



FAXMITTAL

Fax: 425-774-2714
Date: September 10, 2008
From: Tony Martin
HWA's Project #: 2007-132-23
Sent To....

Company:	Envirocon	
Attention:	Charles Bird	
PDF:	cbird@envirocon.com	
Phone No.:	503-318-5065	

Number of Pages: 14 (including cover sheet)

ORIGINAL TO FOLLOW BY MAIL	Yes	X No
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Subject: **Chevron Edmonds**

Tom,

Please find attached a copy of Field Reports FR-046 through FR-051 and a copy of laboratory test data for sample AG-4 import material for the Chevron Edmonds Project.

If you have any questions regarding the above, please call.

Best Regards,

Tony Martin
Office: 425-774-0106
Cell: 206-794-3126



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-046
Date (mm/dd/yy): 9/2/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobrich CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative John H. "Jack" Carlock

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 1045 Arrived at Site:1055 Departed Site: 1205 End Travel: 1215

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.

GENERAL LOCATION: Fill placed as Backfill of Excavation B-1.

DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: Upon arrival on site it was observed that the contractor was neither placing nor compacting the Gravel Borrow fill. Based on a conversation with Chuck Hyatt, the fill had been placed to grade within Excavation B-2, with only final grading left to be completed.

HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing and a physical evaluation of the backfill utilizing a 1/2 inch diameter steel T-handled probe. Both nuclear density testing and our physical evaluation indicated that the backfill material had been placed to the specified degree of compaction or greater. Test results are summarized on the attached 'Field Compaction Test Report'.

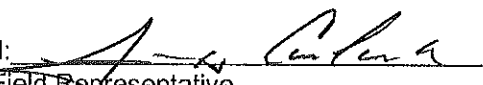
CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

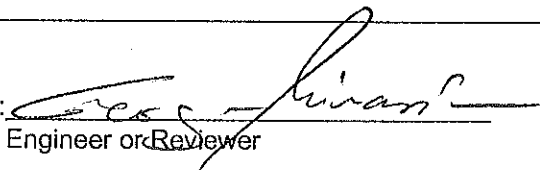
MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Note: Both elevations and locations are approximations only.

Total time chargeable to this job is 2.0 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



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Field Report No.: FR-046
Date (mm/dd/yy): 9/2/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobrich CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative John H. "Jack" Carlock

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density		Moist. %	Field %	Spec %
								Total pcf	Dry pcf			
1	Excavation B-2, approximate. location is E-Line at 42-Line.	-8ft	12 in	AG-4	128.3	8.1	25.0	135.7	127.3	6.6	99	90
2	Excavation B-2, approximate. location is E-Line at 46-Line.	-8ft	12 in	AG-4	128.3	8.1	25.0	130.7	123.8	5.5	96	90
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Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other: _____
Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
Serial #: 29276 Density Standard Count: 2527 Moisture Standard Count: 622
*Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: John H. "Jack" Carlock

Reviewed By: Tony Martin



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-047
Date (mm/dd/yy): 9/4/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schrodlich CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 0630 Arrived at Site: 0700 Departed Site: 0800 End Travel: 0815

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.
GENERAL LOCATION: Fill placed as Backfill of Excavation B-1.
DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: Based on information provided by the contractor the material had been placed in one lift, approx. two feet thick, and compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA observed the compaction of this material prior to testing.

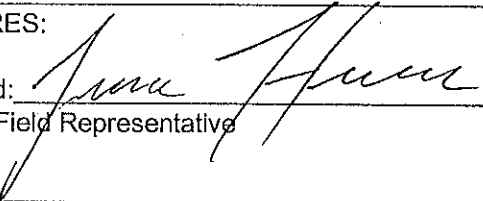
HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing on the backfill and found that it met or surpassed the specified degree of compaction.

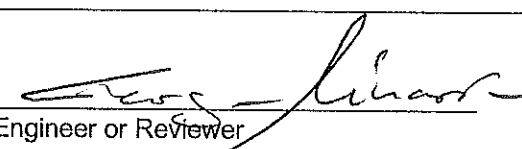
CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 2.0 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



HWA GEOSCIENCES INC.

