. Furthermore, this review is based on interpretations of data readily available at the time of the site visit by personnel from Sims & Associates.

3.1 Recommendations

Based on the information obtained from visitation of the site and interviews of regulatory agencies, it is the opinion of Sims & Associates that a Flood Zone EA needs to be filed with the FCC for a FEMA designated flood Zone A.

If the site is moved or construction conditions change, another NEPA review should be provided for compliance with 47 CFR Ch. I 1.1307 (a) 1-8. Furthermore, if additional information becomes available from these described sources or from any other source, further investigation might be required.

If you have any questions or concerns, please contact us at your convenience.
4.0 QUALIFICATIONS OF PERSONNEL

Roger W. Lee, Ph. D., of Sims & Associates, LLC provided review, Douglas B. Sims, Project Manager, conducted the Phase I Assessment, and prepared the NEPA Review document and Rachael Blair served as the project biologist. The professional qualifications of the above mentioned Sims & Associates, LLC personnel are presented in Appendix F.

_____________________________________________
Douglas B. Sims
Project Manager/Archaeologist

_____________________________________________
Rachael Blair
Project Biologist

_____________________________________________
Roger W. Lee, PhD
QA/QC Reviewer
5.0 REFERENCES

Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map (FIRM) 4803340450C.


New Mexico Department of Game and Fish, July 2001. Guidelines for Mitigating Bird Mortality from Communications Towers, Conservation Services Division,


U.S. Fish and Wildlife Service (USFWS). National Wetland Inventory (NWI) map.

U.S. Geological Survey (USGS), 2002. 7.5-Minute Quad Map, Mercedes.
APPENDIX A

Site Figures
Client: MDL
Report No.: 15611
County: Hidalgo
Source: Google Map, 2010
**MAP LEGEND**

**Soils**
- Soil Map Units
- Area of Interest (AOI)

**Special Point Features**
- Area of Interest (AOI)
- Wet Spot
- Very Stony Spot
- Sodic Spot
- Silt Spot
- Sandy Spot
- Saline Spot
- Rock Outcrop
- Lava Flow
- Gravel Pit
- Gravelly Spot
- Landfill
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Flooded Spot
- Screened Spot

**Special Line Features**
- Gully
- Short Steep Slope
- Other

**Political Features**
- Cities

**Water Features**
- Oceans
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**MAP INFORMATION**

Map Scale: 1:777 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000. Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service


Coordinate System: UTM Zone 14N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hidalgo County, Texas

Survey Area Data: Version 8, Oct 27, 2009

Date(s) aerial images were photographed: 1/14/1995; 1/12/1996

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
## Map Unit Legend

<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Hidalgo fine sandy loam, 0 to 1 percent slopes</td>
<td>1.3</td>
<td>51.3%</td>
</tr>
<tr>
<td>28</td>
<td>Hidalgo sandy clay loam, 0 to 1 percent slopes</td>
<td>1.2</td>
<td>48.7%</td>
</tr>
<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td><strong>2.5</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
LEGEND

Subject Property -

No Scale
LEGEND

Subject Property -

Client: MDL
Report No.: 15611
County: Hidalgo, TX
Source: Microsoft Research Maps
LEGEND

Subject Property -

Client: MDL
Report No.: 15611
County: Hidalgo, TX
Source: Google Map, 2010
Approximately 1 to 24,000 SCALE

LEGEND

Subject Property -

Client: MDL
Report No.: 15631
County: Hidalgo, TX
Source: USGS Mercedes, 7.5' Map
1: 24,000 2002
APPENDIX B

Site Photographs
Photograph 1: Project area.

Photograph 2: Project area.
Photograph 3: Looking north from project area toward Mile 12 North.

Photograph 4: Looking west toward proposed access and utility easement.
Photograph 5: Looking northwest from project area.

Photograph 6: Looking west from project area.
Photograph 7: Looking north along fence line.

Photograph 8: Pole mounted transformer along fence line.
APPENDIX C

Client Provided Information
NOTES:
1. Trim brush along fence and cut and remove trees as necessary along fence line.
2. Existing 1/2" water line with spout, reset to 18" below road and reset or install 1/2" spout at fence line.

PROPOSED SPRING 75" x 75" FENCE COMPOUND WITH 160' MONOPOLE TOWER

EXISTING OVERHEAD POWER

EXISTING DIRT ROAD

PROPOSED 10" WIDE UTILITY EASEMENT

PROPOSED UNDERGROUND SCH 80 PVC 2" POWER (302' LONG)

EXISTING 1/2" WATER LINE. SEE NOTE 2 FOR FIELD WRAP LOCATION

PROPOSED 12" WIDE ACCESS ROAD (357' LONG)

600' LINE

EXISTING WATER LINE

PROPOSED CULVERT

OVERALL SITE PLAN
SCALE: 1" = 60' - 0"
APPENDIX D

NEPA Supporting Documentation
APPENDIX D-1

US Fish and Wildlife Service Correspondence
March 4, 2010

Luella Roberts
U.S. Fish & Wildlife Service
10711 Burnet Road, #200
Austin, TX 78730

SUBJECT: This project will be up to a 180 foot monopole with a lease area of 20 feet by 12 feet within a 75 feet by 75 feet fenced compound.

Dear Ms. Roberts,

I would like to discuss with your agency the planned development of a cellular facility located at 712 W. Mile 12 North, Weslaco, TX 78596 (26° 13’ 35.81”, -97° 59’ 55.57”). The Client proposes to install up to a 180 foot monopole and equipment cabinet with a lease area of 20 feet by 12 feet located within a 75 feet by 75 feet fenced compound.

I have reviewed the potential Endangered and Threatened species in the area and the United States Fish & Wildlife Service’s “Service Interim Guidelines For Recommendations On Communications Tower Siting, Construction, Operation, and Decommissioning,” and do not see an issue at this time pertaining to the proposed undertaking.

A site visit was conducted on February 26, 2010 at which time no threatened or endangered species were detected. However, I would like to offer the USFWS the opportunity to comment on this project with any suggestions or concerns. I have attached with this letter photos from the site visit, the overall site plan and aerial and topographic maps showing the location of the proposed site for your review.

Respectfully,
Sims & Associates, LLC

Rachael Blair
Project Biologist

www.simsassociates.net
INFORMAL BIOLOGICAL ASSESSMENT

SURVEY REPORT

MDL Consulting, INC.
5100 Westheimer, Suite 200
Houston, TX 77056

On behalf of Sprint Nextel

North Weslaco

Site ID: RG74X340
Parcel ID: R324949
712 W. Mile 12 North
Weslaco, TX 78596

Project: 15611

April 21, 2010
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   Site photographs
   Site Location Map
   Site Aerials
   Resume of Key Staff
1.0 EXECUTIVE SUMMARY

Sims & Associates, LLC performed an Informal Biological Assessment (IBA) of the property RG74XC340 located at 712 W. Mile 12 North, Weslaco, TX 78596 (“subject property”). This IBA was conducted in conjunction with a NEPA investigation per 47 CFR 1.1307 (a) 3. The focus of this IBA was to evaluate the impacts to Threatened & Endangered Species and migratory birds as outlined in the Migratory Bird Treaty Act. The project will require minor trenching. The IBA was performed for MDL, on behalf of Sprint Nextel, and its designee (“the Client”) in the anticipation of a financial transaction involving the subject property.

The subject property is approximately 5 acres developed property owned by Cresencio and Gwendolyn Ramirez and is located the City of Weslaco, TX. There are several buildings associated with this property. According to the Client, the proposed action is construction of a 180 foot monopole and equipment cabinet located in the southeast corner of the property. The new tower will be located in a fenced compound that is 75 feet by 75 feet. Approximately 300 feet of trenching will be required for power.

The site is located along a paved road and therefore, extensive grading and improvement will not be required. Vehicle access to the subject property is provided via Highway Mile 12 Road and Mile 5 ½ Road. The site is located in a rural residential area.

Due to the disturbance of the site and surrounding property from development activities, it is our opinion that the planned cellular facility project (Project North Weslaco) will have no effect on any federal or state listed threatened or endangered animal or plant species or impact critical habitats during and after the construction is complete.
2.0 INTRODUCTION

Biological survey for federally or state listed threatened and endangered species, critical habitat areas and plants was conducted at 712 W. Mile 12 North, Weslaco, TX 78596 ("subject property"). This IBA was conducted in conjunction with a NEPA investigation per 47 CFR 1.1307 (a) 3. The purpose of this IBA was to evaluate the impacts to Threatened & Endangered Species and migratory birds as outlined in the Migratory Bird Treaty Act. The proposed action is construction of a 180 foot monopole and equipment cabinet within a 75 feet by 75 feet fenced compound. The IBA was performed for the MDL, on behalf of Sprint Nextel, and its designee ("the Client") in the anticipation of a financial transaction involving the subject property. As part of this project, 30 feet in all directions from the project site will be reviewed.

3.0 BACKGROUND AND METHODOLOGY

On February 26, 2010 Sims & Associates LLC, Project Biologist, Rachael Blair conducted a biological survey review for federally and state listed threatened and endangered species, critical habitat areas and plants. This report discusses the results of research on the effect of the construction of the proposed communications facilities on the biological resources of the area. Specifically, the following tasks were undertaken:

- Determination of the "project area" and "action area" (per 50 CFR 402.02[d]) for the proposed project;

- Review and analysis of information, including species list, database files, and maps, to identify whether and which listed or proposed threatened or endangered species and designated or proposed critical habitat might be present in the action area;

- Field site assessment of the action area and analysis that includes detailed discussion of the current habitat condition and how it relates to listed species within the action area;

- Development of a complete species list including all vascular plants and vertebrates observed on the site during the field reconnaissance;

- Consideration of whether the action area is suitable as habitat for any listed species, if designated or proposed critical habitat is present in the project area for the species and whether this project will impact wetlands;
• Identification and consideration of the location, surface size, use(s) and surrounding vegetation of nearby water bodies; and

• Statements of whether, based on field assessment and review of documents, any threatened/endangered species or designated critical habitat will be impacted by the proposed project.

The federal regulations regarding the Endangered Species act define the “action area” as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action” [50 CFR 402.02(d)]. In the case of communications towers, this may be interpreted to include the proposed antenna structure, its immediate vicinity, and any roads or power lines to be constructed to the tower site by the applicant.

For the purposes of this assessment, the action area will thus be defined as the area including and immediately surrounding the 5,625-square foot area.

4.0 PROPOSED PROJECT AREA DESCRIPTION

The project consists of a 5,625 square foot area located in the southeast corner of the subject property which consists of three residences and a barn. The subject property has an elevation of approximately 70 feet above mean sea level. Annual rainfall in the area is approximately 25.3 inches per year (Idcide Weather, 2010). The site is located within the City of Weslaco, TX. The project area has been completely disturbed and altered from its natural form.

5.0 RESULTS OF LITERATURE REVIEW

The U.S. Fish and Wildlife Service, Texas Parks and Wildlife Department, and Nature Serve databases were researched to determine the possibility of Threatened and Endangered Species within the area of the proposed project. This search identified no proposed or listed threatened or endangered plant species known or likely to occur in the action area or within at least one mile. Furthermore, there were no proposed or designated critical habitats for any plant or animal species in the area.
The results of the literature review indicate that there are 12 sensitive animal species and 2 sensitive plant species located within the region, but not necessarily within the project area. The following list is of the sensitive animal species identified as potentially present within this region, but not necessarily within the project area or APE:

5.1 Birds

*Known to be in the area but not necessarily in the project area:*

<table>
<thead>
<tr>
<th>Gray Hawk</th>
<th>Asturina nitidus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tropical Parula</td>
<td>Parula pitiayma</td>
</tr>
</tbody>
</table>

5.2 Reptiles and Amphibians

*Known to be in the area but not necessarily in the project area:*

<table>
<thead>
<tr>
<th>Texas Horned Lizard</th>
<th>Phrynosoma comutum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas Tortoise</td>
<td>Gopherus berlandieri</td>
</tr>
<tr>
<td>Black-Striped Snake</td>
<td>Coniophanes imperialis</td>
</tr>
<tr>
<td>Speckled Racer</td>
<td>Drymobius margaritiferus</td>
</tr>
<tr>
<td>Indigo Snake</td>
<td>Drymarchon corais</td>
</tr>
<tr>
<td>White-Lipped Frog</td>
<td>Leptodactylus fragilis</td>
</tr>
</tbody>
</table>

5.3 Mammals

*Known to be in the area but not necessarily in the project area:*

<table>
<thead>
<tr>
<th>Coues’ Rice Rat</th>
<th>Oryzomys couesi</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Nosed Coati</td>
<td>Nasua narica</td>
</tr>
<tr>
<td>Ocelot</td>
<td>Leopardis paradalis</td>
</tr>
<tr>
<td>Jaguarundí</td>
<td>Herpailurus yagouroundi</td>
</tr>
</tbody>
</table>

5.4 Plants

*Known to be in the area but not necessarily in the project area:*

<table>
<thead>
<tr>
<th>Texas Ayenia</th>
<th>Ayenia limitaris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walker’s Manioc</td>
<td>Manihot walkerae</td>
</tr>
</tbody>
</table>
6.0 RESULTS OF FIELD SURVEY

6.1 Plant Species List

A biological survey of the project site was conducted on February 26, 2010. The project area was subjected to a 100 percent (%) visual survey resulting in no threatened or endangered plant or animal species identified. During the course of the plant survey, a biologist was present to identify all bird species by sight and sound. No birds were observed or heard in the action area.

6.2 Suitability for Threatened or Endangered Species

The project area does not provide suitable habitat for the establishment and maintenance of any proposed or listed threatened or endangered plant or animal species. It is unlikely that critical habitat for any plant or animal species would ever be designated in the project area or the immediate vicinity.

6.3 Water Bodies in Surrounding Area

There are no water bodies within the project site or within 300 feet of the project that would provide suitable habitat for plant or animal species. The U.S. Fish and Wildlife National Wetlands Inventory was reviewed to determine the impacts, if any, the project will have wetlands within the APE and indirect effect outside the APE. This review found that there are no wetlands in the project area or within 1 mile of the proposed project site. Furthermore, there were no hydric soils, hydrophytic vegetation nor standing water at the site or surrounding areas.

