AP - 019

STAGE 1 & 2 WORKPLANS

DATE:

Nov. 2005

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

November 16, 2005

Mr. Samuel W. Small, P.E.
Environmental Coordinator
Amerada Hess Corp.
P.O. Box 840
Seminole, TX 79360

RE: NMGSAU Battery 94
Section 3, Township 20 South, Range 36 East
Lea County New Mexico
Stage 2 Abatement Plan (AP-19)
November 2005

Dear Mr. Small:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the plan shown above. This proposed plan is hereby deemed administratively complete. Amerada Hess Corp. (AHC) shall, by December 2, 2005, provide public notice as required in 19.15.1.19.G (1) and (2) NMAC. After public notice requirements have been met, AHC shall provide proof of such notice as follows:

1. For the notifications required by 19.15.1.19.G (1), AHC shall provide proof of mailing to the persons specified in the cited rule.
2. For the notification required by 19.15.1.19.G (2), AHC shall provide copies of the affidavits of publication received from the newspapers. A listing of "those persons, as identified by the Director, who have requested notification" pursuant to OCD Rule 19.G (1)(d) can be found at **http://www.emnrd.state.nm.us/emnrd/ocd/documents/WQCCMailingList1_000.doc**

If you have any questions, please contact Ed Martin at (505) 476-3492 or ed.martin@state.nm.us

NEW MEXICO OIL CONSERVATION DIVISION

Roger C. Anderson
Environmental Bureau Chief

Copy: NMOCD, Hobbs
BBC International, Inc.

NMGSAU BATTERY 94

STAGE 2 ABATEMENT PLAN (AP-19)

NOVEMBER 2005

AMERADA HESS CORPORATION
MONUMENT, NM

PREPARED BY:

BBC INTERNATIONAL, INC.
WORLD-WIDE ENVIRONMENTAL SPECIALISTS
1324 W. MARLAND BLVD.
HOBBS, NEW MEXICO 88240
(505)397-6388 • FAX (505)397-0397
EMAIL: cbrunson@bbcinternational.com
WEBSITE: www.bbcinternational.com

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LIST OF APPENDICES

1.0 INTRODUCTION

The subject site is located southeast of Monument, NM in Section 3, T-20-S, R-36-E of Lea County. Assessment activities were conducted at the abandoned Amerada Hess Corporation (AHC) operated NMGSAU Battery No. 94, situated within the boundary of the C & C Landfarm. Site pictures are available in Appendix I.

AHC purchased the well and tank battery equipment as well as the San Andres rights beneath the Cooper F & G leases from the Byrom Oil Company in 1989. The contamination was resultant from battery and evaporation pit operations.

In August of 2000 AHC proposed to excavate, take samples, install a clay barrier depending on degree of contamination, blend contaminated stockpile with clean material until total petroleum hydrocarbon (TPH) concentration fell below 5000 ppm, backfill with blended material up to three (3) feet of the surface, and complete backfilling with clean soil. It was proposed that excavation would begin with the obvious surface contamination to two (2) feet below ground surface (bgs). Excavation would proceed until TPH bottom hole levels fell below 5000 parts per million (ppm). If, from that point TPH levels of <1000 ppm could be reached within a further five feet, excavation would continue to that point.

During excavation operations in October of 2000, significant hydrocarbon contamination was followed to a depth of thirty one (31) feet with no indication that bottom would be reached. Groundwater contaminated with crude oil was encountered at thirty four (34) feet bgs.

In accordance with SW Rule 19, E, (2)(b)(3), AHC submitted a Stage 1 Abatement Plan to the New Mexico Oil Conservation Division (NMOCD) to determine administrative completion.

The Stage 1 Abatement Plan proposed that four (4) soil borings would be drilled surrounding the excavated area, during which time, soil samples would be collected at vertical intervals and tested for Benzene-Toluene-Ethyl-benzene-Xylene (BTEX), chloride, and Total Petroleum Hydrocarbons (TPH). Three (3) of the soil borings would be placed in the assumed down gradient and one (1) would be placed in the assumed up gradient as all of the soil borings were to be completed as groundwater monitor wells. These monitor wells would then be sampled and analyzed for BTEX, chloride, and Total Dissolved Solids (TDS) concentrations. Groundwater samples would continue to be taken and analyzed quarterly for the first year after drilling and then yearly for the duration of the abatement plan.

The NMOCD granted administrative completion to the Stage 1 Abatement Plan Proposal on July 5, 2001.

2.0 PUBLIC NOTIFICATION-STAGE 1

As stated in NMOCD Rule 19.G.(1), AHC issued written notice of the Stage 1 proposal to "those persons, as identified by the Director, who have requested notification".

Pursuant to NMOCD Rule 19.G.(2), AHC's Stage 1 notice of publication was issued in the Albuquerque Journal, the Lovington Daily Leader, and the Hobbs News Sun.

2.1 NMOCD Rule 19.G

G. Public notice and participation

(1) Prior to public notice, the applicant shall give written notice, as approved by the division, of stage 1 and stage 2 abatement plans to the following persons:

(a) surface owners of record within one (1) mile of the perimeter of the geographic area where the standards and requirements set forth in Subsection B of Section 19.15.1.19 NMAC are exceeded;

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(g) the distance requirements for notice may be extended by the director is the director determines the proposed abatement plan has the potential to adversely impact public health or the environment at a distance greater than one (1) mile. The director may require additional notice as needed. A copy and proof of such notice will be furnished to the division.

(2) Within fifteen days after the division determines that a stage 1 abatement plan or a stage 2 abatement plan is administratively complete, the responsible person will issue public notice in a form approved by the division in a newspaper of general circulation in the county in which the release occurred, and in a newspaper of general circulation in the state. For the purposes of this paragraph, an administratively complete stage 1 abatement plan is a document that satisfies the requirements of Section 19.15.1.19 NMAC, Subsection E, Paragraph E (3) and an administratively complete stage 2 abatement plan is a document that satisfies the requirements of Section 19.15.1.19 NMAC, Subsection E, Paragraph (4), Subparagraph (b). The public notice shall include, as approved in advance by the director:

(a) name and address of the responsible person;

(b) location of the proposed abatement;

(c) brief description of the source extent, and estimated volume of release, whether the release occurred into the vadose zone, ground water or surface water; and a description of the proposed stage 1 or stage 2 abatement plan;

(d) brief description of the procedures followed by the director in making a final determination;

(e) statement that a copy of the abatement plan can be viewed by the public at the division's main office or at the division's district office for the area in which the release occurred, and a statement describing how the abatement plan can be accessed by the public electronically from a division-maintained site if such access is available;

(f) statement that the following comments and requests will be accepted for consideration if received by the director within thirty (30) days after the date of publication of the public notice:

(i) written comments on the abatement plan; and

(ii) for a stage 2 abatement plan, written requests for a public hearing that include reasons why a hearing should be held.

