Appendix A
National Aeronautics and Space Administration Construction Permit

National Aeronautics and Space Administration

Ames Research Center
Moffett Field, California, 94035-1000

CONSTRUCTION PERMIT

Permit Number

		Org Code	Mail Stop	Phone
Construction Manager	TIMOTHY L. RIPP	SHAW		(925)288-2072
Project Manager	NEIL HEY	SHAW		(925)288-2141
Facility Safety Rep	MARK VENNEMEYER	SHAW		(925)288-2383
Customer	US NAVY GARY MUNEKAWA	ROICC		(650)603-9834

Permit is valid for the duration of this project, provided construction begins within 180 calendar days of permit issuance and, upon commencement, is diligently and continuously prosecuted in a safe and code-compliant manner to completion. If the construction of this project does not commence within that 180 days after permit issuance. then this permit shall automatically terminate. Before any construction on this project can begin, again, project plans must go through Ames' plan review process and new permit(s) must be issued.

Description of Work

Project title: IR SITE 28 ABIOTIC/BIOTIC TREATMENT PILOT STUDY

Tentative construction schedule: Start MARCH 2010 Complete JULY 2011

Description of work: PROPOSED ABIOTIC/BIOTIC PILOT STUDY INJECTS THREE DIFFERENT REAGENT MIXTURES INTO THREE DISCRETE AREAS OF CHLORINATED ETHENE CONTAMINATION AT INSTALLATION RESTORATION SITE 28, FORMER NAVAL AIR STATION MOFFETT FIELD, MOUNTAIN VIEW, CALIFORNIA. PILOT STUDY IS A COMPONENT OF MOFFETT FIELD'S REMEDIAL ACTION OF US DEPARTMENT OF THE NAVY UNDER CONTRACT NUMBER N62473-08-D-8822. RELATED ACTIVITIES INCLUDE UTILITY CLEARANCE, MEMBRANE INTERFACE PROBE AND CONTINUOUS CORE BORINGS, MONITORING WELL INSTALLATION, SUBSTRATE INJECTION, PERIODIC MONITORING PER ATTACHED STATEMENT OF WORK.

Deviations approved

Approved for Construction
Moffett Field Permit Board
3/25/2010
Chief Building Official

Building number Room number/location

Additional Permits Required

Permits internal to NASA Ames

- ☐ Hot work
- ☐ Confined space
- ☐ Electrical work (High voltage)
- ☒ Excavation/drilling
- ☐ Facility closure/obstruction
- ☐ Cranes (Lift Permit)

Permits external to NASA Ames

- ☐ Water discharge
- ☐ Underground tanks
- ☐ Air quality
- ☐ Toxic or hazardous material
- ☐ _____
- ☐ _____

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Approved for Construction

Chief Building Official, RCE Date

National Aeronautics and Space Administration

PERMIT AND INSPECTION RECORD TO BE POSTED AT JOB SITE INSPECTION RECORD

Permit No. 10027

Hold-points for inspections	Required yes / no	Signature	Date
Underground Utilities After piping/conduit is in place and bedded, but before it is covered	☐ ☐		
Foundation/Concrete Prepour After formwork/rebar is in place, but before concrete is mixed	☐ ☐		
Frame After framing, rough electrical, plumbing, vents, and duct work are in place, but before sheathing	☐ ☐		
Roof Deck	☐ ☐		
Lath or gypsum	☐ ☐		
Insulation Walls, ceiling and floor	☐ ☐		
T-bar grid Light fixtures, diffusers and seismic bracing	☐ ☐		
Electrical Raceways, pull boxes and smoke detection	☐ ☐		
Mechanical Ducts, HVAC units, vents, and fire dampers	☐ ☐		
Plumbing DWV piping, water supply and gas supply lines	☐ ☐		
Fire sprinkler Pressure test, bracing and piping system, alarm pre-test, final acceptance test	☐ ☐		
Bolt/Welding After bolts are tightened and welds made, but before painting or covering	☐ ☐		
Surface preparation After preparation for painting, but before painting	☐ ☐		
Hazardous analysis Checking for lead and asbestos	☒ ☐		
High pressure air 140 PSI, 3000 PSI, 6000 PSI shop air	☐ ☐		
Sterilization of water piping	☐ ☐		
Compaction testing	☐ ☐	Approved for Construction Moffett Field Permit Board 3/25/2010 Chief Building Official	
Other	☐ ☐		
As-built drawings	☒ ☐		
Final inspection	☒ ☐		

Call the Construction Permit Office at 4-2607 for inspection 24 hours in advance and prior to covering any work

RETURN SIGNED INSPECTION RECORD AND AS-BUILT DRAWING TO PERMIT OFFICE (M/S 213-11, N213, ROOM 28) AT PROJECT COMPLETION

Permit Detail Report

Permit Number:	10Q027	**Status:**	To CBO		
ECO #:		**Permit Type:**	Quick Permit		
Location:	SITE 28	**Title:**	SITE 28 ABIOTIC/BIOTIC TREATMENT PILOT STUDY		
Manager Name:	GARY MUNEKAWA	**PM Org.:**	NAVY	**PM Phone:**	3-9834

Construction Permit Office

Received Date:	02/23/2010	**Review Days:**	5	**Review Start Date:**	03/10/2010
				Review Due Date:	03/16/2010

Construction Branch Office

To CBO:	00/00/00	**Est. Const. Start:**	00/00/00	**Inspection Rec:**	00/00/00
Date Signed:	00/00/00	**Est. Const. Comp:**	00/00/00	**As Built Rec:**	00/00/00

Permit Description:

1. PROPOSED ABIOTIC/BIOTIC PILOT STUDY INJECTS THREE(3) DIFFERENT REAGENT MIXTURES INTO THREE DISCRETE AREAS OF CHLORINATED ETHENE CONTAMINATION AT INSTALLATION RESTORATION SITE 28, FORMER NAVAL AIR STATION MOFFETT FIELD, MOUNTIN VIEW, CALIFORNIA.
2. PILOT STUDY IS A COMPONENT OF MOFFETT FIELD'S REMEDIAL ACTION OF U.S. DEPARTMENT OF THE NAVY UNDER CONTRACT NUMBER N62473-08-D-8822.
3. RELATED ACTIVITIES INCLUDE UTILITY CLEARANCE, MEMBRANE INTERFACE PROBE AND CONTINOUS CORE BORINGS, MONITORING WELL INSTALLATION, SUBSTRATE INJECTION, PERIODIC MONITORING PER ATTACHED STATEMENT OF WORK.

Permit Comments:

CODE: Civil - Charlie Tonda, Approved.

PLANNING: Rocci Caringello, Approved.

PLANT ENGINEERING: Sal Navarro, Approved.

FIRE MARSHAL: Herb Jewell, Approved.

SECURITY: Robert Nakahara, Approved.

SAFETY: Lizzette Vargas-Malpica, Approved.

SAFETY: Fire - Dan Kaiser, Approved.

Record Label	Return Date	Disposition	Days Late
Code Compliance:	03/10/2010	Approved	0
Other:	03/11/2010	Approved	0
Other:	03/12/2010	Approved	0
Planning:	03/24/2010	Approved	0
Plant Engineering:	03/13/2010	Approved	0
Safety - (Fire):	03/11/2010	Approved	0
Safety:	03/12/2010	Approved	0

Ames Research Center

RECEIVED
10 MAR 25 AM 9:15

SAFETY CLEARENCE PERMIT

Contractor: SHAW	OICC/ROICC	Project: IR SITE 28 TREATABILITY STUDY
		Contract: EMAC
		Log No.
		Date: FEBRUARY 11, 2010
		Permit No.: 10Q027
		Dates of work: MARCH 2010 - JULY 2011
		Hours of work: 0700 - 1700

Location of work: MOFFETT FIELD IR SITE 28, WEST OF HANGAR 1 SEE ATTACHED DWG

TYPE OF PERMIT REQUESTED

☐ Electrical Power	See Spec. Section 01120	Voltage: OBSERVATION WELLS
☒ Excavation	Attach plan, cross-section, & shoring details	Maximum depth of cut: 8"DIA X 65' DEEP MAXIMUM BOREHOLE DEPTH OF 65 FEET BELOW GRADE
☐ High Noise Level		Type of equipment: WELL DRILLING EQUIP,
☐ Open Flame*		Type of device
☐ Welding/Flame Cutting*	Fire watch required	Elevation
☐ Confined Space*	Renew daily	Type of space / operation
☐ Radiation*	See precautions on work page	License number
☐ Explosives*	See precautions on work page	License number
☐ Facility Closure		Facility

* REQUIRES APPROVAL OF HEALTH AND SAFETY OFFICE

Proposed means of mitigating the hazard

SEE ATTACHED ACTIVITY HAZARD ANALYSIS

Contractor Supervisor/Foreman	Date	~~NASA~~ Technical Monitor / COTR	Date
510 TIM RIDD 427-835		3-9834 Gary MuneKawa	

NASA ACTION

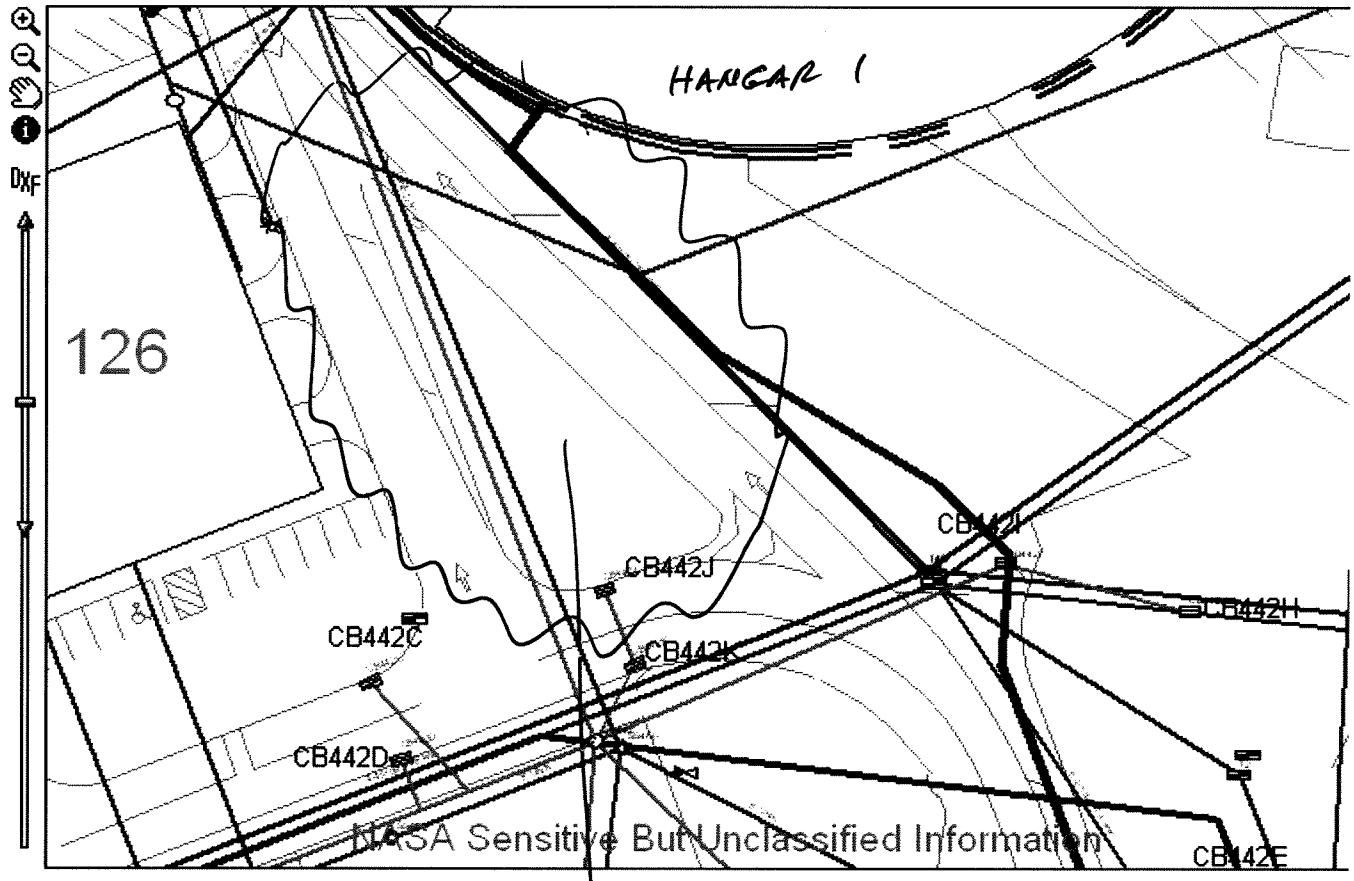
☐ Restricted hours of work	Hours	Dates
☒ Permit granted - Contigent upon restrictions in remarks		
☐ Permit denied - Not submitted in a timely manner	☐ Permit denied - Reasons in remarks	

Remarks: Locate and avoid existing underground utilities per Ames Safety Manual APG 1700.1 paragraph 27.9.13. See attached GIS drawing.

