

District I  
P.O. Box 1980, Hobbs, NM  
District II  
P.O. Drawer DD, Artesia, NM 88211  
District III  
J Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
P.O. Box 5088  
Santa Fe, New Mexico 87504-2088  
OCT - 7 1999

Blow/umb Bedrock  
89371  
SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company Telephone: (505) - 326-9200  
Address: 200 Amoco Court, Farmington, New Mexico 87401  
Facility or: STATE COM D 5  
Well Name  
Location: Unit or Qtr/Qtr Sec F Sec 32 T27N R8W County SAN JUAN  
Pit Type: Separator Dehydrator Other Blow / Tank  
Land Type: BLM, State X, Fee, Other

Pit Location: Pit dimensions: length 8', width 8', depth 7'  
(Attach diagram)  
Reference: wellhead X, other  
Footage from reference: 120  
Direction from reference: 60 Degrees East North X  
of  
X West South

Depth To Ground Water:  
(Vertical distance from  
contaminants to seasonal  
high water elevation of  
ground water)

Less than 50 feet (20 points)  
50 feet to 99 feet (10 points)  
Greater than 100 feet (0 Points) 0

Wellhead Protection Area:  
(Less than 200 feet from a private  
domestic water source, or; less than  
1000 feet from all other water sources)

Yes (20 points)  
No (0 points) 0

Distance To Surface Water:  
(Horizontal distance to perennial  
lakes, ponds, rivers, streams, creeks,  
irrigation canals and ditches)

Less than 200 feet (20 points)  
200 feet to 1000 feet (10 points)  
Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: \_\_\_\_\_ Date Completed: 5-31-96Remediation Method: Excavation X Approx. cubic yards 16  
(Check all appropriate sections) Landfarmed X Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location: Onsite X Offsite \_\_\_\_\_  
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: \_\_\_\_\_

Excavation INTO BEDROCK, THEREFORE NO TPH ANALYSIS  
WAS CONDUCTED.Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_Final Pit: Sample location see Attached Documents  
Closure Sampling: \_\_\_\_\_  
(if multiple samples, attach sample results and diagram of sample locations and depths)Sample depth 7' (PIT Bottom)Sample date 5-31-96 Sample time \_\_\_\_\_

## Sample Results

Benzene(ppm) \_\_\_\_\_

Total BTEX(ppm) \_\_\_\_\_

Field headspace(ppm) 10

TPH \_\_\_\_\_

Ground Water Sample: Yes \_\_\_\_\_ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 6-21-96

SIGNATURE

B. ShawPRINTED NAME  
AND TITLEBuddy D. Shaw  
Environmental Coordinator

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80371</u> C.D.C. NO: <u>1</u>
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## FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: <u>STATE Com 05</u>	PIT TYPE: <u>Blow/mnk</u>	DATE STARTED: <u>5-31-96</u>
QUAD/UNIT: <u>F SEC: 32 TWP: 27N RNG: 8W BM: Nm CNTY: SJ ST: NM</u>		DATE FINISHED: _____
QTR/FOOTAGE: <u>SE/NW</u>	CONTRACTOR: <u>CHARLIE DEAN</u>	ENVIRONMENTAL SPECIALIST: <u>RCG</u>
EXCAVATION APPROX. <u>8</u> FT. x <u>8</u> FT. x <u>7</u> FT. DEEP.		CUBIC YARDS: <u>16</u>
DISPOSAL FACILITY: <u>ON SITE</u>	REMEDIATION METHOD: <u>LAND FARM</u>	
LAND USE: <u>RANGE</u>	LEASE: <u>E-7592</u>	FORMATION: <u>JAKOTA</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>120</u> FEET <u>N60°W</u> FROM WELLHEAD.		
DEPTH TO GROUNDWATER	<u>&gt;100'</u>	NEAREST WATER SOURCE:	<u>&gt;1000'</u>
NMDCD RANKING SCORE:	<u>0</u>	NMDCD TPH CLOSURE STD:	<u>5000</u> PPM

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED  
PIT EXCAVATED INTO BEDROCK - SANDSTONE/SILTSTONE. ALL LOOSE SOILS EXCAVATED,  
NO TPT TESTS - RUN DUE TO BEDROCK CONDITIONS.

FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

BEDRO CT

SCALE



0 5 10 FT

PIT PERIMETER

## OVM RESULTS

PIT PROFILE

Figure 1 is a map of the study area showing the location of the five sampling points (1-5) relative to the surface gradient and the bedrock. The map includes a north arrow pointing up and a surface gradient arrow pointing left. A circular area represents the study area, with five sampling points marked: 1 (top), 2 (middle-left), 3 (middle-right), 4 (bottom-left), and 5 (bottom-right). A scale bar indicates 10 meters. A cross-section diagram on the right shows the bedrock profile with a depth of 7 feet.

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 NS-4'	2
2 ES-4'	2
3 SS-4'	3
4 WS-4'	2
5 CB-7'	10

LAB SAMPLES

TRAVEL NOTES: CA. LOUT: 5-30-96 ONSITE: 5-31-96 0850

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**PTT REMEDIATION AND CLOSURE REPORT**

80371

Operator: Amoco Production Company Telephone: (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: STATE COM D 5  
Well Name

Location: Unit or Qtr/Qtr Sec F Sec 32 T 27N R 8W County SAN JUAN

Pit Type: Separator    Dehydrator    Other PRODUCTION

Land Type: BLM   , State X, Fee   , Other   

Pit Location: Pit dimensions: length 20', width 15', depth 7'  
Attach diagram) Reference: wellhead X, other   

Footage from reference: 100

Direction from reference: 0 Degrees    East North X  
of  
   West South   

Depth To Ground Water:  
(Vertical distance from  
contaminants to seasonal  
high water elevation of  
ground water)

Less than 50 feet (20 points)  
50 feet to 99 feet (10 points)  
Greater than 100 feet (0 Points) 0

Wellhead Protection Area:  
(Less than 200 feet from a private  
domestic water source, or; less than  
1000 feet from all other water sources)

Yes (20 points)  
No (0 points) 0

Distance To Surface Water:  
Horizontal distance to perennial  
lakes, ponds, rivers, streams, creeks,  
irrigation canals and ditches)

Less than 200 feet (20 points)  
200 feet to 1000 feet (10 points)  
Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: \_\_\_\_\_ Date Completed: 5-31-96Remediation Method: Excavation X Approx. cubic yards 75  
(Check all appropriate sections) Landfarmed X Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location: Onsite X Offsite \_\_\_\_\_  
(ie. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: \_\_\_\_\_

Excavation INTO BEDROCK, THEREFORE NO TPH ANALYSIS  
WAS CONDUCTED.Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_Final Pit: Sample location see Attached Documents  
Closure Sampling: \_\_\_\_\_  
(if multiple samples, attach sample results and diagram of sample locations and depths)Sample depth 7' (PT Bottom)Sample date 5-31-96 Sample time \_\_\_\_\_

## Sample Results

Benzene (ppm) \_\_\_\_\_

Total BTEX (ppm) \_\_\_\_\_

Field headspace (ppm) 2TPH —Ground Water Sample: Yes \_\_\_\_\_ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 6-21-96

SIGNATURE

B. ShawPRINTED NAME  
AND TITLEBuddy D. Shaw  
Environmental Coordinator

CLIENT: <u>AMO Co</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80371</u> C.O.C. NO: <u>—</u>
P + A LOCATION		

## FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: <u>STATE Com D 5</u>	PIT TYPE: <u>PROD.</u>	DATE STARTED: <u>5-31-96</u>
QUAD/UNIT: <u>F SEC. 32 TWP. 27 N RNG. 8 W BM: NM CNTY: SJ ST: NM</u>		DATE FINISHED: _____
QTR/FOOTAGE: <u>SE /NW</u>	CONTRACTOR: <u>CHARLIE DEXN</u>	ENVIRONMENTAL SPECIALIST: <u>REG</u>

EXCAVATION APPROX. 15 FT. x 20 FT. x 7 FT. DEEP. CUBIC YARDS: 75  
DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: LANDFARM  
LAND USE: RANGE LEASE: E-7592 FORMATION: SABOTA

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>100</u> FEET <u>NORTH</u> FROM WELLHEAD.		
DEPTH TO GROUNDWATER: <u>&gt;100'</u>	NEAREST WATER SOURCE: <u>&gt;1000'</u>	NEAREST SURFACE WATER: <u>&gt;1000'</u>	
NMOCB RANKING SCORE: <u>0</u>	NMOCB TPH CLOSURE STD: <u>5000</u> PPM		

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED

PIT EXCAVATED INTO SANDSTONE BEDROCK. NO ADDITIONAL EXCAVATION POSSIBLE.  
SOME STRAINING VISIBLE ON SANDSTONE SIDEWALLS, SAMPLES COLLECTED BY SCRAPING.  
NO TPH TEST RUN DUE TO SANDSTONE.