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Field Report No.: FR-047
Date (mm/dd/yy): 9/4/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobrich CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density		Moist. %	Field %	Spec %
								Total pcf	Dry pcf			
1	Excavation B-1, approximate. location is F-Line at 42-Line.	-6 ft.	8 in	AG-4	128.3	8.1	25.0	127.4	120.9	5.4	94	90
2	Excavation B-1, approximate. location is E-Line at 46-Line.	-6 ft.	8 in	AG-4	130.3	7.6	30.0	136.0	128.2	6.0	98	90
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Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:
 Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
 Serial #: 61028 Density Standard Count.: 2987 Moisture Standard Count: 824
 *Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: Jessica Herrera

Reviewed By: Tony Martin



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-048
Date (mm/dd/yy): 9/5/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobrich CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 1000 Arrived at Site: 1030 Departed Site: 1115 End Travel: 1130

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.

GENERAL LOCATION: Fill placed as Backfill of Excavation B-1.

DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: Based on information provided by the contractor the material had been placed in 12 inch lifts (uncompacted thickness) and compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA observed the compaction of this material prior to testing.

HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing on the backfill and found that it met or surpassed the specified degree of compaction.

CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 2.0 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



HWA GEOSCIENCES INC.

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Field Report No.: FR-048
Date (mm/dd/yy): 9/5/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobben CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density		Moist. %	Field %	Spec %
								Total pcf	Dry pcf			
1	Excavation B-1 , approximate. location is D-Line at 45-Line .	-4 ft.	8 in	AG-4	130.3	7.6	30.0	133.4	126.9	5.2	97	90
2	Excavation B-1 , approximate. location is C-Line at 46-Line .	-4 ft.	8 in	AG-4	130.3	7.6	30.0	137.3	128.7	6.7	99	90
3	Excavation B-1 , approximate. location is E-Line at 46-Line .	-4 ft.	8 in	AG-4	130.3	7.6	30.0	134.8	128.1	5.2	98	90
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Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:
Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
Serial #: 61028 Density Standard Count: 2983 Moisture Standard Count: 817
*Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: Jessica Herrera

Reviewed By: Tony Martin



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-049
Date (mm/dd/yy): 9/8/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobrich	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

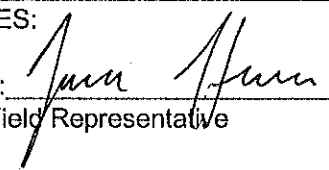
First Site Visit: Start Travel: 0640 Arrived at Site: 0700 Departed Site: 0810 End Travel: 0815

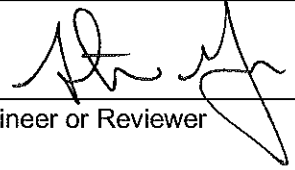
ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.
GENERAL LOCATION: Fill placed as Backfill of Excavation B-1.
DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.
TYPE OF INSPECTION: Periodic
DETAILS OF PLACEMENT OF THIS MATERIAL: Based on information provided by the contractor the material had been placed in 12 inch lifts (uncompacted thickness) and compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA observed the compaction of this material prior to testing.
HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing on the backfill and found that it met or surpassed the specified degree of compaction.
CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 2.0 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



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Field Report No.: FR-049
Date (mm/dd/yy): 9/8/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobrich	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Total pcf	Dry pcf	Moist. %	Field %	Spec %
1	Excavation B-1 , approximate. location is F-Line at 41-Line .	-4 ft.	8 in	AG-4	130.3	7.6	30.0	134.5	128.2	4.9	98	90
2	Excavation B-1 , approximate. location is C-Line at 46-Line .	-4 ft.	8 in	AG-4	130.3	7.6	30.0	132.5	126.3	5.0	97	90
3	Excavation B-1 , approximate. location is E-Line at 46-Line .	-4 ft.	8 in	AG-4	130.3	7.6	30.0	134.3	128.7	4.3	99	90
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Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:
 Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
 Serial #: 61028 Density Standard Count.: 2984 Moisture Standard Count: 805
 *Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: Jessica Herrera

Reviewed By: Tony Martin



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
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Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-050
Date (mm/dd/yy): 9/9/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schnobrich CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 0800 Arrived at Site: 0815 Departed Site: 0855 End Travel: 0900

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.

