NM - 22

MONITORING REPORTS

PROPOSAL

YEAR(S):

JAN. 30, 2001

PROJECT:
INVESTIGATION, CLEANUP AND ENVIRONMENTAL REMEDIATION
OF THE GOODWIN TREATING PLANT

Offeror Name: On-Site Technologies

Project Approach (75): _____

Project Plan (150): _____

Experience:

Proposed project staff experence in oil field cleanup/remediation (150):

_____

Offerors Organizational relevant experience (175): _____

References:

Corporate(75): _____

Staff (75): _____

Cost (300): 191,664.14

Turnkey: _____

Itemized supplemental: _____

Total points : _____

Letter of transmittal - ok
Organization of proposal very complete -

Round 1

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

RESPONSE TO

REQUEST FOR PROPOSAL 10-521-07-04844

INVESTIGATION, CLEANUP AND ENVIRONMENTAL REMEDIATION OF THE GOODWIN TREATING PLANT LOCATED NEAR HOBBS, NEW MEXICO

Prepared for:

State of New Mexico
Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
Ms. Martyne J. Kieling
Designated Procurement Manager
1220 South St. Francis
Santa Fe, New Mexico 87505

January 30, 2001

Prepared by: On Site Technologies Ltd.
P.O. Box 2606, 612 E. Murray Drive
Farmington, New Mexico 87499

Kenneth D. Sinks, Jr., PE

Cynthia A. Sluyter-Gray, CHMM

ORIGINAL

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Letter of Transmittal
EMNRD-OCD New Mexico State Request For Proposals: **RFP 10-521-07-04844**
"INVESTIGATION, CLEANUP AND ENVIRONMENTAL REMEDIATION OF THE GOODWIN TREATING PLANT"

- Submitted by:
  On Site Technologies, Ltd.
  P.O. Box 2606
  612 East Murray Dr.
  Farmington, New Mexico 87499

- Person authorized to contractually obligate On Site Technologies for this project is:
  Robert Metzler
  General Manager
  On Site Technologies, Ltd.
  505-325-5667 office 505-327-1496 fax

- Person authorized to negotiate the contract on behalf of On Site Technologies Inc.:
  Robert Metzler
  General Manager
  On Site Technologies, Ltd.
  505-325-5667 office 505-327-1496 fax

- Persons to contact for clarification on proposal:
  Robert Metzler
  General Manager
  On Site Technologies, Ltd.
  505-325-5667 office 505-327-1496 fax

  Kenneth Sinks
  Project Manager
  On Site Technologies, Ltd.
  505-325-5667 office 505-327-1496 fax

  Michael K. Lane
  NORM Inspection and Technical Consultant
  On Site Technologies, Ltd.
  505-325-5667 office 505-327-1496 fax

  Larry Trujillo
  Senior Environmental Technician
  On Site Technologies, Ltd.
  505-325-5667 office 505-327-1496 fax

On Site Technologies, by this letter of transmittal, accepts the Conditions Governing the Procurement stated in Section II RFP 10-521-07-04844.

On Site Technologies, by this letter of transmittal, acknowledges receipt of any and all amendments to RFP 10-521-07-04844.

I am duly authorized to sign this document to Contractually Obligate On Site Technologies Ltd. for RFP 10-521-07-04844.

Robert L. Metzler

Robert Metzler, General Manager
On Site Technologies, Ltd.

1/30/01
Date

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EXECUTIVE SUMMARY

On Site Technologies has prepared this bid in accordance with the Request for Proposal provided by the EMNRD-OCD. This bid is only for work as delineated in RFP Sections V. A, B, and C. We are submitting this bid without including potential additional costs attributable to NORM contamination and waste disposal other than the unit cost in the Budget Section, Supplemental Rates. The work discussed below is consistent with the Technical Specifications in the RFP:

Project Approach

As NORMs are a significant concern at the Goodwin site, we propose to perform the NORMs survey concurrently with the investigation of the emergency overflow pit and the drilling, completion and sampling of the monitoring well. Until a determination can be made as to the presence or absence of significant NORM issues in areas beyond Tank 112, a full scope and schedule could be difficult to produce.

1. Investigate the emergency overflow pit. The areal and vertical extent of the hydrocarbon contamination in the pit area will be determined using a Photoionization Detector and the Field Headspace screening method for a minimum of five (5) borings to 5 to 6 feet. Four borings will be at the edges of the pit with one in the middle. One boring will be selected for completion to the 60-foot level as a monitoring well. It will be sampled and field screened at the 3 to 5 foot level and at 10-foot intervals thereafter. Laboratory samples will be taken as specified in the RFP.
2. One boring will be completed as a monitoring well to 60 feet following the protocol specified in the RFP. We have obtained two bids for this work and have selected a local contractor to perform this work under our supervision.
3. The well will be purged and sampled 3 to 5 days after it is completed and developed. The sample will be analyzed as specified.
4. Two facilities have been contacted that can accept NORM waste. Use of a Texas facility for this disposal is planned. Tank cleaning personnel involved in cleaning both NORM and non-NORM contaminated tanks will have the required training and certification. There will be a NORM certified inspector on site whenever NORM waste is being handled, and all NORM related work will be subject to review by an On Site Technologies in-house NORM certified inspector .
5. Survey all tank and treater waste for NORM. The survey work is scheduled to take place concurrently with the monitoring well installation and emergency pit evaluation work. Based on prebid informal screening of the site, there may be potential NORM in other work areas, raising a possible health and safety issue.
6. Fluids will be removed from the tanks prior to the NORM survey. All liquids will be impounded in additional tanks at the site as necessary until NORM screening of the liquids is completed.
7. Remove and recycle or dispose of solids in tanks. As noted, all solids will be screened for NORM prior to disposal or recycling arrangements. Profiling requirements were not addressed in the RFP and are therefore not included.
8. Remove, recycle or dispose of all tanks, vessels, treaters, underground pipes etc. All items will be pre-screened for NORMs. This Task has been budgeted as non-NORM as requested; however, if these are NORM contaminated, the disposal costs will increase substantially.
9. Remove surface contaminated soils. Our fixed cost is based on 1450 cubic yards removed and transported to an EMNRD-OCD permitted facility as specified.

