

NM1 - 8

MONITORING REPORTS

YEAR(S):

1989



**WESTERN
TECHNOLOGIES
INC.**

400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, New Mexico 87029

31044 Job No.
Lab/Invoice No. 31490261
Date *05/08/89
Reviewed By *S.A. Mediel*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/05/89
Source of Material Native Tested/Calc. By R. Day/WT
Moisture/Density Relationship ASTM D 698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/05/89	60' W. of N.E. corner of dike						98"
2*	05/05/89	In N.W. key way (arroyo)						92'
3*	05/05/89	In S.W. key way (arroyo)						86.3'
4*	05/05/89	75' N. of S.W. corner of dike						86.3'
5	05/05/89	90' N. of S.E. corner of dike						97'
6R	05/05/89	Retest of Test #2, 05/05/89						92'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	133.5	15.0	116.0	100+	Yes	1-4-8-15
2*		14.9	133.5	20.8	104.2	91	No	1-4-8-13-15
3*		14.9	133.5	16.1	111.5	98	Yes	1-4-8-15
4*		14.9	133.5	13.6	117.5	100+	Yes	1-4-8-15
5		14.9	133.5	14.4	116.2	100+	Yes	1-4-10-15
6R		14.9	133.5	13.1	108.7	96	Yes	1-4-8-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | *3. Opt. Moist. | |
| 7. Above Footing Bottom | ± 3% | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Fill
*100' = Top of Bottom of Pond
Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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*Revised 05/10/89 to show Optimum Moisture requirements.



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, New Mexico 87029

31044 Job No. _____
Lab/Invoice No. 31490261

Date 05/08/89

Reviewed By *S.A. Muehl*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/05/89

Source of Material Native Tested/Calc. By R. Day/WT

Moisture/Density Relationship ASTM D0698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/05/89	60' W. of N.E. corner of dike						98"
2*	05/05/89	In N.W. key way (arroyo)						92'
3*	05/05/89	In S.W. key way (arroyo)						86.3'
4*	05/05/89	75' N. of S.W. corner of dike						86.3'
5	05/05/89	90' N. of S.E. corner of dike						97'
6R	05/05/89	Retest of Test #2, 05/05/89						92'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	133.5	15.0	116.0	100+	Yes	1-4-8-15
2*		14.9	133.5	20.8	104.2	91	No	1-4-8-13-15
3*		14.9	133.5	16.1	111.5	98	Yes	1-4-8-15
4*		14.9	133.5	13.6	117.5	100+	Yes	1-4-8-15
5		14.9	133.5	14.4	116.2	100+	Yes	1-4-10-15
6R		14.9	133.5	13.1	108.7	96	Yes	1-4-8-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. _____ | |
| 7. Above Footing Bottom | | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Fill
*100' = Top of Bottom of Pond

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

Copies to: Client (3)
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REVIEW OF CONSTRUCTION

WESTERN TECHNOLOGIES INC.



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400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz 31044 Job No. _____
Star Route
Lindrith, New Mexico 87029
 Lab/Invoice No. 31490261
 Date 04/28/89
 Reviewed By L. Waresbach

Project Lindrith Evaporation Pond
 Location Lindrith, New Mexico
 Type of Material Clay/Reddish Brown Authorized By Client Date 04/27/89
 Source of Material On-Site Tested/Calc. By R. Yongosona/WT
 Moisture/Density Relationship D968 Meth. A Test Locations Designated By R. Yongosona/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	04/27/89	235' W. of N.E. corner of dike						98'
2	04/27/89	160' S. of N.E. corner of dike						98'
3R	04/27/89	Retest of Test #1, 04/27/89						98'
4R	04/27/89	Retest of Test #2, 04/27/89						98'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.5	113.9	18.9	106.0	93	No	2-4-10-15
2		14.5	113.9	19.5	102.5	90	No	2-4-10-15
3R		14.5	113.9	12.7	108.3	95	Yes	2-4-10-15
4R		14.5	113.9	12.1	114.2	100+	Yes	2-4-10-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. _____ | |
| 7. Above Footing Bottom | | |

19. Test Locations on Accompanying Site Plan
 20. Specifications Unknown

† Datum 100' = Top of Dike

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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Note: Moisture contents for tests 3R and 4R are oven dry moistures.



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client Tony Schmitz 31044 Job No. _____
Star Route
Lindrith, New Mexico 87029
 Lab/Invoice No. 31490261
 Date of Report 04/26/89
 Reviewed By L. Wansbrough

Project Lindrith Evaporation Pond
 Location Lindrith, New Mexico Sampled By R. Yongosona/WT Date 04/24/89
 Type of Aggregate Clayey Sand Submitted By R. Yongosona/WT Date 04/24/89
 Source of Aggregate Mid of Evap Pond 0-3' Authorized By Client Date 04/24/89
 Sieve Analysis, ASTM C136- Test Standards are ASTM unless otherwise noted.

Sieve Size	% Passing Accumulative	Specification	Test	Result	Specification	Test STD
			Fineness Modulus			C125-
4"			Dry Rodded Unit Weight, pcf			C29-
3"			Lightweight Pieces, %			C123-
2"			Clay Lumps and Friable Particles			C142-
1½"			Organic Impurities			C40-
1⅞"			Sand Equivalent Value			C2419-
1"			Resistance to Abrasion	% Wear, rev.		C131-
¾"				% Wear, 500 rev.		Grading
½"				% Wear, rev.		C535-
⅜"				% Wear, 1000 rev.		Grading
¼"			Scratch Hardness, % by: Weight Count			C235-
No. 4			Fractured Faces, % by: Weight Count			
8			Liquid Limit Plasticity Index			D4318-
10			Cleanliness Value			Calif. 227-
16						
30			Moisture Density Relations	Max. Dry Density, pcf	113.9	<input checked="" type="checkbox"/> D698- A <input type="checkbox"/> D1557- <input type="checkbox"/> AASHTO T99- <input type="checkbox"/> AASHTO T180-
40				Optimum Moisture, %	14.5	
50				Method	A	
100			Specific Gravity	Absorption, %		<input type="checkbox"/> C127- <input type="checkbox"/> C128-
				Bulk (Dry)		
				Bulk (SSD)		
Finer than 200 ASTM C117-				Apparent		

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Farmington, New Mexico 87401
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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____

Client Tony Schmitz 31044 Invoice No. 31490261

Project Lindrith Evaporation Pond Report No. _____ Date 04/25/89

Location Lindrith, New Mexico Report By R. Yougsona/WT Date 04/24/89

Prime Contractor Client Superintendent Tony Schmitz

Earthwork Subcontractor _____ Superintendent _____

Earthwork in progress and/or completed since last report: Contractor had top foot of site excavated in accordance with geotechnical report. They will try to excavate material for N. and E. dike embankments saturate with water to try and reach optimum moisture content for sub-base fill.

Unexpected site conditions: N/A

Sampling and/or testing performed: Pick-up sample to run Proctor.

Conformance of earthwork materials, operations and/or test results to project requirements: N/A

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Will call when they are ready for testing.

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: Will call.

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L. Waresbach

Reviewed By

REVIEW OF CONSTRUCTION

Project

Lindrieth Evaporation Pond
Rio Arriba County, New Mexico

Job No. _____

Lab/Invoice No. 31490370

Report No. _____ Date 06/13/89

Reviewed By T. Wiestner Date 06/13/89

Report By H. Kuebler/WT Date 06/09/89

Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz

Subcontractor _____ Superintendent _____

Work in progress and/or completed since last report: Tony Schmitz Construction continued berm building.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation

Conformance of materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Weather: _____

Technician/Engineer time on project today: _____

No. of visits today: 1

Time and date for next visit: 06/12/89

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WESTERN TECHNOLOGIES INC.

REVIEW OF EARTHWORK CONSTRUCTION

		Job No. _____	
Client _____	Tony Schmitz Construction	31044	Invoice No. _____ 31490370
Project _____	Lindrith Evaporation Pond		Report No. _____ Date 06/13/89
Location _____	Rio Arriba County, New Mexico	Report By H. Kuebler/WT	Date 06/08/89
Prime Contractor _____	Tony Schmitz Construction	Superintendent _____	Tony Schmitz
Earthwork Subcontractor _____		Superintendent _____	
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued berm building.			

Unexpected site conditions: Afternoon rain stopped project.

Sampling and/or testing performed: Compaction tests and visual observation. A proctor sample from the borrow area was brought to the Farmington Lab.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz, job will continue 06/09/89

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: 06/09/89

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H. Waresbach
Reviewed By



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(505) 327-4966

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490370
 Date of Report 06/14/89
 Reviewed By L. Waresbeck

Project Lindrith Evaporation Pond
 Location Rio Arriba County, NM Sampled By H. Kuebler/WT Date 06/08/89
 Type of Aggregate Clay Submitted By H. Kuebler/WT Date 06/08/89
 Source of Aggregate Borrow Area, E. of Site Authorized By Client Date 06/08/89

Sieve Analysis, ASTM C136-

Test Standards are ASTM unless otherwise noted.

