

District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

30-045-32038

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Dugan Production Corp.	Contact Rodger Mullins	
Address P.O. Box 420 Farmington, NM 87499	Telephone No. 505-325-1821	
Facility Name Patriot # 93S	Facility Type Coal Seam Well	
Surface Owner Federal	Mineral Owner	Lease No. SF 078091

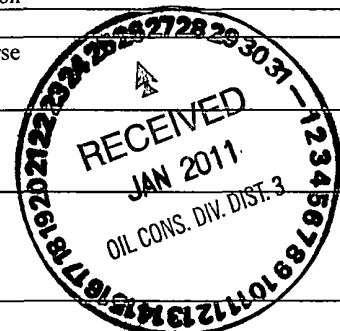
LOCATION OF RELEASE

Unit Letter P	Section 28	Township 26N	Range 13W	Feet from the 790	North/South Line South	Feet from the 790	East/West Line East	County San Juan
------------------	---------------	-----------------	--------------	----------------------	---------------------------	----------------------	------------------------	--------------------

Latitude 36.45416 Longitude -108.21750

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release Approx. 200 BBLS	Volume Recovered 200 BBLS
Source of Release Bottom of steel tank rotted out	Date and Hour of Occurrence 12-26-10 Time Unknown	Date and Hour of Discovery 12-26-10 1000
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	OCD - Brandon Powell If YES, To Whom? BLM - Robert Switzer BLM - Sherri Landon	
By Whom? Rodger Mullins	Date and Hour 12-27-10 0815	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken * Water tank ruptured. Wells shut down & water sucked out of tank.		
Describe Area Affected and Cleanup Action Taken.* 50' circle on location Narrow stream approx 150' to earth tank. Water sucked off location & out of earth tank Blagg Engineering took soil samples Awaiting test results.		



I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations

Signature <i>Rodger V. Mullins</i>		OIL CONSERVATION DIVISION	
Printed Name Rodger Mullins		Approved by District Supervisor. <i>Red Bell</i>	
Title Environmental Manager	Approval Date 1/27/11	Expiration Date	
E-mail Address	Conditions of Approval nJK1122153574	Attached <input type="checkbox"/>	
Date 01-12-2010	Phone 505-325-1821		

* Attach Additional Sheets If Necessary

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

January 28, 2011

Mr. Rodger Mullins
Dugan Production Corporation
P.O. Box 420
Farmington, New Mexico 87499

Re: Patriot 93S: Water Spill Sampling
Sec. 28 – T26N – R13W
San Jan County, New Mexico

Dear Mr. Mullins:

Pursuant to your request, Blagg Engineering, Inc. (BEI) conducted sampling at the Patriot 93S well site on January 11, 2011 following a release of produced water to the ground surface. Water from the spill traveled about 275 feet northeast of the well pad down a small ephemeral wash to a small man-made erosion control retention stop (see attached USGS Topo print and site photo's). Recent snow and freezing temperatures kept the spill contained to the ground surface.

BEI collected surface soil samples from seven (7) locations, beginning at the source area and continuing down the ephemeral wash to the spill terminus. Sample locations included the source area, two points along the wash and three points in the final retention area. Samples were submitted to Hall Environmental Labs in Albuquerque for total petroleum hydrocarbon (TPH) and chloride analysis.

Test results indicate that there was a relative absence of TPH, except for source area sample #2 which yielded a minor result of 25 mg/Kg (parts per million). Pursuant to current New Mexico Oil Conservation Division (NMOCD) Spill and Release Remediation Guidelines (August 13, 1993), the most stringent closure standard for TPH is 100 mg/Kg. This site meets this standard.

There were residual chlorides reported in all samples, ranging from 540 to 6,400 mg/Kg. The NMOCD Spill and Release guidelines do not provide a closure standard for chlorides in soil. There are no published NMOCD chloride closure standards for produced water spills, but rules for soil landfarm operations (Rule 19.15.2.53 (G) (1)) set a chloride standard of 500 mg/L if groundwater is less than 100 feet from the ground surface and 1,000 mg/L if groundwater is greater than 100 feet from the ground surface. Based on groundwater depth maps published by the NMOCD, groundwater appears to be greater than 100 feet from the ground surface at the Patriot 93S and a closure standard of 1,000 mg/L chlorides is appropriate. Although further action to mitigate soil impacts may not be necessary, BEI suggests monitoring vegetation growth for several seasons along the impacted area to insure that no adverse effects are present. Placement of gypsum (CaSO_4) in the impacted areas may reduce the chloride impacts and enhance vegetation growth. It should be noted that the

NMOCD regulated permits for the commercial landfarms in New Mexico prohibit them from accepting soils with a chloride content in excess of 1,000 mg/Kg, so the soils from the Patriot 93S spill may not be excavated and transported to any of these facilities.