GENERAL LOCATION: Fill placed as Backfill of Excavation B-1.

DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: Based on information provided by the contractor the material had been placed in 12 inch lifts (uncompacted thickness) and compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA observed the compaction of this material prior to testing.

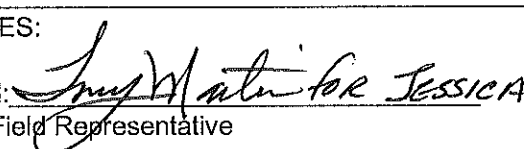
HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing of the backfill and found that it met or surpassed the specified degree of compaction.

CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 1.5 hours including the time for writing this report.

SIGNATURES:

Signed:  for JESSICA
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



HWA GEOSCIENCES INC.

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Field Report No.: FR-050
Date (mm/dd/yy): 9/9/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Tom Schreiber CHARLES BIRD	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Total Density pcf	Dry Density pcf	Moist. %	Field %	Spec %
1	Excavation B-1 , approximate. location is D-Line at 43-Line .	-2.5 ft.	8 in	AG-4	130.3	7.6	30.0	134.0	127.1	5.5	98	90
2	Excavation B-1 , approximate. location is F-Line at 46-Line .	-2.5 ft.	8 in	AG-4	130.3	7.6	30.0	132.6	125.9	5.3	97	90
3	Excavation B-1 , approximate. location is F-Line at 44-Line .	-2.5 ft.	8 in	AG-4	130.3	7.6	30.0	134.6	127.2	5.8	98	90
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Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:

Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P

Serial #: 61028 Density Standard Count: 2984 Moisture Standard Count: 813

*Lab Control: Standard Proctor Modified Proctor

Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: Jessica Herrera

Reviewed By: Tony Martin



HWAGEOSCIENCES INC.

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Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-051
Date (mm/dd/yy): 9/10/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 0910 Arrived at Site: 0925 Departed Site: 1015 End Travel: 1015

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.

GENERAL LOCATION: Fill placed as Backfill of Excavation B-1.

DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: Based on information provided by the contractor the material had been placed in 12 inch lifts (uncompacted thickness) and compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA observed the compaction of this material prior to testing.

HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing of the backfill and found that it met or surpassed the specified degree of compaction.

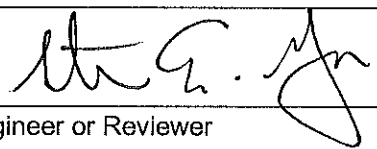
CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 1.5 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



19730-64th Avenue West, Suite 200
 Lynnwood, WA 98036
 Tel. 425-774-0106
 Fax. 425-774-2714

Field Report No.: FR-051
 Date (mm/dd/yy): 9/10/2007
 HWA Project No.: 2007-132-23
 HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density		Moist. %	Field %	Spec %
								Total pcf	Dry pcf			
1	Excavation B-1 , approximate. location is F-Line at 40-Line .	grade	8 in	AG-4	130.3	7.6	30.0	132.6	126.5	4.8	97	90
2	Excavation B-1 , approximate. location is E-Line at 41-Line .	grade	8 in	AG-4	130.3	7.6	30.0	132.3	126.3	4.8	97	90
3	Excavation B-1 , approximate. location is E-Line at 44-Line .	-1'	8 in	AG-4	130.3	7.6	30.0	132.8	126.5	4.9	97	90
4	Excavation B-1 , approximate. location is C-Line at 46-Line .	-1	8 in	AG-4	130.3	7.6	30.0	130.4	125.2	4.1	96	90
5												
6												
7												
8												
9												
10												
11												
12												
13												

Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:
 Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
 Serial #: 61028 Density Standard Count.: 2989 Moisture Standard Count: 808
 *Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: Jessica Herrera

Reviewed By: Tony Martin



FAXMITTAL

Fax: 425-774-2714
Date: September 12, 2008
From: Tony Martin
HWA's Project #: 2007-132-23
Sent To....