Sieve Size	% Passing Accumulative	Specification	Test	Result	Specification	Test STD
			Fineness Modulus			C125-
4"			Dry Rodded Unit Weight, pcf			C29-
3"			Lightweight Pieces, %			C123-
2"			Clay Lumps and Friable Particles			C142-
1½"			Organic Impurities			C40-
1⅛"			Sand Equivalent Value			C2419-
1"			Resistance to Abrasion	% Wear, rev.		C131-
¾"				% Wear, 500 rev.		Grading
½"				% Wear, rev.		C535-
⅜"				% Wear, 1000 rev.		Grading
¼"			Scratch Hardness, % by: Weight Count			C235-
No. 4			Fractured Faces, % by: Weight Count			
8			Liquid Limit Plasticity Index			D4318-
10			Cleanliness Value			Calif. 227-
16						
30			Moisture Density Relations	Max. Dry Density, pcf	115.3	<input checked="" type="checkbox"/> D698-A <input type="checkbox"/> D1557- <input type="checkbox"/> AASHTO T99- <input type="checkbox"/> AASHTO T180-
40				Optimum Moisture, %	13.3	
50				Method	A	
100			Specific Gravity	Absorption, %		<input type="checkbox"/> C127- <input type="checkbox"/> C128-
				Bulk (Dry)		
				Bulk (SSD)		
				Apparent		
Finer than 200 ASTM C117-						

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490370
 Date 06/13/89
 Reviewed By L. Waresbach

Project Lindrith Evaporation Pond
 Location Rio Arriba County, New Mexico
 Type of Material Clay Authorized By Clay Date 06/12/89
 Source of Material Native Tested/Calc. By H. Kuebler/WT
 Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/12/89	S.E. corner of berm						99'
2	06/12/89	S.W. corner of S. Berm						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	14.9	116.2	100	Yes	1-10-13-15
2		14.9	113.5	15.8	110.5	97	Yes	1-10-13-15

* Comments

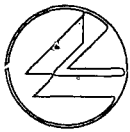
- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
 20. Specifications Unknown

† Datum 100' = Top of Berm

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490370
 Date 06/13/89
 Reviewed By L. Winesbach

Project Lindrith Evaporation Pond
 Location Rio Arriba County, New Mexico
 Type of Material Clay Authorized By Client Date 06/09/89
 Source of Material Native Tested/Calc. By H. Kuebler/WT
 Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/09/89	Center of E. berm						99'
2	06/09/89	S.E. corner of S. berm						98.5'
3	06/09/89	85' E. of S.W. corner of S. berm						98'
4	06/09/89	S.W. corner of S. berm						98'
5	06/09/89	90' S. of N.W. corner of N. berm						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.6	107.5	95	Yes	1-10-13-15
2		14.9	113.5	17.1	111.4	98	Yes	1-10-13-15
3		14.9	113.5	16.4	112.4	99	Yes	1-10-13-15
4		14.9	113.5	13.2	108.5	96	Yes	1-10-13-15
5		14.9	113.5	14.7	117.0	100	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. Opt. Moist. | |
| 7. Above Footing Bottom | + 3% | |

19. Test Locations on Accompanying Site Plan
 20. Specifications Unknown

† Datum 100' = Top of Berm

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SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No. _____

Lab/Invoice No. 31490370

Date 06/13/89

Reviewed By L. Wareback

Project Lindrith Evaporation Pond

Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Clay Date 06/08/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/08/89	S.E. corner of S. berm						97'
2	06/08/89	S.W. corner of S. berm						98'
3	06/08/89	N.E. corner of N. berm						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	13.5	114.5	100	Yes	1-10-13-15
2		14.9	113.5	15.4	113.5	100	Yes	1-10-13-15
3		14.9	113.5	15.0	117.0	100	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. Opt. Moist. | |
| 7. Above Footing Bottom | ± 3% | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Job No. 31044 Invoice No. 31490261
Project Lindrith Evaporation Pond Report No. Date 04/25/89
Location Lindrith, New Mexico Report By R. Yougsona/WT Date 04/24/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Superintendent

Earthwork in progress and/or completed since last report: Contractor had top foot of site excavated in
accordance with geotechnical report. They will try to excavate material for N. and E.
dike embankments saturate with water to try and reach optimum moisture content for
sub-base fill.

Unexpected site conditions: N/A

Sampling and/or testing performed: Pick-up sample to run Proctor.

Conformance of earthwork materials, operations and/or test results to project requirements: N/A

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Will call when they are ready for testing.

Tech./Eng'r time on project today: No. of visits today: 1

Time and date for next visit: Will call.

Copies: Client (3)
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L. Waresbach

Reviewed By



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INC.**

400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client Tony Schmitz 31044 Job No. _____
Star Route Lab/Invoice No. 31490261
Lindrith, New Mexico 87029 Date of Report 04/26/89
 Reviewed By L. Waresburg

Project Lindrith Evaporation Pond
 Location Lindrith, New Mexico Sampled By R. Yongsosona/WT Date 04/24/89
 Type of Aggregate Clayey Sand Submitted By R. Yongsosona/WT Date 04/24/89
 Source of Aggregate Mid of Evap Pond 0-3' Authorized By Client Date 04/24/89

Sieve Analysis, ASTM C136-

Test Standards are ASTM unless otherwise noted.

Sieve Size	% Passing Accumulative	Specification	Test	Result	Specification	Test STD
			Fineness Modulus			C125-
4"			Dry Rodded Unit Weight, pcf			C29-
3"			Lightweight Pieces, %			C123-
2"			Clay Lumps and Friable Particles			C142-
1½"			Organic Impurities			C40-
1⅞"			Sand Equivalent Value			C2419-
1"			Resistance to Abrasion	% Wear, rev.		C131-
¾"				% Wear, 500 rev.		Grading
½"				% Wear, rev.		C535-
⅜"				% Wear, 1000 rev.		Grading
¼"			Scratch Hardness, % by: Weight Count			C235-
No. 4			Fractured Faces, % by: Weight Count			
8			Liquid Limit Plasticity Index			D4318-
10			Cleanness Value			Calif. 227-
16						
30			Moisture Density Relations	Max. Dry Density, pcf	113.9	<input checked="" type="checkbox"/> D698- A <input type="checkbox"/> D1557- <input type="checkbox"/> AASHTO T99- <input type="checkbox"/> AASHTO T180-
40				Optimum Moisture, %	14.5	
50				Method	A	
100			Specific Gravity	Absorption, %		<input type="checkbox"/> C127- <input type="checkbox"/> C128-
				Bulk (Dry)		
				Bulk (SSD)		
Finer than 200 ASTM C117-				Apparent		

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REVIEW OF CONSTRUCTION

Lindrith Evaporation Pond
Lindrith, New Mexico

31044 Job No. _____

Lab/Invoice No. 31490261

Report No. _____ Date 04/28/89

Report By R. Yongosona/WT Date 04/27/89 Reviewed By L. Wares Date 04/28/89

Prime Contractor Tony Schmitz Superintendent Tony Schmitz

Subcontractor _____ Superintendent _____

Work in progress and/or completed since last report: Arrived on site and contractor was in the process of compacting the N. and E. dike embankments. Compaction equipment used was a sheepsfoot roller, loaded scraper and a grader. Approximately 6" of backfill was added to each dike.

Unexpected site conditions: None

Sampling and/or testing performed: Four F.D.T.'s were performed. Moisture samples brought in for oven drying.

Conformance of materials, operations and/or test results to project requirements: Test results using oven dry
moistures show adequate compaction was achieved.

Person/persons notified of nonconformance to project requirements: Tony Schmitz

Nonconformance corrected: Oven dry moisture samples were used to correlate nuclear densometer
and adequate moisture contents and compaction were achieved.

Instructions or information received/from: Tony Schmitz/Layne Waresback

Weather: Cloudy & Windy. Temperature in 50's

Technician/Engineer time on project today: _____

No. of visits today: 1 Time and date for next visit: _____

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400 South Lorena Avenue
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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, New Mexico 87029

31044 Job No.
Lab/Invoice No. 31490261
Date 04/28/89
Reviewed By *L. Wuestbach*

Project Lindrith Evaporation Pond

Location Lindrith, New Mexico

Type of Material Clay/Reddish Brown Authorized By Client Date 04/27/89

Source of Material On-Site Tested/Calc. By R. Yongosona/WT

Moisture/Density Relationship D968 Meth. A Test Locations Designated By R. Yongosona/WT

Test No.	Date	Location of Test Hole	Elevation of Test Datum †
1	04/27/89	235' W. of N.E. corner of dike	98'
2	04/27/89	160' S. of N.E. corner of dike	98'
3R	04/27/89	Retest of Test #1, 04/27/89	98'
4R	04/27/89	Retest of Test #2, 04/27/89	98'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. ?	Comments *
				Moisture %	Dry Density pcf			
1		14.5	113.9	18.9	106.0	93	No	2-4-10-15
2		14.5	113.9	19.5	102.5	90	No	2-4-10-15
3R		14.5	113.9	12.7	108.3	95	Yes	2-4-10-15
4R		14.5	113.9	12.1	114.2	100+	Yes	2-4-10-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. _____ | |
| 7. Above Footing Bottom | | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Dike

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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Note: Moisture contents for tests 3R and 4R are oven dry moistures.