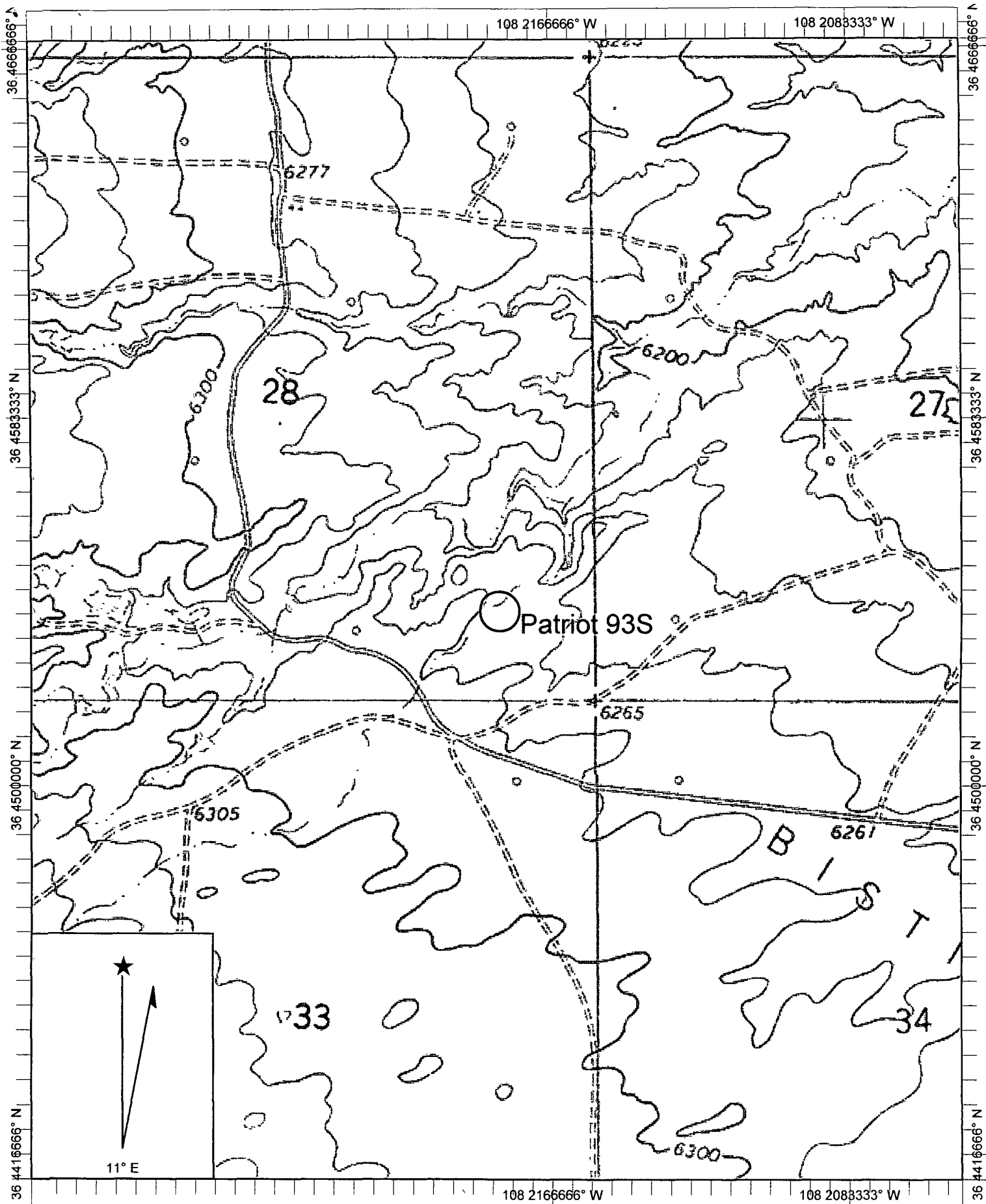
Please direct questions or comments to myself at (505)632-1199. BEI appreciates the opportunity to conduct work for Dugan Production Corporation.

Respectfully submitted:
Blagg Engineering, Inc.

A handwritten signature in black ink, appearing to read "Jeffrey C. Blagg".