Name, Title	Phone	Signature	Date
C SMITH 604	6895	C. Smith	3-25-10

ARC 135 (Apr 96)E Previous editions are obsolete

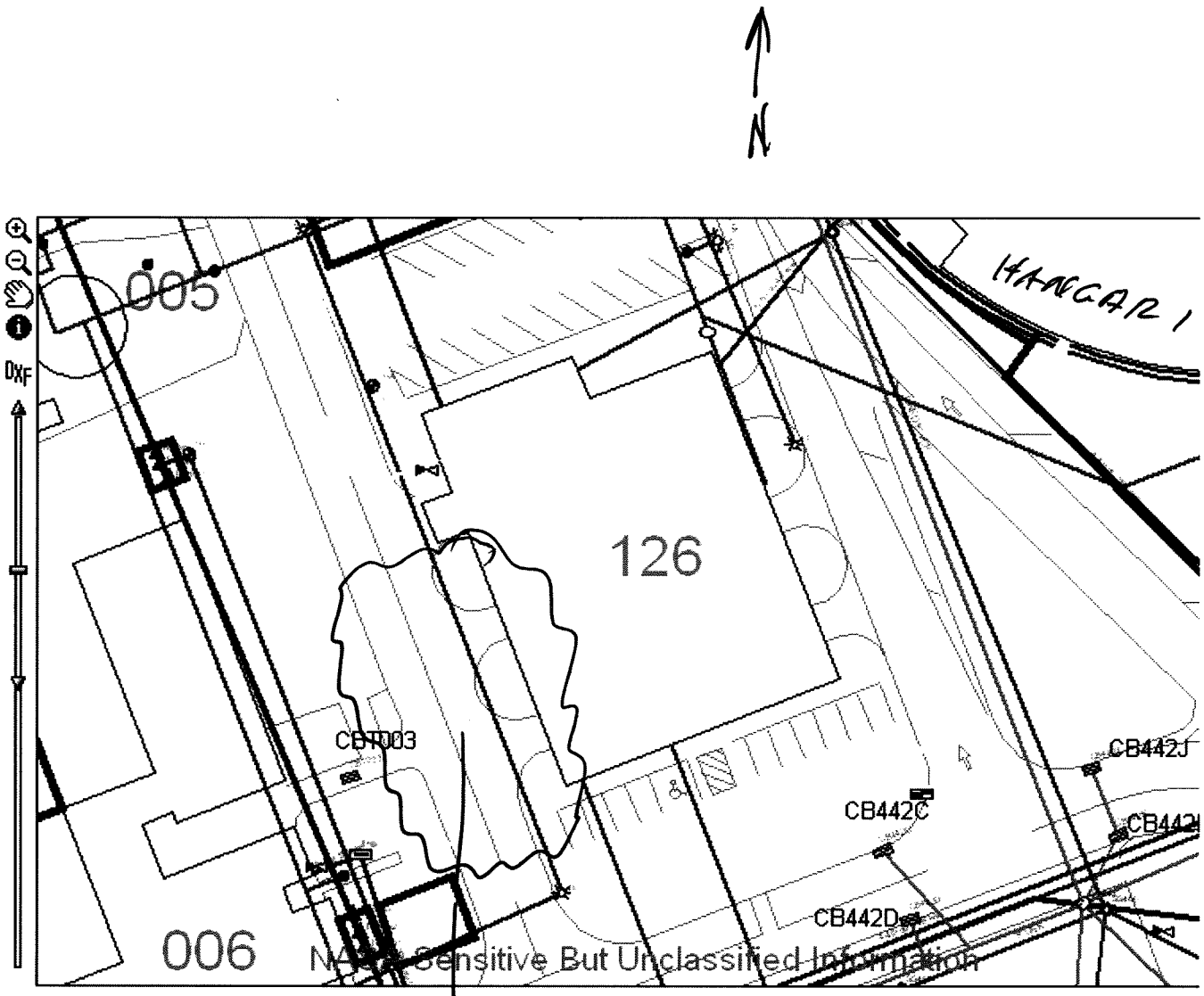
All Utilities



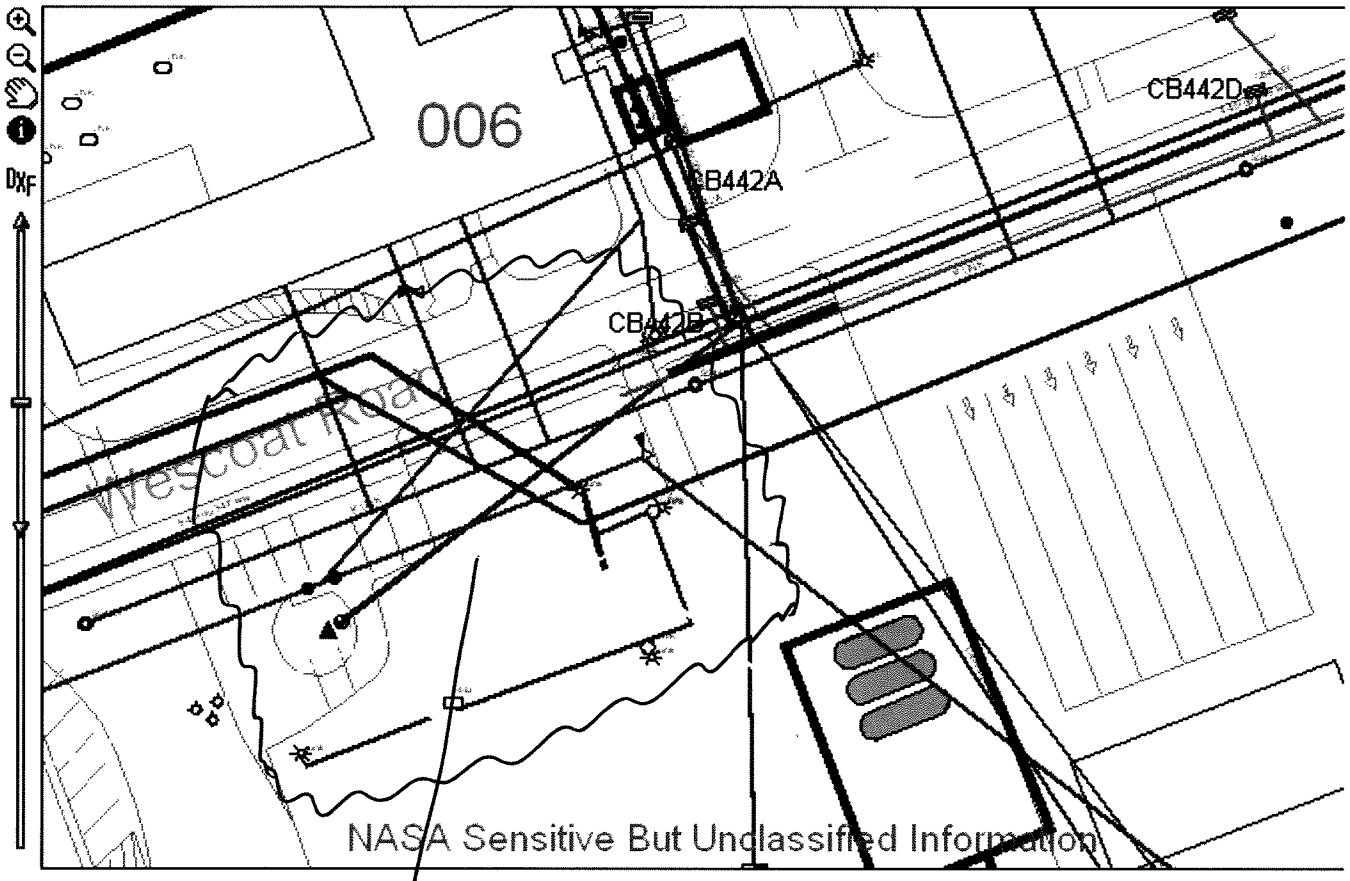
N

WELL BORING AREA SEE ATTACHED DWG FIG. 1

All Utilities

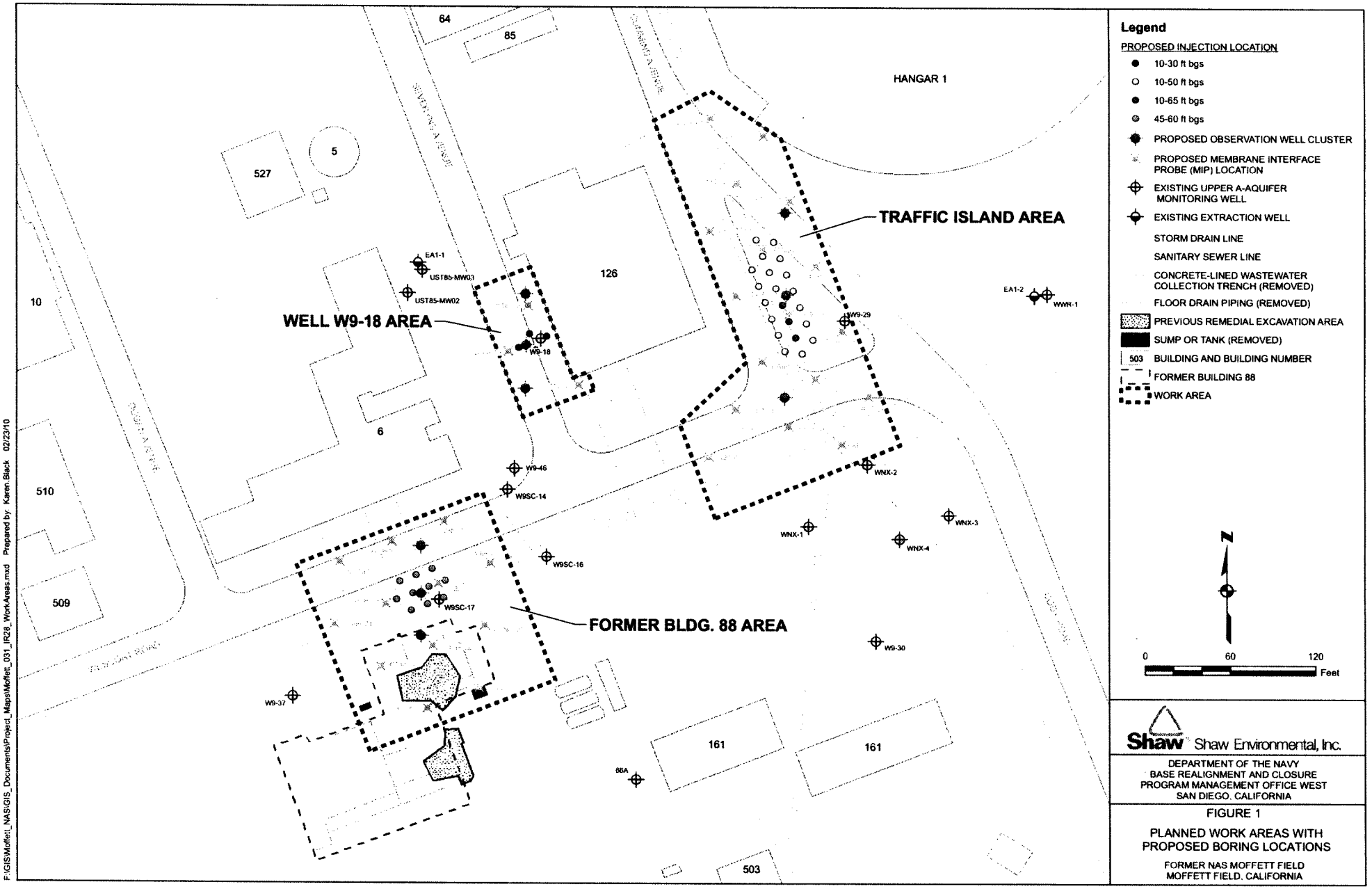


All Utilities



N

WELL
BORING AREA
SEE ATTACHED DWG.
FIG. 1



F:\GIS\Moffett_NAS\GIS_Documents\Project_Maps\Moffett_031_IR28_WorkAreas.mxd Prepared by: Karen Black 02/23/10

Shaw Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 1

PLANNED WORK AREAS WITH PROPOSED BORING LOCATIONS

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA

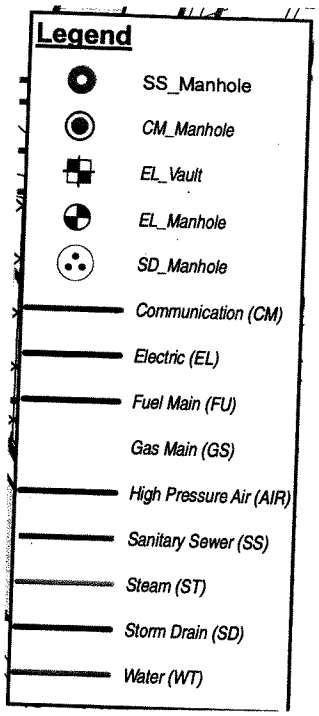
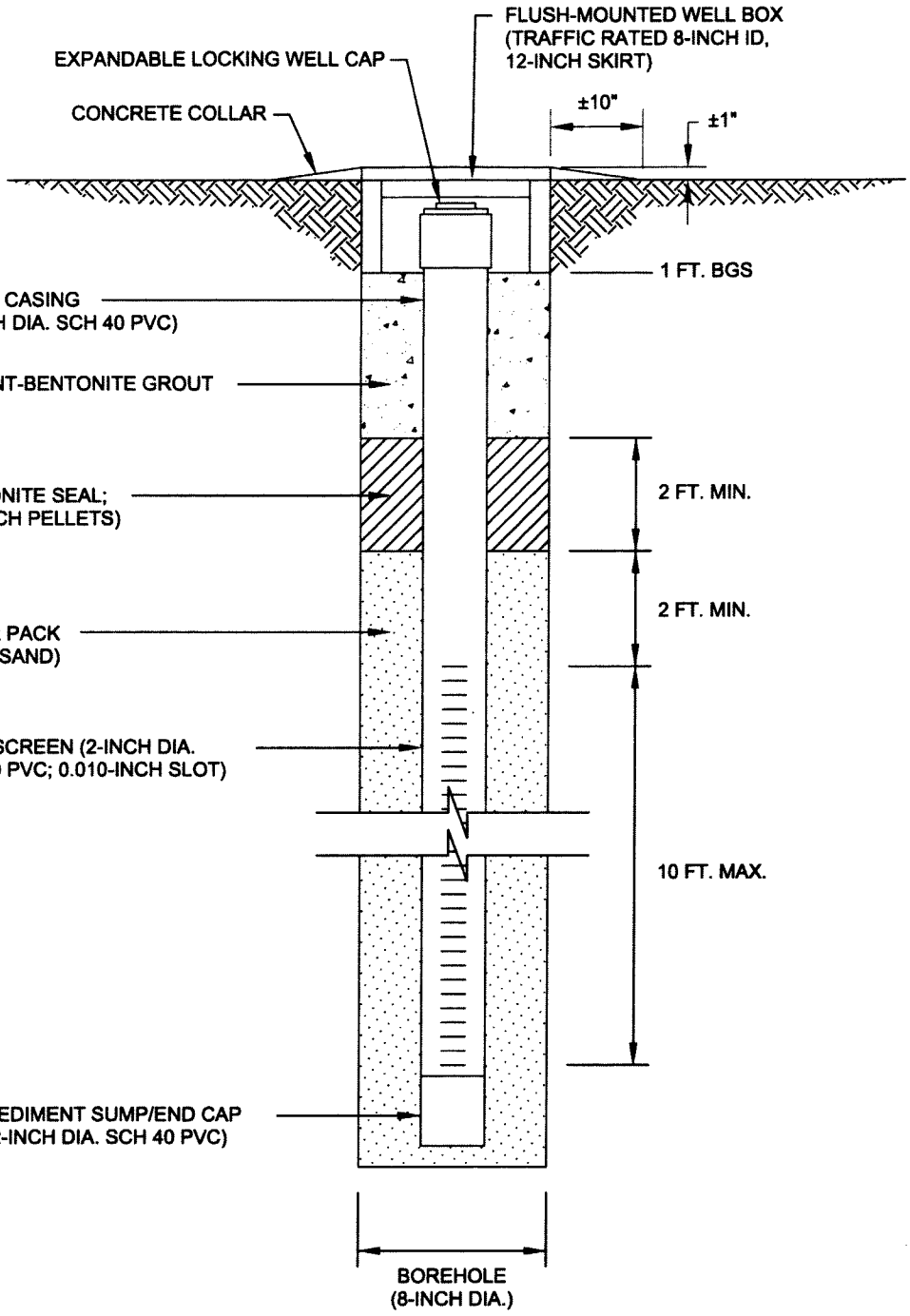

Legend
SS_Manhole
CM_Manhole
EL_Vault
EL_Manhole
SD_Manhole
Communication (CM)
Electric (EL)
Fuel Main (FU)
Gas Main (GS)
High Pressure Air (AIR)
Sanitary Sewer (SS)
Steam (ST)
Storm Drain (SD)
Water (WT)

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	Concord	KAB 10/5/09			133816-A8



NOT TO SCALE

Shaw® Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 9

TYPICAL OBSERVATION WELL CONSTRUCTION DIAGRAM

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA

Environmental Checklist

Project Name: MOFFETT FIELD IR SITE 28 TREATABILITY STUDY Date: FEBRUARY 11, 2010

Project Contact: NEIL HEY Phone No.: (925) 288-2141

Bldg. No. and Location: IR SITE 28, WEST OF HANGAR 1, MOFFETT FIELD

Description of Project: DRILLING, WELL INSTALLATION, SUBSTRATE INJECTION, PERIODIC MONITORING

Environmental Impacts:

"Yes" responses may require the project to prepare an Environmental Assessment or conduct additional studies.

	Yes	Maybe	No
A. Geologic:			
a. Greater than 10 % change in topography or ground surface relief features?	—	—	X
b. Any increase in wind or water erosion of soils, either on or off site?	—	—	X
c. Changes in deposition, siltation, or erosion that may modify the wetlands or bay?	—	—	X

Explain all "yes" and "maybe" answers: —

	Yes	Maybe	No
B. Air:			
a. Substantial air emissions or deterioration of ambient air quality?	—	—	X
b. The creation of objectionable odors?	—	X	—
c. Alteration of air movement, moisture, temperature, or any changes in climate, either locally or regionally?	—	—	X

Explain all "yes" and "maybe" answers: LOCALIZED, TRANSIENT ODOR DURING SUBSTRATE INJECTION

	Yes	Maybe	No
C. Water:			
a. Disturbance of groundwater?	X	—	—
b. Greater than 10% changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	—	—	X
c. Alter the course or flow of flood waters?	—	—	X
d. Alteration of the direction or rate of ground waters?	—	—	X
e. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	—	—	X