10. Investigate the extent of hydrocarbon beneath tanks and sumps. Areal and vertical extent of hydrocarbon and chloride impact will be investigated using field screening and laboratory analytical methods after all tanks and other surface equipment have been dismantled. The number of laboratory analyses is limited in the RFP to a total of 35 for the entire site.
11. All excavations will be backfilled with clean or remediated land farm soil, placed, wheel-rolled, and contoured to promote positive run-off.
12. Prepare report (Phase 1 Report) describing a) the extent of hydrocarbon impacts in and around the emergency overflow pit, b) well logs and completion report on the new monitoring well and 3) laboratory analysis of ground water from the new monitoring well.
13. Prepare Phase 2 Report regarding the NORM survey, estimated quantities of Regulated NORM waste, personnel used, permits, and recommendations for disposal.
14. A final report (Phase 3 Report) will be prepared summarizing all proposed activities and findings regarding the Goodwin Treating Plant site.

Response to Mandatory Technical Specifications

Project Approach

As NORMs are a significant concern at the Goodwin site, we propose to perform the NORMs survey concurrently with the investigation of the emergency overflow pit and the drilling, completion, and sampling of the monitoring well. Until a determination can be made as to the presence or absence of significant NORM issues in areas beyond Tank 112, a full scope and schedule for further activities will be difficult to produce. Rush analysis of the NORM samples is contemplated to expedite the progress of the contingent tasks. The following responses to the mandatory technical specifications are arranged in the order given in the RFP and do not necessarily indicate the flow of the project.

A. Technical Specifications

1. Investigate Emergency Overflow Pit

The project manager will direct the field technician and the driller as to the number of borings needed to characterize the lateral and vertical extent of soil contamination in the overflow pit. The specified monitoring well will be located near the pit in such a manner as to ascertain the presence of groundwater contamination without risking carrying surface contamination into the groundwater.

The investigation of the pit will entail drilling a minimum of five (5) boreholes to a depth of 3 to 5 feet, taking grab samples, and field screening the samples by the field headspace method with a calibrated Organic Vapor Meter with photoionization detector (PID) for hydrocarbon contamination. Samples will be taken from the boring for the monitoring well at the 3 to 5 foot level, and at 10-foot intervals thereafter until the 60 foot depth is reached. As drilling progresses, the samples will be field screened with the OVM-PID. The sample from 3 to 5 feet, the "bottom hole" sample, and the sample with the highest OVM-PID reading will be placed in laboratory supplied containers, transported on ice to the On Site Technologies laboratory, and analyzed for Chlorides, Total Petroleum Hydrocarbons (TPH) and Benzene, Toluene, Ethyl-benzene, and Xylenes (BTEX). Drilling will be performed and logged by an experienced subcontractor with an air-rotary rig. All cuttings will be returned to the related boring or placed within the confines of the pit pending a determination of the levels and types of contamination and possible disposal options.

2. Complete Borehole as a 2-inch Groundwater Monitor Well

An air-rotary drilling rig will be used to advance a boring to a depth of 60 foot to be completed as a groundwater monitoring well and sampling point. The well will be completed and developed as described in Section V Specifications, A, Technical Specifications Items 2a through 2f in the RFP. The subcontractor will log the well. A qualified environmental drilling company located in Hobbs, New Mexico has been selected for this work. A list of Proposed Subcontractors and Vendors is included in the Appendix. A Maxi Purger will be used to develop the well. This pump is capable of purging to a depth of 100 feet. The water will be disposed along with other liquids taken from the site.

3. Groundwater Sampling

The new monitoring well will be purged and sampled approximately 3 to 5 days after drilling and completion. The sample will be cooled and transported to the On Site Technologies laboratory for analysis as specified for BTEX, Polynuclear Aromatic Hydrocarbons (PAH),

Total Dissolved Solids (TDS), major cation/anions, and NMWQCC metals (Section 3103A) using EPA approved methods and quality assurance/quality control (QA/QC) procedures.

4. NORM Requirements

See Item 5 below. Qualified and certified personnel employed by a contractor licensed to perform NORM work in the State of New Mexico will perform any work related to NORM issues. The selected subcontractor is included on the list of Proposed Subcontractors and Vendors in the Appendix. Their work will be subject to oversight by Mr. Michael K. Lane of On Site Technologies, a New Mexico certified NORM inspector. Two facilities have been located in Texas which are licensed and permitted to accept NORM materials. NORM tank cleaning and NORM waste transport and disposal are not included in our fixed cost proposal except as noted in the Supplemental Rates portion of the Budget Section.

5. NORM Survey

This step will be performed in conjunction with the emergency overflow pit assessment and drilling of the new monitor well. The work is to be subcontracted to a firm based in Texas specializing in NORM assessment and remedial actions. The proposed subcontractor has qualified NORM inspectors familiar with field-testing, equipment calibration, NORM sampling, NORM waste permitting for disposal, and transportation of NORM, with access to laboratories that can analyze for NORM. The proposed subcontractor is licensed in the State of New Mexico to perform NORM-related work.