Various threatened and endangered aquatic invertebrates, fish, reptiles and amphibians are present in Hidalgo County streams, lakes and wetlands. However, no activity associated with the construction or operation of the proposed tower is expected to affect any water bodies in the area in any direct or indirect way.
6.4 Other Plant and Animal Species

During the site visit no non-listed plant or animal species were identified in the project area.

6.5 Soils

Soils at the site are composed Hidalgo fine sandy loam and Hidalgo sandy clay loam (Natural Resource Conservation Service, 2010).
7.0 CONCLUSIONS OF FIELD FINDINGS

In conforming to the United States Fish & Wildlife Service’s “Service Interim Guidelines For Recommendations On Communications Tower Siting, Construction, Operation, and Decommissioning,” this project consists of a new 180 foot monopole and equipment cabinet on previously disturbed lands.

The current undertaking located at 712 W. Mile 12 North, Weslaco, TX 78596 (“subject property”) is situated in a rural residential area. As part of this project, 30 feet in all directions from the proposed project will be reviewed. The construction of the telecommunications facility is unlikely to impact either plant or animal species. Additionally, the proposed area for this project is not located in or within 300 feet of a waterway, wildlife refuge, national wilderness area, native grassland or forest area, ridge-line, mountain top, coastline or area commonly known to have high incidences of fog or low clouds, where migratory birds may be found.

No listed, candidate or proposed threatened or endangered plant or animal species were detected during the site visit. There are no proposed or designated critical habitats present and no botanical or faunal resources requiring special protection are present or are likely to be impacted. Therefore, it is expected that there will be no increased risk to migratory birds based upon the specifications of this project.

If you require any additional information or would like to discuss the findings presented in this report, please contact me at your earliest convenience.

Respectfully,

Sims & Associates, LLC

Douglas B. Sims
Principal

Rachael Blair
Project Biologist
8.0 REFERENCES


http://www.idcide.com/weather/tx/weslaco.htm


Recommendations on Communication Tower Siting, Construction,
Operation, and Decommissioning.

http://www.fws.gov/endangered/wildlife.html
ATTACHMENTS
Photograph 1: Looking south toward project area.

Photograph 2: Looking east toward project area.
Photograph 3: Looking north from project area toward Mile 12 North.

Photograph 4: Looking west toward proposed access and utility easement.
Photograph 5: Looking northwest from project area.

Photograph 6: Looking west from project area toward one of the residences.
Photograph 7: Looking north along fence line.

Photograph 8: Pole mounted transformer along fence line.
APPENDIX D-2

State Historic Preservation Officer Correspondence
March 5, 2010

Bill Martin
Texas Historical Commission
State Historic Preservation Office
108 West 16th Street, 1st Floor
Austin, TX 78701

SUBJECT: Site ID: RG74XC340
Site ID: North Weslaco
712 West Mile 12 North
Weslaco, TX 78596

Mr. Martin:

I am writing to request the comments of the State Historic Preservation Officer (SHPO) concerning possible project effects on cultural resources associated with the proposed undertaking consisting of a new 180 foot self monopole. Please find the necessary relevant information listed below and on subsequent attached pages.

1. The current undertaking is proposed by Sprint/Nextel and will be permitted by the Federal Communications Commission.

2. The Client proposes to install antennas on a new 180 foot self supportive telecommunication tower on developed lands for the purpose of a PCS site. The site where this undertaking is planned is 75 feet by 75 feet leased area located in agricultural fields at 712 West Mile 12 North. Mile 12 North is a maintained road and therefore, no grading will be required. Power and telecommunication will be from existing facilities with 302 feet long by 3 feet deep trench running from the lease property to Mile 12 Road. This property is heavily impacted from agricultural/grassing activities.

3. This site has not previously been subject to Section 106 review.

4. Please see attached USGS map showing project location.

5. Please see attached document for site plans and specifications.

www.simsassociates.net
March 5, 2010

Bill Martin
Texas Historical Commission
State Historic Preservation Office
108 West 16th Street, 1st Floor
Austin, TX 78701

SUBJECT:   Site ID: RG74XC340
 Site ID: North Weslaco
 712 West Mile 12 North
Weslaco, TX 78596

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2. The Client proposes to install antennas on a new 180 foot self supportive telecommunication tower on developed lands for the purpose of a PCS site. The site where this undertaking is planned is 75 feet by 75 feet leased area located in agricultural fields at 712 West Mile 12 North. Mile 12 North is a maintained road and therefore, no grading will be required. Power and telecommunication will be from existing facilities with 302 feet long by 3 feet deep trench running from the lease property to Mile 12 Road. This property is heavily impacted from agricultural/grassing activities.

3. This site has not previously been subject to Section 106 review.

4. Please see attached USGS map showing project location.

5. Please see attached document for site plans and specifications.
6. No known Historic Properties are located within ½-mile of the project area.

7. A search of the Texas Historical Commission online restricted access database identified no sites within the ½-mile APE that are listed as having an undetermined National Register status.

8. No Historic Properties are likely to be visually or directly affected by the project.

9. All appropriate efforts have been made to identify other above ground and archaeological Historic Properties that may be affected by the current undertaking.

Sincerely,
Sims & Associates

Douglas B Sims, M.S.
Managing Partner
Archaeologist

Attachments: FCC Form 621
New Tower ("NT") Submission Packet

FCC FORM 620

Introduction

The NT Submission Packet is to be completed by or on behalf of Applicants to construct new antenna support structures by or for the use of licensees of the Federal Communications Commission ("FCC"). The Packet (including Form 620 and attachments) is to be submitted to the State Historic Preservation Office ("SHPO") or to the Tribal Historic Preservation Office ("THPO"), as appropriate, before any construction or other installation activities on the site begin. Failure to provide the Submission Packet and complete the review process under Section 106 of the National Historic Preservation Act ("NHPA") prior to beginning construction may violate Section 110(k) of the NHPA and the Commission’s rules.

The instructions below should be read in conjunction with, and not as a substitute for, the "Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission," dated September 2004, ("Nationwide Agreement") and the relevant rules of the FCC (47 C.F.R. §§ 1.1301-1.1319) and the Advisory Council on Historic Preservation ("ACHP") (36 C.F.R. Part 800).²

Exclusions and Scope of Use

The NT Submission Packet should not be submitted for undertakings that are excluded from Section 106 Review. The categories of new tower construction that are excluded from historic preservation review under Section 106 of the NHPA are described in Section III of the Nationwide Agreement.

Where an undertaking is to be completed but no submission will be made to a SHPO or THPO due to the applicability of one or more exclusions, the Applicant should retain in its files documentation of the basis for each exclusion should a question arise as to the Applicant’s compliance with Section 106.

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² Section II.A.9. of the Nationwide Agreement defines a “historic property” as: “Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian Organization that meet the National Register criteria.”
The NT Submission Packet is to be used only for the construction of new antenna support structures. Antenna collocations that are subject to Section 106 review should be submitted using the Collocation (“CO”) Submission Packet (FCC Form 621).

**General Instructions: NT Submission Packet**

Fill out the answers to Questions 1-5 on Form 620 and provide the requested attachments. Attachments should be numbered and provided in the order described below.

For ease of processing, provide the Applicant’s Name, Applicant’s Project Name, and Applicant’s Project Number in the lower right hand corner of each page of Form 620 and attachments.

1. **Applicant Information**

   Full Legal Name of Applicant: ______Sprint________________________

   Name and Title of Contact Person: ____ Joey Arnett____

   Address of Contact Person (including Zip Code): ___5555 Morningside Dr. #208, houston TX________

   Phone: ___713-942-7919_________ Fax:_____713-942-2114_________

   E-mail address: jarnett@mdlconsultinginc.com

2. **Applicant’s Consultant Information**

   Full Legal Name of Applicant’s Section 106 Consulting Firm:

   ___Sims & Associates, LLC________________________________________

   Name of Principal Investigator: ______Douglas Brian Sims____________________

   Title of Principal Investigator: ______Principal_____________________

   Investigator’s Address: ___201 S. Lakeline Blvd, Ste 102, Cedar Park, TX 78613______

   City: ___Cedar Park_________ State ___TX____ Zip Code ___78613___

   Phone: ___(512) 809-5094____ Fax: ___(512) 506-9351_________

   Some attachments may contain photos or maps on which this information can not be provided.
E-mail Address: doug@simsassociates.net

Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards?  YES / NO.

Areas in which the Principal Investigator meets the Secretary of the Interior’s Professional Qualification Standards: See Attached Resume of Douglas Brian Sims

Other “Secretary of the Interior qualified” staff who worked on the Submission Packet (provide name(s) as well as well as the area(s) in which they are qualified): Not Applicable

3. Site Information

a. Street Address of Site: 712 West Mile 12 North
   City or Township: Weslaco
   County / Parish: Hidalgo State: TX Zip Code: 78596

b. Nearest Cross Roads: West Mile 12 North/Mile 5 ½ West

c. NAD 83 Latitude/Longitude coordinates:
   26° 13’ 35.81” N 97° 59’ 55.77” W

d. Proposed tower height above ground level: 180 feet; 54.8 meters

e. Tower type:
   □ guyed lattice tower □ self-supporting lattice □ monopole

4 The Professional Qualification Standards are available on the cultural resources webpage of the National Park Service, Department of the Interior: <http://www.cr.nps.gov/local-law/arch_stnds_9.htm>. The Nationwide Agreement requires use of Secretary-qualified professionals for identification and evaluation of historic properties within the APE for direct effects, and for assessment of effects. The Nationwide Agreement encourages, but does not require, use of Secretary-qualified professionals to identify historic properties within the APE for indirect effects. See Nationwide Agreement, §§ VI.D.1.d, VI.D.1.e, VI.D.2.b, VI.E.5.

5 Include top-mounted attachments such as lightning rods.
NT SUBMISSION PACKET – FCC FORM 620

☐ other (briefly describe tower) __________ ______________________

4. **Project Status:**

a. [X] Construction not yet commenced;
b. [ ] Construction commenced on [date] ___________; or,c. [ ] Construction commenced on [date] __________ and was completed on [date] __________.

5. **Applicant’s Determination of Effect:**

a. **Direct Effects** (check one):

i. [X] No Historic Properties in Area of Potential Effects (“APE”) for direct effects;
ii. [ ] “No effect” on Historic Properties in APE for direct effects;
iii. [ ] “No adverse effect” on Historic Properties in APE for direct effects;
iv. [ ] “Adverse effect” on one or more Historic Properties in APE for direct effects.

b. **Visual Effects** (check one):

i. [X] No Historic Properties in Area of Potential Effects (“APE”) for visual effects;
ii. [ ] “No effect” on Historic Properties in APE for visual effects;
iii. [ ] “No adverse effect” on Historic Properties in APE for visual effects;
iv. [ ] “Adverse effect” on one or more Historic Properties in APE for visual effects.

**Certification and Signature**

I certify that all representations on this FCC Form 620 and the accompanying attachments are true, correct, and complete.

[Signature]

March 5, 2010

Date

Douglas Brian Sims

Printed Name

Principal

Title

---

6 Failure to provide the Submission Packet and complete the review process under Section 106 of the NHPA prior to beginning construction may violate Section 110(k) of the NHPA and the Commission’s rules. See Section X of the Nationwide Agreement.
WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1) AND/ OR FORFEITURE (U.S. Code, Title 47, Section 503).
Attachments

Provide the following attachments in this order and numbered as follows:

Attachment 1. Résumés / Vitae.

Provide a current copy of the résumé or curriculum vitae for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in the Submission Packet for this proposed collocation.

Attachment 2. Additional Site Information

Describe any additional structures, access roads, utility lines, fences, easements, or other construction planned for the site in conjunction with the proposed collocation and related facilities. Use this attachment to provide additional details needed to provide a full and accurate description of any structural alterations, additions, or other construction activities that will take place to complete the collocation.

Attachment 3. Tribal and NHO Involvement

At an early stage in the planning process, the Nationwide Agreement requires the Applicant to gather information from appropriate Indian Tribes or Native Hawaiian Organizations (“NHOs”) to assist in the identification of historic properties of religious and cultural significance to them. Describe measures taken to identify Indian tribes and NHOs that may attach religious and cultural significance to historic properties that may be affected by the collocation within the Areas of Potential Effects (“APE”) for direct and visual effects. If such Indian tribes or NHOs were identified, list them and provide a summary of contacts by either the FCC, the Applicant, or the Applicant’s representative. Provide copies of relevant documents, including correspondence. If no such Indian tribes or NHOs were identified, please explain.

Attachment 4. Local Government

a. Has any local government agency been contacted and invited to become a consulting party pursuant to Section V.A. of the Nationwide Agreement? If so, list the local government agencies contacted. Provide a summary of contacts and copies of any relevant documents (e.g., correspondence or notices).

b. If a local government agency will be contacted but has not been to date, explain why and when such contact will take place.
Attachment 5.  **Public Involvement**

Describe measures taken to obtain public involvement in this project (e.g., notices, letters, or public meetings). Provide copies of relevant documentation.

Attachment 6.  **Additional Consulting Parties**

List additional consulting parties that were invited to participate by the Applicant, or independently requested to participate. Provide any relevant correspondence or other documents.

Attachment 7.  **Area of Potential Effects (APE)**

a. Describe the APE for direct effects and explain how this APE was determined.

b. Describe the APE for visual effects and explain how this APE was determined.

Attachment 8.  **Historic Properties Identified in the APE for Visual Effects**

a. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for visual effects that is listed in the National Register, has been formally determined eligible for listing by the Keeper of the National Register, or is identified as considered eligible for listing in the records of the SHPO/THPO, pursuant to Section VI.D.1.a. of the Nationwide Agreement.7

b. Provide the name and address (including U.S. Postal Service ZIP Code) of each Historic Property in the APE for visual effects, not listed in Attachment 8a, identified through the comments of Indian Tribes, NHOs, local governments, or members of the public. Identify each individual or group whose comments led to the inclusion of a Historic Property in this attachment. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63).

c. For any properties listed on Attachment 8a that the Applicant considers no longer eligible for inclusion in the National Register, explain the basis for this recommendation.