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz 31044 Job No.
Star Route
Lindrith, New Mexico 87029
Lab/Invoice No. 31490261
Date *05/08/89
Reviewed By *S.A. Muehl*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 05/05/89
Source of Material Native Tested/Calc. By R. Day/WT
Moisture/Density Relationship ASTM D 698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/05/89	60' W. of N.E. corner of dike						98"
2*	05/05/89	In N.W. key way (arroyo)						92'
3*	05/05/89	In S.W. key way (arroyo)						86.3'
4*	05/05/89	75' N. of S.W. corner of dike						86.3'
5	05/05/89	90' N. of S.E. corner of dike						97'
6R	05/05/89	Retest of Test #2, 05/05/89						92'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. ?	Comments *
				Moisture %	Dry Density pcf			
1		14.9	133.5	15.0	116.0	100+	Yes	1-4-8-15
2*		14.9	133.5	20.8	104.2	91	No	1-4-8-13-15
3*		14.9	133.5	16.1	111.5	98	Yes	1-4-8-15
4*		14.9	133.5	13.6	117.5	100+	Yes	1-4-8-15
5		14.9	133.5	14.4	116.2	100+	Yes	1-4-10-15
6R		14.9	133.5	13.1	108.7	96	Yes	1-4-8-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | *3. Opt. Moist. | |
| 7. Above Footing Bottom | + 3% | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Fill
*100' = Top of Bottom of Pond
Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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*Revised 05/10/89 to show Optimum Moisture requirements.



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044

Job No.
Lab/Invoice No. 31490261

Date 05/09/89

Reviewed By *L. Winesbach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/08/89

Source of Material Native Tested/Calc. By G. Anaya/WT

Moisture/Density Relationship ASTM D 698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/08/89	N.W. Keyway (arroyo) 120' S. from N.W. corner of dike						91'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	8.5	100.0	89	No	1-4-8-13-14

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | 18. Other _____ |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Bottom of Pond

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044 Job No.
Lab/Invoice No. 31490261
Date 05/15/89
Reviewed By *L. Wauson*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/11/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1R	05/11/89	Retest of Test #1, 05/08/89						87'
2	05/11/89	S.E. arroyo, 150' N. of S.E. corner of dike						80'
3	05/11/89	N.W. arroyo, 120' S. of N.W. corner of dike						87'
4R	05/11/89	Retest of Test #2, 05/11/89						80'
5	05/11/89	N.W. arroyo, 120' S. of N.W. corner of dike						88.5'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1R		14.9	113.5	13.8	119.5	100	Yes	1-9-13-15
2		14.9	113.5	12.3	109.5	97	No	1-9-13-15
3		14.9	113.5	12.4	117.0	100	Yes	1-9-13-15
4		14.9	113.5	14.0	113.2	100	Yes	1-9-13-15
5R		14.9	113.5	17.9	111.7	98	Yes	1-9-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom
8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist. + 3%
14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/15/89

Reviewed By L. W. Waresbach

Project Lindrith Evaporation Pond

Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 05/11/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
6	05/11/89	S.E. arroyo, 150' W. of S.E. corner of dike						81'
7	05/11/89	N.W. arroyo, 120' S. of N.W. corner of dike						89'
8	05/11/89	S.E. arroyo, 150' N. of S.E. corner of dike						82'
9R	05/11/89	Retest of Test #8, 05/11/89						82'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. ?	Comments *
				Moisture %	Dry Density pcf			
6		14.9	113.5	17.0	110.7	98	Yes	1-9-13-15
7		14.9	113.5	15.2	112.9	100	Yes	1-9-13-15
8		14.9	113.5	15.1	103.4	91	No	1-9-13-15
9R		14.9	113.5	11.9	115.7	100	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density, AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | 18. Other _____ |
| 7. Above Footing Bottom | <u>± 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction Job No. 31044 Invoice No. 31490261
Project Evaporation Ponds - Lindrith Report No. Date 05/19/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/12/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Client Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Crew continued to fill arroyos in N.W. and S.E. section of pond site.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicate fill was being placed to compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz - Work will begin 8:30 a.m. to 9:00 a.m. on Monday, 05/15/89

Tech./Eng'r time on project today: No. of visits today:

Time and date for next visit:

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S. C. Medina
Reviewed By



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490261
 Date of Report 05/23/89
 Reviewed By L. Waresbach

Project Lindrith Evaporation Pond
 Location Rio Aribba County, NM Sampled By H. Kuebler/WT Date 05/12/89
 Type of Aggregate Clay Submitted By H. Kuebler/WT Date 05/12/89
 Source of Aggregate Native Authorized By Client Date 05/12/89

Sieve Analysis, ASTM C136-

Test Standards are ASTM unless otherwise noted.

Sieve Size	% Passing Accumulative	Specification	Test	Result	Specification	Test STD
			Fineness Modulus			C125-
4"			Dry Rodded Unit Weight, pcf			C29-
3"			Lightweight Pieces, %			C123-
2"			Clay Lumps and Friable Particles			C142-
1½"			Organic Impurities			C40-
1⅞"			Sand Equivalent Value			C2419-
1"			Resistance to Abrasion	% Wear, rev.		C131-
¾"				% Wear, 500 rev.		Grading
½"				% Wear, rev.		C535-
⅜"				% Wear, 1000 rev.		Grading
¼"			Scratch Hardness, % by: Weight Count			C235-
No. 4			Fractured Faces, % by: Weight Count			
8			Liquid Limit Plasticity Index			D4318-
10			Cleanness Value			Calif. 227-
16			Constant Head Permeability cm/sec	9.8x10 ⁻⁸		
30			Moisture Density Relations	Max. Dry Density, pcf		<input type="checkbox"/> D698- <input type="checkbox"/> D1557- <input type="checkbox"/> AASHTO T99- <input type="checkbox"/> AASHTO T180-
40				Optimum Moisture, %		
50				Method		
100			Specific Gravity	Absorption, %		<input type="checkbox"/> C127- <input type="checkbox"/> C128-
				Bulk (Dry)		
				Bulk (SSD)		
Finer than 200 ASTMC117-				Apparent		

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95% compaction at optimum moisture content



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/15/89

Reviewed By *L. Wurstach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 05/12/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/12/89	N.W. arroyo, 120' S. of N.E. corner of berm						90'
2	05/12/89	S.E. arroyo, 150' N. of S.E. corner of berm						82'
3	05/12/89	N.W. arroyo, 120' S. of N.W. corner of berm						90'
4	05/12/89	S.E. arroyo, 150' N. of S.E. corner of berm						83'
5R	05/12/89	Retest of Test #4, 05/12/89						83'
6	05/12/89	N.W. corner arroyo, 120' S. of N.W. corner berm						92'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	16.0	114.7	100	Yes	1-9-13-15
2		14.9	113.5	17.5	112.8	100	Yes	1-9-13-15
3		14.9	113.5	13.4	110.7	98	Yes	1-9-13-15
4		14.9	113.5	12.7	110.5	97	No	1-9-13-15
5R		14.9	113.5	11.9	111.7	98	Yes	1-9-13-15
6		14.9	113.5	15.2	110.8	98	Yes	1-9-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.

9. 98% min. req'd.

10. 95% min. req'd.

11. 90% min. req'd.

12. 85% min. req'd.

13. Opt. Moist.

+ 3%

14. Tested D-1556/AASHTO T-217

15. Tested ASTM D-2922/D-3017

16. Tested ASTM D-2922/AASHTO T-217

17. Rock correction applied to maximum dry density. AASHTO T-224

18. Other

19. Test Locations on Accompanying Site Plan

20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction Job No. 31044 Invoice No. 31490261
Project Lindrith Evaporation Ponds Report No. Date 05/19/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/15/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Crew continued to fill N.W. and S.E. arroyos in pond site.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests and Visual Observation

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz - Job will start at 8:30 a.m., 05/16/89

Tech./Eng'r time on project today: No. of visits today:

Time and date for next visit:

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S. A. Madril
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, New Mexico 87029

31044

Job No. _____
Lab/Invoice No. 31490261

Date 05/19/89

Reviewed By *Sa. Madrid*

Project Lindrith Evaporation Ponds
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/15/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole	Elevation of Test Datum †
1	05/15/89	S.E. corner arroyo, 150' N. of S.E. corner of dike	84'
2R	05/15/89	Retest of Test #1, 05/15/89	84'
3	05/15/89	Center of W. berm	87'
4	05/15/89	S.E. corner arroyo, 150' N. of S.E. corner of dike	84'
5R	05/15/89	Retest of Test #4, 05/15/89	84'
6	05/15/89	S.E. corner arroyo, 150' N. of S.E. corner of dike	85'
7R	05/15/89	Restes to Test #6, 05/15/89	84'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.6	105.0	93	No	1-9-13-15
2R		14.9	113.5	14.7	117.7	100+	Yes	1-9-13-15
3		14.9	113.5	17.3	112.5	99	Yes	1-9-13-15
4		14.9	113.5	14.7	107.7	95	No	1-9-13-15
5R		14.9	113.5	14.1	113.5	100	Yes	1-9-13-15
6		14.9	113.5	12.1	106.2	94	No	1-9-13-15
7R		14.9	113.5	13.9	113.7	100	Yes	1-9-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist. +3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