6. Removal and Recycling or Disposal of Fluids in Tanks

This task will be subcontracted to a firm that is in close proximity of the site and is licensed to accept and transport these fluids. A list of Proposed Subcontractors and Vendors is included in the Appendix.

7. Removal and Remediation of Solids from Tanks

This portion of the project will be performed by the same subcontractor tasked with fluid disposal/recycling. They operate a land farm facility and have all necessary personnel and equipment available to them to complete this task. The facility is an EMNRD-OCD approved treatment and disposal facility.

8. Remove and Recycle or Dispose of Tanks, Vessels, Treaters

Work will be subcontracted to a recycling firm that will dismantle all steel tanks and catwalks, cut up all redwood tanks, dig out all foundations and pipes, and remove all surface solid waste (drums, pumps, tires and motors). The subcontractor will also transport and recycle or dispose of the miscellaneous solid waste.

9. Investigate Extent of TPH, BTEX and Chloride Impacts

The extent of contamination beneath tanks/sumps, treater, and the tanks bottoms pile will be determined. A minimum of one sample from the highest PID measurement at each location will be analyzed in the On Site Technologies laboratory for TPH, BTEX and Chlorides. Costs are based on a total not to exceed 35 samples. A local subcontractor will be used for any backhoe work needed to obtain samples. Sampling will be performed by a qualified technician provided by On Site Technologies, and analyses will be performed by the On Site Technologies laboratory.

10. Remove Surface Contamination that Exceeds Specifications

All surface contaminated soils that are in excess of 100 ppm TPH, 50 ppm BTEX, and 10 ppm Benzene that are no deeper than 5 feet will be removed and transported to the nearest EMNRD-OCD approved landfarm for remediation, assuming Chloride contamination does not exceed permissible levels for landfarm treatment. A licensed local subcontractor will perform the excavation and transportation under the supervision and direction of On Site Technologies personnel. In areas where impact extends deeper than 5 feet, the EMNRD-OCD will be consulted for direction.

11. Backfill Excavations

The excavations will be backfilled and wheel compacted. Backfilled areas will be contoured to ensure positive stormwater drainage away from the excavation area. The landfarm that is to be utilized has already placed additional lifts of soil on several clean areas and is unable to provide backfill from their landfarm-remediated soils at this time. Clean soil is available from other areas on the landfarm for backfill. It is our understanding it may not be necessary to backfill the excavations if excavation to 5 feet is insufficient to fully remove contaminated soils. The EMNRD-OCD will make the determination. However, to take advantage of the cost efficiency of loaded backhauling, sufficient clean soil will be stockpiled even if the backfilling cannot be performed immediately.

12. Prepare Phase One Report

This report documents activities related to Section V, Paragraph A.1 through 3 and will describe: a) the extent of hydrocarbon impacts in and around the emergency overflow pit, b) well logs, soils analysis, and completion report on the new monitoring well and 3) laboratory analysis of ground water from the new monitoring well. Conclusions and recommendations for related further activities will be included. Prior to final production of the report, a Draft Report will be submitted to the EMNRD-OCD for review and comment.

13. Prepare Phase Two Report

Activities and analyses performed relative to Section V, Paragraphs A.4 and 5 will be documented in the Phase 2 Report. The report will include information regarding the NORM survey, estimated quantities of Regulated NORM waste, personnel used, permits, and recommendations for disposal. As above, a Draft Report will be submitted for review and comment by EMNRD-OCD before production of four (4) copies of the Phase 2 Report.

14. Prepare Phase Three Report

This report documents activities required by Section V, Paragraph A.6 through 11. The report will include laboratory analytical results, field screening results, transport and disposal manifests, bills of lading, recycling receipts, summaries of the Phase One and Phase Two Reports, and other information related to the closure of the Goodwin Treating Plant. After EMNRD-OCD review and comment, four (4) copies of the Phase 3 Report will be produced and transmitted to the Department. Additional copies can be provided for the cost of reproduction.

B. Business Specifications

1. Examination of Documents

On Site Technologies has examined the documents and technical specifications presented for review for this RFP. A representative of On Site Technologies has made a site visit and transmitted sufficient description of the conditions. The only concern at this time is the potential for more extensive NORM contamination at the site than is addressed in the specifications.

2. Discrepancies, Omissions and Ambiguities

During the preparation of this RFP for the Goodwin Facility, questions were submitted to the Procurement Officer and answers received, addressed to all Offerors. This proposal is submitted in accordance with those answers and assumptions given in the RFP regarding quantities and non-NORM conditions.

The only reference to NORM was obtaining a permit for disposal of this material. The technical specifications did not make provisions to bid on undetermined amounts of NORM for cleaning or disposal, beyond a Supplemental Rate for disposal and trucking costs on a cubic yard basis. Please note that costs for NORM handling, cleaning, trucking, and disposal are on a sliding scale based on total quantity.

3. Offeror's Submittal

On Site Technologies is submitting this bid in accordance with the original RFP. Nothing has been added to or subtracted from this proposal to take it outside of the RFP specifications.

4. Acceptance of Terms Required By RFP

Mr. Robert Metzler, General Manager, the individual with authority to bind On Site Technologies, Ltd. has signed the transmittal letter accepting the terms of Request For Proposals Number 10-521-07-04844.