FIELD 418.1 CALCULATIONS

FIELD 418.1 CALCULATIONS						
SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

БЕДОКТО

SCALE



0 5 10 FT

PIT PERIMETER

## OVM RESULTS

PIT PROFILE

[illegible]

TRAVEL NOTES: CALLOUT: 5-30-96 ONSITE: 5-31-96 0810

CLIENT: <u>AMOCO</u>	<b>BLAGG ENGINEERING, INC.</b> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80371</u>  C.D.C. NO: <u>AMOCO</u>
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P + A LOCATION

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: <u>STATE: 60m D5</u>	LEASE: <u>E-7592</u>	DATE STARTED: <u>5-31-96</u>
QUAD/UNIT: <u>F SEC: 32 TWP: 27N RNG: 8W</u>	BM: <u>N.M.</u> CNTY: <u>S.J.</u> ST: <u>N.M.</u>	DATE FINISHED: _____
QTR/FOOTAGE: <u>SE/NW</u>	CONTRACTOR: <u>CHARLIE DENW</u>	ENVIRONMENTAL SPECIALIST: <u>R.E.D.</u>

### SOIL REMEDIATION

REMEDATION SYSTEM: STOCKPILE      APPROX. CUBIC YARDAGE: 91

LAND USE: RANGE

### FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100'    NEAREST WATER SOURCE: >1000'    NEAREST SURFACE WATER: >1000'

NMOC D RANKING SCORE: 0    NMOC D TPH CLOSURE STD: 5000 PPM

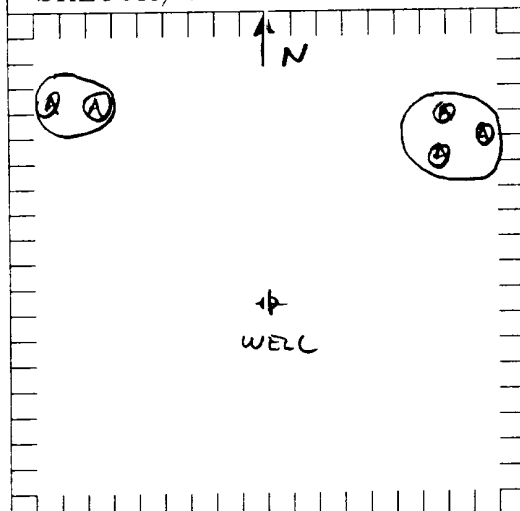
SOIL FROM 2 PITS STOCKPILED - COMPOSITE SAMPLE COLLECTED.

SOIL WILL BE LANDFARMED ON SITE.

### FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
Comp. A	1729	10.0	20.0	10	700	14,000

### SKETCH/SAMPLE LOCATIONS



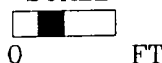
### OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
Comp. A	166

### LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS

### SCALE



TRAVEL NOTES: CALLOUT: 5-30-96    ONSITE: 5-31-96    0930

**BLAGG ENGINEERING, INC.**

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

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

**FIELD MODIFIED EPA METHOD 418.1  
TOTAL PETROLEUM HYDROCARBONS**

Client: Amoco  
Sample ID: Composite A  
Project Location: State Com D 5  
Laboratory Number: TPH-1729

Project #:  
Date Analyzed: 5-31-96  
Date Reported: 5-31-96  
Sample Matrix: Soil

Parameter -----	Result, mg/kg -----	Detection Limit, mg/kg -----
Total Recoverable Petroleum Hydrocarbons	<b>14,000</b>	<b>100</b>

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg -----	Duplicate TPH mg/kg -----	% *Diff. -----
	724	568	24

\*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total  
Recoverable, Chemical Analysis of Water and Waste,  
USEPA Storet No.4551, 1978

Comments: Stockpile - B0371

R. E. O'Neill  
Analyst

Melissa V. 11/4/96  
Review



# BLAGG ENGINEERING, INC.

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

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

## Field TPH-Worksheet

\*\*\*\*\*

Max Characters:

Client:

Sample ID:

Project Location:

Laboratory Number:

Amoco

Composite A

State Com D 5

TPH-1729

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

5-31-96

5-31-96

Soil

Sample Weight: 10.00 grams  
Volume Freon: 20.00 mL  
Dilution Factor: 10 (unitless)  
TPH Reading: 700 mg/kg

TPH Result: 14000.0 mg/kg  
Reported TPH Result: 14000.0 mg/kg  
Actual Detection Limit: 100.0 mg/kg  
Reported Detection Limit: 100 mg/kg

QA/QC:

Original  
TPH mg/kg

Duplicate  
TPH mg/kg

%  
Diff.