f. Activities resulting in changes to total potable water use greater than 10 percent (more than 851,000 gal/yr)?	—	—	X
g. Any construction or other activity in a floodplain or wetland?	—	—	X

Explain all "yes" and "maybe" answers: NON-TOXIC SUBSTRATES TO BE INJECTED INTO GROUNDWATER

	Yes	Maybe	No
D. Cultural Resources:			
a. Is the project located in an historic district or effects an existing landmark?	—	—	X
b. Will the project alter a building that is 50 years or older?	—	—	X
c. Is the project located in an area of suspected archaeological resources?	—	—	X

Explain all "yes" and "maybe" answers: —

	Yes	Maybe	No
E. Biological Resources:			
a. Construction/grading/filling within or adjacent to designated wetlands?	—	—	X
b. Reduction of the numbers of any rare, or endangered species?	—	—	X
c. Reduction in the numbers of any rare or endangered species of plants?	—	—	X
d. Introduction of new species or plants into an area, or impacts the normal replenishment of existing species?	—	—	X
e. Propose construction activities in borrowing owl habitat?	—	—	X

Explain all "yes" and "maybe" answers: —

	Yes	Maybe	No
F. Noise:			
a. An on-going increase greater than 10%?	—	—	X
b. Exposure of people to severe noise levels (above 80 dBA)? (PROJECT WORKERS ONLY)	—	X	—
c. Increase existing CNEL noise contours surrounding the airfield?	—	—	X

Explain all "yes" and "maybe" answers: EMPLOYEES UNDER HEARING PROTECTION PROGRAM AS APPROPRIATE

	Yes	Maybe	No
G. Land Use:			
a. Substantial alteration of the present or planned land use or an area?	—	—	X
b. Increase in the rate of use of any natural resource?	—	—	X
c. Activities resulting in changes of greater than 10 percent of Center energy consumption (2,200,000 KWH of electricity, or 3,130,000 CF of natural gas)?	—	—	X
d. Activities resulting in a change in total employment levels greater than 10 percent (More than 620 people)?	—	—	X

Explain all "yes" and "maybe" answers: —

	Yes	Maybe	No
H. Health and Safety:			
a. Generation of ionizing or non-ionizing radiation?	—	—	X
b. Generate air emissions?	—	—	X
c. Use of pesticides, including insecticides, herbicides, fungicides or rodenticides?	—	—	X
d. Confined space entry?	—	—	X
e. Risk of exposure to asbestos or lead containing materials?	—	—	X
f. Result in the exposure or disturbance of contaminated soil or ground water?	X	—	—
g. Generate waste water or storm water discharge?	—	—	X
h. Use of Class I ozone depleting substances (CFCs, TCA)?	—	—	X
i. Acquisition, use, or storage of any toxic or hazardous substance?	—	—	X
j. Generation of medical (biohazard), hazardous, toxic, or radiological wastes?	—	X	—
k. Use, disturbance or disposal of PCBs?			