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7 Section VI.D.1.a. of the Nationwide Agreement requires the Applicant to review publicly available records to identify within the APE for visual effects: i) properties listed in the National Register; ii) properties formally determined eligible for listing by the Keeper of the National Register; iii) properties that the SHPO/THPO certifies are in the process of being nominated to the National Register; iv) properties previously determined eligible as part of a consensus determination of eligibility between the SHPO/THPO and a Federal Agency or local government representing the Department of Housing and Urban Development (HUD); and, v) properties listed in the SHPO/THPO Inventory that the SHPO/THPO has previously evaluated and found to meet the National Register criteria, and that are identified accordingly in the SHPO/THPO Inventory.
Attachment 9. Historic Properties Identified in the APE for Direct Effects

a. List all properties identified in Attachment 8a or 8b that are within the APE for direct effects.

b. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for direct effects, not listed in Attachment 9a, that the Applicant considers to be eligible for listing in the National Register as a result of the Applicant’s research. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63). For each property that was specifically considered and determined not to be eligible, describe why it does not satisfy the criteria of eligibility.

c. Describe the techniques and the methodology, including any field survey, used to identify historic properties within the APE for direct effects. If no archeological field survey was performed, provide a report substantiating that: i) the depth of previous disturbance exceeds the proposed construction depth (excluding footings and other anchoring mechanisms) by at least 2 feet; or, ii) geomorphological evidence indicates that cultural resource-bearing soils do not occur within the project area or may occur but at depths that exceed 2 feet below the proposed construction depth.

Attachment 10. Effects on Identified Properties

For each property identified as a Historic Property in Attachments 8 and 9:

a. Indicate whether the Applicant believes the proposed collocation would have a) no effect; b) no adverse effect; or, c) an adverse effect. Explain how each such assessment was made. Provide supporting documentation where necessary.

b. Provide copies of any correspondence and summaries of any oral communications with the SHPO/THPO.

c. Describe any alternatives that have been considered that might avoid, minimize, or mitigate any adverse effects. Explain the Applicant’s conclusion regarding the feasibility of each alternative.

Attachment 11. Photographs

Except in cases where no Historic Properties were identified within the Areas of Potential Effects, submit photographs as described below. Photographs should be in

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8 Pursuant to Section VI.D.2.a. of the Nationwide Agreement, Applicants shall make a reasonable and good faith effort to identify above ground and archeological historic properties, including buildings, structures, and historic districts, that lie within the APE for direct effects. Such reasonable and good faith efforts may include a field survey where appropriate.

9 Under Section VI.D.2.d. of the Nationwide Agreement, an archeological field survey is required even if none of these conditions applies, if an Indian tribe or NHO provides evidence that supports a high probability of the presence of intact archeological Historic Properties within the APE for direct effects.
color, marked so as to identify the project, keyed to the relevant map (see Item 12 below) or text, and dated; the focal length of the lens should be noted. The source of any photograph included but not taken by the Applicant or its consultant (including copies of historic images) should be identified on the photograph.

a. Photographs taken from the collocation site should show views from the proposed location in all directions. The direction (e.g., north, south, etc.) should be indicated on each photograph, and, as a group, the photographs should present a complete (360 degree) view of the area around the communications tower or non-tower structure.

b. Photographs of all listed and eligible properties within the Areas of Potential Effects.

c. If any listed or eligible properties are visible from the proposed collocation site, photographs looking at the site from each historic property. The approximate distance in feet (meters) between the site and the historic property should be included.

d. Aerial photos of the APE for visual effects, if available.

Attachment 12. Maps

Include one or more 7.5-minute quad USGS topographical maps that:

a. Identify the Areas of Potential Effects for both Direct and Visual Effects. If a map is copied from the original, include a key with name of quad and date.

b. Show the location of the proposed collocation site and any new access roads or other easements including excavations.

c. Show the locations of each property listed Attachments 8 and 9.

d. Include keys for any symbols, colors, or other identifiers.

Attribution and Bibliographic Standards. All reports included in the Submission Packet should be footnoted and contain a bibliography of the sources consulted.
a. Footnotes may be in a form generally accepted in the preparer's profession so long as they identify the author, title, publisher, date of publication, and pages referenced for published materials. For archival materials/documents/letters, the citation should include author, date, title or description and the name of the archive or other agency holding the document.

b. A bibliography should be appended to each report listing the sources of information consulted in the preparation of the report. The bibliography may be in a form generally accepted in the preparer's profession.
CURRICULUM VITAE

DOUGLAS BRIAN SIMS

201 S. Lakeline Blvd, Suite 201
Cedar Park, TX 78613
Office Phone: 512-992-9699
Cell Phone: 512-809-5094

AREAS OF SPECIALIZATION:

- Contaminant Transport in Soils
- Environmental Geology/Chemistry
- Water Resources Management
- Environmental Laboratory Management
- Large Scale Project Management
- Cultural Resources Management

EDUCATION:

- Ph.D. Candidate
  Kingston University, London, England
  School of Geography, Geography and the Environment
  Expected completion: 12/2009
  
  Supervisor: Peter Hoods, Ph.D.
  Contact number: + 44 1274 233532
  
  Research Topic: Historic Mining and Milling processes within Nelson, Nevada and the associated environmental effects.

- M.S. Department of Geosciences; University of Nevada – Las Vegas, granted in 1997
  
  Research topic: Historic mining activities at Three Kids Mines, Henderson, NV and there processes that impact today’s environment.
  
  Theses Title: The Migration of Arsenic and Lead in Surface Sediments by surface waters at Historic Three Kids Mine- Henderson, Nevada.

- B.A. Anthropology with an emphasis in Archaeology
  University of Nevada – Las Vegas, granted in 1995.
  Minor in Biology
PROFESSIONAL REGISTRATIONS

Member of the American College of Forensic Examiners; ACFE #21328
Registrar Environmental Manager; NREP #9951

FEDERAL PERMITS HELD

Nevada BLM
  Project Director, 2000 to Present – Sims & Associates
  Field Supervisor, 1997 to 2003 – KLA Environmental Consulting, Inc.
  Field Supervisor, 1995-1996 - Knight & Leavitt Associates
  Field Supervisor, 1994-1995- Dames & Moore, Las Vegas
Utah State Lands
  Field Supervisor, 1999 to 2006 – Sims-Bottenberg & Associates
Utah BLM
  Project Director, 2000 to 2001 – KLA Environmental Consulting, Inc.
  Field Supervisor, 1999 to 2001 – KLA Environmental Consulting, Inc.
Arizona BLM
  Crew Chief, 1994 – Dames & Moore
Idaho BLM
  Crew Chief, 1995 - SAIC
Hawaii State Lands
  Project Director, 2007 to 2009 – Sims & Associates

Additional permits upon request

ARCHAEOLOGICAL FIELD/LABORATORY SCHOOLS/PROGRAMS

While at the University of Nevada – Las Vegas

Spring 1994  Field course in archaeological field methods. Instruction in archaeological field survey and excavation of historic (circa 1850s) New Fort St. Joseph, Logan Dale, NV. Dr. Claude Warren (Historic)

Fall 1994  Field course in archaeological field methods. Instruction in archaeological field survey and excavation of prehistoric sites (Anasazi) located at Yamashita I, II, III, and IV, Logan Dale, NV. Dr. Margaret Lyneis (Prehistoric)

Fall 1994  Laboratory course in archaeological laboratory methods. Instruction in archaeological laboratory methods in historic (circa 1850s) New Fort St. Joseph, Logan Dale, NV. Dr. Claude Warren (Historic)
Spring 1995  Field course in archaeological field methods. Instruction in archaeological field survey and excavation of historic New Fort St. Joseph, Logan Dale, NV. Dr. Claude Warren (Historic)

CULTURAL RESOURCE INVENTORIES-CRM

While With Sims & Associates

11/02-12/07.  **Project Manager/Director**
Sims & Associates, formerly KLA Environmental Consulting, Las Vegas, NV. I have performed over 1500 historic and prehistoric field surveys located on privately owned and government properties in NV, UT, HI, AZ, ID, CA, IN, PA, FL, OR, FL, TN, IL, WA and other states. Duties included budgeting, organization, field preparation, planning, site determinations, executing field activities within the project areas, and production of the final reports.

2/04  **Project Manager/ Project Director**, Sims & Associates, Las Vegas, NV. I was the project manager/field director on the survey of 40 acres of lands located in Boulder City Nevada. This property was to be used for the construction of a cemetery.

2/04-6/05  **Project Manager/ Project Director**, Sims & Associates, Las Vegas, NV. Historic Building survey performed on 7 buildings constructed during the Hoover Damn Project (1930s). I performed building measurements, dating, site drawing, and historic research on the 7 buildings located along Shore Drive in the Lake Mead Recreation Area, Nevada.

6/03-8/03  **Project Manager/ Project Director**, Sims & Associates, Las Vegas, NV. I was the project manager/field director on the survey of three mountain tops (Square peak, Mount Wilson and Ella Mountain) located in Ely, Pioche and Caliente Nevada for the placement of microwave facilities.

6/03-8/03  **Project Manager/ Project Director**, Sims & Associates, Las Vegas, NV. I was the project manager/field director on the survey of a 1 mile long fence line located on the northwest edge of the Nellis Air Force Base small arms range.

While With KLA Environmental Consulting, Inc.  **(Now Sims Associates)**

7/97-02.  **Project Manager/Assistant Project Director**, KLA Environmental Consulting, Las Vegas, NV. Survey of about 10,000 acres of BLM lands located along I-15 in Mesquite, NV for PBS&J. Duties included budgeting, organization, field preparation, planning, site determinations, aerial photography by helicopter, and executing field activities within the
project area. Also, oversaw and assisted in the production of the Final Report.

5/00-6/00 **Project Manager**, KLA Environmental Consulting, Las Vegas. A class I survey of about 10,000 acres of BLM lands located along I-15 in Mesquite, NV for PBS&J. Duties included budgeting, organization, planning, and executing all operational activities within the project area. Also, oversaw the production of the Final Report.

6/00 **Project Director**, KLA Environmental Consulting, Las Vegas. Survey of about a 17 acres of private land located in Boulder City, NV for PBS&J. Duties included organization, field preparation, planning, and executing field activities within the project area. Also, production of the Final Report.

6/00 **Project Director**, KLA Environmental Consulting, Las Vegas. Survey of about a 2.8 acres of private land located along I-515 in Henderson, NV for PBS&J. Duties included organization, field preparation, planning, and executing field activities within the project area. Also, production of the Final Report.

10/99-1/00 **Project Director/Manager**, KLA Environmental Consulting, Las Vegas. On-Site Archaeological monitoring during construction of the Kerr-McGee Surface Water Intercept Project on Private Lands in Henderson, NV. Duties included organization, field activities within the project area, field preparation, and planning. Also, production of the Final Report.

11/99 **Field Supervisor/ Project Manager**, KLA Environmental Consulting, Las Vegas. Survey of approximately 6 acres for Silver State Disposal, Inc.s land fill expansion on to BLM land located at APEX, NV. Duties included organization, field preparation, planning, and field activities. Also, limited participation in the production of the Final Report.

11/99 **Field Supervisor/ Project Manager**, KLA Environmental Consulting, Las Vegas. Survey of approximately 4 acres for Silver State Disposal, Inc.s Transfer Site on BLM land located in Moapa Valley, NV. Duties included organization, field preparation, planning, and field activities. Also, limited participation in the production of the Final Report.


5/99 **Project Manager/Field Supervisor**, KLA Environmental Consulting, Las Vegas. Survey of the Clark County Sanitation Districts Outfall Project
Located on County Lands in Las Vegas, NV. Duties included organization, field preparation, planning, and executing field activities within the project area. Also, limited participation in the production of the Final Report.

2/99  **Field Supervisor/Project Manager**, KLA Environmental Consulting, Las Vegas. Survey of approximately 40 acres of BOR land located in Henderson, NV (Palm City C-1 Channel). Duties included organization, field preparation, planning, and executing field activities within the project area. Also, limited participation in the production of the Final Report.

7/98  **Project Director**, KLA Environmental Consulting, Las Vegas. Survey of about a 40 acres of private land located in Boulder City, NV for CH2M HILL (Along Highway 93). Duties included organization, field preparation, planning, and executing field activities within the project area. Also, production of the Final Report.

5/98  **Project Director/Manager**, KLA Environmental Consulting, Las Vegas. Surveyed a 3.5 mile-long water control system (Western Tributary of the LV Wash) on private land located in Las Vegas, NV. Duties included organization, field preparation, planning, and executing field activities within the project area and budgeting. Also, production of the Final Report.

3/98  **Project Manager/Field Supervisor**, KLA Environmental Consulting, Las Vegas. Survey of 42 acres of the Nellis Air Force Base Well Annex property, North Las Vegas, NV. Duties included organization, field preparation, planning, and executing field activities within the project area and budgetting. Also, participated in the production of the Final Report.

**While with Knight & Leavitt, Las Vegas**

4/96  **Field Supervisor**, Knight & Leavitt, Las Vegas. Survey and testing for the Las Vegas Resort Access in south Las Vegas. Duties included site relocation, mapping, and identifying areas for test units. Other duties included excavation of test units and probes.

3/96  **Field Supervisor**, Knight & Leavitt, Las Vegas. Survey of the Arden Plaster Area during Argovitz II for prehistorics. Duties included organization, planning, conducting field operations, and preparing maps and figures for the final report.

included navigation, mapping, organization, and site mapping. Other duties included generation of maps and figure for the final report.

2/96  **Field Supervisor**, Knight & Leavitt, Las Vegas.  Survey of about a 30 acres parcel in Jean, NV.  Duties include organization, planning, and executing field operations and the production of the final report.

12/99-1/96  **Field Supervisor**, Knight & Leavitt, Las Vegas.  Surveyed a 17 mile fenceline in the Gold Butte area of the Lake Mead National Recreational Area.  Duties consisted of field operations, site identification, characterization, and IMACS form.

11/95  **Field Supervisor**, Knight & Leavitt, Las Vegas.  Survey of the Volkmar land-transfer in Las Vegas and surrounding areas.  Duties included field preparation, planning, and executing field activities within the city limits.  Also participated in the Final Report.  Other duties consisted of site characterization, photography, IMACS forms, and production of the final report.


10/95  **Field Supervisor**, Knight & Leavitt, Las Vegas.  Survey of Speedway II, duties consisted of surveying over 250 acres, northwestern Las Vegas.

10/95  **Assistant Archaeologist**, Knight & Leavitt, Las Vegas.  Survey of the Railroad Pass area, Southern Nevada, for the Bureau of Reclamation.  Duties consisted of performing a 100% sampling of three large can scatters and filling out IMACS forms.