Company:	Envirocon	
Attention:	Charles Bird	
PDF:	cbird@envirocon.com	
Phone No.:	503-318-5065	

Number of Pages: 3 (including cover sheet)

ORIGINAL TO FOLLOW BY MAIL	Yes	<input checked="" type="checkbox"/> No
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Subject: **Chevron Edmonds**

Tom,

Please find attached a copy of Field Reports FR-052 for the Chevron Edmonds Project.

If you have any questions regarding the above, please call.

Best Regards,

Tony Martin
Office: 425-774-0106
Cell: 206-794-3126



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-052
Date (mm/dd/yy): 9/12/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 0655 Arrived at Site: 0720 Departed Site: 0810 End Travel: 0815

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.

GENERAL LOCATION: Fill placed as Backfill of Excavation B-9 and B-19.

DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: No information was provided regarding lift thickness or placement details except that the material was compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA did not observe the compaction of this material prior to testing.

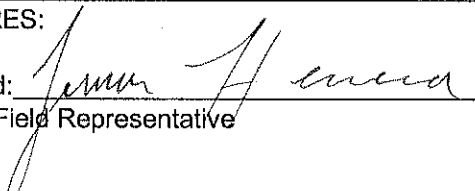
HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing of the backfill and found that it met or surpassed the specified degree of compaction.

CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 1.5 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status

None at this time.



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-052
Date (mm/dd/yy): 9/12/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density		Moist. %	Field %	Spec %
								Total pcf	Dry pcf			
1	Excavation B-9, 7' West of Eastern Bank, 5' North of Southern bank	-3'	8 in	AG-4	130.3	7.6	30.0	139.9	134.2	4.3	103	90
2	Excavation B-9, 7' West of Eastern Bank, 6' South of Northern bank	-3'	8 in	AG-4	130.3	7.6	30.0	134.5	126.7	6.1	97	90
3	Excavation B-19, 10' South of Northern Bank, 5' West of Eastern bank	grade	8 in	AG-4	130.3	7.6	30.0	132.0	127.1	3.8	98	90
4	Excavation B-19, 10' South of Northern Bank, 15' West of Eastern bank	grade	8 in	AG-4	130.3	7.6	30.0	137.3	133.1	3.1	102	90
5												
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9												
10												
11												
12												
13												

Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:
 Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
 Serial #: 61028 Density Standard Count: 2981 Moisture Standard Count: 808
 *Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: Jessica Herrera

Reviewed By: Tony Martin



FAXMITTAL

Fax: 425-774-2714
Date: September 16, 2008
From: Tony Martin
HWA's Project #: 2007-132-23
Sent To....

Company:	Envirocon	
Attention:	Charles Bird	
PDF:	cbird@envirocon.com	
Phone No.:	503-318-5065	

Number of Pages: 3 (including cover sheet)

ORIGINAL TO FOLLOW BY MAIL	Yes	<input checked="" type="checkbox"/> No
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Subject: **Chevron Edmonds**

Tom,

Please find attached a copy of Field Reports FR-053 for the Chevron Edmonds Project.

If you have any questions regarding the above, please call.

Best Regards,

Tony Martin
Office: 425-774-0106
Cell: 206-794-3126



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-053
Date (mm/dd/yy): 9/15/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 0700 Arrived at Site: 0720 Departed Site: 0800 End Travel: 0815

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import placed as excavation backfill.
GENERAL LOCATION: Fill placed as Backfill of Excavation B-9 and B-7.
DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.
TYPE OF INSPECTION: Periodic
DETAILS OF PLACEMENT OF THIS MATERIAL: No information was provided regarding lift thickness or placement details except that the material was compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA did not observe the compaction of this material prior to testing.
HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing on the uppermost 10" of the filled area and found that the material met or surpassed the compaction requirement.
CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

At the request of Chuck Hyatt a sample of native material was collected from stockpiles at the jobsite. HWA obtained 3 bags of this material (approx. 20 pounds each). The sample was designated S-1 and transported to our office in Lynnwood for testing.