Jeffrey C. Blagg, P.E.
President

Attachments: Site Map
Photo's
Lab Reports

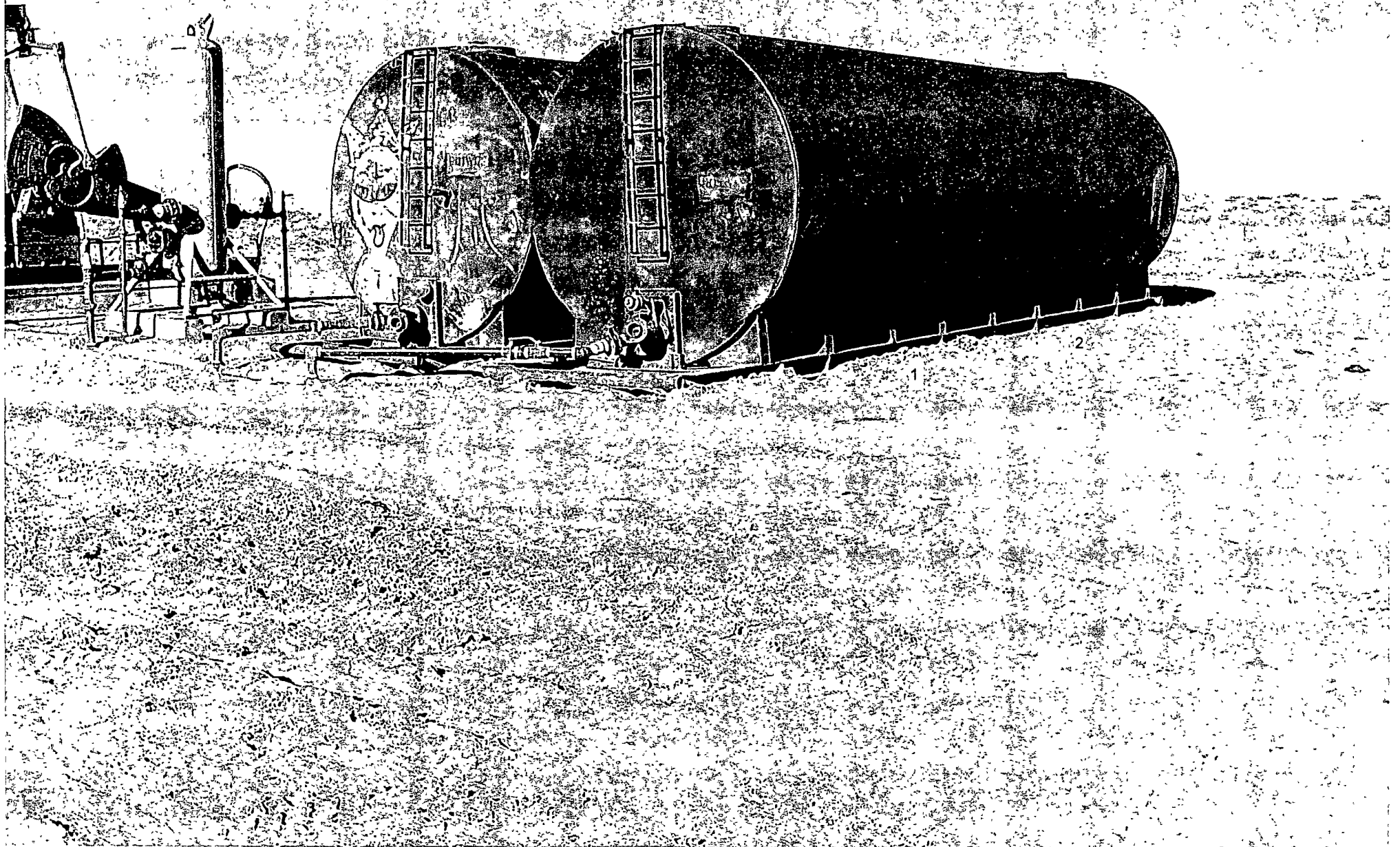


Name: MONCISCO WASH
 Date: 1/28/2011
 Scale: 1 inch equals 1000 feet

Location 036.4539955° N 108.2182050° W
 Caption Dugan Production Corp.
 Patriot 93S