(g) address and phone number at which interested persons may obtain further information.

AHC provided proof of publication and proof of written notice to the NMOCD on August 6, 2001.

3.0 SUMMARY OF STAGE 1 ABATEMENT ACTIVITIES

Stage 1 Abatement activities began on July 26, 2001 with the drilling of four (4) soil borings that were to be completed as monitor wells. By agreement between AHC and Meridian Alliance Group, L.L.C., White Drilling Company positioned the soil borings surrounding the existing excavation.

3.1 Soils Investigation

For each of the four (4) borings soil samples were collected at five (5) foot intervals to maximum depths of forty (40) feet. The samples were field screened by an Organic Vapor Monitor (OVM) to determine which samples would be submitted for laboratory analysis. Millennium Laboratories, Inc. analyzed the samples for BTEX (Method SW-846 5030B/8021B), Chloride (Method EPA 300.0), and TPH (Method 418.1).

All samples directly above the groundwater interface (26 to 29 ft bgs) were submitted. In addition, for each of the borings, the sample with the highest OVM reading was also submitted. In soil borings 2 and 4, the samples in the 26 to 29 ft bgs also had the highest OVM readings. In samples 1 and 3, the highest OVM readings were in the 5 to 7 bgs range. Two samples each were submitted for borings 1 and 3, and one each for borings 2 and 4. A total of six (6) samples were turned in to Millennium Laboratories.

3.2 Groundwater Investigation

The four (4) soil borings were completed as monitor wells following drilling activities. Groundwater was located at about 36 ft from the top of casing (TOC), and trended to the southwest at 0.0015 ft/ft.

Meridian personnel sampled each monitor well on July 7, 2001. Lab results revealed 163 mg/L TPH in MW-2. However, BTEX was non-detect for all four monitor wells. On July 24, 2001, groundwater samples were lab tested for chlorides, and all levels were below New Mexico WQCC Standards. The chloride level in MW-1 showed 97.8 mg/Kg, MW-2 contained 71.7 mg/Kg, MW-3 revealed 71.5 mg/Kg, and MW-4 had 73.9 mg/Kg. The laboratory data is summarized in a table located in Appendix II. Site maps are available in Appendix III.

BBC sampled the monitor wells on July 30, 31, and August 1, 2002 during which time, a well recharge test was also conducted. BTEX was non-detect for all monitor wells. Chloride results for MW-1, MW-2, MW-3, and MW-4 were 132 mg/Kg, 88 mg/Kg, 108 mg/Kg, and 100 mg/Kg respectively. The laboratory data is summarized in a table located in Appendix II. Site maps are available in Appendix III.

BBC also sampled groundwater on April 26 and August 17, 2005. Laboratory analyses showed that chloride levels in MW-1 remained at 112 mg/Kg from April to August. MW-2 levels from April to August remained at 92 mg/Kg. MW-3 chloride levels decreased from 380 mg/Kg in April to 208 mg/Kg in August, and MW-4 levels decreased from 108 mg/Kg in April to 96 mg/Kg in August. BTEX remained non-detect. The laboratory data is summarized in a table located in Appendix II. Site maps are available in Appendix III.

4.0 CORRESPONDENCE

On October 18, 2001, the AHC sent a proposal to close the excavation by lining the bottom with three (3) feet of red bed clay, backfilling to within three (3) feet with excavated soil blended with clean soil to less that 5000 ppm TPH and 50 ppm BTEX, and then backfilling the remaining three (3) feet with clean soil.

The NMOCD replied on January 31, 2002 stating that further information is required before evaluating Stage 2 of the abatement. The OCD required soil samples in the 29 to 36 ft bgs in the area of the release site, soil samples from the walls and bottom of the excavation, groundwater samples from under the excavated site, groundwater samples from down gradient of the site, and descriptions of how the monitoring wells were developed.

AHC sent notification to the NMOCD on February 27, 2002 that more accurate depth to groundwater had yet to be determined as there was some question

about the actual static groundwater level, another monitor well would be installed to obtain a down gradient water sample, and AHC proposed not to sample the bottom or walls of the excavation due to safety concerns.

Following a meeting between the NMOCD and AHC, a memo was sent to NMOCD by AHC summarizing the meeting items of discussion. AHC would have the fluid levels in the existing monitor wells confirmed, monitor well recharge rates would be measured to determine whether the groundwater is "protected groundwater" per Rule 19, and the spoil piles would be sampled at two (2) to three (3) feet within the piles and analyzed for TPH and BTEX.

The NMOCD sent notification on April 19, 2002 stating that bottom or wall samples as well as groundwater samples beneath the excavation should be submitted if at all feasible in a safe manner.

On July 30, July 31, and August 1, 2002, BBC International, Inc. conducted groundwater sampling, spoils pile sampling, and performed a well recharge test. Results were submitted to the NMOCD on September 30, 2002.

On May 14, 2003 the NMOCD stated that the BBC results showed the groundwater to be "protectable". If the absence of BTEX impact on groundwater could be shown, the OCD would withdraw the AP process and approve a remediation plan.

AHC submitted a work plan for closure of the NMGSAU Battery No. 94 on September 24, 2004 to the NMOCD. If the NMOCD determined that the operation was to remain under Rule 19, the work plan would be considered a Stage 2 Abatement Plan.

AHC proposed to first prepare the site for safe re-entry of the excavation which may require one or two of the monitor wells to be plugged. Any remaining hydrocarbon contamination exceeding NMOCD threshold concentrations would be removed from the walls and bottom by analyzing composite samples for TPH and BTEX concentrations. The bottom of the excavation would then be lined with two (2) feet of compacted clay and backfilled to ground level with material remediated to acceptable concentrations.

To date, there has been no decision or correspondence from the NMOCD concerning the work plan submitted on September 24, 2004.

5.0 STAGE 2 ABATEMENT PLAN PROPOSAL

AHC proposes to close the NMGSAU Battery 94 site by first preparing the current excavation for safe re-entry of equipment. Once the site is deemed safe to operate in, the excavation will be backfilled with the soil that had been excavated and stockpiled on site.

A significant amount of the soil stockpiled has not been impacted by hydrocarbons as this was over-burden soil that was removed in order to excavate the impacted soil. This soil will first be placed into the bottom of the excavation since it has not been impacted. After this soil has been placed back into the excavation, a clay liner of one (1) foot thickness will be placed into the excavation and compacted to the appropriate Proctor compaction standards. This liner will serve as an impermeable barrier to protect the existing groundwater.