Copies to: Client (3)
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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____
Client Tony Schmitz Construction 31044 Invoice No. 31490261
Project Lindrith Evaporation Ponds Report No. _____ Date 05/19/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/16/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Crew began to build west and south berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Work will begin at 8:30 a.m., 05/17/89

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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A. C. Madrid
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No. _____
Lab/Invoice No. 31490261

Date 05/19/89

Reviewed By *Sa. muduel*

Project Lindrith Evaporation Ponds
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/16/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/16/89	S.E. arroyo, 150' N. of S.E. corner of dike						86'
2	05/16/89	S.E. arroyo, 150' N. of S.E. corner of dike						87'
3	05/16/89	S.E. arroyo, 150' N. of S.E. corner of dike						88'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	13.5	111.7	98	Yes	1-9-13-15
2		14.9	113.5	12.4	111.0	98	Yes	1-9-13-15
3		14.9	113.5	13.4	111.8	98	Yes	1-9-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist. ± 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction 31044 Job No. _____ Invoice No. 31490261
Project Lindrith Evaporation Ponds Report No. _____ Date 05/19/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/17/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Crew continued to build west and south berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Work will begin at 8:30 a.m., 05/18/89

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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S.A. Madrid
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No. _____
Lab/Invoice No. 31490261
Date 05/19/89
Reviewed By *A. A. Madril*

Project Lindrith Evaporation Ponds

Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 05/17/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/17/89	100' W. of S.E. corner of S. berm						88'
2	05/17/89	60' N. of S.E. corner of S. berm						88'
3R	05/17/89	Retest of Test #1, 05/17/89						88'
4	05/17/89	90' S. of N.W. corner of N. berm						93'
5R	05/17/89	Retest of Test #3, 05/17/89						88'
6	05/17/89	70' S. of N.W. corner of N. berm						93'
7	05/17/89	60' N. of S.W. corner of S. berm						88'
8	05/17/89	Center of S. berm						88'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	15.8	109.4	96	No	1-9-13-15
2		14.9	113.5	14.8	115.4	100+	Yes	1-9-13-15
3R		14.9	113.5	15.8	107.5	95	No	1-9-13-15
4		14.9	113.5	13.9	117.2	100+	Yes	1-9-13-15
5R		14.9	113.5	16.9	112.9	100	Yes	1-9-13-15
6		14.9	113.5	16.6	113.3	100	Yes	1-9-13-15
7		14.9	113.5	15.4	117.0	100+	Yes	1-9-13-15
8		14.9	113.5	13.2	114.8	100+	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | 18. Other _____ |
| 7. Above Footing Bottom | <u>± 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____

Client Tony Schmitz Construction Invoice No. 31490261

Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89

Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/18/89

Prime Contractor Client Superintendent Tony Schmitz

Earthwork Subcontractor Client Superintendent Tony Schmitz

Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued W. and S. berm construction.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction test and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated compacted fill met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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L. Wuestbach
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/30/89

Reviewed By *L. Waresbach*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/18/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/18/89	Center of S. berm						89'
2	05/18/89	Center of W. berm						89'
1								
Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	15.9	111.3	98	Yes	1-9-13-15
2		14.9	113.5	12.3	120.2	100+	Yes	1-9-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom
8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist. ± 3%
14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____

Client Tony Schmitz Construction Invoice No. 31490261

Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89

Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/19/89

Prime Contractor Client Superintendent Tony Schmitz

Earthwork Subcontractor Client Superintendent Tony Schmitz

Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build W. and S. berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated berm fill was being place according to compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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L. Waresbach
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.
Lab/Invoice No. 31490261

Date 05/30/89

Reviewed By *L. Waresbach*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/19/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/19/89	140' W. of S.E. corner of S. berm						91'
2	05/19/89	80' S. of N.W. corner of N. berm						94'
3	05/19/89	50' N. of S.W. corner of S. berm						91'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	14.2	115.2	100	Yes	1-10-13-15
2		14.9	113.5	14.2	116.0	100	Yes	1-10-13-15
3		14.9	113.5	17.0	112.8	100	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No.
Star Route
Lindrith, NM 87029 Lab/Invoice No. 31490261
Date 05/30/89
Reviewed By *L. Waresbach*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 05/22/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/22/89	80' W. of S.E. corner of S. berm						91'
2	05/22/89	60' S. of N.W. corner of N. berm						95'
3	05/22/89	40' E. of S.W. corner of S. berm						91'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.0	109.0	96	Yes	1-10-13-15
2		14.9	113.5	14.1	110.0	97	Yes	1-10-13-15
3		14.9	113.5	14.2	109.2	96	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|-----------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist</u> | |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction Job No. _____
Invoice No. 31490261
Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/23/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Client Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build
S. and W. berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests
indicated fill met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: I informed Tony Schmitz of my conversation with
Larry Cynova/WT on 05/19/89.

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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L. Wansbrough
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/30/89

Reviewed By *L. Waresback*

Project Evaporation Pond - Lindrith

Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By

Client

Date 05/23/89

Source of Material Native

Tested/Calc. By

H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/23/89	70' W. of S.E. corner of S. berm						92'
2	05/23/89	20' E. of S.W. corner of S. berm						92'
3	05/23/89	50' S. of N.W. corner of N. berm						96'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. ?	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.7	110.5	97	Yes	1-10-13-15
2		14.9	113.5	13.8	108.5	96	Yes	1-10-13-15
3		14.9	113.5	14.4	109.3	96	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist
+ 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____

Client Tony Schmitz Construction Invoice No. 31490261

Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89

Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/24/89

Prime Contractor Client Superintendent Tony Schmitz

Earthwork Subcontractor Client Superintendent Tony Schmitz

Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build S. and W. berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual inspection

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated fill met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: An average of 10 inches to one foot is being placed per day on W. and S. berms. Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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L. Wencesbach
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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No.
Star Route
Lindrith, NM 87029
Lab/Invoice No. 31490261
Date 05/30/89
Reviewed By *T. Waresback*
Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 05/24/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/24/89	90' W. of S.E. corner of S. berm						93'
2	05/24/89	40' E. of S.W. corner of S. berm						93'
3	05/24/89	50' S. of N.W. corner of W. berm						96'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	13.7	109.7	97	Yes	1-10-13-15
2		14.9	113.5	12.4	112.5	99	Yes	1-10-13-15
3		14.9	113.5	18.0	111.4	98	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist
+ 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction 31044 Job No. _____
Invoice No. 31490370
Project Lindrith Evaporation Pond Report No. _____ Date 06/05/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 06/02/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build south and west berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: _____

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L. Warestock
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490370
 Date 06/13/89
 Reviewed By L. Waresbach

Project Lindrith Evaporation Pond
 Location Rio Arriba County, New Mexico
 Type of Material Clay Authorized By Clay Date 06/12/89
 Source of Material Native Tested/Calc. By H. Kuebler/WT
 Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/12/89	S.E. corner of berm						99'
2	06/12/89	S.W. corner of S. Berm						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	14.9	116.2	100	Yes	1-10-13-15
2		14.9	113.5	15.8	110.5	97	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist.
+ 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490370
 Date 06/13/89
 Reviewed By L. Winesbrook

Project Lindrith Evaporation Pond
 Location Rio Arriba County, New Mexico
 Type of Material Clay Authorized By Client Date 06/09/89
 Source of Material Native Tested/Calc. By H. Kuebler/WT
 Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/09/89	Center of E. berm						99'
2	06/09/89	S.E. corner of S. berm						98.5'
3	06/09/89	85' E. of S.W. corner of S. berm						98'
4	06/09/89	S.W. corner of S. berm						98'
5	06/09/89	90' S. of N.W. corner of N. berm						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.6	107.5	95	Yes	1-10-13-15
2		14.9	113.5	17.1	111.4	98	Yes	1-10-13-15
3		14.9	113.5	16.4	112.4	99	Yes	1-10-13-15
4		14.9	113.5	13.2	108.5	96	Yes	1-10-13-15
5		14.9	113.5	14.7	117.0	100	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
 20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client **Tony Schmitz Construction**
Star Route
Lindrith, NM 87029

31044

Job No. _____

Lab/Invoice No. **31490370**

Date **06/13/89**

Reviewed By L. Waresbach

Project **Lindrith Evaporation Pond**
Location **Rio Arriba County, New Mexico**

Type of Material **Clay** Authorized By **Clay** Date **06/08/89**

Source of Material **Native** Tested/Calc. By **H. Kuebler/WT**

Moisture/Density Relationship **ASTM D698** Meth. **A** Test Locations Designated By **H. Kuebler/WT**

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/08/89	S.E. corner of S. berm						97'
2	06/08/89	S.W. corner of S. berm						98'
3	06/08/89	N.E. corner of N. berm						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	13.5	114.5	100	Yes	1-10-13-15
2		14.9	113.5	15.4	113.5	100	Yes	1-10-13-15
3		14.9	113.5	15.0	117.0	100	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.

9. 98% min. req'd.

10. 95% min. req'd.

11. 90% min. req'd.

12. 85% min. req'd.