8/95-10/95  **Assistant Archaeologist**, Knight & Leavitt, Las Vegas.  Survey of the Arden Plaster Mine Project (Argovitz I) in southwestern Las Vegas.  Duties include photography, site recordation and characterization, IMACS forms, library research, 100% can sampling and participation in the final report production.

5/95  **Assistant Archaeologist**, Knight & Leavitt, Las Vegas.  Survey of the Knapp/BIA Golf Course Project in Southern Utah, located on the Shivwits Indian Reservation.  Projects objectives were to identify, photograph, illustrate, and map historic and prehistoric features.

**While With SAIC**
5/95-7/95 **Crew Chief**, SAIC, Boise, pay administered through Volt Staffing Services. Mitigation of multiple historic mining sites on the Kinross/DeLamar Mine Project, southwestern Idaho. Duties include supervising field operations and organization, site surveying, setting grids, selecting units and supervising their excavations. Other duties consisted of extensive photography, mapping, site characterization and IMACS production.

**While With Dames & Moore, Las Vegas**

3/95 **Field Supervisor**, Dames & Moore, Las Vegas. Cultural resource surveys around active military targets on the Nellis Air Force Bombing Ranges. Duties consisted of walking a potential fence line, which would protect tortoises from military ordnance, and identifying cultural sites and diverting the fence in order to protect site integrity.

2/95 **Field Supervisor**, Dames & Moore, Las Vegas. Survey of the Del Webb Corporation/MacDonald Ranch Project in Henderson, Nevada. Responsibilities included field operations and organization, site determinations, and the use of a Global Positioning System (GPS) to plot site locations within the project area. Also, participated in the NRHP determination and the writing of the final report.

12/94-1/95 **Assistant Archaeologist**, Dames & Moore, Las Vegas. Excavation of the Nellis Golf Course expansion project. Duties consisted of setting up grids, test units, and plotting artifact locations with an electronic transit. Other duties consisted of excavating 1x1 units and performing shovel scrape tests.

11/94-1/95 **Assistant Archaeologist**, Dames & Moore, Las Vegas. Survey of the Ithaca portion [Southern Nevada] of the Clark County Regional Flood Control Districts Ten Year Master plan. Project objectives were to survey and test rock shelters, lithic scatters, and historic features. Other tasks were to photograph, illustrate, map, and plot site locations by using a Global Positioning System (GPS). Also, participated in the NRHP determination and the writing of the final report.

10/94-1/95 **Assistant Archaeologist**, Dames & Moore, Las Vegas. Survey of the Lone Mountain area for a channel/dike system included in the Clark County Regional Flood Control District's Ten Year Master Plan. Project objectives were to locate cultural resources and map, photograph, illustrate, and plot their exact location with a Global Positioning System (GPS). Also, participated in the NRHP determination and the writing of the final report.
8/94-10/94  **Assistant Archaeologist**, Dames & Moore, Las Vegas. Survey for additions and improvements of several Colorado River Commission water facilities adjacent to the River Mountains in Southern Nevada. Projects objectives where to relocate known sites and map, photograph, describe, and illustrate newly discovered resources. A Global Positioning System was utilized in the recordation process. Also, participation in the NRHP determination of sites and the writing of the final report.

8/94-3/95  **Assistant Archaeologist**, Dames & Moore, Las Vegas. Survey of over 160 historic and prehistoric sites on the Nellis Air Force Base Bombing Ranges. Project objectives where to relocate, re-record and assess the impact of military ordnance on these sites. The recordation included extensive photography, artifact illustrations, and mapping. The use of a Global Positioning System (GPS) was employed to determine the exact location of these sites within Central Nevada. Also, contributed in the writing of the prehistoric portion of the final report.

6/94  **Assistant Archaeologist**, Dames & Moore, Las Vegas. Survey for a C-1 Channel in Bullhead City. Project objectives where to relocate, re-record and assess the impact on sites. The recordation included extensive photography, artifact illustrations, and mapping. The use of a Global Positioning System (GPS) was employed to determine the exact location of previously known sites. Also, contributed in the writing of the final report.

10/92-11/92  **Archaeological Technician**, Dames & Moore, Las Vegas. Survey of the Los Angeles Department of Water and Power transmission line in Southern Nevada. Objectives where to find sites and map their position. Also, probing of sites to assess their NRHP potential.

10/91  **Archaeological Technician**, Dames & Moore, Las Vegas. Survey of the Kern River Gas Transmission Line pump station in vicinity of Goodsprings, Nevada. Objectives where to relocate cultural resources, map their position, and re-record them.

10/91  **Archaeological Technician**, Dames & Moore, Las Vegas. Survey of the Logan Wash for the Clark County Regional Flood Control District near Logandale, NV.

11/91  **Archaeological Technician**, Dames & Moore, Las Vegas. Assisted in the mapping of the terrain around a prehistoric burial along the Kern River Gas Transmission Line in Moapa Valley, Nevada.

**While With P-III Associates**
6/92-8/92  **Archaeological Technician,** P-III Associates, Salt Lake City, Utah.  
Excavation of prehistoric sites, collection of artifacts, photographing and mapping of sites in North-Central Nevada.

7/92  **Archaeological Technician,** P-III Associates, Salt Lake City, Utah.  
Survey and mapping of prehistoric and historic sites on the Immigrant Parcel for the Newmont Gold Company in North-Central Nevada.
ARCHAEOLOGICAL LABORATORY EXPERIENCE:

6/95-7/95  **Laboratory Technician**, SAIC, Boise. Participated in the cataloging, processing, and curational preparation of archaeologically recovered artifacts from the Kinross/De Lamar Data Recovery Project in southwestern Idaho.

12/94-1/95  **Acting Assistant Laboratory Director**, Dames & Moore, Las Vegas. Participated in the cataloging, processing, hydrodynamic dating of limestone flakes, and curational preparation of artifacts recovered during excavation of the Nellis Air Force Base Golf Course Project.

9/91-5/93  **Laboratory Technician**, Dames & Moore, Las Vegas. Participated in the cataloging, processing, and curational preparation of artifacts recovered during a multi-state, archaeological mitigation project. Also participated in macrobotanical, microrefuse analysis, pollen washing of groundstone, and processing of packrat middens.

ENVIRONMENTAL FIELD AND LABORATORY EXPERIENCE

7/97 – 12/07.  **President**
Sims & Associates, formerly KLA Environmental Consulting.
3455 S. Durango Drive, Suite 102; Las Vegas; Nevada 89117. Sims-Bottenberg & Associates and Silver State Analytical Laboratory where Spun off from KLA Environmental Consulting in 2002.

I own and operate a successful environmental consulting firm and manage a team of scientists. Duties include management of project operations for government and private contractors, budgeting, proposals, project planning, client relations, and day to day operations of Sims-Bottenberg & Associates. Additional duties include field operations, report writing, research and development, method development, environmental evaluations of potentially contaminated sites, environmental site assessments, NEPA reports, and marketing efforts. Areas of experience include geological and cultural studies in the Arizona, Nevada, California, Utah Idaho and Hawaii.

I have hands on knowledge of the preparation and analyses of the USEPA (regions IX, IV & V) Contract Laboratory Program Performance Evaluation Materials (PEMs). I have also conducted research and development of USEPA Contract Laboratory Program (CLP) Materials such as interference check samples (ICS). These samples included soil, water, and solids for Superfund, RCRA, and NPDES. Other duties include method development and evaluation of alternate sample preparation methods (microwave digestion) for the EPA’s CLP High Concentration Inorganic Statement of work. I have participated in the re-writing of the EPA’s Low-Medium and Low concentration statements of
work for organic compounds. Other experience includes literature reviews of inorganic methods and method development.

7/97 – 4/2004. **President/Laboratory Director (Sold business in 2004)**
KLA Environmental Consulting & Silver State Analytical Laboratory. I owned and operate a successful environmental consulting firm and manage a team of scientists. Duties include management of project operations for government and private contractors, budgeting, proposals, project planning, client relations, and day to day operations of corporate KLA Environmental Consulting. I also performed geological and cultural studies in the Nevada, California and Arizona. Additional duties include field operations, report writing, research and development, method development, environmental evaluations of potentially contaminated sites, writing environmental assessments, and marketing efforts. Also, management of the soil and analytical laboratories, and all environmental efforts KLA Environmental Consulting, Inc. participates in on a daily bases. I am the liaison between the Clark County Commission and other engineering and consulting firms. This involves presentations and organization of county-wide testing for new chemical product being used. I have excellent operating knowledge of Perkin Elmar ICP-AES, ICP-OES, ICP-MS, GFAA, Flame; Leeman PS200 for CVAA; HP GC-FID/PID/ECD and GC-MS; most wet chemistry methods such as CN, TPO4, Ortho-PO4, MBAS, NO3+NO2, FOGs, TRPH, ISE technology, turbidimetric, gravimetric, and many other USEPA methodologies under RCRA, NPDES, CWA, SDWA, CLP, and SARA.

2/97-3/98 **Scientist**
ICF Kaiser Engineers, 2700 Chandler, Las Vegas, NV 89102
Research and testing of EPA CLP reference materials for EPA SuperFund sites. Duties included operation of GFAA, ICP, Technicon automated cyanide apparatus, cold vapor AA, and IC for the analyses of inorganic samples. I also performed soil classification on sample for use as media in CLP samples. Additionally, I was involved in literature reviews, waste management, and preparation of Quality Assurance Project Plan. Furthermore, I was involved in soil characterization studies and organic sampling and method development and GC-FID, PID, ECD, and GC/MS operations.

I provided technical support for the preparation and analyses of the USEPA Contract Laboratory Program Performance Evaluation Materials (PEMs). I have also conducted research and development of USEPA Contract Laboratory Program (CLP) Materials such as interference check samples (ICS). These samples included soil, water, and solids for Superfund, RCRA, and NPDES. Other duties include method development and evaluation of alternate sample preparation methods (microwave digestion) for the EPA’s CLP High Concentration Inorganic Statement of work. Also, I have participated in the re-writing of the EPA’s Low-Medium and Low concentration statements of work for organic compounds. I have also participated in literature
reviews of inorganic methods and method development. Finally, I have provided support in the analysis of PESs used in the EPAs CLP program for EPA Region IX.

10/96-2/97 **Scientist**
Lockheed Martin Services Group, 980 Kelly Johnson, Las Vegas, NV 89119. Duties included communications between the USEPA and Lockheed-Martin personnel, research and method development for the sampling and analyses of organic compounds. Duties included the use of GC-FID, PID, ECD and GC/MS for the analyses of organic compounds, sample size studies, VOC transport in soils, and literature reviews. Additionally, I was also involved in writing Quality Assurance Project Plans from development to production.

6/96-10/96 **Laboratory Analyst**
Lockheed Environmental Systems & Technologies Co, 975 Kelly Johnson, Las Vegas, NV 89119. I was responsible for the preparation of environmental soil and water samples using wet chemistry digestion techniques for analysis by ICP, ICP Trace, ICP-MS and GFAA. I also analyzed samples using methods for the colorimetric determination of Cr^{6+}, sulfate, phosphate, and dissolved silica, and the analysis of samples for TDS, TSS, pH, turbidity, and percent solids, as well. Also, I have training on the operations of the Perkin-Elmer 5100/4100 GFAA, ICP, and ICP Trace instruments.

GEOCHEMISTRY RELATED POSITIONS

10/95-12/97 **Graduate Research, UNLV.** Soil and water sampling, background research, analyses of analytical data, hydrogeochemical modeling, soil loss, aeolian transport, and storm water runoff. Additional work included TCLP and Total concentration tests by Graphite Furnace Atomic Absorption (GFAA), Inductively Coupled Plasma-Mass Spectrometry (ICP-MS), and planning field activities, organization, assisting in core sampling with a geo-probe, and writing up all data collect for a Masters Thesis.

10/96-2/97 **Scientist, Lockheed Martin.** Researching VOC transport in soils on the Nevada Test Site. Duties include sampling of soils, extraction of VOC’s, and analyses of extract with a GC-MS. Additional duties include researching soil lose by erosion, VOC transportation in soils, sample size for VOCs, and the transport of contamnates due to erosion. Also, writing of related reports, organization, and planning.

10/96 **Research Assistant on Graduate Research Project, UNLV.** Soil sampling and analyses of mine tailings from Three Kids Mine. Analyses involves the identification of VOC’s in slurry ponds located on site. Additional duties include the extraction and preparation of samples for
analyses on GC-MS. Also, participation in planning and advising of project goals.

9/95-11/96. **Graduate Research, UNLV.** Sampling of cyanide contaminated soils from a historic mine site in Nelson, NV. Sample analyses involved the extraction of soils with a distillation apparatus and analyzing extracts for total cyanide.

6/96-10/96 **Laboratory Analyst,** Lockheed Analytical Laboratory; pay administered through SOS Staffing Services. I was responsible for the preparation of environmental soil and water samples using wet chemistry digestion techniques for analysis by ICP, ICP Trace, ICP-MS and GFAA. I also analyzed samples using methods for the colorimetric determination of Cr6+, sulfate, phosphate, and dissolved silica, and the analysis of samples for TDS, TSS, pH, turbidity, and percent solids, as well. Also, I have recently begun training on the operations of the Perkin-Elmer 5100/4100 GFAA, AA, ICP, and ICP Trace instruments.

**BIOLOGICAL RELATED POSITIONS**

6/00-7/00. **Project Manager/ Project Director,** KLA Environmental Consulting, Las Vegas, NV. Tortoise and plant surveys of about 5,000 acres of BLM lands located along I-15 in Mesquite, NV for PBS&J. I was responsible for managing the overall project goals from planning to completion of the final report.

3/00-4/00 **Project Director/Field Tortoise Monitor,** KLA Environmental Consulting, Las Vegas, NV. Performed monitoring and surveying for desert tortoise for a drilling crew for the Anthem Detention Basin located in Henderson, NV for Western Technologies. I was responsible for managing the overall project goals from planning to completion of the final report.

3/99-5/99 **Project Director/Field Tortoise Monitor,** KLA Environmental Consulting, Las Vegas, NV. Performed monitoring and surveying for desert tortoise along Lake Shore Drive for its realignment for the NPS. I was responsible for managing the overall project goals from planning to completion of the final report.