Explain all "yes" and "maybe" answers: SOIL AND GROUNDWATER CONTAMINATED WITH CHLORINATED ETHENES MAY BE CONTACTED, HANDLED, STORED BY APPROPRIATELY TRAINED EMPLOYEES

	Yes	Maybe	No
I. Transportation/Circulation:			
a. Generation of substantial vehicle trips (over 620 per day)?	—	—	X
b. Effect existing parking facilities or demand for new parking?	—	—	X
c. Substantial impact upon existing transportation systems?	—	—	X
d. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	—	X	—

Explain all "yes" and "maybe" answers: TRAFFIC CONTROL PLAN ATTACHED

	Yes	Maybe	No
J. Services: Will the proposal have an effect upon or result in a need for new or altered government services in any of the following areas?			
a. Fire protection?	—	—	X
b. Security?	—	—	X

Explain all "yes" and "maybe" answers: —

	Yes	Maybe	No
K. Environmental Justice:			
a. Does the project have the potential to disproportionately affect low income or Minority populations that reside outside the boundaries of Moffett Field?	—	—	X

Explain all "yes" and "maybe" answers: —

Planning Clearance Application
NASA Ames Research Center

Planning Clearance Application Number: 10PCA041

Date of Application: February 23, 2010

Name of Proposed Construction Project: Site 28 – In-Situ Anaerobic Biotic/Abiotic Treatability Study
Name of Applicant: Neil Hey
Company/Organization of Applicant: Shaw Environmental, Inc.
Business Address of Applicant: 4005 Port Chicago Highway, Concord, CA 94520
Business email address of Applicant: neil.hey@shawgrp.com
Business telephone number of Applicant: Direct: 925-288-2141; Cell: 925-383-2007

Name of Organization or Company for which the proposed construction work is to be performed: U.S. Navy BRAC PMO West

NASA Ames Research Center Project Manager (POC): Don Chuck (Navy ROICCs: Gary Munekawa)

Building, Facility or Location where the proposed construction work is to be performed: Former Bldg. 88 Area

The proposed construction work is (check the most appropriate classification):
__X__ New exterior construction, site work only and no structures or buildings
____ New exterior construction, site work and structures or buildings
____ New interior construction including remodel and renovation. No exterior construction or modifications involved.
____ New interior construction of systems only (electrical, data, fire alarm, security, plumbing, fire protection, process piping)
____ Demolition, site work only and no structures or buildings
____ Demolition, site work and/or structures or buildings

A description of the proposed construction work: In-Situ treatment of soil and groundwater contamination

Purpose for performing the proposed construction work: Remediate soil and groundwater contamination

Square Feet and/or acres of the area of construction work: 1.2 Acres combined total

How long will the proposed construction work/improvements be required for the intended use: March 22, 2010 thru October 27, 2011

What is the current use and/or most recent use of the area where the construction work is to take place: Open space, roadway and traffic island

Schedule for starting and completing the proposed construction work: March 22, 2010 to October 27, 2011

Current estimated cost of all proposed construction work: $620,000

Funding for the proposed improvements:
What is the source of funding for the proposed construction work: U.S. Navy Environmental Multiple Award Contract
Is the funding already committed for the proposed construction work? Yes
If the funding is not already committed, when will the funding be committed and available? N/A
Is there any uncertainty that that funding will be available for the proposed construction work? No

Note: Additional information may be requested by the Ames Planning Office depending on the information provided above by the applicant.

By submitting the Planning Clearance Application to the NASA Ames Construction Permit Office, the Applicant attest that the information provided on the Planning Clearance Application is true and correct to the best knowledge of the Applicant on the date the Planning Clearance Application is submitted.

Planning Clearance Application
NASA Ames Research Center

Planning Clearance Review Determination Document

Planning Clearance Application Number: *10PCA041*

Date of Application: *Feb. 23, 2010*

Name of Proposed Improvement Project: *Site 28 – In-Situ Anaerobic Biotic/Abiotic Treatability Study*

Name of Applicant: *Neil Hey / Gary Munekawa(Navy ROICCs)*

Company/Organization of Applicant: *U. Navy BRAC PMO West*

Planning Clearance Reviewer:
Name of Planning Clearance Reviewer: Rocci Caringello

Organization Planning Clearance Reviewer: Code JCE

Business email address of Planning Clearance Reviewer: tony.r.caringello@nasa.gov

Business telephone number of Planning Clearance Reviewer: 650-603-9506

Date Planning Clearance Review is completed: 3-1-2010

Planning Clearance Review Permit Fee Required: NO

Has the Planning Clearance Review Fee been paid? N/A

Determination of Planning Clearance Review Determination (Planning Clearance Reviewer to select one of the below):
Approved: ✓
Approved with Conditions of Approval:
Disapproved:

Conditions of Approval: _____

Reasons for Disapproval: _____

Planning Reviewer signature: Rocci Caringello **date:** 3/1/2010

Shaw Environmental, Inc.
4005 Port Chicago Highway
Concord, CA 94520-1120
925-288-9898
FAX: 925-288-0888

Shaw™ Shaw Environmental, Inc.

June 18, 2010

Moffett Field Permit Board
NASA Ames Research Center
Moffett Field, California, 94035-1000

Subject: Request for Approval of Amendments to NASA ARC Construction Permit 10Q027

Dear Board Members:

On behalf of the U.S. Navy, this letter formally requests your approval of amendments to NASA ARC Construction Permit 10Q027 presented in red ink and outlined with clouds in Attachment 1. The amendments are related to an additional activity that is necessary to complete the scope of work currently permitted. Specifically, the additional activity is to temporarily plug two short sections of storm drain line along Wescoat Road and Cummins Avenue prior to and during substrate injection activities.

The storm drain line along Wescoat Road, west-southwest of manhole SD442 (shown on Attachment 2), will be plugged for the duration of substrate injection at the former Building 88 Area. Once the injection activities have been completed and groundwater levels have returned to near ambient conditions, any liquids accumulated in the isolated section of line will be recovered and transported to WATS for treatment and discharge under NPDES permit. We anticipate having the line plugged approximately 6 days, which is tentatively scheduled for July 28 through August 2, 2010. The drain line will be plugged by manually placing an inflatable packer within the storm drain pipe and removing it under permitted confined space entry. An activity hazard analysis for storm drain entry is provided as Attachment 3.

The storm drain line along Cummins Avenue, between manholes SD442 and SD443 (Attachment 2), will be plugged for the duration of substrate injection at the Traffic Island Area. Once the injection activities have been completed and groundwater levels have returned to near ambient conditions, any liquids accumulated in the isolated section of line will be recovered and transported to WATS for treatment and discharge under NPDES permit. We anticipate having this section of line plugged approximately 13 days, which is tentatively scheduled for August 4

through August 16, 2010. The drain line will be plugged by manually placing inflatable packers within the storm drain pipe and removing them under permitted confined space entry.

In the event that rain is forecasted, any liquids accumulated in the isolated section(s) will be recovered and the plugs removed prior to the predicted rain event.

We would greatly appreciate your concurrence by July 9, 2010 so that we may temporarily isolate these storm drain lines the week of July 12 to assess water accumulation under ambient conditions due to infiltration and from upstream sources.

If you have any questions or need additional information please contact Mr. Gary Munekawa (Navy ROICC) at 650-603-9834.

Sincerely,

Neil Hey, PG
Shaw Project Manager

attachments

cc: Mr. Gary Munekawa – Navy ROICC
Mr. David Smith – Navy ROICC
Ms. Valerie Harris – Navy BRAC PMO West Remedial Project Manager

Attachment 1
Amended, Previously Approved NASA Construction Permit No. 10Q027

Amended Permit # 10Q027
(Amendments in red ink and clouded)

National Aeronautics and Space Administration

Ames Research Center
Moffett Field, California, 94035-1000

CONSTRUCTION PERMIT

Permit Number 10Q027

		Org Code	Mail Stop	Phone
Construction Manager	TIMOTHY L. RIPP	SHAW		(925)288-2072
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Description of Work

Project title: IR SITE 28 ABIOTIC/BIOTIC TREATMENT PILOT STUDY

Tentative construction schedule: Start MARCH 2010 Complete JULY 2011

Description of work: PROPOSED ABIOTIC/BIOTIC PILOT STUDY INJECTS THREE DIFFERENT REAGENT MIXTURES INTO THREE DISCRETE AREAS OF CHLORINATED ETHENE CONTAMINATION AT INSTALLATION RESTORATION SITE 28, FORMER NAVAL AIR STATION MOFFETT FIELD, MOUNTAIN VIEW, CALIFORNIA. PILOT STUDY IS A COMPONENT OF MOFFETT FIELD'S REMEDIAL ACTION OF US DEPARTMENT OF THE NAVY UNDER CONTRACT NUMBER N62473-08-D-8822. RELATED ACTIVITIES INCLUDE UTILITY CLEARANCE, MEMBRANE INTERFACE PROBE AND CONTINUOUS CORE BORINGS, MONITORING WELL INSTALLATION, SUBSTRATE INJECTION, PERIODIC MONITORING PER ATTACHED STATEMENT OF WORK.

Amend 0

Storm Drain Plugging;

Deviations approved

Approved for Construction
Moffett Field Permit Board
3/25/2010
Chief Building Official

Building number ____ Room number/location ____

Additional Permits Required

Permits internal to NASA Ames

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Amend 1

Permits external to NASA Ames

- ☐ Water discharge
- ☐ Underground tanks
- ☐ Air quality
- ☐ Toxic or hazardous material
- ☐ ____
- ☐ ____

RECEIVED
10 MAR 25 PM 12:59
OICC/ROICC

Approved for Construction

Chief Building Official, RCE ____ Date ____

National Aeronautics and Space Administration

PERMIT AND INSPECTION RECORD TO BE POSTED AT JOB SITE INSPECTION RECORD

Permit No. 100215

Hold-points for inspections	Required yes / no	Signature	Date
Underground Utilities After piping/conduit is in place and bedded, but before it is covered	☐ ☐		
Foundation/Concrete Prepour After formwork/rebar is in place, but before concrete is mixed	☐ ☐		
Frame After framing, rough electrical, plumbing, vents, and duct work are in place, but before sheathing	☐ ☐		
Roof Deck	☐ ☐		
Lath or gypsum	☐ ☐		
Insulation Walls, ceiling and floor	☐ ☐		
T-bar grid Light fixtures, diffusers and seismic bracing	☐ ☐		
Electrical Raceways, pull boxes and smoke detection	☐ ☐		
Mechanical Ducts, HVAC units, vents, and fire dampers	☐ ☐		
Plumbing DWV piping, water supply and gas supply lines	☐ ☐		
Fire sprinkler Pressure test, bracing and piping system, alarm pre-test, final acceptance test	☐ ☐		
Bolt/Welding After bolts are tightened and welds made, but before painting or covering	☐ ☐		
Surface preparation After preparation for painting, but before painting	☐ ☐		
Hazardous analysis Checking for lead and asbestos	☒ ☐		
High pressure air 140 PSI, 3000 PSI, 6000 PSI shop air	☐ ☐		
Sterilization of water piping	☐ ☐		
Compaction testing	☐ ☐	Approved for Construction Moffett Field Permit Board	
Other	☐ ☐	3/25/2010 Chief Building Official	
As-built drawings	☒ ☐		
Final inspection	☒ ☐		

Call the Construction Permit Office at 4-2607 for inspection 24 hours in advance and prior to covering any work

RETURN SIGNED INSPECTION RECORD AND AS-BUILT DRAWING TO PERMIT OFFICE (M/S 213-11, N213, ROOM 28) AT PROJECT COMPLETION

Permit Detail Report

Permit Number:	10Q027	**Status:**	To CBO		
ECO #:		**Permit Type:**	Quick Permit		
Location:	SITE 28	**Title:**	SITE 28 ABIOTIC/BIOTIC TREATMENT PILOT STUDY		
Manager Name:	GARY MUNEKAWA	**PM Org.:**	NAVY	**PM Phone:**	3-9834

Construction Permit Office

Received Date:	02/23/2010	**Review Days:**	5	**Review Start Date:**	03/10/2010
				Review Due Date:	03/16/2010

Construction Branch Office

To CBO:	00/00/00	**Est. Const. Start:**	00/00/00	**Inspection Rec:**	00/00/00
Date Signed:	00/00/00	**Est. Const. Comp:**	00/00/00	**As Built Rec:**	00/00/00

Permit Description:

1. PROPOSED ABIOTIC/BIOTIC PILOT STUDY INJECTS THREE(3) DIFFERENT REAGENT MIXTURES INTO THREE DISCRETE AREAS OF CHLORINATED ETHENE CONTAMINATION AT INSTALLATION RESTORATION SITE 28, FORMER NAVAL AIR STATION MOFFETT FIELD, MOUNTIN VIEW, CALIFORNIA.
2. PILOT STUDY IS A COMPONENT OF MOFFETT FIELD'S REMEDIAL ACTION OF U.S. DEPARTMENT OF THE NAVY UNDER CONTRACT NUMBER N62473-08-D-8822.
3. RELATED ACTIVITIES INCLUDE UTILITY CLEARANCE, MEMBRANE INTERFACE PROBE AND CONTINOUS CORE BORINGS, MONITORING WELL INSTALLATION, SUBSTRATE INJECTION, PERIODIC MONITORING PER ATTACHED STATEMENT OF WORK.