13. Opt. Moist.

± 3%

14. Tested D-1556/AASHTO T-217

15. Tested ASTM D-2922/D-3017

16. Tested ASTM D-2922/AASHTO T-217

17. Rock correction applied to maximum dry density. AASHTO T-224

18. Other _____

19. Test Locations on Accompanying Site Plan

20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client **Tony Schmitz Construction** 31044 Job No. _____
Star Route
Lindrith, NM 87029 Lab/Invoice No. **31490370**
 Date **06/13/89**
 Reviewed By *L. Waresbach*
 Project **Lindrith Evaporation Pond**
 Location **Rio Arriba County, New Mexico**
 Type of Material **Clay** Authorized By **Clay** Date **06/08/89**
 Source of Material **Native** Tested/Calc. By **H. Kuebler/WT**
 Moisture/Density Relationship **ASTM D698** Meth. **A** Test Locations Designated By **H. Kuebler/WT**

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/08/89	S.E. corner of S. berm						97'
2	06/08/89	S.W. corner of S. berm						98'
3	06/08/89	N.E. corner of N. berm						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	13.5	114.5	100	Yes	1-10-13-15
2		14.9	113.5	15.4	113.5	100	Yes	1-10-13-15
3		14.9	113.5	15.0	117.0	100	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.

9. 98% min. req'd.

10. 95% min. req'd.

11. 90% min. req'd.

12. 85% min. req'd.

13. Opt. Moist.

± 3%

14. Tested D-1556/AASHTO T-217

15. Tested ASTM D-2922/D-3017

16. Tested ASTM D-2922/AASHTO T-217

17. Rock correction applied to maximum dry density. AASHTO T-224

18. Other _____

19. Test Locations on Accompanying Site Plan

20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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REVIEW OF CONSTRUCTION

Project

Lindrith Evaporation Pond
Rio Arriba County, New Mexico

Job No. _____

Lab/Invoice No. 31490370

Report No. _____ Date 06/13/89

Report By H. Kuebler/WT Date 06/09/89 Reviewed By T. Wuest Date 06/13/89

Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz

Subcontractor _____ Superintendent _____

Work in progress and/or completed since last report: Tony Schmitz Construction continued berm building.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation

Conformance of materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Weather: _____

Technician/Engineer time on project today: _____

No. of visits today: 1 Time and date for next visit: 06/12/89

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____

Client Tony Schmitz Construction 31044 Invoice No. 31490370

Project Lindrith Evaporation Pond Report No. _____ Date 06/13/89

Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 06/08/89

Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz

Earthwork Subcontractor _____ Superintendent _____

Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued berm building.

Unexpected site conditions: Afternoon rain stopped project.

Sampling and/or testing performed: Compaction tests and visual observation. A proctor sample from the borrow area was brought to the Farmington Lab.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz, job will continue 06/09/89

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: 06/09/89

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H. Kuebler
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029 Lab/Invoice No. 31490370
Date 06/01/89
Reviewed By L. Ward

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 05/30/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/30/89	50' W. of S.E. corner of S. berm						94'
2	05/30/89	70' N. of S.W. corner of S. berm						94'
3	05/30/89	50' S. of N.W. corner of N. berm						97'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	15.9	113.0	100	Yes	1-10-13-15
2		14.9	113.5	13.7	111.7	98	Yes	1-10-13-15
3		14.9	113.5	18.0	110.5	97	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | 18. Other _____ |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100'=Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029 Lab/Invoice No. 31490370
Date 06/05/89
Reviewed By *L. W. W. W.*
Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 06/02/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/02/89	60' W. of S.E. corner of S. berm						95'
2	06/02/89	85' E. of S.W. corner of S. berm						95'
3	06/02/89	40' N. of S.W. corner of S. berm						95'
4	06/02/89	70' S. of N.W. corner of N. berm						97'
5	06/02/89	50' N. of S.W. corner of S. berm						95'
6	06/02/89	120' S. of N.W. corner of N. berm						95'
7	06/02/89	Center of S. berm						95'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	12.0	109.7	97	Yes	1-10-13-15
2		14.9	113.5	13.7	108.9	96	Yes	1-10-13-15
3		14.9	113.5	12.5	107.8	95	Yes	1-10-13-15
4		14.9	113.5	14.8	113.8	100	Yes	1-10-13-15
5		14.9	113.5	13.8	110.7	98	Yes	1-10-13-15
6		14.9	113.5	12.9	111.2	98	Yes	1-10-13-15
7		14.9	113.5	14.3	110.7	98	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom
8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist. ± 3%
14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490370
 Date of Report 06/14/89
 Reviewed By L. Waresbeck

Project Lindrith Evaporation Pond
 Location Rio Arriba County, NM Sampled By H. Kuebler/WT Date 06/08/89
 Type of Aggregate Clay Submitted By H. Kuebler/WT Date 06/08/89
 Source of Aggregate Borrow Area, E. of Site Authorized By Client Date 06/08/89

Sieve Analysis, ASTM C136-

Test Standards are ASTM unless otherwise noted.

Sieve Size	% Passing Accumulative	Specification	Test		Result	Specification	Test STD
			Fineness Modulus				C125-
4"			Dry Rodded Unit Weight, pcf				C29-
3"			Lightweight Pieces, %				C123-
2"			Clay Lumps and Friable Particles				C142-
1½"			Organic Impurities				C40-
1¼"			Sand Equivalent Value				C2419-
1"			Resistance to Abrasion	% Wear, rev.			C131-
¾"				% Wear, 500 rev.			Grading
½"				% Wear, rev.			C535-
⅜"				% Wear, 1000 rev.			Grading
¼"			Scratch Hardness, % by: Weight Count				C235-
No. 4			Fractured Faces, % by: Weight Count				
8			Liquid Limit Plasticity Index				D4318-
10			Cleanness Value				Calif. 227-
16							
30			Moisture Density Relations	Max. Dry Density, pcf	115.3	<input checked="" type="checkbox"/> D698-A <input type="checkbox"/> D1557- <input type="checkbox"/> AASHTO T99- <input type="checkbox"/> AASHTO T180-	
40				Optimum Moisture, %	13.3		
50				Method	A		
100			Specific Gravity	Absorption, %		<input type="checkbox"/> C127- <input type="checkbox"/> C128-	
				Bulk (Dry)			
				Bulk (SSD)			
				Apparent			
Finer than 200 ASTM C117-							

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029
 Lab/Invoice No. 31490370
 Date of Report 06/08/89
 Reviewed By L. Waresbach

Project Lindrith Evaporation Pond
 Location Rio Arriba County, NM Sampled By H. Kuebler/WT Date 05/24/89
 Type of Aggregate CL-Clay Submitted By H. Kuebler/WT Date 06/07/89
 Source of Aggregate Right Permeameter Authorized By Client Date 05/24/89

Sieve Analysis, ASTM C136-

Test Standards are ASTM unless otherwise noted.

Sieve Size	% Passing Accumulative	Specification	Test	Result	Specification	Test STD
			Fineness Modulus			C125-
4"			Dry Rodded Unit Weight, pcf			C29-
3"			Lightweight Pieces, %			C123-
2"			Clay Lumps and Friable Particles			C142-
1½"			Organic Impurities			C40-
1⅞"			Sand Equivalent Value			C2419-
1"			Resistance to Abrasion	% Wear, rev.		C131-
¾"				% Wear, 500 rev.		Grading
½"				% Wear, rev.		C535-
⅜"				% Wear, 1000 rev.		Grading
¼"			Scratch Hardness, % by: Weight Count			C235-
No. 4			Fractured Faces, % by: Weight Count			
8			Liquid Limit Plasticity Index			D4318-
10			Constant Head Permeability, cm/sec			Calif. 227-
16				7.3x10 ⁻⁸		
30			Moisture Density Relations	Max. Dry Density, pcf		<input type="checkbox"/> D698- <input type="checkbox"/> D1557- <input type="checkbox"/> AASHTO T99- <input type="checkbox"/> AASHTO T180-
40				Optimum Moisture, %		
50				Method		
100			Specific Gravity	Absorption, %		<input type="checkbox"/> C127- <input type="checkbox"/> C128-
				Bulk (Dry)		
				Bulk (SSD)		
Finer than 200 ASTM C117-				Apparent		

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95% compaction at optimum moisture
 content



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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____

Client Tony Schmitz Construction 31044 Invoice No. 31490370

Project Lindrith Evaporation Pond Report No. _____ Date 06/05/89

Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/30/89

Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz

Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz

Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued berm building on south and west berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Scraper broke down. Work was halted until scraper can be repaired. Tony Schmitz will call WTI when work starts up.

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: _____

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L. Wardach
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**WESTERN
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400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction Job No. 31044 Invoice No. 31490370
Project Lindrith Evaporation Pond Report No. Date 06/22/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 06/12/89
Prime Contractor Client Superintendent
Earthwork Subcontractor Superintendent
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued berm building.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction test and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests met
compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Native soil in pond bottom shall be scarified and recompacted to 95% and have moisture content \pm 3% optimum of standard proctor. Clay lining material (three feet in depth) shall be placed in lifts six inches or less and compacted to 95% and have moisture content \pm 3% optimum of standard proctor. No clay lining material shall be placed along interior berm walls since berm was constructed of material which met permeability specifications.