7/98 **Project Director,** KLA Environmental Consulting, Las Vegas. Survey of about a 40 acres of private land located in Boulder City, NV for CH2M HILL (Along Highway 93). Duties included organization, field preparation, planning, writing the final report, and executing field activities within the project area.
6/98  **Project Director/Field Tortoise Monitor**, KLA Environmental Consulting, Las Vegas, NV. Performed monitoring and surveying of 40 acres of privately owned land in Pharump, NV for BBC Engineering. I was responsible for managing the overall project goals from planning to completion of the final report.

6/98  **Project Director/Field Tortoise Monitor**, KLA Environmental Consulting, Las Vegas, NV. Performed monitoring and surveying of 10 acres of privately owned land in SW Las Vegas, NV for ETEC Testing. I was responsible for managing the overall project goals from planning to completion of the final report.

10/95  **Tortoise Monitor**, Knight and Leavitt, Las Vegas, NV. I performed one day of tortoise monitoring at the Lake Las Vegas Wetlands restoration project.

11/94 – 4/95  **Tortoise Monitor**, Dames & Moore, Las Vegas, NV. I performed over 45 day of tortoise monitoring and plant surveys within the Las Vegas valley on multiple project.

**EXPERT WITNESS-TESTIMONY**

**June, 2000 – December 2001**
I was contracted by the Federal Public Defender (Franny Forsman, Esq.) to offer expert testimony in the case “U.S. vs. Gene Moran”. This involved extensive background research into modern metal plating techniques, literature review of all documents such as surveillance, search, and onsite investigations conducted by the LVMPD, FBI, EPA-CID, and the CCSD personnel. Other duties included preparation of a report outlining all documents, procedures, and methods utilized by the investigating authorities. Finally, I was called before the Honorable Phillip Pro to offer expert testimony under oath concerning scientific procedures, methods, analysis, surveillance, and documents generated during the investigation into the illegal dumping of hazardous materials into the CCSD sewer lines.
SELECTED COMPANY REPORTS

Author 2002 to present
Over 1500 Environmental related reports on cellular towers located in NV, CA, UT, AZ, ID, TN, HI, PA, FL, IL, OR, and many other states.
for Sims & Associates.

Author

Author

Co-Author
Cultural resources inventory Performed at Ella Mountain located at Ella Mountain Summit Lincoln County, Nevada. August, 2003 for Sims & Associates.

Co-Author

Co-Author

Author

Author

Author

Contributing Author
A Class III Cultural Resource Inventory for the Palm City C-1 Channel, Clark County, Nevada. February, 1999

Co-Author
A Cultural Resource Inventory for the Western Tributary of the Las Vegas Wash, Clark County, Nevada. May, 1998

Contributing Author
A Class III Inventory of of the Clark County Sanitation District Outfall Project. May, 1999

Contributing Author
A Cultural Resource Inventory of the Kerr-McGee Surface Water Intercept Project. August, 1999

Contributing Author
A Cultural Resource Inventory For Silver State Disposal, Inc.’s Moapa Valley Transfer Site, Clark County, Nevada. November 1999
co-Author


CO- Author.

A Cultural Resource Inventory of a Proposed 17 Mile Fence in the Lake Mead National Recreational Area by the National Park Service.

CO- Author.


CO- Author.

Cultural Resource Inventory of the Volkmar/BLM Lands Offered in Las Vegas and Surrounding Areas (B). On file with the BLM-Las Vegas office. January 1995

Contributing Author

Cultural Resource Inventory of the Arden Plaster Mine for the Argovits Land Transfer in Southwest Las Vegas. On file with the BLM-Las Vegas office. January 1995

CO- Author.

Class III Cultural Resources Inventory of the Del Webb/MacDonald Ranch Project area in Henderson, NV. On file with Dames & Moore-Las Vegas. March 1995

A complete list of reports available upon request.
PROFESSIONAL PUBLICATIONS


Sims, DB, and Anthony Francis, 2009. Historical mining Impacts and Resulting Metal Contamination of Sediments in the Eagle Wash, Nelson, Nevada (USA). Submitted to Environmental Science and Pollution Research


Sims, DB, 2009. Geogenic trace metals and contamination as a result of anthropogenic influences from historical mining in the Carnation Wash system, Nelson, Nevada (USA). Submitted to The International Journal of Soils, Sediment and Water


Delesponosa, Paula, Jeanne Munt and Douglas B Sims

Cooper, Jason and Douglas B Sims

PRESENTED PAPERS

February, 2007
The Potential Environmental Impacts Associated with Historic Mining and Milling Sites within Nelson, Nevada: A Test Case for Environmental Issues Associated with Historic Mining in Nevada. NWRA Conference, Reno, Nevada

December, 2002
The Environmental Contamination Associated with Historic Mining and Milling Sites within Nelson, Nevada.

March, 2001
Geotechnical chemistry of soil within the Las Vegas Valley. Clark County Building Department.

July, 1998
Preliminary Investigation of a Portion of the Eglington Fault at Craig Road and Fifth Street, North Las Vegas, NV. Nellis Air Force Base, Nevada

August, 1997
The Migration of Arsenic and Lead in surface sediments at Three Kids Mine, Henderson, Nevada. Presented for the completion of my requirements for the Degree of Masters of Science at UNLV.

February, 1996

May, 1995

May, 1995
BUSINESS REFERENCES

Dames & Moore-Las Vegas
4220 Maryland Pkwy
Las Vegas, NV 89119
(702) 798-7800
Out of business

Knight & Leavitt, Inc.
3133 W Post
Las Vegas, NV 89112
(702) 897-2628
Dr. Ken Knight

SAIC
405 S 8th Street, Suite 201
Boise, ID 83702
(208) 344-5001
Loraine

P-III Associates
300 West St.
Salt Lake City, UT
(801) 467-5446
Dr. Schadeal

Lockheed Analytical Services
975 Kelly Johnson Dr.
Las Vegas, NV 89102
(702) 361-1626
Office Closed

Lockheed-Martin
980 Kelly Johnson Dr.
Las Vegas, NV 89102
(702) 897-3258
Office Closed

ICF Kaiser Engineers
2700 Chandler Bldg C
Las Vegas, NV 89102
(702) 895-8713
Office Closed

PERSONAL REFERENCES:

M.H. Nash, Ph.D.
University of Nevada, Las Vegas
(702) 247-9854
Former Professor

Vernon Hodge, Ph.D.
Department of Chemistry
UNLV; Masters Chair
(702) 895-3845

David Kraemer, Ph.D.
Department of Geoscience
University of Nevada, Las Vegas
(702) 895-3011

Matthew L Johnson, J.D.
Matthew L Johnson & Associates
Las Vegas, NV
(702) 471-0065
The Client proposes to install antennas on a new 180 foot self supportive telecommunication tower on developed lands for the purpose of a PCS site. The site where this undertaking is planned is 75 feet by 75 feet leased area located in agricultural fields at 712 West Mile 12 North. Mile 12 North is a maintained road and therefore, no grading will be required. Power and telecommunication will be from existing facilities with 302 feet long by 3 feet deep trench running from the lease property to Mile 12 Road. This property is heavily impacted from agricultural/grassing activities.
Sims & Associates LLC made notification through the FCC Tower Construction Notification System or TCNS (TCNS ID #60403). The TCNS identified one (1) Federally Recognized Tribe/Group (see below) that may be interested in participating in the Section 106 review process in the County/State where the undertaking will occur. Any Tribes/Groups listed on the TCNS system will receive a notification by the TCNS and US Mail notification by Sims & Associates LLC within 14 days of filing with the TCNS. Any group requesting to be involved in the Section 106 process will be given a copy of this submission packet and will be provided an opportunity to comment on the proposed undertaking.

Tribal Involvement
TCNS ID 60403 – Initial Contact February 8, 2010

<table>
<thead>
<tr>
<th>Native American Group</th>
<th>Second Tribal Contact Date</th>
<th>Response Received from Tribe</th>
<th>Date Referred to FCC</th>
<th>Cleared</th>
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<tbody>
<tr>
<td>Absentee-Shawnee Tribe of Indians of OK</td>
<td>2/18/2010</td>
<td>If no response is received within 30 days from TCNS notification, tribe has no interest in project.</td>
<td>NA</td>
<td>pending</td>
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<tr>
<td>Tuscarora Nation</td>
<td>2/18/2010</td>
<td>If no response is received within 30 days from TCNS notification, tribe has no interest in project.</td>
<td>NA</td>
<td>pending</td>
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<tr>
<td>Keweenaw Bay Indians Community</td>
<td>2/18/2010</td>
<td>If no response is received within 30 days from TCNS notification, tribe has no interest in project.</td>
<td>NA</td>
<td>Pending</td>
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<tr>
<td>Seneca Cayuga Tribe of OK</td>
<td>2/18/2010</td>
<td>If no response is received within 30 days from TCNS notification, tribe has no interest in project.</td>
<td>NA</td>
<td>Pending</td>
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<tr>
<td>Eastern Shawnee Tribe of OK</td>
<td>2/18/2010</td>
<td>If no response is received within 30 days from TCNS notification, tribe has no interest in project.</td>
<td>NA</td>
<td>Pending</td>
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<tr>
<td>Wyandotte Nation</td>
<td>2/18/2010</td>
<td>If no response is received within 30 days from TCNS notification, tribe has no interest in project.</td>
<td>NA</td>
<td>Pending</td>
</tr>
<tr>
<td>Shawnee Tribe</td>
<td>NA</td>
<td>Requested Additional Information 5/16/09</td>
<td></td>
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<td>Catawba Indian Nation</td>
<td>NA</td>
<td>Requested Additional Information 5/16/09</td>
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**NOTE:** All tribal responses can be found in this section.
### Notification Information

<table>
<thead>
<tr>
<th>Notification Submitted:</th>
<th>02/08/2010</th>
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<tbody>
<tr>
<td>Notice of Organizations Email/Letter Sent:</td>
<td>02/12/2010 [PDF]</td>
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### Notifier Information

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<tr>
<th>Tower Owner Individual:</th>
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<tr>
<td>Tower Owner Entity:</td>
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<tr>
<td>Consultant:</td>
<td>Douglas B Sims</td>
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<tr>
<td>PO Box:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>201 South Lakeline Blvd.</td>
</tr>
<tr>
<td>City:</td>
<td>Cedar Park</td>
</tr>
<tr>
<td>State:</td>
<td>TX</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>78613</td>
</tr>
<tr>
<td>Phone:</td>
<td>512-809-5094</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:doug@simsassociates.net">doug@simsassociates.net</a></td>
</tr>
</tbody>
</table>

### Structure Data

<table>
<thead>
<tr>
<th>Structure Type:</th>
<th>POLE - Any type of Pole</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAD83 Latitude:</td>
<td>26° 13' 35.8&quot; N(+)</td>
</tr>
<tr>
<td>NAD83 Longitude:</td>
<td>97° 59' 55.5&quot; W(-)</td>
</tr>
<tr>
<td>Address or Geographical Location Description:</td>
<td>712 West Mile 12 North</td>
</tr>
<tr>
<td>City:</td>
<td>Weslaco</td>
</tr>
<tr>
<td>State:</td>
<td>TX</td>
</tr>
<tr>
<td>County:</td>
<td>HIDALGO</td>
</tr>
<tr>
<td>Ground Elevation:</td>
<td>21.3 meters</td>
</tr>
<tr>
<td>Support Structure Height:</td>
<td>50.3 meters above ground level</td>
</tr>
<tr>
<td>Overall Structure Height:</td>
<td>50.3 meters above ground level</td>
</tr>
<tr>
<td>Overall Height Above Mean Sea Level:</td>
<td>71.6 meters</td>
</tr>
</tbody>
</table>
ATTACHMENT-4

The Local Government will be contacted by letter concerning this project.
Sprint/Nextel proposes to construct a wireless telephone tower at 712 West Mile 12 North, Weslaco, TX 78596. This will be a new construction of a 180 foot tower on previously disturbed land. Questions or comments regarding this facility should be directed to Fax Number 512-506-9351.
There are no additional parties consulted with concerning this project.
The APE for direct effects is limited to the site of the proposed tower and surrounding easements, as described in the Nationwide Programmatic Agreement (NPA –WT Docket No. 03-128; FCC-222). For this particular undertaking the area of disturbance would include the proposed existing building.

The visual effect for this co-located facility is the area which the proposed action will be visible. The area otherwise noted, the area of potential effect for visual is as described in the NPA:

1. Towers less than 200 feet height; the APE is ½ mile in radius from the proposed structure.

2. Towers greater than 200 feet but less than 400 feet in height; the APE is ¾ of a mile from the proposed structure.

3. Towers greater than 400 feet in height; the APE is 1 ½ miles from the proposed structure.

This project is a co-location on an existing tower with a height of 180 feet and will fall under the ½ mile visual effect.
Historic Properties Identified in the APE for visual effect

The following sources and records were reviewed to identify historic properties within the APE for visual effect:

1. Properties listed in the NRHP database.
2. Properties formally determined eligible for the NRHP.
3. Properties that the SHPO/THPO certifies are in the process of being nominated to the NRHP.
4. Properties previously determined eligible as part of the consensus determination of eligibility between the SHPO/THPO and the federal Agency or Local governmental representative in HUD.
5. Properties listed in the SHPO/THPO inventory that the SHPO/THPO has previously evaluated and found to meet the NRHP Criteria and that are identified accordingly in the SHPO/THPO inventory.
6. Properties/sites listed with the State of Texas Historical Commission.

There were no sites found in any of the above sources that are within the APE of this undertaking.
1. Historic properties listed in the Attachment 8 that are within the APE for direct effect:

   No Historic properties were identified in Attachment 8 that are within the APE for Direct effect.

2. Historic properties within the APE for Direct Effects identified through comments of Natives Peoples, local government or members of the public that Sims & Associates – LLC considers to be eligible for listing in the NRHP.

   No historic properties were identified in the APE for direct effects through the comments of native peoples, local government or members of the public.
1. **Evaluation of proposed undertaking**

Sims & Associates – LLC believes that the proposed undertaking will have no effect on any historic properties as defined by the NPA of March, 2005. Therefore, we recommend a “No Effect” for the proposed undertaking.

2. **Correspondence or oral communication with SHPO/THPO**

As of the date of this document, we have had no additional correspondence with the SHPO, regarding the proposed undertaking.