Permit Comments:

CODE: Civil - Charlie Tonda, Approved.

PLANNING: Rocci Caringello, Approved.

PLANT ENGINEERING: Sal Navarro, Approved.

FIRE MARSHAL: Herb Jewell, Approved.

SECURITY: Robert Nakahara, Approved.

SAFETY: Lizzette Vargas-Malpica, Approved.

SAFETY: Fire - Dan Kaiser, Approved.

Record Label	Return Date	Disposition	Days Late
Code Compliance:	03/10/2010	Approved	0
Other:	03/11/2010	Approved	0
Other:	03/12/2010	Approved	0
Planning:	03/24/2010	Approved	0
Plant Engineering:	03/13/2010	Approved	0
Safety - (Fire):	03/11/2010	Approved	0
Safety:	03/12/2010	Approved	0

Ames Research Center

RECEIVED
10 MAR 25 AM 9:15

SAFETY CLEARENCE PERMIT

Contractor: SHAW	OICC/ROICC	Project: IR SITE 28 TREATABILITY STUDY
		Contract: EMAC
		Log No.
		Date: FEBRUARY 11, 2010
		Permit No.: 10Q027
		Dates of work: MARCH 2010 - JULY 2011
		Hours of work: 0700 - 1700

Location of work: MOFFETT FIELD IR SITE 28, WEST OF HANGAR 1 SEE ATTACHED DWG

TYPE OF PERMIT REQUESTED

☐ Electrical Power — See Spec. Section 01120		Voltage: OBSERVATION WELLS
☒ Excavation — Attach plan, cross-section, & shoring details		Maximum depth of cut: 8" DIA X 65' DEEP MAXIMUM BOREHOLE DEPTH OF 65 FEET BELOW GRADE
☐ High Noise Level		Type of equipment: WELL DRILLING EQUIP.
☐ Open Flame*		Type of device
☒ Welding/Flame Cutting* — Fire watch required		Elevation
☒ Confined Space* — Renew daily		Type of space / operation
☐ Radiation* — See precautions on work page		License number
☐ Explosives* — See precautions on work page		License number
☐ Facility Closure		Facility

Amend 2

*** REQUIRES APPROVAL OF HEALTH AND SAFETY OFFICE**

Proposed means of mitigating the hazard

SEE ATTACHED ACTIVITY HAZARD ANALYSIS

Contractor Supervisor/Foreman	Date	~~NASA~~ Technical Monitor / COTR	Date
510 TIM RIDD 427-835		3-9824 Gary MUNEKAWA	

NASA ACTION

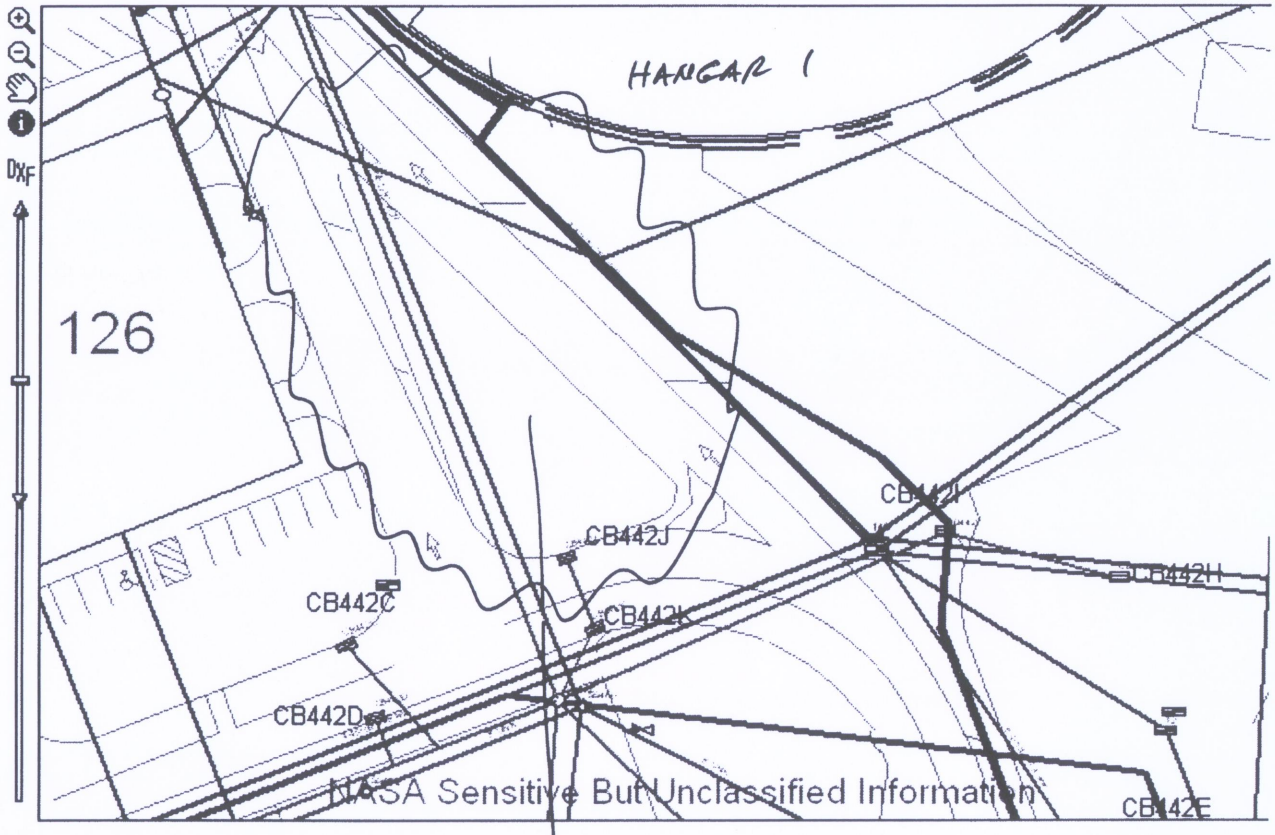
☐ Restricted hours of work	Hours	Dates
☒ Permit granted - Contigent upon restrictions in remarks		
☐ Permit denied - Not submitted in a timely manner	☐ Permit denied - Reasons in remarks	

Remarks: Locate and avoid existing underground utilities per Ames Safety Manual APG 1700.1 paragraph 27.9.13. See attached GIS drawing.