C. Budget

TECHNICAL SPECIFICATION

		ITEM COST
1	Sub-surface contamination investigation based on air rotary	$ 5,969.00
2	Well completion based on 60 foot well	$ 4,865.00
3	Groundwater sampling and analysis	$ 640.00
4	NORM requirements	$ 3,210.00
5	NORM survey and lab analysis	$ 3,796.85
6	Tank fluid removal and disposal	$ 5,623.25
7	Tank solids removal and disposal	$ 18,157.00
8	Tank and equipment removal	$ 35,690.70
9	Near-surface contamination investigation based on lab 35 samples	$ 9,262.75
10	Contaminated soil removal based on 1450 cubic yard	$ 65,819.13
11	Backfilling excavations with back-hauled clean soil	$ 16,675.00
12	Phase 1 Report	$ 3,500.00
13	Phase 2 Report	$ 3,500.00
14	Phase 3 Report	$ 4,000.00
	TOTAL	$ 180,708.68
	NM Gross Receipts Tax	$ 10,955.46
	Total Turnkey Cost	**$ 191,664.14**

SUPPLEMENTAL RATES

	DESCRIPTION OF SERVICE	RATE PER	UNIT	MINIMUM HRS
1	AIR ROTARY RIG	$ 316.25	HOUR	8
2	BENTONITE PELLETS	$ 0.30	POUND	
3	BLANK 2 INCH PVC RISER 5'	$ 3.01	FOOT	
3	BLANK 2 INCH PVC RISER 10'	$ 2.24	FOOT	
4	MOVE-IN, MOVE-OUT CHARGES	Included	HOUR	NONE
5	WATER TRUCK	$ 70.15	HOUR	
6	BACKHOE - John Deere 310SE	$ 85.00	HOUR	
7	TRACKHOE - John Deere 200LC	$ 225.00	HOUR	
8	DOZER John Deere 450H	$ 165.00	HOUR	
9	TRUCKING	$ 70.15	HOUR	
10	FRONT END LOADER JD 444H	$ 105.00	HOUR	
11	SENIOR SCIENTIST	$ 75.00	HOUR	
12	ENVIRONMENTAL TECH	$ 45.00	HOUR	
13	CERTIFIED NORM TECH/SCIENTIST	$ 75.00	HOUR	
14	LABOR	$ 30.00	HOUR	
15	PHOTO IONIZATION DETECTOR(PID)	$ 75.00	DAY	
16	CHLORIDE LAB ANALYSIS	$ 16.00	PER ANALYSIS	
17A	TPH LAB ANALYSIS DIESEL RANGE	$ 55.00	PER ANALYSIS	
17B	TPH LAB ANALYSIS GASOLINE RANGE	$ 60.00	PER ANALYSIS	
18	BTEX LAB ANALYSIS SOIL	$ 60.00	PER ANALYSIS	
18	BTEX LAB ANALYSIS WATER	$ 55.00	PER ANALYSIS	
19	CONT. SOIL LANDFARM REMEDIATION	$ 16.10	PER CUBIC YARD	
20	BACK HAUL CLEAN SOIL	$ 6.90	PER CUBIC YARD	
21	NORM DISPOSAL + TRUCKING	$1,046.50	PER CUBIC YARD	
22	PROD. WATER AND NON NORM LIQUID DISPOSAL	$ 2.30	PER BBL	

Offeror's Terms and Conditions

On Site Technologies, Ltd. standard payment terms are net due at or before thirty (30) days. This response is submitted as a fixed cost proposal for RFP 10-521-07-04844, with the following exceptions and conditions.

- The costs quoted are valid if accepted within ninety (90) days from the date of this Proposal.
- Additionally, to meet the completion date of September 1, 2001 specified in the RFP, a Notice to Proceed will be necessary on or before May 15, 2001.
- A project schedule and milestones for progress payments will be negotiated.

Other Supporting Information

Experience, Proposed Staff, and References

On Site Technologies, Ltd. (OST) is a New Mexico owned and operated engineering consulting firm based in the Four Corners area, established in 1993 as a Limited Partnership. The company is a wholly owned subsidiary of D. J. Simmons, Inc., of Farmington, New Mexico. OST provides services from a single office location at 612 East Murray Drive, Farmington, New Mexico. OST is a multi-discipline engineering consulting firm organized and staffed to provide professional and technical support to business, industry, and governmental agencies in energy, oil and gas exploration and production, minerals development, hazardous and regulated materials management, and regulatory compliance with State and Federal regulations and statutes.

Category	Employees
Senior Engineers (Registered)	4
Project/staff Engineers	2
Certified Hazardous Materials Managers	2
CADD Operators	3
Technicians	3
Construction Manager	1
Analytical Chemists	3
Administrative Support Staff	4
Total	**20**

The list above includes one New Mexico Certified NORMs Inspector, one NMED USTB Certified Environmental Scientist as well as two Utah Certified Soil and Groundwater Samplers and two Colorado Certified Environmental Scientists. Brief resumes of key OST technical staff proposed for use in executing the work of this RFP are presented below. Full resumes of the key staff are available upon request.

Each of the OST staff presented below have been selected based on their extensive experience applicable to their proposed area of responsibility for this project, providing experience in petroleum site assessment, remediation, NORM waste handling and disposal, permitting, and site closure. A list of selected client and governmental references is given in the Appendix as Company References.

Mr. Robert Metzler, PE - Principle Civil Engineer/Design Manager
Mr. Metzler is a registered professional engineer with over thirty years of civil engineering design and project management experience. Mr. Metzler has extensive engineering and organizational skills and will serve as the person to contact regarding contract commitment.