Tech./Eng'r time on project today: No. of visits today: 1

Time and date for next visit: 06/14/89

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490370

Date 06/22/89

Reviewed By *L. Waresbach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 06/14/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
*1	06/14/89	50' E. of S.E. corner of S. berm						100'
*2	06/14/89	Center of S. berm						100'
*3	06/14/89	70' N. of S.W. corner of S. berm						100'
*4	06/14/89	20' S. of N.W. corner of N. berm						100'
*5	06/14/89	60' E. of N.W. corner of N. berm						100'
6	06/14/89	50' S. 60' E. of N.W. corner of pond bottom						97'
7	06/14/89	50' N. 60' E. of S.W. corner of pond bottom						97'
8	06/14/89	50' N. 60' W. of S.E. corner of pond bottom						97'
Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
*1		14.9	113.5	17.9	109.0	96	Yes	1-10-13-15
*2		14.9	113.5	16.6	110.2	97	Yes	1-10-13-15
*3		14.9	113.5	15.7	107.2	95	Yes	1-10-13-15
*4		14.9	113.5	16.7	111.4	98	Yes	1-10-13-15
*5		14.9	113.5	17.1	107.2	95	Yes	1-10-13-15
6		14.9	113.5	12.8	109.0	96	Yes	1-10-13-15
7		14.9	113.5	13.3	112.5	99	Yes	1-10-13-15
8		14.9	113.5	16.5	112.0	99	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom
8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. + 3% of Opt. Moisture
14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Pond Bottom

*100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No. _____
Star Route
Lindrith, NM 87029 Lab/Invoice No. 31490370
Date 06/22/89
Reviewed By *L. Waresford*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 06/14/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
*9	06/14/89	90' N. 40' W. of S.E. corner of pond bottom						97'
*10	06/14/89	20' S. 25' W. of N.E. corner of pond bottom						97'
11	06/14/89	N.E. corner of N. berm						100'
12	06/14/89	Center of E. berm						100'
*13	06/14/89	Center of Pond						97'
*R14	06/14/89	Retest of Test #13, 06/14/89						97'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf †	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
*9		14.9	113.5	14.2	109.0	96	Yes	1-10-13-15
*10		14.9	113.5	13.5	111.0	98	Yes	1-10-13-15
11		14.9	113.5	16.0	109.5	97	Yes	1-10-13-15
12		14.9	113.5	15.8	111.0	98	Yes	1-10-13-15
*13		14.9	113.5	14.6	105.0	92	No	1-10-13-15
*R14		14.9	113.5	16.6	110.2	97	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>+ 3% opt</u> | |
| 7. Above Footing Bottom | Opt. Moisture | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

*100' = Top of Pond Bottom

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490370

Date 06/22/89

Reviewed By *H. Waresbach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 06/16/89

Source of Material Borrow Site, 150' E. of Pond Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/16/89	70' N. 40' W. of S.E. corner of pond bottom						98'
2	06/16/89	Center of pond bottom						98'
3	06/16/89	40' N. 30' E. of S.E. corner of pond bottom						98'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		13.2	115.2	12.1	119.2	100	Yes	1-10-13-14
2		13.2	115.2	14.6	119.5	100	Yes	1-10-13-14
3		13.2	115.2	13.8	114.2	99	Yes	1-10-13-14

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. $\pm 3\%$ of _____ | |
| 7. Above Footing Bottom | Opt. Moisture | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Pond Bottom

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____

Client Tony Schmitz Construction Invoice No. 31490370

Project Lindrith Evaporation Pond Report No. _____ Date 06/22/89

Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 06/19/89

Prime Contractor Client Superintendent Tony Schmitz

Earthwork Subcontractor _____ Superintendent _____

Earthwork in progress and/or completed since last report: Tony Schmitz Construction began to place final lift in pond bottom.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Job completion should be by 06/21/89

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: _____

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L. Waresbach
Reviewed By



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No. _____

Lab/Invoice No. 31490370

Date 06/22/89

Reviewed By *L. Waresbach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 06/19/89

Source of Material Borrow Area - E. of Pond Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/19/89	18' W. 35' N. of S.E. corner of pond bottom						99'
2	06/19/89	Center of pond bottom						99'
3	06/19/89	60' S. 60' E. of N.W. corner of pond bottom						99'
4	06/19/89	20' N. 20' E. of S.W. corner of pond bottom						99'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. ?	Comments *
				Moisture %	Dry Density pcf			
1		13.2	115.2	11.2	110.7	96	Yes	1-10-13-15
2		13.2	115.2	10.4	111.3	97	Yes	1-10-13-15
3		13.2	115.2	11.4	116.4	100	Yes	1-10-13-15
4		13.2	115.2	11.4	108.9	95	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. ± 3% of

Opt. Moisture

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Pond Bottom

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490370

Date 06/22/89

Reviewed By *L. Waresbach*

Project Lindrith Evaporation Pond

Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 06/20/89

Source of Material Borrow Area-E. of Pond

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698

Meth. A

Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/20/89	45' W. 75' S. of N.E. corner of pond bottom						100'
2	06/20/89	70' W. 60' N. of S.E. corner of pond bottom						100'
3	06/20/89	60' E. 70' S. of N.W. corner of pond bottom						100'
4	06/20/89	80' N' 20' E. of S.W. corner of pond bottom						100'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		13.2	115.2	11.6	117.6	100	Yes	1-10-13-14
2		13.2	115.2	13.3	109.4	95	Yes	1-10-13-14
3		13.2	115.2	13.3	109.7	95	Yes	1-10-13-14
4		13.2	115.2	14.3	111.2	97	Yes	1-10-13-14

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. _____

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Pond Bottom

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490370

Date 06/05/89

Reviewed By *L. W. ...*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By

Client

Date 06/02/89

Source of Material Native

Tested/Calc. By

H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	06/02/89	60' W. of S.E. corner of S. berm						95'
2	06/02/89	85' E. of S.W. corner of S. berm						95'
3	06/02/89	40' N. of S.W. corner of S. berm						95'
4	06/02/89	70' S. of N.W. corner of N. berm						97'
5	06/02/89	50' N. of S.W. corner of S. berm						95'
6	06/02/89	120' S. of N.W. corner of N. berm						95'
7	06/02/89	Center of S. berm						95'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	12.0	109.7	97	Yes	1-10-13-15
2		14.9	113.5	13.7	108.9	96	Yes	1-10-13-15
3		14.9	113.5	12.5	107.8	95	Yes	1-10-13-15
4		14.9	113.5	14.8	113.8	100	Yes	1-10-13-15
5		14.9	113.5	13.8	110.7	98	Yes	1-10-13-15
6		14.9	113.5	12.9	111.2	98	Yes	1-10-13-15
7		14.9	113.5	14.3	110.7	98	Yes	1-10-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | |
| 7. Above Footing Bottom | <u>± 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction 31044 Job No. _____
Invoice No. 31490370
Project Lindrith Evaporation Pond Report No. _____ Date 06/05/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 06/02/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build south and west berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: _____

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Reviewed By



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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____
Client Tony Schmitz Construction 31044 Invoice No. 31490370
Project Lindrith Evaporation Pond Report No. _____ Date 06/05/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/30/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued berm building on south and west berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Scraper broke down. Work was halted until scraper can be repaired. Tony Schmitz will call WTI when work starts up.

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: _____

Copies: Client (3)
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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490370

Date 06/01/89

Reviewed By *L. Waresbach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client

Date 05/30/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/30/89	50' W. of S.E. corner of S. berm						94'
2	05/30/89	70' N. of S.W. corner of S. berm						94'
3	05/30/89	50' S. of N.W. corner of N. berm						97'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	15.9	113.0	100	Yes	1-10-13-15
2		14.9	113.5	13.7	111.7	98	Yes	1-10-13-15
3		14.9	113.5	18.0	110.5	97	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.

13. Opt. Moist.
+ 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224

18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100'=Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction Job No. 31044 Invoice No. 31490261
Project Lindrith Evaporation Pond Report No. 06/01/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/24/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued south and east berm building.

Unexpected site conditions: Water wagon was broke down. Repairs will take several days. No work until 05/30/89.

Sampling and/or testing performed: Compaction tests and visual inspection

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz. Pockets of different clay have been located 110' S. of N.E. berm. A permeability test will be performed on this material.

Tech./Eng'r time on project today: _____ No. of visits today: 1

Time and date for next visit: 05/30/89

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L. Waresbach
Reviewed By



**WESTERN
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400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/30/89

Reviewed By *T. Waresback*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By

Client

Date 05/24/89

Source of Material Native

Tested/Calc. By

H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/24/89	90' W. of S.E. corner of S. berm						93'
2	05/24/89	40' E. of S.W. corner of S. berm						93'
3	05/24/89	50' S. of N.W. corner of W. berm						96'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	13.7	109.7	97	Yes	1-10-13-15
2		14.9	113.5	12.4	112.5	99	Yes	1-10-13-15
3		14.9	113.5	18.0	111.4	98	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist
+ 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/30/89

Reviewed By *L. Waresbach*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 05/23/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/23/89	70' W. of S.E. corner of S. berm						92'
2	05/23/89	20' E. of S.W. corner of S. berm						92'
3	05/23/89	50' S. of N.W. corner of N. berm						96'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.7	110.5	97	Yes	1-10-13-15
2		14.9	113.5	13.8	108.5	96	Yes	1-10-13-15
3		14.9	113.5	14.4	109.3	96	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.