Prior to the remaining soil being placed in the excavation, it will be blended on site with other soil not to exceed the threshold levels of 2000 ppm of Total Petroleum Hydrocarbons (TPH) and 1000 ppm Chloride. Periodic composite samples will be taken of the blended soil for confirmation that the soil is within these thresholds. Upon laboratory confirmation, the blended soil will be placed into the excavation until a depth of three (3) feet below ground surface (bgs) is achieved. In the event that a portion of the impacted soil cannot meet the thresholds, this soil will be disposed of at an NMOCD-approved disposal facility and clean soil will be brought in to replace it.

After reaching the three (3) foot bgs level, a 20 mil poly liner will be placed into the excavation. The poly liner will cover approximately three (3) feet beyond the edges of the area of impact. This liner will serve as an additional impermeable barrier to protect the existing groundwater. The remaining excavation will then be backfilled with clean soil and leveled to grade.

Upon completion of the backfilling activities, AHC will request closure of the site. In the meantime, AHC will continue to monitor the groundwater at the site until an appropriate amount of consecutive quarters of non-detect laboratory results is reached.

6.0 STAGE 2 ABATEMENT PLAN PROCEDURES

Once NMOCD grants administrative completion to the Stage 2 Abatement Plan, AHC, in accordance with Rule 19, will prepare a public notice approved by the NMOCD and will issue the notice in writing to all surface owners within a one mile radius of the site, the list of persons provided by NMOCD that have requested notification, and publish the notice in both local and state papers.

Upon receiving notification from the NMOCD that the Stage 2 Abatement Plan is approved, AHC will commence site activities according to the Stage 2 Abatement Plan.

7.0 REFERENCES

Amerada Hess Corporation, Cooper Lease Site Assessment Report (Site Assessment Investigation); Meridian Alliance Group, L.L.C.; August 10, 2001

Amerada Hess NMGSAU Battery 94, Sampling Event And Monitoring Well Recharge Test; BBC International Inc.; September 12, 2002

New Mexico Oil Conservation Division Rule 19 Paragraph G Sections 1 and 2

APPENDIX I

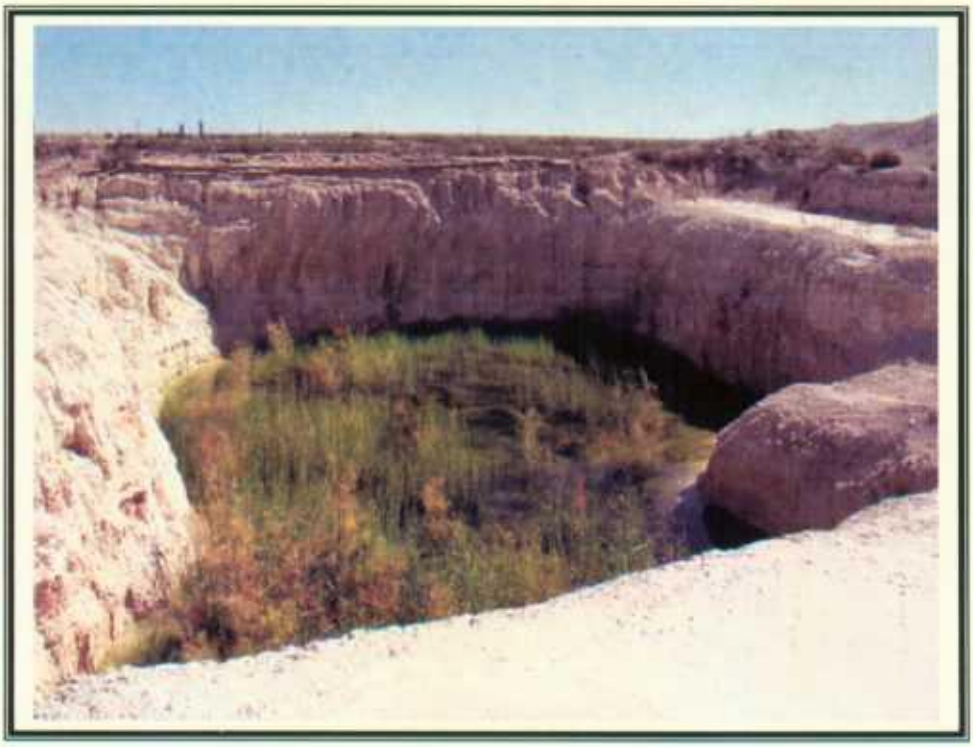
SITE PHOTOGRAPHS

NMGSAU Battery 94
Monument, New Mexico

November, 2005

Amerada Hess Corporation
Monument, New Mexico

Prepared by:
BBC International, Inc.



APPENDIX II

LABORATORY GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

NMGSAU Battery 94
Monument, New Mexico

November, 2005

Amerada Hess Corporation
Monument, New Mexico

Prepared by:
BBC International, Inc.

Amerada Hess
NMGSAU Battery 94 -Laboratory Groundwater Analyticals
Summary Table

July 7, 2001

		Sample	MW #1	MW #2	MW #3	MW #4
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	S 8021B	07/24/01	<0.002	<0.002	<0.002	<0.002
Toluene	S 8021B	07/24/01	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	S 8021B	07/24/01	<0.005	<0.005	<0.005	<0.005
Xylene	S 8021B	07/24/01	<0.005	<0.005	<0.005	<0.005
MtBE	S 8021B	07/24/01	<0.010	<0.010	<0.010	<0.010
TPH	418.1	07/24/01	<0.010	<0.010	<0.010	<0.010

July 24, 2001

		Sample	MW #1	MW #2	MW #3	MW #4
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-Cl-B	07/24/01	97.8	71.7	71.5	73.9

July 30, 2002

		Sample	MW #4	MW #1	MW #3	MW #2
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-Cl-B	07/30/05	100	132	108	88
Benzene	S 8021B	07/30/05	<0.002	<0.002	**0.002**	<0.002
Toluene	S 8021B	07/30/05	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	S 8021B	07/30/05	<0.002	<0.002	<0.002	<0.002
Xylene	S 8021B	07/30/05	<0.006	<0.006	<0.006	<0.006

April 26, 2005

		Sample	MW #1	MW #4	MW #3	MW #2
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-Cl-B	04/26/05	112	108	380	92
Benzene	S 8021B	04/26/05	<0.002	<0.002	<0.002	<0.002
Toluene	S 8021B	04/26/05	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	S 8021B	04/26/05	<0.002	<0.002	<0.002	<0.002
Xylene	S 8021B	04/26/05	<0.006	<0.006	<0.006	<0.006