Mr. Kenneth Sinks, PE, Senior Project Manager will serve as the lead contact person for this project. Mr. Sinks is a chemical engineer with a broad background in contract management, environmental engineering and remediation. He has been involved for over 25 years in environmental matters starting with his experiences as an environmental supervisor for Mobil Oil Corporation, where he worked with the Los Angeles Air Pollution Control District to resolve refinery and community matters regarding air, water, solid waste and noise pollution abatement. While working on the Gulf Coast with Coastal States Refining and Marketing he served as manager of Technical service. In that capacity he was responsible for all process engineering work at the refinery and all Refinery environmental matters dealing with the Texas Railroad Commission Oil and Gas Division and the Texas Department of Health.

Mr. Sinks has been a resident of New Mexico since 1979, and has worked in the Four Corners as a petroleum refinery manager, environmental engineer, and project scientist. He is familiar with aboveground storage tank remediation projects and has worked on projects in Colorado and Gallup NM. He is familiar with most currently used remediation technologies and will be a valuable asset to the State in this project.

Mr. Michael K. Lane, PE, Senior Engineer and Certified NORMs Inspector, will serve as a resource consultant in the area of NORM and petroleum-contaminated site closure. Mr. Lane has professional registration in Petroleum, Geologic, and Environmental Engineering.

Mr. Lane has seventeen years of diverse experience in Geological, Environmental and Petroleum Engineering, Petrochemical/Materials Laboratory Testing and Project Management. Specific experience includes Principle Investigator for NMOCD Pit Closures, Ground Water Assessments, UST and AST Site Characterizations and Reclamation, Risk Based Corrective Action Evaluations, Subsurface Hydrogeologic and Petroleum Reserve Studies, Design and Permitting for Solid Waste Disposal Landfills, Soils and Materials Testing, and NORM baseline survey work.

Mr. Larry Trujillo, CHMM, will serve as the lead field technician during the duration of this project. He will personally sample or cause to be sampled all tasks as relating to sampling and monitoring.

Mr. Trujillo has eight years of experience in private industry as an environmental project manager, hazardous materials manager, senior environmental technician, company health and safety officer, and emergency response coordinator. Prior to his retirement from the Marine Corps, he served as an airbase emergency response coordinator, flight readiness supervisor for aircraft, machine shop and mechanics shop supervisor, with many other relevant duties, both domestically and overseas. He served as a lead investigator for BIA Facility Environmental audits, and has performed extensive soil and groundwater remediation and groundwater monitoring related to Oil and Gas facilities as well as ASTM Phase I environmental site assessments, and UST and AST removals and remedial actions. Mr. Trujillo brings to the team a wide range of experience that will facilitate control of the investigation, cleanup, and remediation of the Goodwin Site including a hands-on familiarity with remedial technologies and equipment as well as solid mechanical aptitude and knowledge. He will assist Mr. Sinks in coordination of field activities and subcontractors.

Health and Safety

The management and employees of On Site Technologies, Ltd. believe that the safety and occupational health of our employees and contractors are fundamental responsibilities, and that the protection of our resources of personnel is critical to a successful future for our business. We are further committed to the prevention of environmental degradation and to compliance with applicable governmental regulation and legislation. All employees recognize that working safely and in compliance with regulations and policies is an individual and collective responsibility, and that they are accountable for their own safety, and for the safety of those around them.

Mr. Larry E. Trujillo, C.H.M.M., is the designated Health and Safety Officer (HSO).

In a non-emergency situation for petroleum and related sites, chemical and physical hazards are initially evaluated prior to mobilization using information available from the client, from previous knowledge of the site, or from the records. One-Call notification to locate underground utilities is performed for all projects, which involve excavation or drilling. If the possibility of petroleum or other toxic or ignitable vapors exists at a given site, a Combustible Gas Meter (set for 10% of the Lower Explosive Limit) equipped to detect volatile organic vapors, oxygen levels, and H_2S gas is used to screen the site before entry. The stability of all excavations and trenches is constantly visually monitored and appropriate precautions taken. Heavy equipment and traffic hazards are evaluated and discussed. If necessary, traffic control services are arranged.

Before commencing any work on location, the site-specific Safety and Health Plan is reviewed in detail with all personnel, the nearest emergency resources and their telephone numbers noted, and emergency procedures reviewed.

On Site Technologies, Ltd. provides a wide variety of on-location services including emergency spill response and cleanup. Frequently, a Health and Safety Plan must be quickly developed on-location after an initial hazard evaluation with field monitoring equipment. As HSO, Mr. Trujillo developed a fill-in-the-blank Site Health and Safety Plan, which includes a Hazards Evaluation matrix and a Personal Protective Equipment matrix. A copy of the Site Health and Safety Plan and the matrices are attached in the Appendices.

All On Site Technologies field and supervisory personnel are HAZWOPER 40 Hour trained in accordance with 29CFR1910.120 and .125 with emphasis on uncontrolled hazardous waste/hazardous materials sites, underground storage tank removals and investigations, petroleum products transportation spills, and oil and gas operations. Supervisory and field site personnel have current First Aid and CPR training as well as H_2S awareness. Selected individuals have received Confined Space Entry training and Emergency Response Incident Commander certification. All personnel receive refresher training annually or as required by applicable regulations. All field and supervisory individuals carry wallet cards certifying required training. Certificates are available upon request from our administrative staff.

OST's general Health and Safety Plan including matrices is included in the Appendix. The HASP and the matrices are filled out for all tasks requiring a Health and Safety Plan.