3. **Alternative to avoid, minimize or mitigate any adverse effects**

Not applicable
ATTACHMENT-12

Site Location Map
Client: MDL
Report No.: 15631
County: Hidalgo, TX
Source: USGS Mercedes, 7.5' Map
1: 24,000 2002
APPENDIX D-3

US Fish and Wildlife Service National Wetland Inventory Map

&

FEMA FIRM Map
This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.
APPENDIX D-4

Native American/Hawaiian Consultation (TCNS)
## Notification Information

<table>
<thead>
<tr>
<th>Notification Submitted:</th>
<th>02/08/2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice of Organizations Email/Letter Sent:</td>
<td>02/12/2010 <a href="#">PDF</a></td>
</tr>
</tbody>
</table>

## Notifier Information

<table>
<thead>
<tr>
<th>Tower Owner Individual:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tower Owner Entity:</td>
<td>Sprint-Nextel</td>
</tr>
<tr>
<td>Consultant:</td>
<td>Douglas B Sims</td>
</tr>
<tr>
<td>PO Box:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>201 South Lakeline Blvd.</td>
</tr>
<tr>
<td>City:</td>
<td>Cedar Park</td>
</tr>
<tr>
<td>State:</td>
<td>TEXAS</td>
</tr>
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</tr>
<tr>
<td>Overall Height Above Mean Sea Level:</td>
<td>71.6 meters</td>
</tr>
</tbody>
</table>
Refer Notification

**Notification ID:** 60403  
**Notification Submitted:** 02/08/2010  
**Notification sent to the Tribe:** 02/10/2010

**Location:** 712 West Mile 12 North, Weslaco, TX

The Tribes/NHOs listed below were initially notified of this proposed tower construction.

**Second Contact Date Information**  
Provide the date of your second contact attempting to obtain a response from each Indian Tribe/NHO about this proposed tower or antenna.

If you made your second contact with all Tribes/NHOs that have not responded on the same date, you may enter that date at the top of the screen below. If you made your second contacts with different Tribes/NHOs on different dates, you must enter the appropriate date for each Tribe/NHO that you select.

**Select the Tribes/NHOs who have not responded**

<table>
<thead>
<tr>
<th>Tribe/NHO Name</th>
<th>Comment</th>
<th>Second Contact Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comanche Nation</td>
<td>Does not review projects that are in previously disturbed areas</td>
<td></td>
</tr>
<tr>
<td>Mescalero Apache Tribe</td>
<td>This Tribe/NHO submitted a response to your notification through TCNS.</td>
<td></td>
</tr>
<tr>
<td>Southern Ute Tribe</td>
<td>The Southern Ute Indian Tribe does NOT need to review proposed structures that are to be placed on pastures that have already been plowed or cultivated</td>
<td></td>
</tr>
<tr>
<td>Tonkawa Tribe</td>
<td>This Tribe/NHO submitted a response to your notification through TCNS.</td>
<td></td>
</tr>
<tr>
<td>Wichita and Affiliated Tribes</td>
<td>This Tribe/NHO has indicated that no response means they have no interest.</td>
<td></td>
</tr>
<tr>
<td>Reply Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reply Date:</td>
<td><strong>02/16/2010</strong></td>
<td></td>
</tr>
<tr>
<td>Name of Replier:</td>
<td><strong>Holly Houghten, Mescalero Apache Tribe</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Message</strong></td>
<td>We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reply Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reply Date:</td>
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<tr>
<td>Name of Replier:</td>
</tr>
<tr>
<td><strong>Message</strong></td>
</tr>
</tbody>
</table>
Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).
1. NAGPRA Coordinator - Neil Cloud - Southern Ute Tribe - Ignacio, CO - electronic mail and regular mail
Details: Under the following 6 conditions, the Southern Ute Indian Tribe does not need to review the proposed tower:

The Southern Ute Indian Tribe does NOT need to review proposed extensions to increase the height of already existing towers.

The Southern Ute Indian Tribe does NOT need to review proposed collocations on already existing towers.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are to be placed on rooftops.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are within a city's limits, if the proposed structure is to be located on a disturbed road that has already been gravelled.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are to be placed on pastures that have already been plowed or cultivated.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are merely extensions in height of an already existing structure.

For all other proposed areas, the Southern Ute Indian Tribe DOES NEED a copy of the Form 620. Please send the Form 620 via regular mail and be sure to INCLUDE THE FAX # of the company in order to receive a reply:

Neil B. Cloud, NAGPRA Coordinator, P.O. Box 737, Mail Stop #73, 116 Capote Drive, Ignacio, Colorado 81137

If the applicant/tower builder receives no response from the Southern Ute Indian Tribe within 30 days AFTER YOU HAVE SENT THE FORM 620, including color photographs and resumes, to the Tribe, then the Southern Ute Indian Tribe has no interest in participating in pre-construction review for the site.

2. NAGPRA Assistant - Kelly Glancy - Comanche Nation - Lawton, OK - regular mail
Details: Under the following conditions, the Comanche Tribe does not need to review proposed projects that involve pre-existing above-ground feature additions or modifications: the proposed project is within the city limits, if the proposed structure is to be located on a previously disturbed site that has been previously evaluated.

If the proposed project does not meet the aforementioned conditions, the Comanche Tribe THPO/NAGPRA Office now requires photographs of the proposed site taken from all 4 directions (north, south, east and west). Additionally, we do not require, but request that you provide us with an aerial view of the proposed site whenever possible.

We also now require a written legal description of the proposed site (such as the section, range, township, etc.), and request that you provide us with any existing reports or surveys relating to the proposed site.

Please send these materials to us via regular or express mail, since we require hard copies (not electronic copies). Please
send to: Comanche Nation Office of Historic Preservation, c/o Kelly Glancy - THPO/NAGPRA Assistant, P.O. Box 908, Lawton, OK 73502. Thank you!

Sincerely,
Jimmy Arterberry, THPO/NAGPRA Director

3. TCNS Representative & GAP Technician - Jason Prince - Wichita and Affiliated Tribes - Anadarko, OK - electronic mail and regular mail

If the applicant/tower builder receives no response from the Wichita and Affiliated Tribes within 30 days after notification through TCNS, the Wichita and Affiliated Tribes has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Wichita and Affiliated Tribes in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

4. Tribal Administrator - Joshua Waffle - Tonkawa Tribe - Tonkawa, OK - electronic mail

5. Tribal Historic Preservation Officer - Holly Houghten - Mescalero Apache Tribe - Mescalero, NM - electronic mail and regular mail
Details: We do not wish to review towers that are being placed upon existing buildings.

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None
The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

6. SHPO - Cathie Matthews - Department of Arkansas Heritage - Little Rock, AR - electronic mail

7. Deputy SHPO - Ken Grunewald - Department of Arkansas Heritage - Little Rock, AR - electronic mail

8. SHPO - Bob Blackburn - Oklahoma Historical Society - Oklahoma City, OK - regular mail

9. Historian - Linda Henderson - Texas Historical Commission - Austin, TX - electronic mail

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 02/08/2010
Notification ID: 60403
Tower Owner Individual or Entity Name: Sprint-Nextel
Consultant Name: Douglas Sims
P.O. Box:
Street Address: 201 South Lakeline Blvd.
City: Cedar Park
State: TX
Zip Code: 78613
Phone: 512-809-5094
Email: doug@simsassociates.net
Structure Type: POLE - Any type of Pole
Latitude: 26 deg 13 min 35.8 sec N
Longitude: 97 deg 59 min 55.5 sec W
Location Description: 712 West Mile 12 North
City: Weslaco
State: TEXAS
County: HIDALGO
Letter to Sprint-Nextel Douglas B Sims
Date: 02/12/2010
Page 5

Ground Elevation: 21.3 meters
Support Structure: 50.3 meters above ground level
Overall Structure: 50.3 meters above ground level
Overall Height AMSL: 71.6 meters above sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC’s website at:


You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,
Federal Communications Commission
APPENDIX E

Qualifications of Personnel
RACHAEL BLAIR

Professional Experience

SIMS & ASSOCIATES, LLC
[Full-service environmental consulting firm specializing in environmental services]
201 Lakeline Blvd Suite 102  Cedar Park, TX 78613  Phone: (512) 996-9299

Biologist, 6/09 to Present
I conducted a variety of comprehensive research and conservation programs. I provided information to clients and agencies concerning findings from field surveys and literature reviews. I also communicated with and provided assistance to federal and state agencies regarding avian and bat nesting and stranding. My responsibilities included: conducting bird and bat nesting surveys, biological monitoring; implementing field research and management protocol for threatened and endangered species; communications with a variety of state and federal agencies; coordinating travel for all projects; coordinating training for employees and clients working on projects sites concerning T&E, Birds and bats and the associated bird strikes with towers.

- Perform site assessments and write informal biological assessments in HI, TX, PA, CA, WA, NV, TN and other states.
- Perform database searches for endangered species in specific regions.
- Review avian (birds) and bat populations in specific regions in regards to tower location.
- Communicate with regional staff of the USFW service concerning T&E, critical habitats, birds, bats and plant species that may or may not be within the APE of a project site.
- Biological inventories of T&E and critical habitats in HI, TX, CA, PA, FL, TN, WA, AZ, WA, and many other states nationwide
- Identify plant and animal species at proposed project sites.
- Provide review and comment on NEPA documents and their associated reports.

NATIONAL PARK SERVICE
Padre Island National Seashore
20301 Park Road 22  Corpus Christi, TX 78418  Phone: (361) 949-8173

Biological Science Technician 2/04 to 1/09
As a biological technician for the Division of Sea Turtle Science and Recovery, I conducted a variety of comprehensive sea turtle research and conservation programs. I provided information to visitors, volunteers and staff on a daily basis. I also communicated with and provided assistance to federal, state, and non-profit groups regarding sea turtle nesting and stranding. My responsibilities included: conducting sea turtle nesting and stranding monitoring; implementing field research and management protocol for threatened and endangered sea turtles; communications with a variety of state, federal, and non-profit groups; coordinating travel for all division employees; coordinating training for volunteers and seasonal employees, and representing division on Employee Safety Committee.

- Served as a crew leader for 24 seasonal employees.
- Coordinated logistics for patrol coverage for all staff and volunteers.
- Coordinated egg transportation for all sea turtles found in Texas
- Responded to and confirmed reports of sea turtle nests from visitors, volunteers, and staff.
- Independently and successfully located, protected, transported, and incubated threatened and endangered sea turtle nests and eggs.
- Contacted state partners and update with nesting activity.
- Collected blood from nesting turtles.
- Attached satellite transmitters to nesting turtles.
- Downloaded and analyze sea turtle satellite data locations for GIS mapping
- Conducted nesting and stranding patrols in trucks, SUV’s, ATV’s, and UTV’s.
- Documented sea turtle strandings, photographed, and recorded biological data.
- Assisted in performing sea turtle necropsies.
- Monitored and controlled temperature for incubating sea turtle eggs using temp scan program.
- Dissected unhatched sea turtle sea turtle embryos, determined developmental stage, and removed gonads for sex determination.
- Trained over 20 seasonal staff and 100 volunteers each year.
- Delivered training in species identification of sea turtle nests and tracks.
- Delivered training in scanning for pit and magnetic tags.
- Delivered training on how to excavate and transport sea turtle eggs.
- Provided training to visiting researchers, biologists, and partners on nest detection and tagging.
- Provided interpretive programs on sea turtle history and biology to park visitors and local civic groups.
- Provided public outreach awareness in detection of nesting sea turtles, tracks, nests, and hatchlings.
- Provided information to visitors on local flora and fauna, park safety, rules, and regulations.
- Assisted in writing technical and scientific documents.

U.S. GEOLOGICAL SURVEY
Padre Island National Seashore
20301 Park Road 22 • Corpus Christi, TX 78418 • Phone: (361) 949-8173

- Monitored beaches via ATV for nesting and stranded sea turtles.
- Identified tracks and turtles to species level.
- Tagged and measured nesting female turtles.
- Assisted in attaching satellite transmitters for tracking sea turtle movement.
- Transported sea turtles and sea turtle eggs.
- Assisted volunteers and educated public on sea turtle conservation issues.

U.S. FISH AND WILDLIFE SERVICE
Eastern Massachusetts National Wildlife Refuge Complex
73 Weir Hill Road • Sudbury, MA 01776 • Phone: (978)443-4661 x 24

- Raised endangered northern red-bellied cooters as part of a "Headstart" program.
- Sampled vernal pools for amphibian egg masses and aquatic fauna.
- Measured, tagged, and aged horseshoe crabs.
- Identified New England anurans by call.
- Monitored nesting activity of piping plovers, common terns, and roseate terns. Hawaii Volcanoes National Park
- Identified and mist netted for shorebirds and conducted marsh bird surveys.
- Conducted vegetation surveys and mapped locations using GIS.
- Operated and maintained 4x4 wheel drive vehicle.