Total time chargeable to this job is 1.5 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-053
Date (mm/dd/yy): 9/15/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative Jessica Herrera

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density		Moist.	Field %	Spec %
								Total pcf	Dry pcf	Moist. %		
1	Excavation B-9, 10' North of Southern bank, 15' West of Eastern bank	grade	8 in	AG-4	130.3	7.6	30.0	128.3	123.1	4.2	94	90
2	Excavation B-9, 10' North of Southern bank, 15' West of Eastern bank	grade	8 in	AG-4	130.3	7.6	30.0	129.9	124.7	4.1	96	90
3	Excavation B-7, 10' North of Southern bank, 5' East of Western bank	grade	8 in	AG-4	130.3	7.6	30.0	127.6	123.3	3.6	95	90
4												
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9												
10												
11												
12												
13												

Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:
 Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
 Serial #: 61028 Density Standard Count.: 2980 Moisture Standard Count: 815
 *Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: Jessica Herrera

Reviewed By: Tony Martin



FAXMITTAL

Fax: 425-774-2714
Date: September 17, 2008
From: Tony Martin
HWA's Project #: 2007-132-23
Sent To....

Company:	Envirocon	
Attention:	Charles Bird	
PDF:	cbird@envirocon.com	
Phone No.:	503-318-5065	

Number of Pages: 5 (including cover sheet)

ORIGINAL TO FOLLOW BY MAIL	Yes	X No
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Subject: **Chevron Edmonds**

Tom,

Please find attached a copy of Field Report FR-054 and copies of laboratory test results for sample designated AW S-1 for the Chevron Edmonds Project.

If you have any questions regarding the above, please call.

Best Regards,

Tony Martin
Office: 425-774-0106
Cell: 206-794-3126



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-054
Date (mm/dd/yy): 9/17/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative John H. "Jack" Carlock

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 1000 Arrived at Site: 1015 Departed Site: 1050 End Travel: 1100

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import and site soil placed as excavation backfill.

GENERAL LOCATION: Fill placed as Backfill of Excavation B-8 and the Asphalt Warehouse excavation.

DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: No information was provided regarding lift thickness or placement details except that the material was compacted with a caterpillar CS-563E smooth drum vibratory roller. HWA did not observe placement of either material. HWA observed compaction efforts in the Asphalt Warehouse excavation prior to testing only. We did not observe compaction activities in the area of Excavation B-8.

HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing on the uppermost 10" of the filled area and found that the material met or surpassed the compaction requirement.

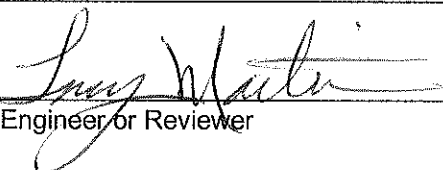
CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 1.5 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status
None at this time.



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-054
Date (mm/dd/yy): 9/17/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Clear/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative John H. "Jack" Carlock

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density Total pcf	Density Dry pcf	Moist. %	Field %	Spec %
1	Excavation B-8, 15ft south of northern boundary, 8ft east of bank shoulder.	grade	12 in	AG-4	130.3	7.6	30.0	128.5	121.7	5.6	93	90
2	Excavation B-8, 10' North of Southern bank, 15' West of Eastern bank.	grade	12 in	AG-4	130.3	7.6	30.0	131.7	125.0	5.3	96	90
3	Asphalt Warehouse Excavation, southeastern quadrant of excavation.	-18in	12 in	AW S-1	126.1	10.5	6.5	129.9	119.8	8.4	95	90
4	Asphalt Warehouse Excavation, northwestern quadrant of excavation.	-5.5ft	12 in	AW S-1	126.1	10.5	6.5	130.9	117.9	11.0	93	90
5												
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8												
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10												
11												
12												
13												

Test Method ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:
Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P
Serial #: 29276 Density Standard Count.: 2552 Moisture Standard Count: 624

*Lab Control: Standard Proctor Modified Proctor
 Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: John H. "Jack" Carlock Reviewed By: Tony Martin



FAXMITTAL

Fax: 425-774-2714
Date: September 19, 2008
From: Tony Martin
HWA's Project #: 2007-132-23
Sent To....