August 17, 2005

		Sample	MW #2	MW #4	MW #1	MW #3
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-Cl-B	08/17/05	92	96	112	208
Benzene	S 8021B	08/17/05	<0.002	<0.002	<0.002	<0.002
Toluene	S 8021B	08/17/05	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	S 8021B	08/17/05	<0.002	<0.002	<0.002	<0.002
Xylene	S 8021B	08/17/05	<0.006	<0.006	<0.006	<0.006

APPENDIX III

SITE MAPS

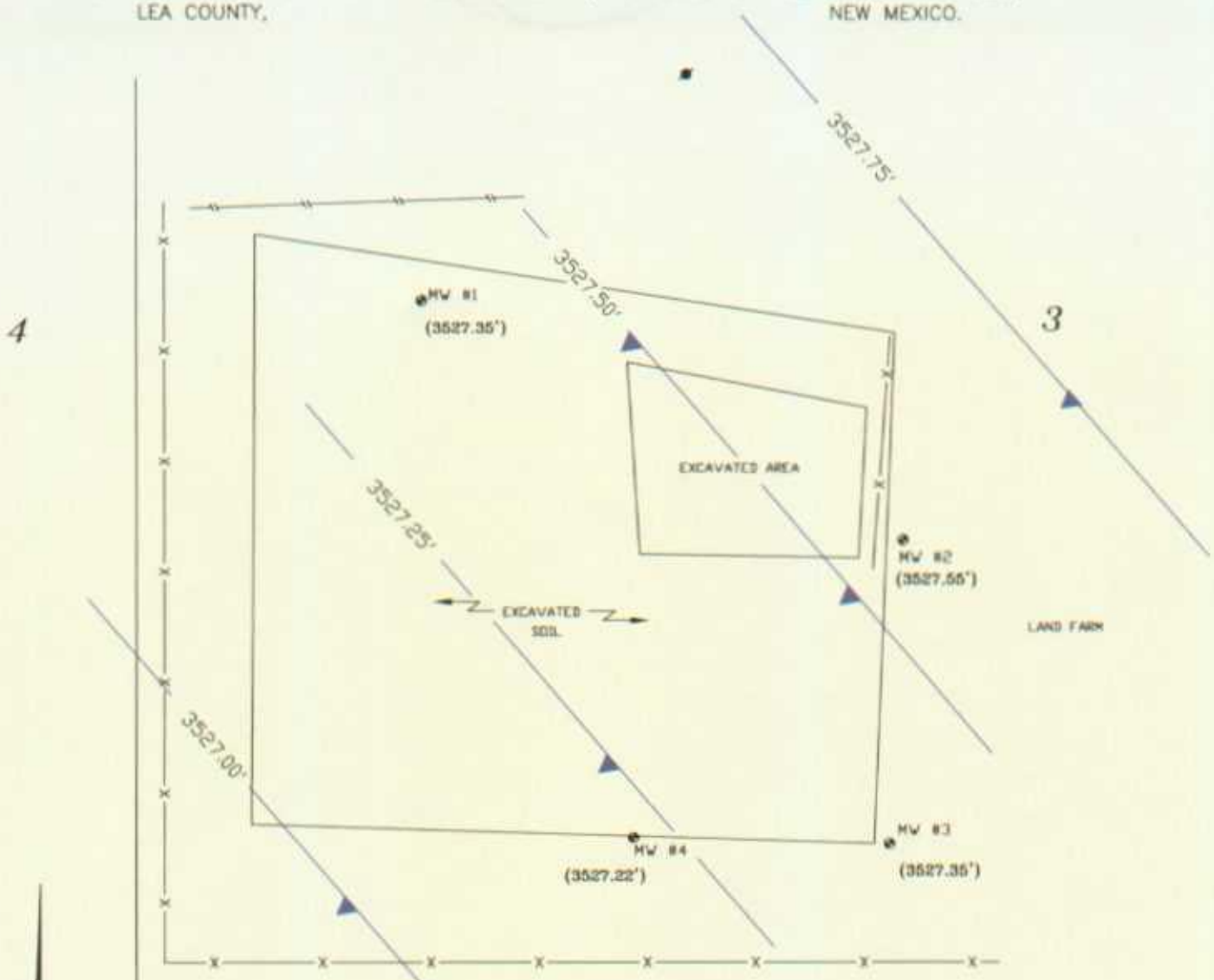
NMGSAU Battery 94
Monument, New Mexico

November, 2005

Amerada Hess Corporation
Monument, New Mexico

Prepared by:
BBC International, Inc.

SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



SITE SPECIFIC GROUNDWATER GRADIENT IS 0.0014 FT/FT TO THE SOUTHWEST

MW	TOP OF CASING	TOP OF GROUND	NORTHING	EASTING
1	3564.3'	3561.6'	50248	49711
2	3564.5'	3561.9'	50131	50021
3	3564.1'	3561.6	49976	50038
4	3563.9'	3561.3'	49956	49885

100 0 100 200
SCALE: 1"=100'