Patriot 93S

Sample Points 1 & 2



Patriot 93S
Sample Points 3 & 4

3

4

Patriot 93S

Sample Points 5, 6 and 7



COVER LETTER

Friday, January 21, 2011

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413

TEL: (505) 632-1199
FAX (505) 632-3903

RE: Patriot 93S

Order No.: 1101345

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 1/12/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Chain-of-Custody Record		Turn-Around Time:	
Client: <u>BLAGG ENGINEERING INC.</u>		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
Mailing Address: <u>P.O. Box 87</u>		Project Name: <u>PATRIOT 93 S</u>	
<u>BLOOMFIELD NM 87413</u>		Project #:	
Phone #: <u>505-632-1199</u>		Project Manager:	
email or Fax#:		<u>JEFF BLAGG</u>	
QA/QC Package:			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation		Sampler: <u>JEFF BLAGG</u>	
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> EDD (Type) _____		Sample Temperature: <u>58</u>	

☒ **Standard** ☐ **Rush**

PATRIOT 93 S

Project #

Project Manager:

JEFF BLAGG

Sampler: Jeff Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 28

HEAL No.

1101345


www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Date	Time	Relinquished by	Received by	Date	Time
11/20/11	1605	Jeff Blogg		11/21/11	1115
Date	Time	Relinquished by	Received by	Date	Time

Remarks:
GRO + DRO ONLY ON TPH

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jan-11

CLIENT: Blagg Engineering

Client Sample ID: Grab #1

Lab Order: 1101345

Collection Date: 1/11/2011 10:20:00 AM

Project: Patriot 93S

Date Received: 1/12/2011

Lab ID: 1101345-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/15/2011 11 14 50 PM
Surr DNOP	106	81	8-129	%REC	1	1/15/2011 11 14 50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst NSB
Gasoline Range Organics (GRO)	ND	5	0	mg/Kg	1	1/17/2011 12 10 24 PM
Surr BFB	103	89	7-125	%REC	1	1/17/2011 12 10 24 PM
EPA METHOD 300.0: ANIONS						Analyst SRM
Chloride	3000	150		mg/Kg	100	1/13/2011 8 34 34 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
I Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jan-11

CLIENT: Blagg Engineering
Lab Order: 1101345
Project: Patriot 93S
Lab ID: 1101345-02

Client Sample ID: Grab #2
Collection Date: 1/11/2011 10:23:00 AM
Date Received: 1/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst JB
Diesel Range Organics (DRO)	25	10		mg/Kg	1	1/15/2011 11 48 11 PM
Surr DNOP	107	81	8-129	%REC	1	1/15/2011 11 48 11 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst NSB
Gasoline Range Organics (GRO)	ND	5	0	mg/Kg	1	1/17/2011 12.39 21 PM
Surr BFB	102	89	7-125	%REC	1	1/17/2011 12 39 21 PM
EPA METHOD 300.0: ANIONS						Analyst SRM
Chloride	6400	750		mg/Kg	500	1/14/2011 4 41 13 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jan-11

CLIENT: Blagg Engineering
Lab Order: 1101345
Project: Patriot 93S
Lab ID: 1101345-03

Client Sample ID: Grab #3
Collection Date: 1/11/2011 10:26:00 AM
Date Received: 1/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2011 12 21 32 AM
Surr. DNOP	107	81	8-129	%REC	1	1/16/2011 12 21 32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5	0	mg/Kg	1	1/17/2011 1 08 13 PM
Surr BFB	104	89	7-125	%REC	1	1/17/2011 1 08 13 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	940	30		mg/Kg	20	1/14/2011 4 58 38 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jan-11

CLIENT: Blagg Engineering
Lab Order: 1101345
Project: Patriot 93S
Lab ID: 1101345-04

Client Sample ID: Grab #4
Collection Date: 1/11/2011 10:29:00 AM
Date Received: 1/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2011 12 54 54 AM
Surr DNOP	107	81	8-129	%REC	1	1/16/2011 12 54 54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst NSB
Gasoline Range Organics (GRO)	ND	5	0	mg/Kg	1	1/17/2011 1 37 10 PM
Surr BFB	103	89	7-125	%REC	1	1/17/2011 1 37 10 PM
EPA METHOD 300.0: ANIONS						Analyst SRM
Chloride	540	30		mg/Kg	20	1/14/2011 5 16 02 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jan-11

CLIENT: Blagg Engineering
Lab Order: 1101345
Project: Patriot 93S
Lab ID: 1101345-05

Client Sample ID: Grab #5
Collection Date: 1/11/2011 10:32:00 AM
Date Received: 1/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2011 1 28 15 AM
Surr DNOP	108	81.8-129		%REC	1	1/16/2011 1 28 15 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/17/2011 2 06 06 PM
Surr BFB	103	89.7-125		%REC	1	1/17/2011 2 06 06 PM
EPA METHOD 300.0: ANIONS						Analyst SRM
Chloride	1800	75		mg/Kg	50	1/14/2011 5 33 27 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jan-11