13. Opt. Moist
± 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224

18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction Job No. _____
Invoice No. 31490261
Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/24/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Client Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build S. and W. berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual inspection

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated fill met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: An average of 10 inches to one foot is being placed per day on W. and S. berms. Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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L. W. Winesbach
Reviewed By

REVIEW OF CONSTRUCTION

Project Lindrith Evaporation Pond
Rio Arriba County, New Mexico

31044

Job No. _____

Lab/Invoice No. 31490370

Report No. _____ Date 06/22/89

Report By H. Kuebler/WT Date 06/15/89 Reviewed By L. Ward Date 06/22/89

Prime Contractor Client Superintendent Tony Schmitz

Subcontractor _____ Superintendent _____

Work in progress and/or completed since last report: Tony Schmitz Construction began to place 1st lift of clay liner in pond bottom.

Unexpected site conditions: None

Sampling and/or testing performed: Visual observation.

Conformance of materials, operations and/or test results to project requirements: Clay liner appears to be uniform throughout the lift.

Person/persons notified of nonconformance to project requirements: None

Nonconformance corrected: None

Instructions or information received/from: Weathered claystone lenses appeared under red clay liner material. I informed Tony Schmitz Construction not to place claystone in pond bottom.

Weather: _____

Technician/Engineer time on project today: _____

No. of visits today: 1 Time and date for next visit: 06/16/89

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REVIEW OF CONSTRUCTION

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____
Client Tony Schmitz Construction Invoice No. 31490261
Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/23/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Client Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build
S. and W. berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests
indicated fill met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: I informed Tony Schmitz of my conversation with
Larry Cynova/WT on 05/19/89.

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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L. W. Warlock
Reviewed By



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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client **Tony Schmitz Construction**
Star Route
Lindrith, NM 87029

31044

Job No. _____

Lab/Invoice No. **31490261**

Date of Report **05/23/89**

Reviewed By *L. Waresbach*

Project **Lindrith Evaporation Pond**

Location **Rio Aribba County, NM** Sampled By **H. Kuebler/WT** Date **05/12/89**

Type of Aggregate **Clay** Submitted By **H. Kuebler/WT** Date **05/12/89**

Source of Aggregate **Native** Authorized By **Client** Date **05/12/89**

Sieve Analysis, ASTM C136-

Test Standards are ASTM unless otherwise noted.

Sieve Size	% Passing Accumulative	Specification	Test		Result	Specification	Test STD
			Fineness Modulus				C125-
4"			Dry Rodded Unit Weight, pcf				C29-
3"			Lightweight Pieces, %				C123-
2"			Clay Lumps and Friable Particles				C142-
1½"			Organic Impurities				C40-
1⅞"			Sand Equivalent Value				C2419-
1"			Resistance to Abrasion	% Wear, rev.			C131-
¾"				% Wear, 500 rev.			Grading
½"				% Wear, rev.			C535-
⅜"				% Wear, 1000 rev.			Grading
¼"			Scratch Hardness, % by: Weight Count				C235-
No. 4			Fractured Faces, % by: Weight Count				
8			Liquid Limit Plasticity Index				D4318-
10			Cleanness Value				Calif. 227-
16			Constant Head Permeability cm/sec		9.8x10 ⁻⁸		
30			Moisture Density Relations	Max. Dry Density, pcf		<input type="checkbox"/> D698- <input type="checkbox"/> D1557- <input type="checkbox"/> AASHTO T99- <input type="checkbox"/> AASHTO T180-	
40				Optimum Moisture, %			
50				Method			
100			Specific Gravity	Absorption, %		<input type="checkbox"/> C127- <input type="checkbox"/> C128-	
				Bulk (Dry)			
				Bulk (SSD)			
Finer than 200 ASTM C117-				Apparent			

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95% compaction at optimum moisture content



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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No.
Star Route
Lindrith, NM 87029
Lab/Invoice No. 31490261
Date 05/30/89
Reviewed By *L. Waresbach*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 05/22/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/22/89	80' W. of S.E. corner of S. berm						91'
2	05/22/89	60' S. of N.W. corner of N. berm						95'
3	05/22/89	40' E. of S.W. corner of S. berm						91'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.0	109.0	96	Yes	1-10-13-15
2		14.9	113.5	14.1	110.0	97	Yes	1-10-13-15
3		14.9	113.5	14.2	109.2	96	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist
+ 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/30/89

Reviewed By *L. Waresbach*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 05/19/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/19/89	140' W. of S.E. corner of S. berm						91'
2	05/19/89	80' S. of N.W. corner of N. berm						94'
3	05/19/89	50' N. of S.W. corner of S. berm						91'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	14.2	115.2	100	Yes	1-10-13-15
2		14.9	113.5	14.2	116.0	100	Yes	1-10-13-15
3		14.9	113.5	17.0	112.8	100	Yes	1-10-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist.

± 3%

14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No.
Star Route
Lindrith, New Mexico 87029
Lab/Invoice No. 31490261
Date 05/19/89
Reviewed By *A. A. Madril*

Project Lindrith Evaporation Ponds
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 05/15/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/15/89	S.E. corner arroyo, 150' N. of S.E. corner of dike						84'
2R	05/15/89	Retest of Test #1, 05/15/89						84'
3	05/15/89	Center of W. berm						87'
4	05/15/89	S.E. corner arroyo, 150' N. of S.E. corner of dike						84'
5R	05/15/89	Retest of Test #4, 05/15/89						84'
6	05/15/89	S.E. corner arroyo, 150' N. of S.E. corner of dike						85'
7R	05/15/89	Retest to Test #6, 05/15/89						84'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	17.6	105.0	93	No	1-9-13-15
2R		14.9	113.5	14.7	117.7	100+	Yes	1-9-13-15
3		14.9	113.5	17.3	112.5	99	Yes	1-9-13-15
4		14.9	113.5	14.7	107.7	95	No	1-9-13-15
5R		14.9	113.5	14.1	113.5	100	Yes	1-9-13-15
6		14.9	113.5	12.1	106.2	94	No	1-9-13-15
7R		14.9	113.5	13.9	113.7	100	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|---------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. Opt. Moist. | |
| 7. Above Footing Bottom | +3% | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/19/89

Reviewed By *S. A. Mueller*

Project Lindrith Evaporation Ponds
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/16/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/16/89	S.E. arroyo, 150' N. of S.E. corner of dike						86'
2	05/16/89	S.E. arroyo, 150' N. of S.E. corner of dike						87'
3	05/16/89	S.E. arroyo, 150' N. of S.E. corner of dike						88'
Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	13.5	111.7	98	Yes	1-9-13-15
2		14.9	113.5	12.4	111.0	98	Yes	1-9-13-15
3		14.9	113.5	13.4	111.8	98	Yes	1-9-13-15

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.

9. 98% min. req'd.

10. 95% min. req'd.

11. 90% min. req'd.

12. 85% min. req'd.

13. Opt. Moist.

+ 3%

14. Tested D-1556/AASHTO T-217

15. Tested ASTM D-2922/D-3017

16. Tested ASTM D-2922/AASHTO T-217

17. Rock correction applied to maximum dry density. AASHTO T-224

18. Other _____

19. Test Locations on Accompanying Site Plan

20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction
Star Route
Lindrith, NM 87029

31044

Job No. _____
Lab/Invoice No. 31490261

Date 05/19/89

Reviewed By A. A. Madril

Project Lindrith Evaporation Ponds
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By _____ Client _____ Date 05/17/89

Source of Material Native Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/17/89	100' W. of S.E. corner of S. berm						88'
2	05/17/89	60' N. of S.E. corner of S. berm						88'
3R	05/17/89	Retest of Test #1, 05/17/89						88'
4	05/17/89	90' S. of N.W. corner of N. berm						93'
5R	05/17/89	Retest of Test #3, 05/17/89						88'
6	05/17/89	70' S. of N.W. corner of N. berm						93'
7	05/17/89	60' N. of S.W. corner of S. berm						88'
8	05/17/89	Center of S. berm						88'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	15.8	109.4	96	No	1-9-13-15
2		14.9	113.5	14.8	115.4	100+	Yes	1-9-13-15
3R		14.9	113.5	15.8	107.5	95	No	1-9-13-15
4		14.9	113.5	13.9	117.2	100+	Yes	1-9-13-15
5R		14.9	113.5	16.9	112.9	100	Yes	1-9-13-15
6		14.9	113.5	16.6	113.3	100	Yes	1-9-13-15
7		14.9	113.5	15.4	117.0	100+	Yes	1-9-13-15
8		14.9	113.5	13.2	114.8	100+	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|----------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | |
| 6. Below Footing Bottom | 13. Opt. Moist. ± 3% | 18. Other _____ |
| 7. Above Footing Bottom | | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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Farmington, New Mexico 87401
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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____
Client Tony Schmitz Construction Invoice No. 31490261
Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/19/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Client Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued to build
W. and S. berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction tests and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests
indicated berm fill was being place according to compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

Copies: Client (3)
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L. Waresbach
Reviewed By



**WESTERN
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400 South Lorena Avenue
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(505) 327-4966

LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz Construction 31044 Job No.
Star Route Lab/Invoice No. 31490261
Lindrith, NM 87029 Date 05/30/89
Reviewed By *L. Waresbach*

Project Evaporation Pond - Lindrith
Location Rio Arriba County, New Mexico
Type of Material Clay Authorized By Client Date 05/18/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/18/89	Center of S. berm						89'
2	05/18/89	Center of W. berm						89'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	15.9	111.3	98	Yes	1-9-13-15
2		14.9	113.5	12.3	120.2	100+	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | 18. Other _____ |
| 7. Above Footing Bottom | ± 3% | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction Job No. _____
Invoice No. 31490261
Project Lindrith Evaporation Pond Report No. _____ Date 05/30/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/18/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Client Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Tony Schmitz Construction continued W. and S. berm construction.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction test and visual observation.