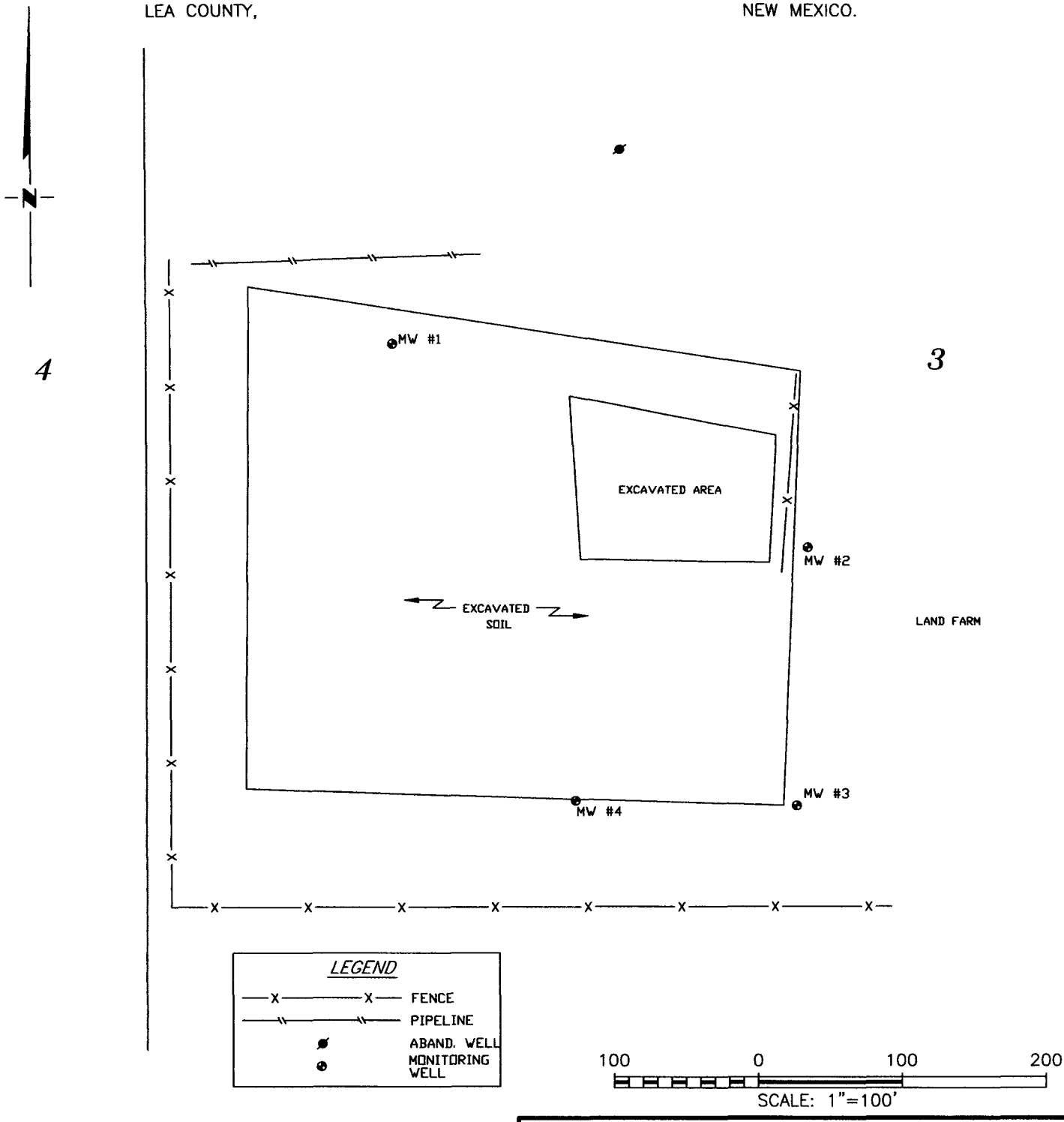
BBC INTERNATIONAL, INC.

GROUNDWATER GRADIENT MAP
AMERADA HESS CORPORATION
COOPER LEASE
SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Survey Date: N/A		Sheet 1 of 1 Sheets	
W.O. Number: 02.13.0615_05		Drawn By: L.A.	
Date: 11/1/05	DISK:		

SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



BBC INTERNATIONAL, INC.

SITE MAP
AMERADA HESS CORPORATION
COOPER LEASE
SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO,

Survey Date: N/A	Sheet 1 of 1 Sheets
W.O. Number:02.13.0615_05	Drawn By: L.A.
Date: 11/1/05 DISK:	

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
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HOBBS, N.M. 88240
(505) 393-3117

BBC INTERNATIONAL

NMGSAU BATTERY 94

STAGE 2 ABATEMENT PLAN (AP-19)

NOVEMBER 2005

DRAFT

AMERADA HESS CORPORATION
MONUMENT, NM

PREPARED BY:

BBC INTERNATIONAL, INC.
WORLD-WIDE ENVIRONMENTAL SPECIALISTS
1324 W. MARLAND BLVD.
HOBBS, NEW MEXICO 88240
(505)397-6388 • FAX (505)397-0397
EMAIL: cbrunson@bbcinternational.com
WEBSITE: www.bbcinternational.com

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(c) brief description of the source extent, and estimated volume of release, whether the release occurred into the vadose zone, ground water or surface water; and a description of the proposed stage 1 or stage 2 abatement plan;

(d) brief description of the procedures followed by the director in making a final determination;

(e) statement that a copy of the abatement plan can be viewed by the public at the division's main office or at the division's district office for the area in which the release occurred, and a statement describing how the abatement plan can be accessed by the public electronically from a division-maintained site if such access is available;

(f) statement that the following comments and requests will be accepted for consideration if received by the director within thirty (30) days after the date of publication of the public notice:

(i) written comments on the abatement plan; and

(ii) for a stage 2 abatement plan, written requests for a public hearing that include reasons why a hearing should be held.

(g) address and phone number at which interested persons may obtain further information.

AHC provided proof of publication and proof of written notice to the NMOCD on August 6, 2001.

3.0 SUMMARY OF STAGE 1 ABATEMENT ACTIVITIES

Stage 1 Abatement activities began on July 26, 2001 with the drilling of four (4) soil borings that were to be completed as monitor wells. By agreement between AHC and Meridian Alliance Group, L.L.C., White Drilling Company positioned the soil borings surrounding the existing excavation.

3.1 Soils Investigation

For each of the four (4) borings soil samples were collected at five (5) foot intervals to maximum depths of forty (40) feet. The samples were field screened by an Organic Vapor Monitor (OVM) to determine which samples would be submitted for laboratory analysis. Millennium Laboratories, Inc. analyzed the samples for BTEX (Method SW-846 5030B/8021B), Chloride (Method EPA 300.0), and TPH (Method 418.1).

All samples directly above the groundwater interface (26 to 29 ft bgs) were submitted. In addition, for each of the borings, the sample with the highest OVM reading was also submitted. In soil borings 2 and 4, the samples in the 26 to 29 ft bgs also had the highest OVM readings. In samples 1 and 3, the highest OVM readings were in the 5 to 7 bgs range. Two samples each were submitted for borings 1 and 3, and one each for borings 2 and 4. A total of six (6) samples were turned in to Millennium Laboratories.

3.2 Groundwater Investigation

The four (4) soil borings were completed as monitor wells following drilling activities. Groundwater was located at about 36 ft from the top of casing (TOC), and trended to the southwest at 0.0015 ft/ft.

Meridian personnel sampled each monitor well on July 7, 2001. Lab results revealed 163 mg/L TPH in MW-2. However, BTEX was non-detect for all four monitor wells. On July 24, 2001, groundwater samples were lab tested for chlorides, and all levels were below New Mexico WQCC Standards. The chloride level in MW-1 showed 97.8 mg/Kg, MW-2 contained 71.7 mg/Kg, MW-3 revealed 71.5 mg/Kg, and MW-4 had 73.9 mg/Kg. The laboratory data is summarized in a table located in **Appendix II**. Site maps are available in **Appendix III**.

BBC sampled the monitor wells on July 30, 31, and August 1, 2002 during which time, a well recharge test was also conducted. BTEX was non-detect for all monitor wells. Chloride results for MW-1, MW-2, MW-3, and MW-4 were 132 mg/Kg, 88 mg/Kg, 108 mg/Kg, and 100 mg/Kg respectively. The laboratory data is summarized in a table located in **Appendix II**. Site maps are available in **Appendix III**.