Appendix

Company References

OST Health and Safety Plan and Matrices

Proposed Vendors and Subcontractors

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

REFERENCES

Name	Business	Address	Phone #
Hap Post	Contract Operator	P.O. Box 43 Lindrith, NM 87029	505-774-6584
Shirley Ebert	Conoco	3315 Bloomfield Hwy Farmington, NM 87401	505-324-5813
Gary Ledbetter	Conoco	3315 Bloomfield Hwy Farmington, NM 87401	505-324-5813
Chris Severns	KUKUI Operating Co.	26 County Rd 2965 Aztec, NM 87410	505-334-8126
Keith Johnson	Basin Disposal	6 Rd 5046 Bloomfield, NM 87413	505-632-8936
Michael Phillips	Pure Resources	P.O. Box 850 Bloomfield, NM 87413	505-326-1811
Denny Foust	OCD	1000 Rio Brazos Rd Aztec, NM 87410	505-334-9496
Chris Williams	Hallwood Petroleum	P.O. Box 378111 Denver, CO 80237	303-850-6305

SITE SAFETY AND HEALTH PLAN

Location:

_____

_____

_____

PREPARED FOR:

_____

_____

_____

PREPARED BY:
On Site Technologies Limited Partnership
612 East Murray Drive
FARMINGTON, NM
(505) 325-5667

DATE: _____

TABLE OF CONTENTS

I. Introduction:

The health and safety of ***On Site*** employees and the general public is of primary importance. The inherent danger involved in the handling of hazardous materials, and danger associated with any job site requires that all participants of this project become familiar with the contents of this Health and Safety plan.

II. SITE DESCRIPTION

Date: _____

Location: _____
(Address)

_____
(City, State)

Hazards: Potential hazards in the area include; heavy equipment, exposure to hydrocarbon soil contamination, overhead hazards, and falling tripping hazard.

_____

Area affected:_____

_____

(Site Description)

The specific areas of interest are_____

_____

Surrounding population: The surrounding area will consist of one or more of the following: Rural, Rural Residential, Residential, Commercial, Industrial.

III. ENTRY OBJECTIVES

A. Task 1 _____

B. Task 2 _____

C. Task 3 _____

D. Task 4 _____

IV. ON-SITE ORGANIZATION & COORDINATION

The following personnel are designated to carry out the stated job functions on site. *(Note: one person may carry out more than one job function.)*

On Site:

PROJECT TEAM LEADER/

ON-SITE COORDINATOR: _____

FIELD TEAM LEADER: _____

ALTERNATES: _____

OWNER: _____: _____

FEDERAL AGENCIES: EPA _____

_____

STATE or TRIBAL AGENCIES: _____

_____

_____

Other Agencies: _____

_____

V. ON-SITE CONTROL

The occupancy of the area will be minimal. Only key personnel will be in attendance.

Representatives of ***On Site*** may include the following:_____

_____

EPA personnel will be varied with the contact person being_____

_____.

The State Agency personnel may also be present. Control boundaries will be established and prior to Task 1, and the Exclusion Zone (the contaminated area), Contamination Reduction (decontamination) Zone, and Support Zone (clean area) will be identified as noted.
All personnel involved in the project will be required to adhere to all boundaries and rules regarding the project. All personnel will be required to show proof of 40 Hour HAZWOPPER and other applicable training.

Boundaries to be marked:

Containment:	orange temp fencing & yellow caution tape.
Traffic/Hotline:	Orange Cones
Decontamination:	Orange Cones & White Tape.
Support/Staging area:	Vehicles & As needed.

VI. HAZARDS EVALUATION

Table 1 and 2 list several potential hazards that might be associated with execution of this project. This list is by no means all inclusive and other unforeseen hazards may exist contingent upon conditions.

Table 1
Possible Chemicals

Substances Involved	Concentration	Fire	Eyes	Skin	Respiratory
Anti-Freeze	Ethylene Glycol Variable				
Used Oil	Petroleum Hydrocarbons Variable				
Gasoline	Variable				
Diesel	Variable				
Grease	Variable				
Solvent/Cleaners pH Approximate Range 3.5 To 11 (Irritating Liquids)	Variable				
Off-Spec Paint (Liquid/Solid)	Lead And Chromium Variable 8% - 15%				
Tar & MC 250 & MC-70	Variable				
Polychlorinated Biphenyl (PCB)	Variable, Halogens				
Organic Solvents	Variable				
Acids	Variable				
Bases	Variable				
Organic Peroxides	Variable				
Pesticides/Herbicides	Varible				

Legend :

Slt.	Slight
Mod	Moderate .
Hi.	High
IDLH	Immediately Dangerous to Life and Health
NA	Not Applicable

Table 2
Potential Health And Safety Hazards

Hazard	Task 1:	Task 2:	Task 3	Task 4
Inhalation Hazard				
Contaminated Soil/Liquid Contact				
Noise				
Heat/Cold Stress				
Electrical (Transformer And Buried Powerlines)				
Potential Fire/Explosion				
High Pressure Petroleum				
Collapsing Of Sidewalls				
Confined Spaces				
Physical Injury				
Overhead Powerlines				
Buried Piping/Tanks				
Skin Hazards				
Ventilation Problems				
Vandalism				
Heavy Equipment/ Trucking				
Level Of Protection				
Air Monitoring				
Buried Line Detection	Blue Stake 48 hr Notice			

VII. PERSONAL PROTECTIVE EQUIPMENT

A. Air Monitoring:

Air monitoring for the site will be accomplished with an MHSA approved LEL continuous meter, calibrated to pentane, and with and alarm at 10% LEL. An OVM (PID) calibrated to isobutylene can be substituted to an LEL. All air monitoring for exposure to be in breathing area.