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated compacted fill met compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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L. Waresbach
Reviewed By



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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____
Client Tony Schmitz Construction 31044 Invoice No. 31490261
Project Lindrith Evaporation Ponds Report No. _____ Date 05/19/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/17/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Crew continued to build west and south berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Work will begin at 8:30 a.m., 05/18/89

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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S.A. Madrid
Reviewed By



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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____
Client Tony Schmitz Construction 31044 Invoice No. 31490261
Project Lindrith Evaporation Ponds Report No. _____ Date 05/19/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/16/89
Prime Contractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Crew began to build west and south berms.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Work will begin at 8:30 a.m., 05/17/89

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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A. G. Madrid
Reviewed By



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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Client Tony Schmitz Construction 31044 Job No. _____
Project Lindrith Evaporation Ponds Invoice No. 31490261
Location Rio Arriba County, New Mexico Report No. _____ Date 05/19/89
Prime Contractor Tony Schmitz Construction Report By H. Kuebler/WT Date 05/15/89
Earthwork Subcontractor Tony Schmitz Construction Superintendent Tony Schmitz
Earthwork in progress and/or completed since last report: Crew continued to fill N.W. and S.E. arroyos in pond site.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests and Visual Observation

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicated adequate compaction.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz - Job will start at 8:30 a.m., 05/16/89

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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S. a. madril
Reviewed By

REVIEW OF CONSTRUCTION

Project

Lindrith Evaporation Pond
Rio Arriba County, New Mexico

31044

Job No. _____

Lab/Invoice No. 31490261

Report No. _____ Date 05/15/89

Report By H. Kuebler/WT

Date 05/11/89

Reviewed By L. W. Lavin Date 05/15/89

Prime Contractor Tony Schmitz

Superintendent Tony Schmitz

Subcontractor _____

Superintendent _____

Work in progress and/or completed since last report: Contractor began to fill depression areas along N.W. corner and S.E. corner of pond site.

Unexpected site conditions: None

Sampling and/or testing performed: One Permablity, Compaction Tests.

Conformance of materials, operations and/or test results to project requirements: Compactions tests indicated fill was compacted to compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: During phone conversation with Larry Cynova, WTI, the specification for fill below 10 feet was changed from 100% compaction to 98% compaction of ASTM D698.

Weather: Clear & Windy

Technician/Engineer time on project today: 5 hours

No. of visits today: 1

Time and date for next visit: _____

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/15/89

Reviewed By *L. Wauson*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 05/11/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1R	05/11/89	Retest of Test #1, 05/08/89						87'
2	05/11/89	S.E. arroyo, 150' N. of S.E. corner of dike						80'
3	05/11/89	N.W. arroyo, 120' S. of N.W. corner of dike						87'
4R	05/11/89	Retest of Test #2, 05/11/89						80'
5	05/11/89	N.W. arroyo, 120' S. of N.W. corner of dike						88.5'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1R		14.9	113.5	13.8	119.5	100	Yes	1-9-13-15
2		14.9	113.5	12.3	109.5	97	No	1-9-13-15
3		14.9	113.5	12.4	117.0	100	Yes	1-9-13-15
4		14.9	113.5	14.0	113.2	100	Yes	1-9-13-15
5R		14.9	113.5	17.9	111.7	98	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/09/89

Reviewed By *L. Winesback*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client Date 05/08/89

Source of Material Native

Tested/Calc. By G. Anaya/WT

Moisture/Density Relationship ASTM D 698 Meth. A Test Locations Designated By Client

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/08/89	N.W. Keyway (arroyo) 120' S. from N.W. corner of dike						91'
Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	8.5	100.0	89	No	1-4-8-13-14

* Comments

1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. Opt. Moist.
14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224
18. Other _____

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Bottom of Pond

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044

Job No.

Lab/Invoice No. 31490261

Date 05/15/89

Reviewed By *L. Wansbach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay

Authorized By Client

Date 05/12/89

Source of Material Native

Tested/Calc. By H. Kuebler/WT

Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
1	05/12/89	N.W. arroyo, 120' S. of N.E. corner of berm						90'
2	05/12/89	S.E. arroyo, 150' N. of S.E. corner of berm						82'
3	05/12/89	N.W. arroyo, 120' S. of N.W. corner of berm						90'
4	05/12/89	S.E. arroyo, 150' N. of S.E. corner of berm						83'
5R	05/12/89	Retest of Test #4, 05/12/89						83'
6	05/12/89	N.W. corner arroyo, 120' S. of N.W. corner berm						92'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
1		14.9	113.5	16.0	114.7	100	Yes	1-9-13-15
2		14.9	113.5	17.5	112.8	100	Yes	1-9-13-15
3		14.9	113.5	13.4	110.7	98	Yes	1-9-13-15
4		14.9	113.5	12.7	110.5	97	No	1-9-13-15
5R		14.9	113.5	11.9	111.7	98	Yes	1-9-13-15
6		14.9	113.5	15.2	110.8	98	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | |
| 7. Above Footing Bottom | ± 3% | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client Tony Schmitz
Star Route
Lindrith, NM 87029

31044 Job No. _____
Lab/Invoice No. 31490261
Date 05/15/89
Reviewed By *L. Waresbach*

Project Lindrith Evaporation Pond
Location Rio Arriba County, New Mexico

Type of Material Clay Authorized By Client Date 05/11/89
Source of Material Native Tested/Calc. By H. Kuebler/WT
Moisture/Density Relationship ASTM D698 Meth. A Test Locations Designated By H. Kuebler/WT

Test No.	Date	Location of Test Hole						Elevation of Test Datum †
6	05/11/89	S.E. arroyo, 150' W. of S.E. corner of dike						81'
7	05/11/89	N.W. arroyo, 120' S. of N.W. corner of dike						89'
8	05/11/89	S.E. arroyo, 150' N. of S.E. corner of dike						82'
9R	05/11/89	Retest of Test #8, 05/11/89						82'

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics		Relative Compaction %	Within Specs. †	Comments *
				Moisture %	Dry Density pcf			
6		14.9	113.5	17.0	110.7	98	Yes	1-9-13-15
7		14.9	113.5	15.2	112.9	100	Yes	1-9-13-15
8		14.9	113.5	15.1	103.4	91	No	1-9-13-15
9R		14.9	113.5	11.9	115.7	100	Yes	1-9-13-15

* Comments

- | | | |
|-------------------------|------------------------|--|
| 1. Subgrade | 8. 100% min. req'd. | 14. Tested D-1556/AASHTO T-217 |
| 2. Subbase Fill | 9. 98% min. req'd. | 15. Tested ASTM D-2922/D-3017 |
| 3. Base Course | 10. 95% min. req'd. | 16. Tested ASTM D-2922/AASHTO T-217 |
| 4. Backfill | 11. 90% min. req'd. | 17. Rock correction applied to maximum dry density. AASHTO T-224 |
| 5. Pavement Area | 12. 85% min. req'd. | 18. Other _____ |
| 6. Below Footing Bottom | 13. <u>Opt. Moist.</u> | |
| 7. Above Footing Bottom | <u>+ 3%</u> | |

19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100' = Top of Berm

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

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FIELD REPORT

REVIEW OF EARTHWORK CONSTRUCTION

Job No. _____
Client Tony Schmitz Construction 31044 Invoice No. 31490261
Project Evaporation Ponds - Lindrith Report No. _____ Date 05/19/89
Location Rio Arriba County, New Mexico Report By H. Kuebler/WT Date 05/12/89
Prime Contractor Client Superintendent Tony Schmitz
Earthwork Subcontractor Client Superintendent Tony Schmitz

Earthwork in progress and/or completed since last report: Crew continued to fill arroyos in N.W. and S.E. section of pond site.

Unexpected site conditions: None

Sampling and/or testing performed: Compaction Tests

Conformance of earthwork materials, operations and/or test results to project requirements: Compaction tests indicate fill was being placed to compaction requirements.

Person/persons notified of nonconformance to project requirements: N/A

Nonconformance corrected: N/A

Instructions or information received/from: Tony Schmitz - Work will begin 8:30 a.m. to 9:00 a.m. on Monday, 05/15/89

Tech./Eng'r time on project today: _____ No. of visits today: _____

Time and date for next visit: _____

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