Name, Title	Phone	Signature	Date
C SMITH	604 6895	C. Smith	3-25-10

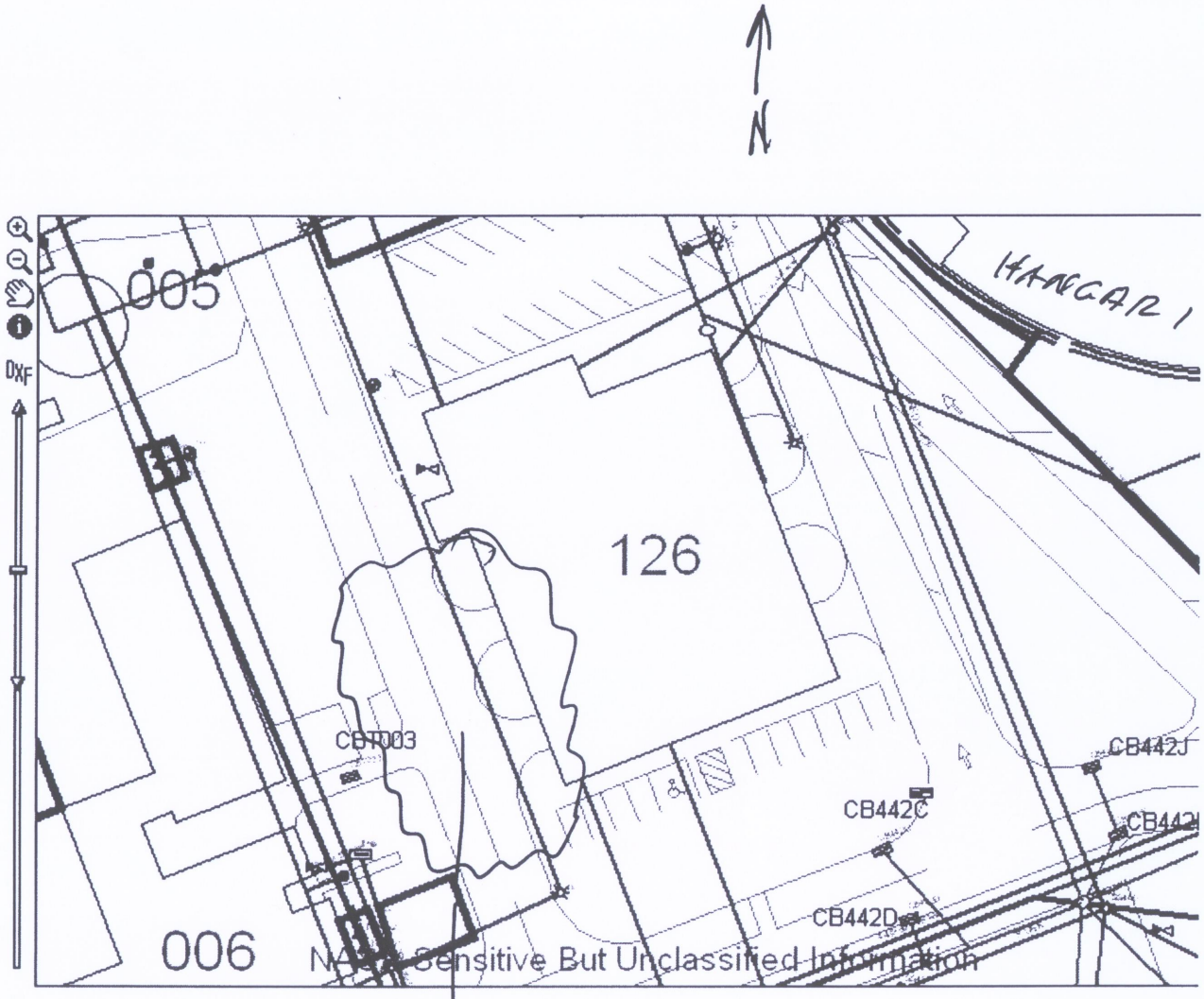
All Utilities

N



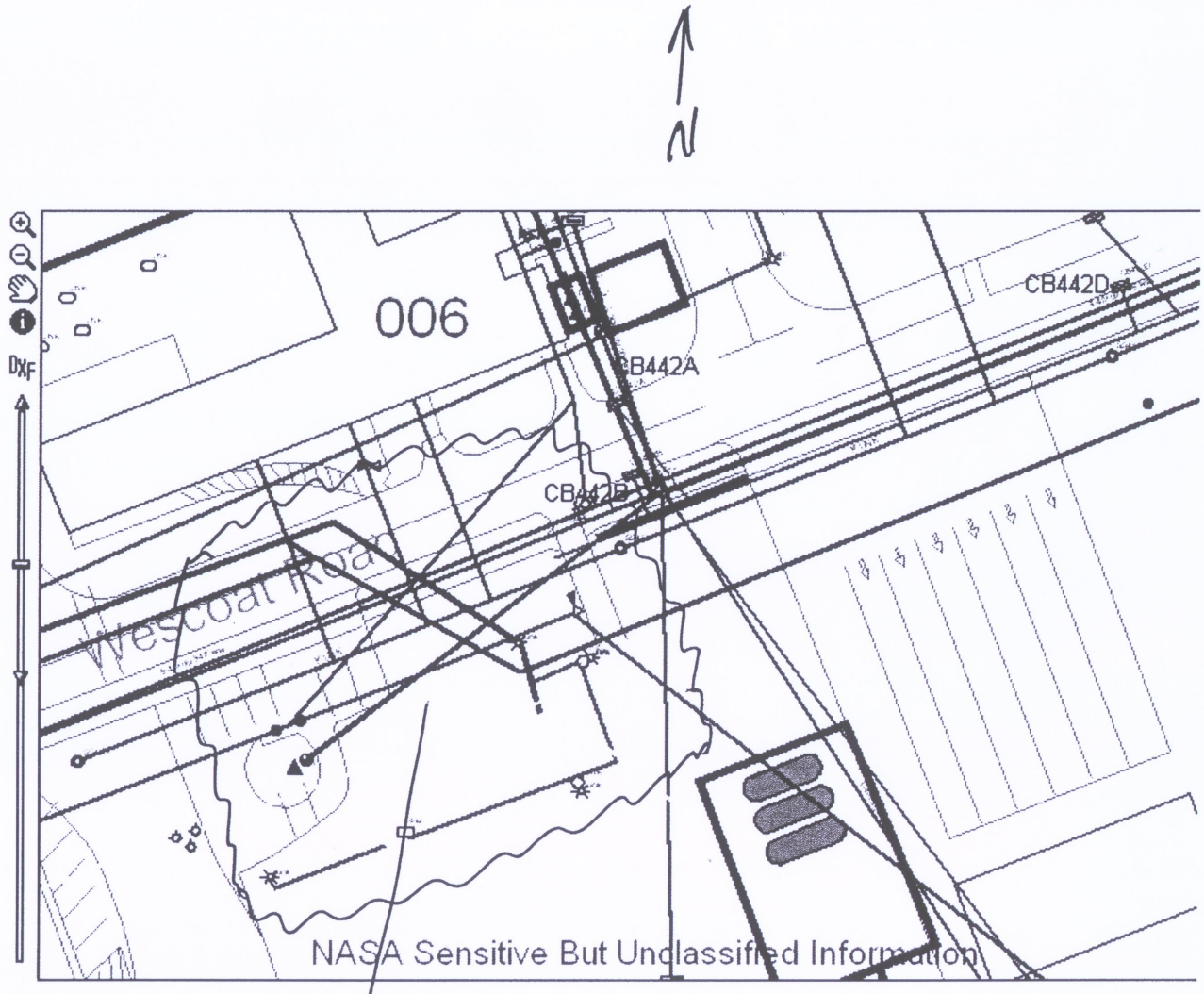
WELL BORING AREA SEE ATTACHED DWG FIG. 1

All Utilities

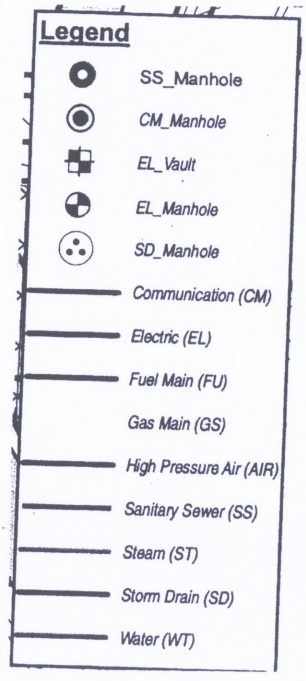


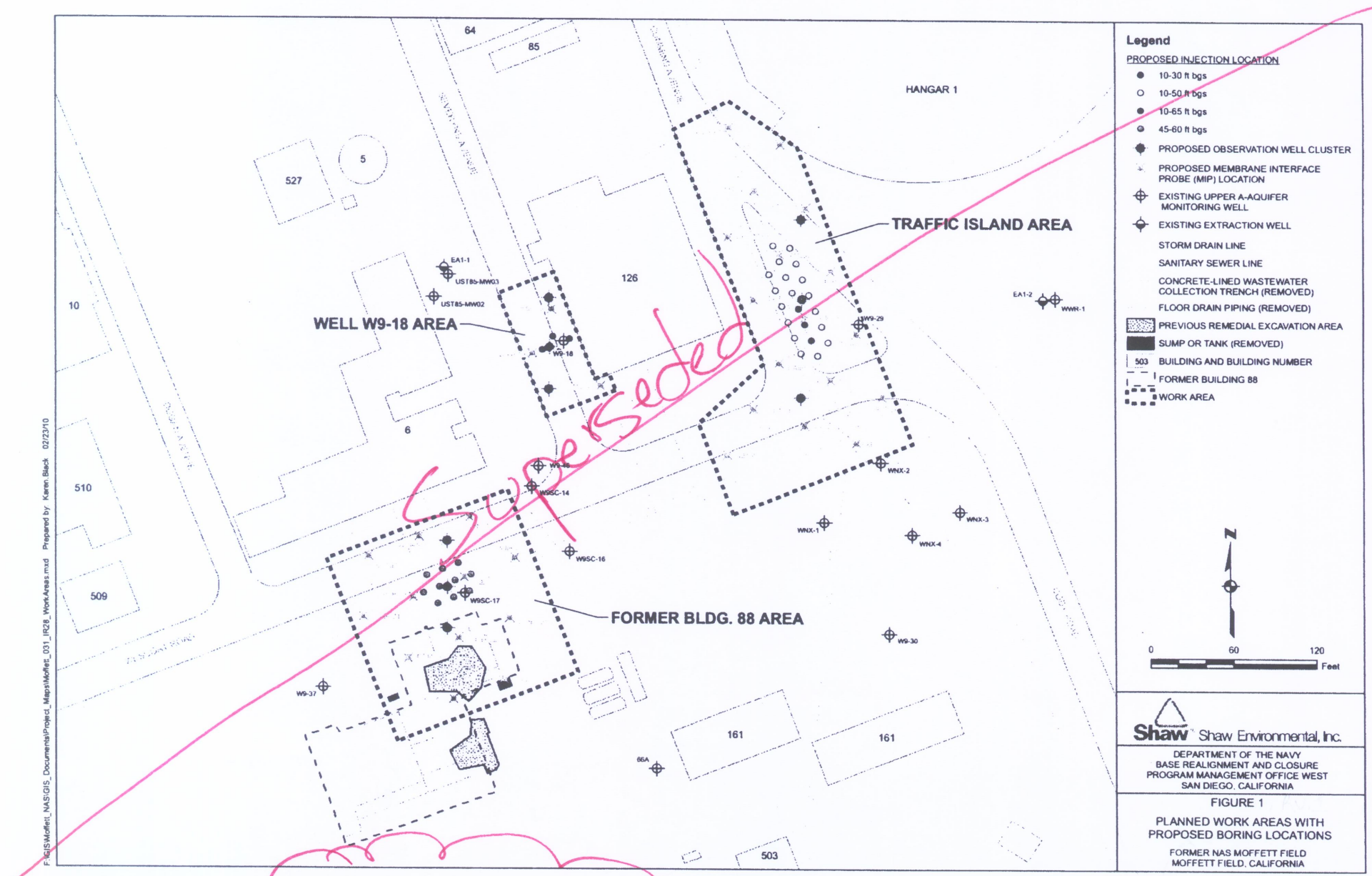
WELL BORING AREA SEE ATTACHED DWG FIG. 1

All Utilities



WELL
BORING AREA
SEE ATTACHED DWG.
FIG. 1

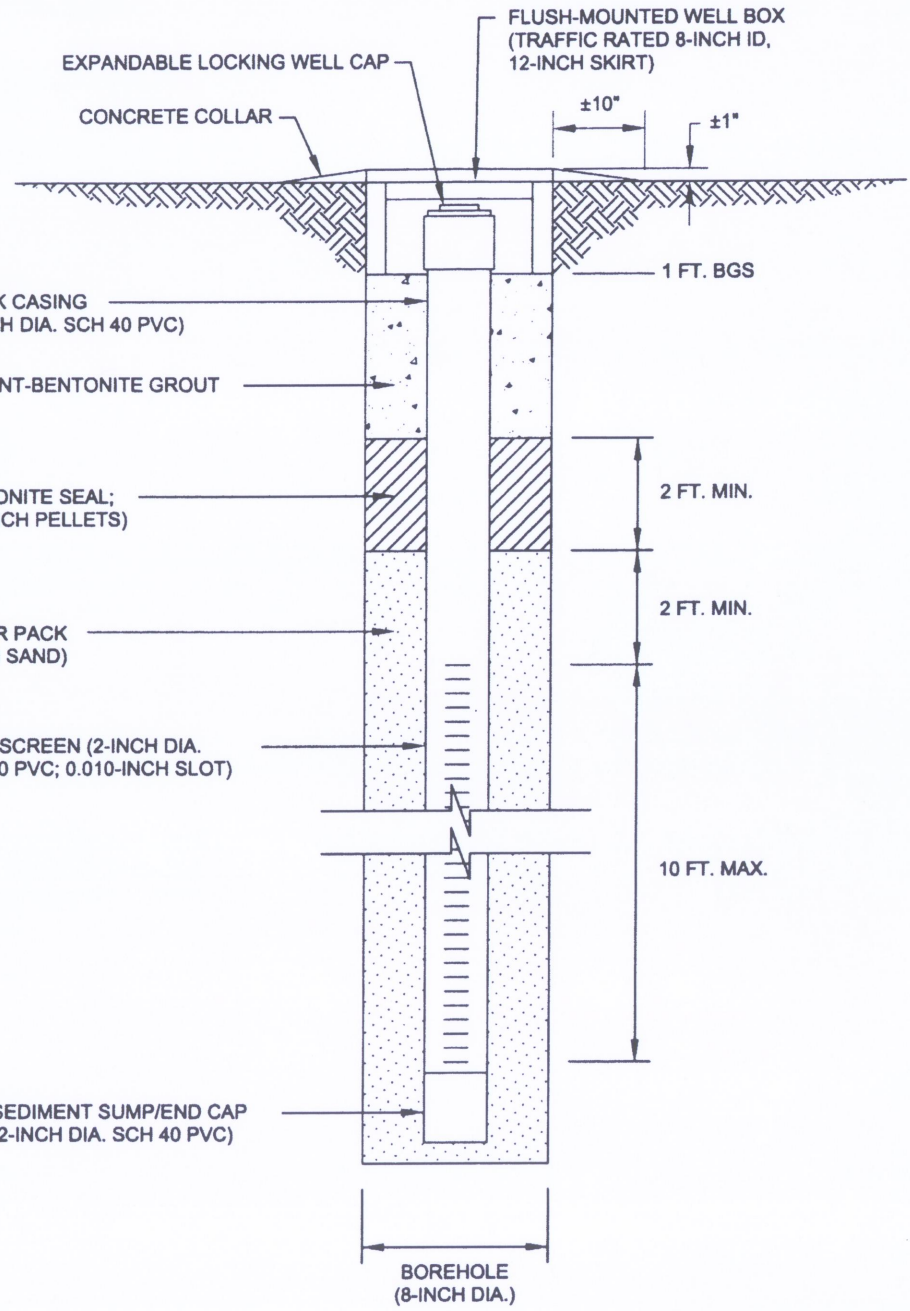

Legend
SS_Manhole
CM_Manhole
EL_Vault
EL_Manhole
SD_Manhole
Communication (CM)
Electric (EL)
Fuel Main (FU)
Gas Main (GS)
High Pressure Air (AIR)
Sanitary Sewer (SS)
Steam (ST)
Storm Drain (SD)
Water (WT)