Based on the OVM (FID) readings in the breathing zone the criteria for levels of protection are as follows:

Background-25 (PPM)	Level D
25-50(PPM)	Level C
50-100(PPM)	Level B
>100 (PPM)	Level A

NOTE: Deviations from these levels will be based on the types of products and constituents. No changes to the specified levels given in table 1 and the above table shall be made without the approval of the site safety officer and the project team leader.

B. Personal Protective Equipment Matrix:

	COVERALL	HARDHAT	GLOVES	SAFETY BOOTS	NOMEX	HEARING PROTECTION	SAFETY GLASSES W/SIDE SHIELDS	LEVEL C	LEVEL B	LEVEL A	OTHER
DAILY ROUTINE											
SAMPLING (OIL FIELD)											1
SAMPLING (NON-OIL FIELD)											
EXCAVATION (OIL FIELD)											1
EXCAVATION (NON OIL FIELD)											
FACILITY INVENTORY											
CHEMICAL INVENTORY											2
EMERGENCY RESPONSE											2
UNDERGROUND STORAGE TANK REMOVAL											

1. Minimum required will be determined by Client's current policy
2. MSDS will be consulted to determine proper Personal Protective Equipment.

VIII. PROTOCOL

The following briefly describes the protocol to be followed for any soil, water, or chemical samples to be taken at a site. A working knowledge of applicable EPA SW-846, sampling and analytical procedures and proper use of field testing equipment necessary.

A. Water samples:

Volatile Organic Analysis (VOA)- Use of a 40 mL VOA glass vial with Teflon closure, leaves no airspace present, and preserve. keep cool with ice in cooler, use chain-of-custody sampling procedures, and transport to laboratory.

B. Soil samples for assessment/verification:

Field vapor headspace - 475 mL wide mouth glass container, fill 1/2 full, seal with aluminum foil, or use heavy zip-locking plastic bags.

Laboratory analysis for hydrocarbons - Use laboratory supplied sterile glass container, with Teflon closure. Fill complete, keep cool with ice in cooler, use chain-of custody sampling procedures, transport to Laboratory.

C. Chemical field screening:

Unknown chemical will be field screened using Dexsil ® field screening kits for chlorinated solvent in soils and oils or the HazCat chemical identification kit.

IX. SITE WORK PLAN

This project will be completed in the Tasks outlined in Section B. The following outlines the key personnel and their responsibilities:

Project Team Leader:

_____
On Site Technologies Limited Partnership
Farmington, NM (505) 327-1072

Alternates:

_____

_____

The Project Team Leader will function as the Project Manager, Site Health & Safety Officer, Site Supervisor, and sampler for this Project.

Tailgate safety meetings will be held and all personnel will be briefed on the contents of this plan prior to initiating any efforts. Tailgates will also cover any safety and/or health issues not anticipated or addressed in this plan. The Project Manager will be responsible for briefing and record keeping.

X. COMMUNICATION PROCEDURES

Radio communication is not anticipated to be essential for this project. Personnel in the Exclusion Zone should be in visual contact of the Project Team Leader.

The following standard hand signals will be used:

Hand gripping throat	Out of air, can't breathe
Grip partner's wrist or both hands around waist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	OK, I'm all right, I understand
Thumbs down	NO, Negative

Others as needed while handling, moving, or loading materials, are acceptable provided that all personnel involved agree to their meaning.

Telephone communication will be available in the Staging Area by mobile phone.

XI. DECONTAMINATION PROCEDURES

The following are a brief summary of decontamination procedures. Common sense should be used at all times.

A. Personal Decontamination:

The following procedure assumes level "D" Personal Protective Equipment (PPE). Prior to entering a vehicle and leaving the site, coveralls are to be doffed and placed in appropriate laundry/duffel bags in the reduction zone, and hands and face are to be washed.

For all other levels of PPE, PPE are to be doffed in the reduction zone, Tyvek and other disposables will be placed with the waste for off-site disposal, and all other reusable PPE will be washed with brushes or soapy rags and rinsed by hand sprayers. All exposed skin to be washed in reduction zone also.

B. Excavation/Exploratory Equipment:

All equipment will be decontaminated by high pressure wash, and/or steam cleaned as necessary, initially in the exclusion zone and final rinsed in the reduction zone. Rinse and wash media to be disposed of with contaminated soil/groundwater.

C. Sampling Equipment:

Reusable sampling equipment to be triple rinsed with alconox soap, tap water and deionized water. Disposable sampling equipment to be consolidated with waste for off-site disposal.

XII. CONTINGENCIES

A. FIRST AID MEASURES/MEDICAL EMERGENCIES

The nearest hospital is located _____

_____

In the event that personnel exposure symptoms occur, the following procedures will be used:`

Prior to removing victim from hot zone or administering first aid decontamination procedures will be done.

B. PETROLEUM PRODUCTS / IRRITATING LIQUIDS:

1. Eye contact:

Flush eye immediately with copious amounts of water and repeat until irritation is eliminated. If prolonged irritation occurs for more than 15 minutes, seek medical attention.

2. Skin contact:

Wash exposed area with soap and water. If dermatitis or severe reddening occurs, seek medical attention.

3. Inhalation:

Remove person into fresh air. If symptom occurs for more than 15 minutes, seek medical attention.