NATIONAL PARK SERVICE
Hawaii Volcanoes National Park
Hawaii National Park, HI 96718 • Phone (808) 985-6000

- Monitored and excavated nests as part of the hawksbill sea turtle monitoring program.
- Measured and tagged nesting females.
- Assisted weak and injured hatchlings.
- Identified local flora and fauna at nesting beaches.
- Educated public on sea turtle conservation issues.
- Maintained database using Microsoft Excel.
- Hiked long distances in hot and humid conditions carrying 40-50 pound backpack.
- Operated and maintained 4-wheel drive vehicle.
EDUCATION

LEWIS AND CLARK COLLEGE
0615 SW Palatine Hill Road
Portland, OR 97219
B.A. Biology, 4/2000
Advisor: Ken Clifton

PORTLAND STATE UNIVERSITY
1825 SW Broadway
Portland OR 97207
Stream and River Ecology Course
9/01-12/01

TRAINING AND AWARDS

- Department of Interior, National Park Service Star Award (2004)
- Department of Interior, National Park Service Star Award (2005)
- Department of Interior, National Park Service Star Award (2007)
- Department of Interior, National Park Service Star Award (2008)
- Completed QuickTime WebEx training, 2008
- Department of Interior Ethics Training, 2008
- Sexual Harassment Prevention Training, 2008
- Government Charge card holder training, 2008
Darrell Echols  
Deputy Superintendent  
Cape Hatteras National Seashore  
(252) 473-2111 (x148)  
darrell_echols@nps.gov  

Mike Ray  
Director of Coastal Fisheries Program  
Texas Parks and Wildlife Department  
(512) 389-4800  
mike.ray@tpwd.state.tx.us  

Donna J. Shaver, Ph.D.  
Chief, Division of Sea Turtle Science and Recovery  
Padre Island National Seashore  
(361) 949-8173 (x226)  
donna_shaver@nps.gov
SIMS & ASSOCIATES, LLC (previously Sims-Bottenberg & Associates)

[Full-service environmental consulting firm specializing in environmental services]

2100 Milan Drive ■ Cedar Park, TX ■ Phone: (512) 809-5094

Managing Partner, 6/97 to Present

Salary: $XXX +/yr ■ Hours per week: 50+ ■ Supervisor: Self-employed

Founded and grew consulting organization, managing all fiscal, administrative, project, business development, and HR aspects of daily operations and client engagements. Retained by city, county and federal government agencies (e.g., DoD, BOR, BLM, NPS, EPA, Clark County, City of Henderson, Boulder City, City of Las Vegas) as well as large engineering firms (e.g., Converse Consultant, PBS&J, CH2M Hill, BMI, AT&T, Verizon, Sprint, Cingular) to provide expert environmental consulting and full-phase project management on an array of cultural, water resources, environmental services, ESA, EA, NEPA, CEQA and site survey projects. Supervise field scientists teams (up to 12 personnel per project with a total of 34 field, office and professionals at one time) and interact extensively with various governmental agencies (e.g., EPA, BOR, BLM) to ensure the successful, safe, and compliant completion of all assignments. Key Results:

- Built business from startup into a viable entity (with a profit margin average of 33% on all client engagements).
- Excelling in marshalling client resources; developing cohesive, top-performing teams of in-house and client personnel; and driving large-scale projects to successful, timely completion in fast-paced, deadline-critical environments.
- Successfully directed multiple large-scale field, laboratory, surface surveys, cultural resource and biological inventories, and environmental compliance work through Arizona, California, Idaho, Hawaii, Nevada and Utah.
- Led hundreds of environmental evaluations of potentially contaminated sites, overseeing in-depth investigative research (both design and execution), field operations, report writing, method development, site assessments, and safe transport of HAZMAT waste/soil samples.
- Ensured the environmental soundness and absence of harmful impacts to human life and endangered animal/plant species of proposed construction projects, water intercept projects, outfall projects, well water projects, landfill expansions, mountaintop microwave facility placements, and cemeteries throughout Nevada as project lead and field director on numerous site surveys of BOR, BLM, DoD, county sanitation district, and private lands.
- Completed comprehensive literature reviews and field surveys on government-owned land and Native-American reservations (parcels of up to 10,000 acres) to identify potential historical/prehistoric sites.
- Performed over 500 historic and prehistoric field surveys of properties to determine archeological significance, including field preparation/organization/planning, site determination, execution of field activities, and production of final reports summarizing findings.
- Earned a reputation for expert analytical and project management skills, optimal service levels, high-quality deliverables, and superior ethics/integrity. As a result, captured a client base comprised almost entirely of repeat/referral business and achieved local market dominance in the industry.
- I was contracted by the Federal Public Defender (Franny Forsman, Esq.) to offer expert testimony in the case “U.S. vs. Gene Moran”. This involved extensive background research into modern metal plating techniques, literature review of all documents such as surveillance, search, and onsite investigations conducted by the LVMPD, FBI, EPA-CID, and the CCSD personnel. Other duties included preparation of a report outlining all documents, procedures, and methods utilized by the investigating authorities. Finally, I was called before the Honorable Phillip Pro to offer expert testimony under oath concerning scientific procedures, methods, analysis, surveillance, and documents generated during the investigation into the illegal dumping of hazardous materials into the CCSD sewer lines.
- Currently/previosuly permitted Archaeologist in the states of NV, UT, TX, HI, AZ, CA, PA, TN
TEACHING EXPERIENCE

Nevada State College
Department of Environmental & Resource Sciences
1125 Nevada State Drive ▪ Henderson, NV 89002 ▪ (702) 992-2000
Supervisor: Dr. Edwin Price
Adjunct Faculty-Instructor

Courses Taught at Nevada State College
Introduction to Geology – Hydrology - Environmental Pollution - Toxicology
Environmental Science - Environmental Measurement & Analysis

Concordia University-Texas
Department of Environmental Sciences
11400 Concordia university drive ▪ Austin, TX 78726 ▪ (512) 313- 3000
Supervisor: Dr. James Stevenson
Adjunct Faculty-Instructor

Courses Taught at Nevada State College
Environmental Writing and Compliance

EDUCATION

KINGSTON UNIVERSITY, LONDON, ENGLAND
(Transferred from University of Bradford, Bradford, England)
School of Earth Sciences and Geography
Penrhyn Road
Kingston upon Thames
Surrey KT1 2EE
Ph.D. Student in Environmental Sciences, 4/05 to Present
Advisor: Peter Hooda, Ph.D.
+44 020 8547 8155

UNIVERSITY OF NV - LAS VEGAS — Las Vegas, NV
4505 Maryland Parkway ▪ Las Vegas, NV 89154

M.S. in Water Resources Management, Minor in Soil Chemistry, 12/97
Department of Geosciences-Water Resources Management
GPA: 3.63 ▪ Activities: Worked full-time concurrent with degree program studies

B.A. in Anthropology, Minor in Archaeology, 5/95
Department of Anthropology
GPA: 2.73 Activities: Anthropological Society Treasurer; Asst. Editor of UNLV-1994 Journal of Anthropology; Worked full-time

Sims, DB, and Anthony Francis, 2009. Historical mining Impacts and Resulting Metal Contamination of Sediments in the Eagle Wash, Nelson, Nevada (USA). Submitted to Environmental Science and Pollution Research

Sims, DB, 2009. Trace metals and element contamination as a result of anthropogenic influences from historical mining in eagle wash, Nelson, Nevada (USA). Submitted to Mine Water and the Environment

Sims, DB, 2009. Geogenic trace metals and contamination as a result of anthropogenic influences from historical mining in the Carnation Wash system, Nelson, Nevada (USA). Submitted to The International Journal of Soils, Sediment and Water


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**PUBLIC SPEAKING**

- A preliminary investigation into the Paleoclimatic Changes at Ivanpah dry lake, University of Bradford, England 2006
- “Geotechnical Chemistry of Soil within the Las Vegas Valley,” Clark County Building Department. (Las Vegas, NV), 2001
ROGER W. LEE, PH.D.

Professional Experience

SIMS & ASSOCIATES, LLC
[Full-service environmental consulting firm specializing in environmental services]
Principal/Consulting Scientist, 6/09 to Present

EDUCATION:

USGS Graduate Training Program
University of Texas Ph.D. 1996
Geochemistry and Hydrology (36 sem hrs)

Texas Tech University, M.S.
Geosciences 8/75 (32 sem hrs)

Texas Tech University, B.S.
Chemistry and Mathematics 8/69
(130 sem hrs)

Georgia Tech University (8 sem hrs.)
Graduate Geosciences 1/82 to 12/83

University of Houston (12 sem hrs.)
Graduate Chemistry and Geology
9/71 to 1/72

LANGUAGES: Spanish (some reading, speaking ability); German (reading).

AWARDS AND HONORS: Sigma Gamma Epsilon, 1974; USGS Special Achievement Award, 1986; USGS Special Achievement Award, 1988; Adjunct Professor Appointment, 1989-93, University of Texas School of Public Health; USGS Graduate School Program, 1989-90; USGS Special Achievement Award 1992; Cash Award; Special Achievement, 1993, STAR Cash Award, 2000, 2002, 2003, Raving Fan Award from Chesapeake Resources, 2008.

PROFESSIONAL SOCIETIES: American Geophysical Union, National Ground Water Association.

RECENT ENVIRONMENTAL EXPERIENCE

Since Nov. 2006, I have been a Senior Consultant with ERM in Austin, TX. In that role, I have led technical investigation teams in a variety of site investigation and remediation activities, from aqueous geochemical and hydrogeological modeling of ground water and contaminated aquifers, to environmental audits and expert testimony for confidential clients. I have been a key environmental scientist for more than 10 site investigations and remediations at contaminated sites in industrial, manufacturing, mining, and oil and gas
sectors, including three Superfund sites, and one large mining site in Washington. I also am leading an effort funded by US Geological Survey to develop and produce a web based e-learning course in Water Quality Principles. I have been a technical expert in four litigation support actions, providing chemical and hydrogeological expertise, including 3 depositions and one court testimony. I have provided geochemical and transport modeling of contaminants for more than 6 contaminated sites. I was also a key member of a team that prepared a manual for arsenic at petroleum contaminated sites for the American Petroleum Institute. I have written more than 20 proposals that have resulted in more than $200,000 in project wins in the last 2 years, although sales are not my principal activity at ERM. Presently I have several proposals and provide technical support for project chase teams pursuing projects totaling potentially more than $7 million. Sites I have worked on are client-privileged and cannot be listed on this resume'.

In the last 20 years of my 30 years with the US Geological Survey, my work experience transformed from research aqueous geochemistry to environmental geochemistry and hydrogeology. Even more recently, I served seven years as technical support and USGS/EPA liaison for Region 6 Superfund in Dallas, TX. Part of my activities included meeting with other Department of Interior trustees to assist with Natural Resources Damages Assessments in conjunction with Superfund sites. My work focused on three principal areas of environmental work and technical support to the Superfund program in Region 6 as described below.

**Field Oversight Activities**

My specific expertise is in aqueous geochemistry and hydrogeology, where I have conducted research and field investigations with USGS. My long experience in collection of water samples has been used for oversight and review of sampling programs proposed by USGS and by contractors for EPA at Superfund sites. I have significant experience at USGS and applications at EPA in isotope hydrology. I have been the principle technical adviser to EPA Region 6 on monitored natural attenuation remedies. Most of my work has been with ground water and I have worked on many projects overseeing temporary and permanent well installations in both unconsolidated sediments and hard rock aquifers employing a variety of drilling and direct push technologies. My knowledge of and experience with gas chromatography have been used on contaminated sites to delineate plumes of BTEX, chlorinated solvents, and naphthalene (creosote). I also used field gas chromatography to analyze soil vapor and ground water to determine the location of VOCs in shallow ground water at 2 industrial sites in Tennessee, 1 U.S. military site at Diego Garcia, British Indian Ocean Territories, 3 military sites in Texas, and 1 industrial site in New York near Niagara Falls. I have listed below various Superfund sites where I have been the principal for technical support in field and methods applications--

Sol Lynn, TX-Sampling, monitored natural attenuation parameters, dynamic field work using CPT & in situ analyzers, field analyses of soil vapor for Vinyl chloride; GCVMS & DL Mud, LA—improved field sampling methods to overcome years of poor quality data gathered by consultants for a PRP; Perryton, TX—applied novel methods of nitrogen isotopes & cultural chemicals in water to determine source of nitrate contamination; Griggs
& Walnut, NM—oversight of soil gas sampling for PCE; Grants, NM—oversight of field sampling for monitored natural attenuation and soil gas sampling to support geoprobe plume delineation; Molycorp, NM—application of field method of radon analyses in streams and springs of the Red River, NM to determine the magnitude of ground water discharge; N. Cavalcade, TX—field gas chromatography to support geoprobe delineation of BTEX & PAH plume at Creosote site; Brio, TX—Technical support to EPA on remedial action, natural attenuation, and sampling and field analyses for VOCs; Tar Creek—provided field data for geochemistry and groundwater flow directions in flooded mines and reported results leading to a successful method of disposing of waste tailings and rock in the flooded mines.

**Fate & Transport Modeling**

Although I have some hands-on experience with 2 & 3-D fate & transport modeling, I have focused my efforts at USEPA on modeling using 1-D models (centerline) such as **BIOSCREEN, BIOCHLOR, PHREEQ-C, and PHREEQM**, as cost-saving, yet effective approaches to predictive modeling. I have developed models to assess solute transport and to assist in remedy selection at a number of Superfund sites—

I have used **BIOSCREEN**, a 1-D fate and transport model for petroleum products at Ouachita-Nevada, AR for PCP transport at a wood-treating site; at N. Cavalcade, TX to predict transport of naphthalene; at Madisonville, LA to assess effectiveness of a clay layer at inhibiting transport of naphthalene from a shallow contaminated aquifer to a deeper one; at Old Midland, OK to assess transport of PCP & PAHs to evaluate the location of monitoring wells for the remedy.

I have used **BIOCHLOR**, a 1-D fate and transport model for chlorinated solvents (I was a peer reviewer of the latest version of BIOCHLOR) at Sol Lynn, TX to assess contaminant mobility in support of remedy selection and to evaluate natural attenuation and degradation of TCE in ground water; at Grants, NM to assess natural attenuation of PCE from dry cleaners; at Brio, TX to assess natural attenuation of a mixed chlorinated solvents plume, and two client privileged sites in the U.S.

I have used **PHREEQ-C**, a 1D reaction coupled transport model at a client-privileged site in Washington to determine sludge accumulation, reaction rates, and neutralization chemistry of acid rock drainage before pilot studies and remedial actions; also at Delatte, LA to determine fate and transport of dissolved lead in a shallow sand aquifer to determine an appropriate remedy for the site; at Central Wood, LA with David Parkhurst, the creator of the model code, to model transport of chromium and cadmium; at Tar Creek, OK with David Parkhurst and Weston Solutions, Inc. to evaluate chemical reactions that might occur when waste lead-ore rock is emplaced in water-filled mine rooms; at Mass. Military Reservation, Cape Cod, MA, I used PHREEQ to model transport of iron and manganese in ground water. I have applied most of the principal aqueous geochemical modeling software WATEQF, PHREEQE, NETPATH, PHREEQ-C to various projects with USGS, EPA, and ERM.
Technical Review and Professional Activities

I have provided technical review and technical assistance with planning of all phases of EPA Superfund actions (more than 70 sites) with consulting firms, especially Remedial Investigations/Feasibility Studies, Remedial design, Remedial Actions, and five-year reviews of active Superfund sites. I have also provided colleague reviews for USGS and numerous peer reviews for papers in scientific journals. I have coordinated and lectured in a USGS course on Water Quality Principles, for the last 15 years. I have chaired various technical sessions at national conferences, including organizing a technical session on EPA’s Formerly Used Defense Sites (FUDS) at the joint USGS-Dept. of Defense conference in 2004, and creating and chairing a technical session on wood-treating sites at the Battelle Conference on Recalcitrant Compounds in 2000. I led a United Nations technical team to provide technical support to a coal mining project in Xi’an, People’s Republic of China in 1994.