PLEASE SEE ATTACHED REPLACEMENT DRAWING

Amend 3

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	Concord	KAB	10/5/09			133816-A8



NOT TO SCALE

Shaw® Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 9

TYPICAL OBSERVATION WELL
CONSTRUCTION DIAGRAM

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA

Environmental Checklist

Project Name: MOFFETT FIELD IR SITE 28 TREATABILITY STUDY Date: FEBRUARY 11, 2010

Project Contact: NEIL HEY Phone No.: (925) 288-2141

Bldg. No. and Location: IR SITE 28, WEST OF HANGAR 1, MOFFETT FIELD

Description of Project: DRILLING, WELL INSTALLATION, SUBSTRATE INJECTION, PERIODIC MONITORING

Environmental Impacts:

"Yes" responses may require the project to prepare an Environmental Assessment or conduct additional studies.

	Yes	Maybe	No
A. Geologic:			
a. Greater than 10 % change in topography or ground surface relief features?			X
b. Any increase in wind or water erosion of soils, either on or off site?			X
c. Changes in deposition, siltation, or erosion that may modify the wetlands or bay?			X

Explain all "yes" and "maybe" answers:

	Yes	Maybe	No
B. Air:			
a. Substantial air emissions or deterioration of ambient air quality?			X
b. The creation of objectionable odors?		X	
c. Alteration of air movement, moisture, temperature, or any changes in climate, either locally or regionally?			X

Explain all "yes" and "maybe" answers: LOCALIZED, TRANSIENT ODOR DURING SUBSTRATE INJECTION

	Yes	Maybe	No
C. Water:			
a. Disturbance of groundwater?	X		
b. Greater than 10% changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?			X
c. Alter the course or flow of flood waters?		X	
d. Alteration of the direction or rate of ground waters?			X
e. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?			X
f. Activities resulting in changes to total potable water use greater than 10 percent (more than 851,000 gal/yr)?			X
g. Any construction or other activity in a floodplain or wetland?		X	

Explain all "yes" and "maybe" answers: NON-TOXIC SUBSTRATES TO BE INJECTED INTO GROUNDWATER

STORM DRAIN TO BE TEMPORARILY DAMMED AND WATER POTENTIALLY RE-ROUTED

Amend 4

Amend 5

	Yes	Maybe	No
D. Cultural Resources:			
a. Is the project located in an historic district or effects an existing landmark?			X
b. Will the project alter a building that is 50 years or older?			X
c. Is the project located in an area of suspected archaeological resources?			X

Explain all "yes" and "maybe" answers:

	Yes	Maybe	No
E. Biological Resources:			
a. Construction/grading/filling within or adjacent to designated wetlands?			X
b. Reduction of the numbers of any rare, or endangered species?			X
c. Reduction in the numbers of any rare or endangered species of plants?			X
d. Introduction of new species or plants into an area, or impacts the normal replenishment of existing species?			X
e. Propose construction activities in borrowing owl habitat?			X

Explain all "yes" and "maybe" answers:

F. Noise:

	Yes	Maybe	No
a. An on-going increase greater than 10%?			X
b. Exposure of people to severe noise levels (above 80 dBA)? (PROJECT WORKERS ONLY)		X	
c. Increase existing CNEL noise contours surrounding the airfield?			X

Explain all "yes" and "maybe" answers: EMPLOYEES UNDER HEARING PROTECTION PROGRAM AS APPROPRIATE

G. Land Use:

	Yes	Maybe	No
a. Substantial alteration of the present or planned land use or an area?			X
b. Increase in the rate of use of any natural resource?			X
c. Activities resulting in changes of greater than 10 percent of Center energy consumption (2,200,000 KWH of electricity, or 3,130,000 CF of natural gas)?			X
d. Activities resulting in a change in total employment levels greater than 10 percent (More than 620 people)?			X

Explain all "yes" and "maybe" answers:

H. Health and Safety:

	Yes	Maybe	No
a. Generation of ionizing or non-ionizing radiation?			X
b. Generate air emissions?			X
c. Use of pesticides, including insecticides, herb[illegible]s, fungicides or rodenticides?			X
d. Confined space entry?	X		X
e. Risk of exposure to asbestos or lead containing materials?			X
f. Result in the exposure or disturbance of contaminated soil or ground water?	X		
g. Generate waste water or storm water discharge?	X		
h. Use of Class I ozone depleting substances (CFCs, TCA)?			X
i. Acquisition, use, or storage of any toxic or hazardous substance?			X
j. Generation of medical (biohazard), hazardous, toxic, or radiological wastes?		X	
k. Use, disturbance or disposal of PCBs?			

Amend 6

Amend 7

Explain all "yes" and "maybe" answers: SOIL AND GROUNDWATER CONTAMINATED WITH CHLORINATED ETHENES MAY BE CONTACTED, HANDLED, STORED BY APPROPRIATELY TRAINED EMPLOYEES. PERMITTED ENTRY TO STORM DRAIN VAULT.

I. Transportation/Circulation:

	Yes	Maybe	No
a. Generation of substantial vehicle trips (over 620 per day)?			X
b. Effect existing parking facilities or demand for new parking?			X
c. Substantial impact upon existing transportation systems?			X
d. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?		X	

Explain all "yes" and "maybe" answers: TRAFFIC CONTROL PLAN ATTACHED

J. Services:

Will the proposal have an effect upon or result in a need for new or altered government services in any of the following areas?

	Yes	Maybe	No
a. Fire protection?			X
b. Security?			X

Explain all "yes" and "maybe" answers:

K. Environmental Justice:

	Yes	Maybe	No
a. Does the project have the potential to disproportionately affect low income or Minority populations that reside outside the boundaries of Moffett Field?			X

Explain all "yes" and "maybe" answers:

Planning Clearance Application
NASA Ames Research Center

Amend 8

Planning Clearance Application Number: 10PCA041

Date of Application: February 23, 2010 Amended 6/18/10 (In Red Ink + Clouds)

Name of Proposed Construction Project: Site 28 – In-Situ Anaerobic Biotic/Abiotic Treatability Study
Name of Applicant: Neil Hey
Company/Organization of Applicant: Shaw Environmental, Inc.
Business Address of Applicant: 4005 Port Chicago Highway, Concord, CA 94520
Business email address of Applicant: neil.hey@shawgrp.com
Business telephone number of Applicant: Direct: 925-288-2141; Cell: 925-383-2007

Name of Organization or Company for which the proposed construction work is to be performed: U.S. Navy BRAC PMO West

NASA Ames Research Center Project Manager (POC): Don Chuck (Navy ROICCs: Gary Munekawa)

Building, Facility or Location where the proposed construction work is to be performed: Former Bldg. 88 Area

The proposed construction work is (check the most appropriate classification):
__X__ New exterior construction, site work only and no structures or buildings
____ New exterior construction, site work and structures or buildings
____ New interior construction including remodel and renovation. No exterior construction or modifications involved.
____ New interior construction of systems only (electrical, data, fire alarm, security, plumbing, fire protection, process piping)
____ Demolition, site work only and no structures or buildings
____ Demolition, site work and/or structures or buildings

A description of the proposed construction work: In-Situ treatment of soil and groundwater contamination

Purpose for performing the proposed construction work: Remediate soil and groundwater contamination

Square Feet and/or acres of the area of construction work: 1.2 Acres combined total

How long will the proposed construction work/improvements be required for the intended use: March 22, 2010 thru October 27, 2011

What is the current use and/or most recent use of the area where the construction work is to take place: Open space, roadway and traffic island

Schedule for starting and completing the proposed construction work: March 22, 2010 to October 27, 2011

Current estimated cost of all proposed construction work: $620,000

Funding for the proposed improvements:
What is the source of funding for the proposed construction work: U.S. Navy Environmental Multiple Award Contract
Is the funding already committed for the proposed construction work? Yes
If the funding is not already committed, when will the funding be committed and available? N/A
Is there any uncertainty that that funding will be available for the proposed construction work? No

Note: Additional information may be requested by the Ames Planning Office depending on the information provided above by the applicant.

By submitting the Planning Clearance Application to the NASA Ames Construction Permit Office, the Applicant attest that the information provided on the Planning Clearance Application is true and correct to the best knowledge of the Applicant on the date the Planning Clearance Application is submitted.

Planning Clearance Application
NASA Ames Research Center

Planning Clearance Review Determination Document

Planning Clearance Application Number: *10PCA041*

Date of Application: *Feb. 23, 2010*

Name of Proposed Improvement Project: *Site 28 – In-Situ Anaerobic Biotic/Abiotic Treatability Study*

Name of Applicant: *Neil Hey / Gary Munekawa(Navy ROICCs)*

Company/Organization of Applicant: *U. Navy BRAC PMO West*

Planning Clearance Reviewer:
Name of Planning Clearance Reviewer: Rocci Caringello

Organization Planning Clearance Reviewer: Code JCE

Business email address of Planning Clearance Reviewer: tony.r.caringello@nasa.gov

Business telephone number of Planning Clearance Reviewer: 650-603-9506

Date Planning Clearance Review is completed: 3-1-2010

Planning Clearance Review Permit Fee Required: NO

Has the Planning Clearance Review Fee been paid? N/A

Determination of Planning Clearance Review Determination (Planning Clearance Reviewer to select one of the below):
Approved: ✓
Approved with Conditions of Approval:
Disapproved:

Conditions of Approval: _____

Reasons for Disapproval: _____

Planning Reviewer signature: Rocci Caringello **date:** 3/1/2010

Attachment 2
Planned Work Areas with Proposed Boring Locations, Rv. 1

SD432
SD431
SD443
CB443E
CB443F
CB443D
CB443C
CB443B
CB443A
64
85
5
527
126
6
HANGAR 1
SEVERYNS AVENUE
CUMMINS AVENUE
Approximate Location of Sanitary Sewer Bypass
RE STREET
33
347
WESCOAT ROAD
CODY ROAD
Cypress Tree
Cypress Tree
TRAFFIC ISLAND AREA
28OW-01, 28OW-02, 28OW-03, 28OW-04
28OW-08
28OW-05, 28OW-06, 28OW-07
28OW-12
WELL W9-18 AREA
28OW-13, 28OW-14
28OW-15, 28OW-16
28OW-17, 28OW-18
CB442I
CB442H
CB442J
CB442K
CB442C
O/W 25
SD442
CB442D
28OW-09, 28OW-10, 28OW-11
CB442E
28OW-19, 28OW-20
28OW-21, 28OW-22
CB442A
CB442B
FORMER BLDG. 88 AREA
SUMP 66
28OW-23, 28OW-24
CB442G
CB442F

Legend

- PROPOSED OBSERVATION WELL CLUSTER
- PROPOSED INJECTION LOCATION
  - 10-30 ft bgs
  - 10-50 ft bgs
  - 10-65 ft bgs
  - 35-60 ft bgs
- STORM DRAIN CATCH BASIN
- STORM DRAIN MANHOLE
- STORM DRAIN LINE
- SANITARY SEWER LINE
- SECTION OF THE SANITARY SEWER LINE THAT REPORTEDLY COLLAPSED (PRC, 1995)
- COMMUNICATION
- ELECTRIC
- GAS
- WATER
- CONCRETE-LINED WASTEWATER COLLECTION TRENCH (REMOVED)
- FLOOR DRAIN PIPING (REMOVED)
- FORMER AIRCRAFT WASH RACK
- PREVIOUS REMEDIAL EXCAVATION AREA (7 TO 8 FT. BGS)
- SUMP, TANK, OR OIL/WATER SEPARATOR (REMOVED)
- 503 BUILDING AND BUILDING NUMBER

PRC, 1995 - "Final Horizontal Conduit Study Technical Memorandum Text, Tables, and Figures," dated August 4, 1995, prepared by PRC Environmental Management, Inc.