4. Ingestion:

Do not induce vomiting, seek medical attention.

C. PHONE LIST:

AMBULANCE	_____
POLICE, FIRE & RESCUE	_____
STATE POLICE	_____
POISON CONTROL	1-800-362-0101
CHEMTREC	1-800-424-8802

First aid and emergency fire equipment will be available in ***On Site's*** vehicles.

D. ENVIRONMENTAL MONITORING

The following environmental monitoring instruments will be used on site:

The following instruments will be used continuously to monitor air quality.

Combustible gas Indicator: Trigger level will be 10%. The alarm will be audible or vibratory in the event of extreme noise levels.
FID/OVA: Will measure in the parts per million. It will indicate organic volatile.
pH meter. The pH meter will be used to indicate the pH of each separate sample.
Gas detection meter to detect O_2 and H_2S levels.

E. EMERGENCY PROCEDURES (to be modified as required for incident)

The following standard emergency procedures will be used by on site personnel. The Site Safety Officer shall be notified of any on site emergencies and be responsible for ensuring that the appropriate procedures are followed.

1. Personal Injury in the Exclusion Zone:

Upon notification of an injury in the Exclusion Zone, all site personnel shall assemble in the Reduction Zone. The rescue team will enter the Exclusion Zone (if required) to remove the injured person to the hotline. Rescue team and victim will be decontaminated prior to entering the exclusion zone. The Site Safety Officer and Project Team Leader shall evaluate the nature of the injury, prior to movement to the Support Zone. Appropriate first aid will be initiated, and contact should be made for an ambulance and with the designated medical facility (if required). No persons shall reenter the Exclusion Zone until the cause of the injury or symptoms is determined.

2. Personal Injury in the Support Zone:

Upon notification of an injury in the Support Zone, the Project Team Leader and Site Safety Officer will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of remaining personnel, operations may continue. If the injury increases the risk to others, the designated emergency signal horn shall be sounded and all site personnel shall move to the Reduction Zone for further instructions.

In any case, the appropriate first aid will be initiated and necessary follow-up as stated above.

3. Fire / Explosion:

Upon notification of a fire or explosion on site, the designated emergency signal horn shall be sounded and all site personnel assembled at the Reduction Zone . The fire department shall be alerted and all personnel moved to a safe distance from the involved area. *Fire extinguishers shall be used with discretion to minimize the risk of fire and explosion that would result in injuries.*

4. Personal Protective Equipment Failure:

If any site worker experiences a failure or alteration of protective equipment that affects the protection factor, that person and his/her buddy shall immediately leave the Exclusive Zone. Reentry shall not be permitted until the equipment has been repaired or replaced.

5. Other Equipment Failure:

If any other equipment on site fails to operate properly, the Project Team Leader and Site Safety Officer shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, all personnel shall leave the Exclusion Zone until the situation is evaluated and appropriate actions taken.

In all situations, when an on site emergency results in evacuation of the Exclusion Zone, personnel shall not reenter until:

1. ***The hazards have been reassessed.***
2. ***The conditions resulting in the emergency have been corrected.***
3. ***The Site Safety Plan has been reviewed.***
    3. ***Site personnel have been briefed on any changes in the Site Safety Plan.***

XIII. CLOSURES AND SIGNATURES

This plan has been reviewed and has the full approval of the following Management.

Owner:

NAME:_____
TITLE:_____
DATE:_____

Consultant ***On Site Limited Partnership***.

NAME:_____
TITLE:_____
DATE:_____

All site personnel have read the above plan and are familiar with its provisions.

	Print Name	Signature
Site Safety Officer	_____	_____
Project Team Leader	_____	_____
Other Site Personnel	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

PROPOSED VENDORS FOR RFP 10-521-07-04844

DRILLING OF MONITOR WELL
TWO VENDORS ARE BEING CONSIDERED

1 EADES DRILLING AND PUMP SERVICE ***SELECTED VENDOR***
ANDREA EADES ROOT
1200 E. BENDER BLVD.
HOBBS NM, 88240
505-392-2457

2 PROSONIC CORPORATION
305 E. COMSTOCK DR.
SUITE 8 Note equipment from El Paso TX
CHANDLER, AZ 85225
480-635-9665

DISPOSAL OF NON NORM LIQUIDS & SOLIDS, TANK DISMANTLING,
TANK RECYCLING,TANK CLEANING,
HEATER TREATER REMOVAL AND RECYCLING, AND TRANSPORTATION
EXCAVATION OF 1450 CUYD SOIL, BACKFILLING OF EXCAVATION
WITH CLEAN SOIL FROM LANDFILL (IF AVAILABLE).

1 ENVIRONMENTAL PLUS
P.O. BOX 1558
EUNICE, NM 88231
505-394-3481

2 CONTROLLED RECOVERY INC.
DAVID PARSONS ***SELECTED VENDOR***
P.O. BOX 388
HOBBS, NM 88241
505-393-1079

NORM SURVEY

1 NORM DECON ***UNDECIDED ON VENDOR***
KIT PARTEN
1910 N. BIG SPRINGS
MIDLAND, TX 79705
915-563-1123

2 LOTUS LLC
P.O. BOX 1277
ANDREWS, TX 79714
888-414-3320

NORM DISPOSAL

1 NEWPARK ENVIRONMENTAL SERVICES, INC.
HOUSTON, TX

2 LOTUS LLC ***SELECTED VENDOR***
P.O. BOX 1277
ANDREWS, TX 79714
888-414-3320