PROFESSIONAL EXPERIENCE

- USGS/USEPA liaison and technical support in water chemistry and hydrogeology, at Superfund Sites, Region 6, Dallas, TX 7/1998-present, GS-14 (40HRS/WK)


  Assisted teaching and coordination of a field hydrogeology class for University of Texas, Austin, at the Carswell AFB Phytoremediation Site, Ft. Worth, Texas, 2002.

  Coordinator for Water-Quality Principles Course National Training Center, 2000-01; Instructor, USGS, 1993-2004. I taught this course with colleagues in 2002 in the United Arab Emirates to staff of the National Drilling Company.

  I lectured students and faculty of the Technical University in Delft, the Netherlands on environmental research and remedies at Superfund sites in the United States, 2002.

  Two lectures to regional audiences at a joint seminar by USGS/USEPA on chemistry of natural attenuation processes of organic contaminants in ground water, 1999-2000.

  Liaison for USGS to Department of Interior trustee agencies and USEPA for environmental cleanup issues involving trustees and their assessments of natural resource damages pursuant to NRDA actions, continuing.
Project development with EPA and USGS NAWQA reconstructed trends team to study contaminants in Caddo Lake, Texas, 2002-2004.

Development and coordination of USGS mapping, GIS, and hydrology applications to USEPA emergency response planning, liaison assigned from NMD to EPA, 2001.

Session Chairman for a session on "Remediation of Former Wood-Treating Sites" at the International Conference on Recalcitrant Compounds in the Environment, Battelle Conference, Monterey, California, 2000.

Development and coordination of USGS Biological Resources Division and USEPA Superfund for ecological toxicity investigation in the Calcasieu estuary, Louisiana.

Applications of surface and borehole geophysical methods to Superfund site investigations to delineate subsurface lithologies and locate non-aqueous phase liquid contaminants, ongoing.

Application of monitored natural attenuation methods and geochemical fate and transport models for metals and organic contaminants to remedial investigations at EPA Superfund sites.

  Lloyd Woosley, Supervisor, USGS-WRD
  8027 Exchange Dr
  Austin, TX 78754
  512-927-3543

USGS Merit project development (applied research) in Texas (1992) and New Mexico (1993).

- Research Papers for USGS Cape Cod research (1994).

Coordinator for Water-Quality Principles Course 1994-present

United Nations’ Coordinator for technical support to Chinese Scientists for a project studying deep coal mine failures from ground-water pressure, 1996-1997.


Chief Technical Advisor for United Nations Development Program to a Coal Research project in China.
Project Chief for Phytoremediation Research, Rio Grande trace metals in sediment, Brio Superfund site investigation, Dallas NWIRP Superfund site

Consulting and assistance to USGS Michigan Regional Aquifer Study (1991-93).


Blue-ribbon panel review of hydrogeologic studies at Los Alamos, New Mexico, 1993


Consulting and assistance to Offices of Ground Water and Water Quality, USGS American Institute of Hydrology, National meeting, 1994, session chair, planning committee and workshop coordinator.

- University of Texas, Austin, TX Graduate Training, 9/89-9/90, Ph.D., 12/96, Philip Bennett, Advisor

- Tennessee District Research Geochemist, Nashville, TN1986-89 GS-13, (40HRS/WK) Fred Quinones, Supervisor (ret.)

  Completed two projects in volatile organic compounds in soil vapor, geochemical modeling in Oak Ridge, Tennessee.

  Geochemistry in Cape Cod, MA shallow ground water.

  Acting Investigations Section Chief, 8 mos.

  Proposed, developed, and arranged funding for three other cooperative projects.

  Coordinated research project in Puerto Rico with Lamont-Doherty researchers in use of Radon-222 in ground-water surface-water relations.

- CH2M-Hill engineering consultants, 8/85 to 11/85, Milwaukee, WI, staff geochemist, Mike Anglea, Supervisor (ret.), $42,000/yr

  Carried out two projects, consulted to six others, water-quality related issues, project development

- Southeastern Coastal Plain-Regional Aquifer Study, Southeast Region, Atlanta, GA, Geochemist 9/1979-9/86 GS-12, GS-13 in 1983, (40HRS/WK) James Miller, Supervisor (ret.)
Designed, executed, and completed research geochemistry on Regional Aquifer Study

Provided consulting to several Districts in Southeast Region

Conducted regional and national training courses in aqueous geochemistry


- Geochemical analyses of water in coal-bearing sediments, Coal Hydrology Program

- Developed a grant and assisted Montana State University for pioneering research on sulfate-reducing bacteria in coal-bearing aquifers

- Completed sampling of ground water, solid-phase analyses, geochemical modeling, and co-authored interim and final reports on Madison Limestone RASA

- Texas Tech University, graduate teaching & research assistant, Lubbock, TX, 1973-75, (40HRS/WK) Necip Guven, Advisor

- Lubrizol Corporation, Quality Control Chemist, Deer Park, TX 1969-73 $15,000/yr, (40HRS/WK), Lynn James, Supervisor (ret.)

- Texas Tech University, student 1965-1969 and undergraduate organic chemistry lab instructor, (10HRS/WK) 1968

SIGNIFICANT ACHIEVEMENTS

From 1998 to present, I have been among the technical support staff at USEPA, Region 6, Superfund, Dallas, Texas. In addition to providing technical review and support in areas pertaining to water quality, geochemistry, and hydrology, I have acted as a liaison for USGS, all disciplines, matching known USGS resources to EPA needs. I negotiated a standing interagency agreement to provide funding for those identified resources from USGS NRP, GD, and WRD District offices as needed. To date, about 30 such actions have been carried out. I have assisted the development of several larger projects with EPA to the Biological Resources Division, Columbia, Missouri, USGS-WRD, Texas District Office, and USGS-NMD, Rocky Mountain Mapping Center, Denver, Colorado. I have worked on or reviewed work on more than 60 Superfund sites in EPA Region 6 since beginning in July 1998. I have also interacted with resource trustees Fish and Wildlife Service, NOAA, BLM, BIA, US Park Service, and USFS as well as several state environmental agencies. During my time at USEPA, I have been able to provide technical assistance as well as negotiate interesting work for my USGS colleagues. Additionally, I have been able to maintain and update my research capabilities by attending pertinent
technical meetings and training for this technical support position. I have worked with National Research Program colleagues in diverse, cutting edge areas such as reactive fate and transport modeling and surface geophysical methods and interpretation as applied to EPA Superfund sites.

From 1990 to 1998, as Texas District Research Geochemist, I worked on the Cape Cod research site and have completed three research papers delineating the geochemistry of the contaminant plume and an overview of the chemical controls on sewage plume solutes at the site, including use of PHREEQM, a one-dimensional reactively coupled fate and transport model applied to manganese transport. I determined that for background chemistry, carbon dioxide variations in recharge caused geochemical inconsistencies in ground water. I was chief technical advisor for the Water Resources Division to a United Nations Development Project in Xi'an, People's Republic of China. I provided technical support and led a technical support mission there in 1995 with Derek Elsworth, Penn State University. The program was highly successful in meeting the Chinese objectives. With scientists at the Hawaii District, I conducted and guided research in the unsaturated zone of a fuel-contaminated fresh-water lens in Diego Garcia, British Indian Oceans Territory. I developed field methods for permanent gas analyses in water and soil gases. I have completed research activities on a merit project in mine spoils geochemistry in Texas. I further led a project to use nitrogen isotope geochemistry in the study of nitrate sources in an urban watershed in Austin. In 1993, Niel Plummer was awarded the O.E. Meinzer award in part for a paper on geochemical modeling of the Madison aquifer that I co-authored.

During 1989-90, I completed 32 graduate class hours (GPA 3.70) at the University of Texas, toward a Ph.D in ground-water geochemistry. I successfully passed the qualifying examination in March 1991, and obtained a Ph.D in 1996.

During 1986-89 in the Tennessee District, I was involved in several research, investigation, and management activities. I directed a Superfund site investigation that included some of the earliest applications of soil gas survey methods for VOC's. We used Radon-222 as a tracer of ground-water discharge to streams, which led to a research paper. In 1988, I was invited to participate in geochemical research at the Cape Cod Toxic Waste Site in order to study sewage contaminant geochemistry. From January 1986-July 1986, I was acting Investigations Section Chief, Tennessee District. I managed a 25-member section that included four RGE staff. I contacted potential cooperators and helped develop programs for our District. During this time, I maintained my status as RGE, and continued as project chief of another Superfund site. As section chief, I recognized the need to improve the District's in-house education program. We used several ongoing field activities for on-the-job training, and established classes throughout the year in ground-water modeling, surveying methods, and geochemistry. I was given a special achievement award in 1988 for my efforts.

During the years 1979-86, I completed the Southeastern Coastal Plain-Regional Aquifer investigation with several publications. Specifically, journal articles in 1985 and 1988 that used flowpath geochemical mass-transfer modeling were breakthrough applications in
Coastal Plain sedimentary aquifers. The work was widely acknowledged and cited, and I received several international requests for reprints, including China, where one of my papers was translated into Chinese. I completed the Professional Paper for the RASA study, and extended the modeling work to include radiocarbon dating in the Coastal Plain aquifers. Final results of flow velocities from radiocarbon dating served to verify the regional hydrologic model flow velocities. During 1985, I directed implementation of a Radon-222 technique to quantify base flow. The project was planned and executed by myself and colleagues at Lamont-Doherty Geological Observatory and the Caribbean District for the Rio Manati, Puerto Rico. A journal article gave method and applications. I taught the method to hydrologists in MN, LA, ID, TN, and SD for application to projects. I further assisted project staff in design and execution of a flow path modeling effort in the North Coast Limestone that resulted in co-authorship of a WRI.

1975-79--I began my duties as geochemist for Montana on the Madison Limestone project and the Powder River Basin Coal Hydrology Study. I presented a paper at the Rocky Mountain Section of GSA on ground-water geochemistry. I completed reports on the shallow ground-water geochemistry of the Powder River basin. I was promoted to GS-11 in April 1978. Work began on the Madison Limestone geochemistry report. Deep drilling and testing of well no. 3 began, and I was responsible for water-sample collection. I completed all District projects and accepted the position of project geochemist on the Southeastern Coastal Plain Regional Aquifer System Analysis, as a GS-12.

1973-75--I enrolled in Texas Tech University Graduate School, Department of Geosciences, as a teaching and research assistant under Dr. Necip Guven. During my 2-year term, I completed work on and published two research papers, presented papers at two regional conferences, and successfully defended my Master's thesis -- Clay-Kerogen Association in Washakie Basin Oil Shales. I began work for the U.S. Geological Survey, Water Resources Division, in late July as a hydrologic field assistant in order to expedite an appointment to a professional position. On November 24, 1975, I became a GS-9 WAE Chemist. In May 1976, I received a full-time rating. My first assignments involved field work on the Fox Hills aquifer in southeastern Montana, then field work and assignment full time to the Fort Union Study in southeastern Montana.

1965-73--I received a B.S. in chemistry from Texas Tech University. I began work for Lubrizol Corporation as a quality-control chemist for lubricants and additives. During my term of employment as a chemist (1969-1973), I attended the University of Houston Graduate School part time and completed 13 hours of course work in chemistry (9) and mineralogy (4).

NONPUBLICATION CONTRIBUTION

From 1986 to 1998, I corresponded with a colleague at Xiangtan Mining College, Hunan, P.R. China. In 1992, I accepted an invitation to visit China as an exchange scientist to lecture on geochemistry and geochemical modeling. I traveled under a government visa as a USGS scientist from July to September 1992 where I delivered about 50 hours of lectures and visited three research facilities in Xiangtan, Xi’an, and Beijing. In 1993, I
hosted my Chinese colleague here in Austin, Texas. We attended one conference and carried out office and field research on some of my projects. From this collaboration, I have established two contacts with ongoing research projects, one of which I expect to participate in the near future. A second project dealing with hydrology and chemistry of acid mine water with the Coal Research Institute in Xi’an is funded by the United Nations Developmental Program. I have been asked to serve as Chief Technical Advisor for the project. The scientists on the project visited the USGS in Denver in early 1993, and I was able to conduct them on a tour of laboratory, research, computer facilities, and District operations of WRD, as well as meeting with interested parties of the Geologic Division and U.S. Bureau of Mines, all under the auspices of the Office of International Hydrology. With the support of Jim Blakey, Regional Hydrologist, CR, we designed a scientific exchange program involving about five USGS scientists and an equal number of Chinese scientists. The program was approved by the International Hydrology Program, and the exchanges of scientists occurred from 1994-95. Financially, the program was supported from the UN Development Program for all parties involved, at virtually no cost to the USGS. I led a two-man delegation (Derek Elsworth, Penn State University) on a two-week advisor trip in April 1995 to provide technical support service in mining engineering, geochemistry, and software support. As a result of my positive experiences in China, I was asked to assist the NAWQA program and the Chief, Pat Leahy, in WRD to develop the cooperative program with China in the paired-basins initiative between the Haihe River Basin in China and the Delmarva NAWQA in the USA. The delegation traveled to China in 1994 to develop the project implementation plan. I helped with the reciprocal visit in 1995 by coordinating the Denver part of the visit. The project implementation plan has been approved and the technical work will should begin in late 1996.

BIBLIOGRAPHY

PUBLISHED REPORTS


I performed some of the earlier work in this area, involving sample collection, deep well testing, chemical mass transfer modeling, and some writing. Niel Plummer received the O.E. Meinzer Award with this paper cited specifically as a contributing factor to his selection.


Huff, G.F., Braun, C.L., and Lee, R.W., 2000, Assessment of potential for natural attenuation of chlorinated ethenes and ethanes in ground water at a petrochemical reclamation site, Harris, County, Texas, USGS WRI-00-4121, 23 p.


ABSTRACTS


Lee, R.W., 1991, Background aqueous chemistry of shallow ground water in a sewage-contaminated glacial outwash aquifer, Cape Cod, Massachusetts, Research on Toxic Substances in Water, Annual Meeting, Monterey, California, published paper.
Lee, R.W., 1992, Background aqueous chemistry of shallow ground water in a glacial outwash aquifer, Cape Cod, Massachusetts, Poster Session, American Geophysical Union National Meeting, San Francisco, CA.


MASTER’S THESIS


DOCTORAL DISSERTATION