BBC also sampled groundwater on April 26 and August 17, 2005. Laboratory analyses showed that chloride levels in MW-1 remained at 112 mg/Kg from April to August. MW-2 levels from April to August remained at 92 mg/Kg. MW-3 chloride levels decreased from 380 mg/Kg in April to 208 mg/Kg in August, and MW-4 levels decreased from 108 mg/Kg in April to 96 mg/Kg in August. BTEX remained non-detect. The laboratory data is summarized in a table located in **Appendix II**. Site maps are available in **Appendix III**.

4.0 CORRESPONDENCE

On October 18, 2001, the AHC sent a proposal to close the excavation by lining the bottom with three (3) feet of red bed clay, backfilling to within three (3) feet with excavated soil blended with clean soil to less that 5000 ppm TPH and 50 ppm BTEX, and then backfilling the remaining three (3) feet with clean soil.

The NMOCD replied on January 31, 2002 stating that further information is required before evaluating Stage 2 of the abatement. The OCD required soil samples in the 29 to 36 ft bgs in the area of the release site, soil samples from the walls and bottom of the excavation, groundwater samples from under the excavated site, groundwater samples from down gradient of the site, and descriptions of how the monitoring wells were developed.

AHC sent notification to the NMOCD on February 27, 2002 that more accurate depth to groundwater had yet to be determined as there was some question

about the actual static groundwater level, another monitor well would be installed to obtain a down gradient water sample, and AHC proposed not to sample the bottom or walls of the excavation due to safety concerns.

Following a meeting between the NMOCD and AHC, a memo was sent to NMOCD by AHC summarizing the meeting items of discussion. AHC would have the fluid levels in the existing monitor wells confirmed, monitor well recharge rates would be measured to determine whether the groundwater is "protected groundwater" per Rule 19, and the spoil piles would be sampled at two (2) to three (3) feet within the piles and analyzed for TPH and BTEX.

The NMOCD sent notification on April 19, 2002 stating that bottom or wall samples as well as groundwater samples beneath the excavation should be submitted if at all feasible in a safe manner.

On July 30, July 31, and August 1, 2002, BBC International, Inc. conducted groundwater sampling, spoils pile sampling, and performed a well recharge test. Results were submitted to the NMOCD on September 30, 2002.

On May 14, 2003 the NMOCD stated that the BBC results showed the groundwater to be "protectable". If the absence of BTEX impact on groundwater could be shown, the OCD would withdraw the AP process and approve a remediation plan.

AHC submitted a work plan for closure of the NMGSAU Battery No. 94 on September 24, 2004 to the NMOCD. If the NMOCD determined that the operation was to remain under Rule 19, the work plan would be considered a Stage 2 Abatement Plan.

AHC proposed to first prepare the site for safe re-entry of the excavation which may require one or two of the monitor wells to be plugged. Any remaining hydrocarbon contamination exceeding NMOCD threshold concentrations would be removed from the walls and bottom by analyzing composite samples for TPH and BTEX concentrations. The bottom of the excavation would then be lined with two (2) feet of compacted clay and backfilled to ground level with material remediated to acceptable concentrations.

To date, there has been no decision or correspondence from the NMOCD concerning the work plan submitted on September 24, 2004.

5.0 STAGE 2 ABATEMENT PLAN PROPOSAL

AHC proposes to close the NMGSAU Battery 94 site by first preparing the current excavation for safe re-entry of equipment. Once the site is deemed safe to operate in, the excavation will be backfilled with the soil that had been excavated and stockpiled on site.

A significant amount of the soil stockpiled has not been impacted by hydrocarbons as this was over-burden soil that was removed in order to excavate the impacted soil. This soil will first be placed into the bottom of the excavation since it has not been impacted. After this soil has been placed back into the excavation, a clay liner of one (1) foot thickness will be placed into the excavation and compacted to the appropriate Proctor compaction standards. This liner will serve as an impermeable barrier to protect the existing groundwater.

Prior to the remaining soil being placed in the excavation, it will be blended on site with other soil not to exceed the threshold levels of 2000 ppm of Total Petroleum Hydrocarbons (TPH) and 1000 ppm Chloride. Periodic composite samples will be taken of the blended soil for confirmation that the soil is within these thresholds. Upon laboratory confirmation, the blended soil will be placed into the excavation until a depth of three (3) feet below ground surface (bgs) is achieved. In the event that a portion of the impacted soil cannot meet the thresholds, this soil will be disposed of at an NMOCD-approved disposal facility and clean soil will be brought in to replace it.

After reaching the three (3) foot bgs level, a 20 mil poly liner will be placed into the excavation. The poly liner will cover approximately three (3) feet beyond the edges of the area of impact. This liner will serve as an additional impermeable barrier to protect the existing groundwater. The remaining excavation will then be backfilled with clean soil and leveled to grade.

Upon completion of the backfilling activities, AHC will request closure of the site. In the meantime, AHC will continue to monitor the groundwater at the site until an appropriate amount of consecutive quarters of non-detect laboratory results is reached.

6.0 STAGE 2 ABATEMENT PLAN PROCEDURES

Once NMOCD grants administrative completion to the Stage 2 Abatement Plan, AHC, in accordance with Rule 19, will prepare a public notice approved by the NMOCD and will issue the notice in writing to all surface owners within a one mile radius of the site, the list of persons provided by NMOCD that have requested notification, and publish the notice in both local and state papers.

Upon receiving notification from the NMOCD that the Stage 2 Abatement Plan is approved, AHC will commence site activities according to the Stage 2 Abatement Plan.

7.0 REFERENCES

Amerada Hess Corporation, Cooper Lease Site Assessment Report (Site Assessment Investigation); Meridian Alliance Group, L.L.C.; August 10, 2001

Amerada Hess NMGSAU Battery 94, Sampling Event And Monitoring Well Recharge Test; BBC International Inc.; September 12, 2002