CLIENT: Blagg Engineering
Lab Order: 1101345
Project: Patriot 93S
Lab ID: 1101345-06

Client Sample ID: Grab #6
Collection Date: 1/11/2011 10:36:00 AM
Date Received: 1/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2011 2 01 35 AM
Surr DNOP	107	81	8-129	%REC	1	1/16/2011 2 01 35 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst NSB
Gasoline Range Organics (GRO)	ND	5	0	mg/Kg	1	1/17/2011 2 34 56 PM
Surr BFB	102	89	7-125	%REC	1	1/17/2011 2 34 56 PM
EPA METHOD 300.0: ANIONS						Analyst SRM
Chloride	2200	75		mg/Kg	50	1/14/2011 5 50 52 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jan-11

CLIENT: Blagg Engineering
Lab Order: 1101345
Project: Patriot 93S
Lab ID: 1101345-07

Client Sample ID: Grab #7
Collection Date: 1/11/2011 10:39:00 AM
Date Received: 1/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2011 2 34 27 AM
Surr DNOP	105	81	8-129	%REC	1	1/16/2011 2 34 27 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst NSB
Gasoline Range Organics (GRO)	ND	5	0	mg/Kg	1	1/17/2011 3 03 57 PM
Surr BFB	101	89	7-125	%REC	1	1/17/2011 3 03 57 PM
EPA METHOD 300.0: ANIONS						Analyst SRM
Chloride	1200	75		mg/Kg	50	1/14/2011 6 08 17 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Patriot 93S

Work Order: 1101345

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: 1101345-02AMSD		<i>MSD</i>				Batch ID	25228	Analysis Date	1/13/2011 6 15 16 PM		
Chloride	ND	mg/Kg	1 5	15	0	0	53 9	146			S
Sample ID: MB-25228		<i>MBLK</i>				Batch ID	25228	Analysis Date	1/13/2011 4 13 22 PM		
Chloride	ND	mg/Kg	1 5								
Sample ID: LCS-25228		<i>LCS</i>				Batch ID	25228	Analysis Date	1/13/2011 4 30 47 PM		
Chloride	14 04	mg/Kg	1 5	15	0	93 6	90	110			
Sample ID: 1101345-02AMS		<i>MS</i>				Batch ID	25228	Analysis Date	1/13/2011 5 57 51 PM		
Chloride	ND	mg/Kg	1 5	15	0	0	53 9	146	0	0	S
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-25236		<i>MBLK</i>				Batch ID	25236	Analysis Date	1/15/2011 5 40 22 PM		
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-25236		<i>LCS</i>				Batch ID	25236	Analysis Date	1/15/2011 6 13 59 PM		
Diesel Range Organics (DRO)	46 20	mg/Kg	10	50	0	92 4	66 2	120			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 1101345-01AMSD		<i>MSD</i>				Batch ID	25212	Analysis Date	1/17/2011 7 24 01 PM		
Gasoline Range Organics (GRO)	24 72	mg/Kg	5 0	25	0	98 9	69 2	144	6 47	20 5	
Sample ID: MB-25212		<i>MBLK</i>				Batch ID	25212	Analysis Date	1/14/2011 8 17 21 PM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5 0								
Sample ID: LCS-25212		<i>LCS</i>				Batch ID	25212	Analysis Date	1/14/2011 7 47 12 PM		
Gasoline Range Organics (GRO)	25 15	mg/Kg	5 0	25	0	101	95 7	120			
Sample ID: 1101345-01AMS		<i>MS</i>				Batch ID	25212	Analysis Date	1/17/2011 6 55 03 PM		
Gasoline Range Organics (GRO)	23 17	mg/Kg	5 0	25	0	92 7	69 2	144			

Qualifiers:

E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
NC Non-Chlorinated
R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG**

Date Received:

1/12/2011

Work Order Number **1101345**

Received by. **AMG**

Checklist completed by

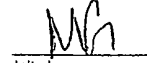


Signature

1/12/11

Date

Sample ID labels checked by



Initials

Matrix

Carrier name. **Greyhound**

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Number of preserved
bottles checked for
pH.

<2 >12 unless noted
below

Container/Temp Blank temperature?

3.8°

<6° C Acceptable

If given sufficient time to cool

COMMENTS

Client contacted

Date contacted

Person contacted

Contacted by

Regarding

Comments

Corrective Action