724

568

24

Comments:

\*\*\*\*\*Max Characters\*\*\*\*\*

Comments:

Stockpile - B0371

CLIENT: <u>AMOCO</u>	<b>BLAGG ENGINEERING, INC.</b> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80371</u> C.O.C. NO: <u>6033</u>
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## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>STATE COM D</u> WELL #: <u>5</u> PITS: <u>BLOW/PROD. PROD.</u> QUAD/UNIT: <u>F</u> SEC: <u>32</u> TWP: <u>27N</u> RNG: <u>8W</u> PM: <u>NM</u> CNTY: <u>ST</u> ST: <u>NM</u> QTR/FOOTAGE: <u>SE/4 NW/4</u> CONTRACTOR: <u>VAUGHN</u>	DATE STARTED: <u>6/23/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
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### SOIL REMEDIATION:

 REMEDIATION SYSTEM: LANDFARM

 APPROX. CUBIC YARDAGE: 91

 LAND USE: RANGE

 LIFT DEPTH (ft): 1'

### FIELD NOTES & REMARKS:

 DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

 NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

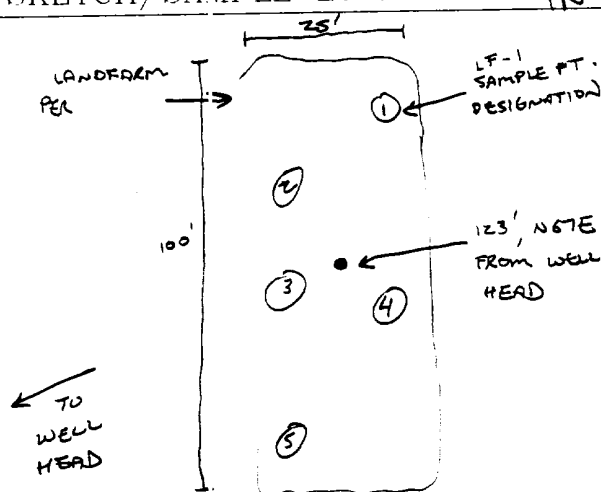
MOSTLY OK. YELLOW BROWN TO OLIVE GRAY SAND, NON COHESIVE SLIGHTLY MOIST, FINE  
 SAMPLE DEPTHS RANGE FROM 6" TO 12", UNABLE TO DISCERN DISCOLORATION OR HC  
 ODOR @ ANY SAMPLE PT. COLLECTED 5 PT. COMPOSITE SAMPLE FOR LAB ANALYSIS,  
 NO SURFACE EQUIP ON LOCATION, WELL APPARENTLY SHUT IN (PERMANENTLY?).

CLOSED

### FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

### SKETCH/SAMPLE LOCATIONS



### OVM RESULTS

### LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	24.2	LF-1	TPH (8015)	0910	979

### SCALE

0 FT

### TRAVEL NOTES:

 CALLOUT: NA

 ONSITE: 6/23/98 - MORN.

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

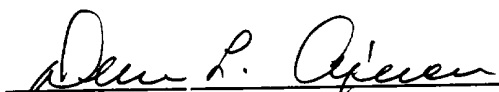
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	06-29-98
Laboratory Number:	D487	Date Sampled:	06-23-98
Chain of Custody No:	6033	Date Received:	06-25-98
Sample Matrix:	Soil	Date Extracted:	06-26-98
Preservative:	Cool	Date Analyzed:	06-26-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	6.8	0.2
Diesel Range (C10 - C28)	972	0.1
Total Petroleum Hydrocarbons	979	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **State Com D #5 Landfarm. 5 Pt. composite.**

  
Analyst

  
Review

6033

[illegible]

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	06-26-TPH QA/QC	Date Reported:	06-29-98
Laboratory Number:	D486	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-26-98
Condition:	N/A	Analysis Requested:	TPH

Calibration	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	04-28-98	6.4468E-02	6.4390E-02	0.12%	0 - 15%
Diesel Range C10 - C28	04-28-98	7.2894E-02	7.2791E-02	0.14%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

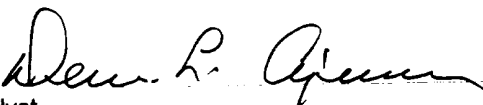
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste  
SW-846, USEPA, December 1996.

Comments: QA/QC for samples D486 - D490.

  
Analyst

  
Review