New Mexico Oil Conservation Division Rule 19 Paragraph G Sections 1 and 2

APPENDIX I

SITE PHOTOGRAPHS

NMGSAU Battery 94
Monument, New Mexico

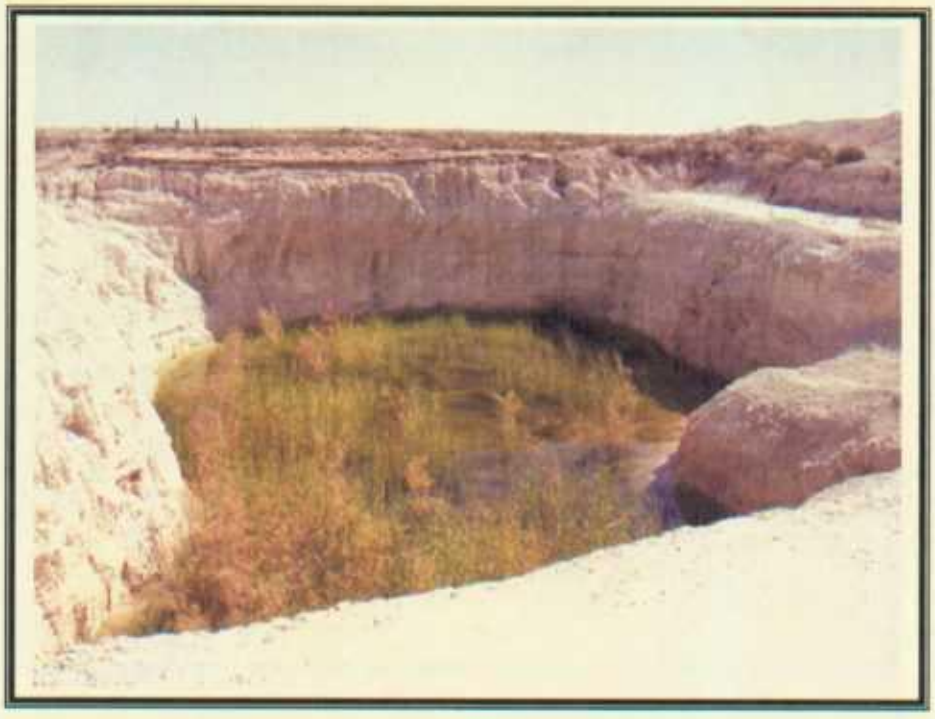
November, 2005

Amerada Hess Corporation
Monument, New Mexico

Prepared by:
BBC International, Inc.

Amerada Hess Corporation
NMGSAU Battery 94
November 1, 2005

Amerada Hess Corporation
NMGSAU Battery 94
November 1, 2005



Amerada Hess Corporation
NMGSAU Battery 94
November 1, 2005

Amerada Hess Corporation
NMGSAU Battery 94
November 1, 2005

APPENDIX II

LABORATORY GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

NMGSAU Battery 94
Monument, New Mexico

November, 2005

Amerada Hess Corporation
Monument, New Mexico

Prepared by:
BBC International, Inc.

Amerada Hess
NMGSAU Battery 94 -Laboratory Groundwater Analyticals
Summary Table

July 7, 2001

		Sample	MW #1	MW #2	MW #3	MW #4
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	S 8021B	07/24/01	<0.002	<0.002	<0.002	<0.002
Toluene	S 8021B	07/24/01	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	S 8021B	07/24/01	<0.005	<0.005	<0.005	<0.005
Xylene	S 8021B	07/24/01	<0.005	<0.005	<0.005	<0.005
MtBE	S 8021B	07/24/01	<0.010	<0.010	<0.010	<0.010
TPH	418.1	07/24/01	<0.010	<0.010	<0.010	<0.010

July 24, 2001

		Sample	MW #1	MW #2	MW #3	MW #4
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-ClB	07/24/01	97.8	71.7	71.5	73.9

July 30, 2002

		Sample	MW #4	MW #1	MW #3	MW #2
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-ClB	07/30/05	100	132	108	88
Benzene	S 8021B	07/30/05	<0.002	<0.002	**0.002**	<0.002
Toluene	S 8021B	07/30/05	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	S 8021B	07/30/05	<0.002	<0.002	<0.002	<0.002
Xylene	S 8021B	07/30/05	<0.006	<0.006	<0.006	<0.006

April 26, 2005

		Sample	MW #1	MW #4	MW #3	MW #2
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-ClB	04/26/05	112	108	380	92
Benzene	S 8021B	04/26/05	<0.002	<0.002	<0.002	<0.002
Toluene	S 8021B	04/26/05	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	S 8021B	04/26/05	<0.002	<0.002	<0.002	<0.002
Xylene	S 8021B	04/26/05	<0.006	<0.006	<0.006	<0.006

August 17, 2005

		Sample	MW #2	MW #4	MW #1	MW #3
Analyte	Method	Date				
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	4500-ClB	08/17/05	92	96	112	208
Benzene	S 8021B	08/17/05	<0.002	<0.002	<0.002	<0.002
Toluene	S 8021B	08/17/05	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	S 8021B	08/17/05	<0.002	<0.002	<0.002	<0.002
Xylene	S 8021B	08/17/05	<0.006	<0.006	<0.006	<0.006