N

0 60 120 Feet

Shaw® Shaw Environmental, Inc.

DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

DRAFT, RV. 1

PLANNED WORK AREAS WITH PROPOSED BORING LOCATIONS

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA

C:\GIS\Moffett_NAS\GIS_Documents\Project_Maps\Moffett_041_IR28_borings.mxd Karen.Black 06/07/10

Attachment 3
Activity Hazard Analysis for Storm Drain Entry

ACTIVITY HAZARD ANALYSIS FOR STORM DRAIN ENTRY

SECTION 1

Location:	Contract No.:	Project Title:
Former Naval Air Station, Moffett Field	Contract Number N62473-08-D-8822, Contract Task Order 0004	Phytoremediation, Abiotic/Biotic Pilot test at IR Site 26,
Prime Contractor:	**Subcontractors:**	**Reviewer/date**
Shaw Environmental Inc.	none	F. J. Mlakar / June 4, 2010

General description for scope of work of this activity:
Enter storm drain manhole to place and remove inflatable packers.

Principal Steps	Potential Safety/Health Hazards	Recommended Controls
Manhole cover removal	Musculoskeletal strain or sprain	• Use manhole cover removal tool. • Place cover safely away from manhole
Preparation for entry	Atmospheric hazards	• The storm drain shall be considered permit-required confined space until all potential life threatening hazards have been abated. • Confined-space entry shall be performed in accordance with Shaw E &I Procedure No. HS300, "Confined Spaces". • An attendant shall be present outside the manhole whenever workers are inside the storm drain and shall maintain continuous contact with the entrants. • The interior of the storm drain will be monitored before entry and continuously during entry with real-time instruments for explosive atmospheres (lower explosive limit), oxygen, hydrogen sulfide, and organic vapors. • Do not enter the space if any of following conditions exist. Use mechanical ventilation until safe conditions are established and throughout the entry. – Oxygen levels below 19.5% or above 23.5% – lower explosive limit exceeding 10% – Hydrogen sulfide above 10 parts per million (ppm) or – Organic vapors above 50 ppm as measured by PID calibrated to isobutylene

ACTIVITY HAZARD ANALYSIS FOR STORM DRAIN ENTRY

Principal Steps	Potential Safety/Health Hazards	Recommended Controls
Tripod Set up	Muscle strain, pinch points	• The tripod should be carried and set up by 2 workers • Use abrasion resistant gloves. Beware of hand placement.
	Poisonous spiders	• After the atmospheric testing indicates the space is safe for entry, inspect in and around the manhole entrance for spiders and safely remove and destroy them if found.
Placing and removing inflatable packers	Muscle strain, pinch points	• Use lifting aids if needed.
	Pinch Points	• Keep feet and hands clear of moving/ suspended materials and equipment.
Changed or unanticipated Conditions	Safety or health hazards that may be derived from changed or unanticipated conditions	• Modify the AHA as often as necessary to address new or unanticipated hazards. Use SEI procedure HS045 "Job Safety Analysis" to facilitate field documentation

SECTION 2

ACTIVITY: Storm Drain Entry

Equipment To Be Used	Inspection Requirements	Training Requirements
• Tripod, harness, • 4 or 5 gas meter, • PID • Hard hat, abrasion resistant gloves, safety glasses, long pants, safety boots, and sleeved shirt	• Inspect equipment daily and before use by competent person, Mark Vennemeyer.	• Permit Required Confined Space entrant/attendant training • Permit Required Confined Space supervisor training (Mark Vennemeyer) • Tailgate safety meeting

From:	Vennemeyer, Mark
To:	john.g.west@nasa.gov
Cc:	Hey, Neil; Ripp, Timothy L
Subject:	MSDS and Storm Drain interferences
Date:	Wednesday, June 23, 2010 8:48:58 PM
Attachments:	LactOil MSDS 12-08.pdf WilClear MSDS 1-07.pdf SDC-9 DHC MSDS.pdf EHC msds.pdf

---

John,

Thanks again for meeting with us today.
Please see attached for the MSDSs of the various materials we plan to use as part of the Pilot test study / Injection Treatment at Moffett Field. In summary, the materials are as follows:

EHC a dry powder of organic carbon substrate with zero-valent iron – 81 (50-pound) bags

LactOil a soy microemulsion – 12 (265-gallon) totes

WilClear a 60% sodium lactate solution – 1 (265-gallon) tote and 1 (55-gallon) drum

SDC-9 a concentrated DHC microbial consortium – 8 (20-liter) stainless steel containers

Also to summarize our Safety/mitigation plans, Shaw will do the following:

In the event that rain is forecasted, any liquids accumulated in the isolated section(s) of the storm drain(s) will be recovered and the plugs removed prior to the predicted rain event. This will be accomplished with a clean vacuum tanker truck to remove any liquids and transport these to the WATS system for treatment and discharge under NPDES permit. Once all liquids are removed from the manhole/catch-basin/etc., the plugs will be removed.

In the event of a catastrophic water release, Shaw will have a high volume pump (3 inch or greater) and sufficient length of hose (~500 feet) to act as a bypass for the isolated section of storm drain. An equipment rental company will be contracted to have the equipment on a “standby” basis for immediate use. In addition to this method, Shaw will utilize the vacuum tanker truck to transfer accumulated liquids, as appropriate.
Shaw will NOT remove the plugs and release any potentially contaminated water until the inflow of “clean” waters has been eliminated.

Shaw anticipates having SD442 plugged (along Wescoat road) in late July (7/28 through 8/2).
Shaw anticipates having the section of line between SD442 and SD443 plugged in early August (8/4 through 8/16).

Shaw will notify you via e-mail of the exact dates and sections blocked. If there is anyone else we should notify, please let one of us know and we will make sure to contact them
Shaw will also contact the Facilities’ Trouble Desk (650) 604-5212 prior to plugging any storm drain and when the plugs have been removed.
If there is any sort of emergency that may be impacted by the closure of the Storm Drain sections, please have one of names below contacted as soon as possible and we will immediately mobilize to site to open or bypass the isolated drain lines. If you have questions, concerns, or comments, please contact us at the following cell phone numbers:
Timothy Ripp - Field Geologist/Site Supervisor at (510) 427-8350
Mark Vennemeyer, Site Safety Officer, QC Officer at (925) 383-6502
Neil Hey, Project Manager at (925) 383-2007

Mark Vennemeyer
CQC Manager / T&D Coordinator / SHSO
Moffett Field
Moffett Field, CA 94035
(925) 383-6502 Cell

From:	Vennemeyer, Mark
To:	Hey, Neil; Munekawa, Gary J CIV NAVFAC SW; Smith, David R CIV NAVFAC SW
Cc:	Ripp, Timothy L
Subject:	RE: NASA Construction permit amendment approval chronology - Update 6/25/10
Date:	Sunday, June 27, 2010 3:59:52 PM

Just to keep everyone updated:

On Friday, June 25, 2010. I met with Lizette Vargas-Malpica (Safety Specialist with Consolidated Safety Services for NASA – ARC.

We briefly discussed the scope of work Shaw is performing at IR-28 and the needs for a Confined Space Entry access.
She reviewed Shaw's Confined Space Entry policy (HS300) asked me a few questions regarding Shaw's approach and technique regarding PRCSE (Permit Required Confined Space Entry).

She asked if Shaw was carrying all certifications and safety training documents on site for staff assigned positions in the PRCSE. We are.
She asked about our frequency of monitoring the atmosphere in a PRCSE. While there was no set time (OSHA requires a "periodic monitoring), Shaw maintains a continuous direct reading of the PRCSE area. This frequency conforms to the rules used at Moffett. She asked that record the reading at least every fifteen minutes (15).
Permits are only good for one shift or less.
We need to cordon off the work area to prevent any unauthorized person or vehicles from entering the vicinity of the PRCSE.
Shaw needs to contact the emergency dispatch number prior to any entry. If rescue services are occupied at that time, Shaw may need to delay entry until they are available.
Shaw does NOT intend to reclassify any of the manholes to a Non-PRCSE.
Lizette is currently checking to see if Moffett will want a copy of the Permit for files. If so, I indicated I would scan or fax a copy over to them at the end of day.

In short, she accepted all of the Shaw procedures regarding confined space entry and requested a few minor modifications to the usual operations (such requests were not unexpected and should not cause any significant amount of concern or conflict with operations).

Let me know if you have any questions or concerns regarding this matter,

Mark Vennemeyer

From: Vennemeyer, Mark
Sent: Wednesday, June 23, 2010 21:07
To: Hey, Neil; 'Munekawa, Gary J CIV NAVFAC SW'; 'Smith, David R CIV NAVFAC SW'
Cc: Ripp, Timothy L
Subject: NASA Construction permit amendment approval chronology

Neil,

The following is a summary of the events surrounding the approval of the amendment of Construction Permit 10Q027:

Monday, June 21. Shaw delivers copies of permit to ROICC for review and distribution to the NASA permit board.

Monday ~12:00 pm, I received a phone call from Gary Munekawa (ROICC) indicating that verbal approval had been given by Rocci Caringello and a full review would not be necessary with the caveats

that Shaw would need to get approval from John West of NASA Ames Utilities manager (phone 650-604-6191) and Lizette Vargas-Malpica NASA Safety specialist (phone 650-604-0286).

Monday Afternoon, I called both parties and left voicemail to indicate our changes and needs.

Tuesday June 22, morning - received call back from Lizette Vargas-Malpica. After a brief explanation of the project tasks and Safety concerns, she agreed to meet on-site at IR-28 on Friday, 6/25. She would call me before coming out.

Wednesday, June 23, Afternoon – I got in touch with John West and explained our concerns regarding the possibility of groundwater infiltration into a closed section of the storm drain. He came to site and discussed possible issues with plugging sections of the storm drain. The section along Wescoat (an ? 8? inch line) was known to have some infiltration. The main line between SD442 and SD443 (along Cody / Cummins road) was not expected to have GW infiltration, but that section serviced a much larger portion of the base. I offered to send along the MSDSs for the injection materials to him via e-mail. He also requested that we indicated our emergency procedures in case a catastrophic water release was to occur (hydrant rupture, water main break, etc.)

Wednesday, evening – I e-mailed the requested MSDSs and a summary of Shaw's plans to John West.

That is it so far. I will update this e-mail as more events/questions come.

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