APPENDIX III

SITE MAPS

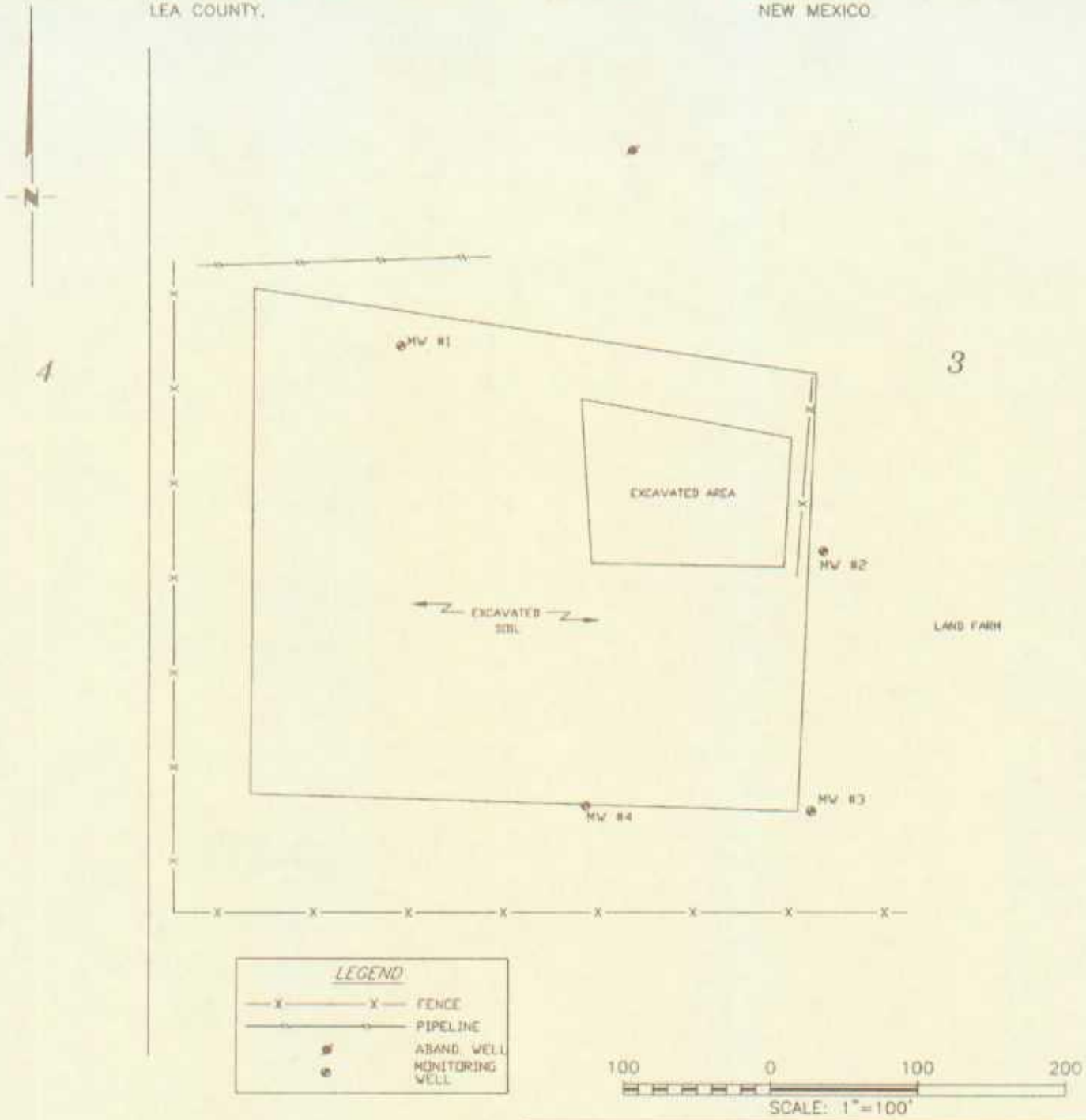
NMGSAU Battery 94
Monument, New Mexico

November, 2005

Amerada Hess Corporation
Monument, New Mexico

Prepared by:
BBC International, Inc.

SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO



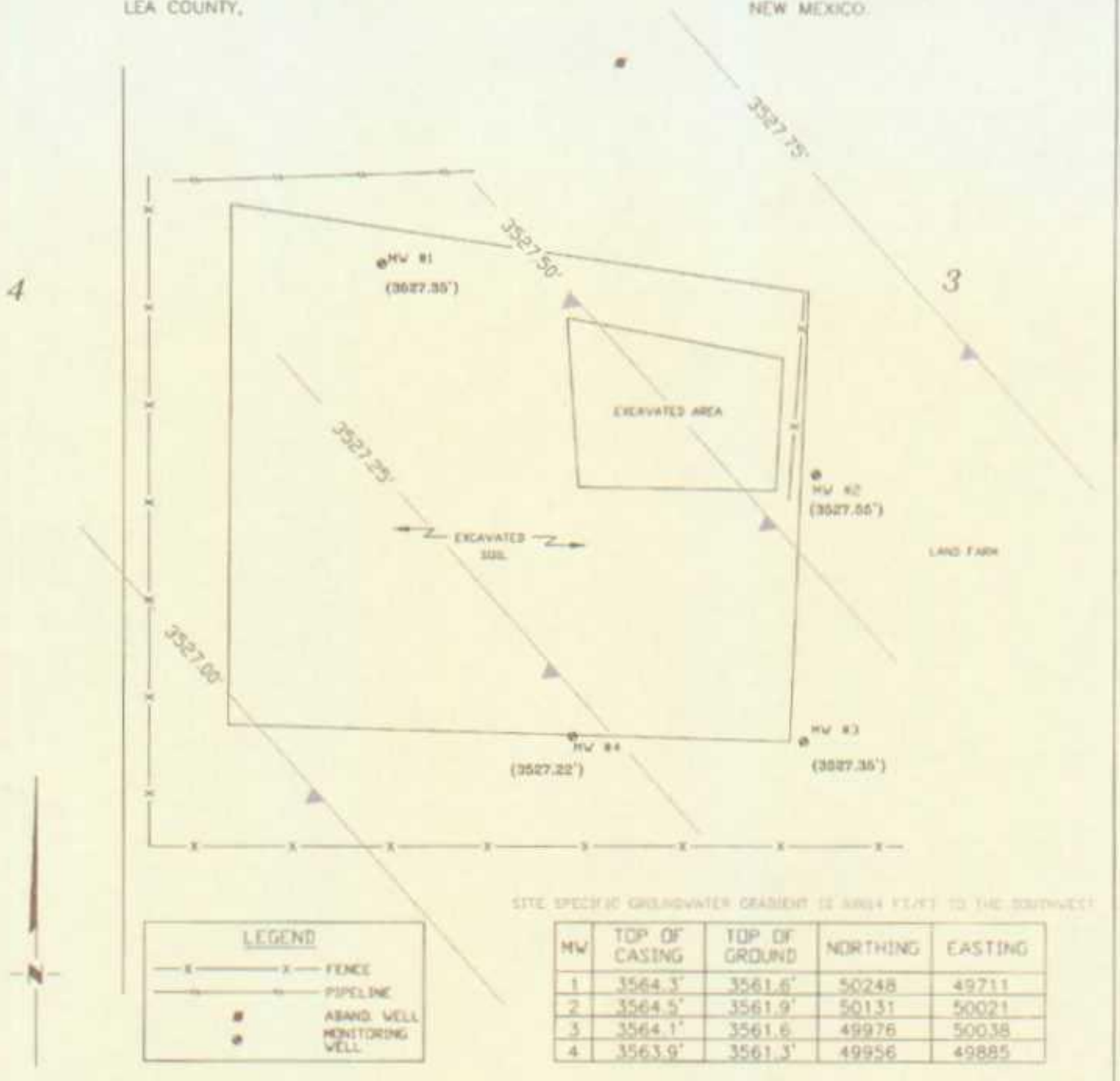
BBC INTERNATIONAL, INC.

SITE MAP
AMERADA HESS CORPORATION
COOPER LEASE
SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: N/A	Sheet 1 of 1 Sheets
W.O. Number:02.13.0615_05	Drawn By: L.A.
Date: 11/1/05 DISK:	

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO



SITE SPECIFIC GROUNDWATER GRADIENT IS SLIGHTLY TO THE SOUTHWEST

LEGEND

- FENCE
- PIPELINE
- ABAND. WELL
- MONITORING WELL

MW	TOP OF CASING	TOP OF GROUND	NORTHING	EASTING
1	3564.3'	3561.6'	50248	49711
2	3564.5'	3561.9'	50131	50021
3	3564.1'	3561.6	49976	50038
4	3563.9'	3561.3'	49956	49885

100 0 100 200
SCALE: 1"=100'

BBC INTERNATIONAL, INC.

GROUNDWATER GRADIENT MAP
AMERADA HESS CORPORATION
COOPER LEASE
SECTION 3, TOWNSHIP 20 SOUTH, RANGE 37 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

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