Company:	Envirocon	
Attention:	Charles Bird	
PDF:	cbird@envirocon.com	
Phone No.:	503-318-5065	

Number of Pages: 3 (including cover sheet)

ORIGINAL TO FOLLOW BY MAIL	Yes	X No
----------------------------	-----	------

Subject: **Chevron Edmonds**

Tom,

Please find attached a copy of Field Report FR-055 for the Chevron Edmonds Project.

If you have any questions regarding the above, please call.

Best Regards,

Tony Martin
Office: 425-774-0106
Cell: 206-794-3126



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-055
Date (mm/dd/yy): 9/18/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Cloudy/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative John H. "Jack" Carlock

FIELD REPORT

SUMMARY OF FIELD TIME SPENT ON PROJECT TODAY:

First Site Visit: Start Travel: 1415 Arrived at Site: 1430 Departed Site: 1515 End Travel: 1530

ACTIVITY BEING INSPECTED: Compaction of Gravel Borrow import and site soil placed as excavation backfill.

GENERAL LOCATION: Fill placed as Backfill of Excavation B-1 excavation.

DETAILED LOCATION: The approximate locations and elevations tested are summarized on the attached 'Field Compaction Test Report'.

TYPE OF INSPECTION: Periodic

DETAILS OF PLACEMENT OF THIS MATERIAL: No information was provided regarding lift thickness or placement details except that the material was compacted with a caterpillar CS-563E smooth drum vibratory roller. At the time of my visit both the placement and the compaction efforts for the gravel borrow had been completed to finished grade.

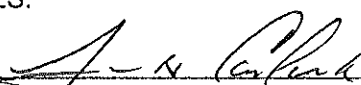
HWA INSPECTION ACTIVITIES RELATED TO THIS ITEM: HWA conducted nuclear density testing on the uppermost 10" of the filled area and found that the material met or surpassed the compaction requirement.

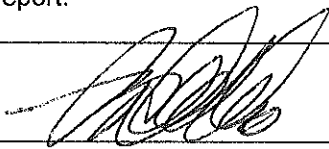
CONFORMANCE OF THIS ITEM: To the best of the inspector's knowledge, the item inspected was found in conformance with approved plans, specifications and RFIs.

MISCELLANEOUS ACTIVITIES, OBSERVATIONS AND/OR COMMENTS:

Total time chargeable to this job is 2.0 hours including the time for writing this report.

SIGNATURES:

Signed: 
HWA Field Representative

Reviewed: 
HWA Project Engineer or Reviewer

SUMMARY OF UNRESOLVED ISSUES

Report# Item# Status

None at this time.



HWA GEOSCIENCES INC.

19730-64th Avenue West, Suite 200
Lynnwood, WA 98036
Tel. 425-774-0106
Fax. 425-774-2714

Field Report No.: FR-055
Date (mm/dd/yy): 9/18/2007
HWA Project No.: 2007-132-23
HWA Task No.:

Project Name Chevron Edmonds	Location or Address of Project Edmonds, WA	Permit No.
Client Envirocon	Client Representative Charles Bird	Weather Cloudy/Cool
Design Authority (engineer or architect of record)	Design Authority Representative	HWA Project Manager Tony Martin
General Contractor Envirocon	General Contractor Representative Chuck Hyatt	HWA Field Representative John H. "Jack" Carlock

FIELD COMPACTION TEST REPORT - NUCLEAR METHOD

MATERIAL BEING PLACED: see accompanying field report

PROJECT IMPROVEMENT TESTED: see accompanying field report

Test No.	Detailed Test Location	Elev'n or Depth B.G.**	Probe Depth (in)	Lab Control* (Proctor/Rice/Marshall)				Field Test			Relative Compaction	
				ID #	Max. Dens.	Opt. Moist.	Over Size %	Density Total pcf	Density Dry pcf	Moist. %	Field %	Spec %
1	Excavation B-1, 1st approximately grid line 47 at D.	grade	12 in	AG-4	130.3	7.6	30.0	132.8	127.4	4.3	98	90
2	Excavation B-1, 1st approximately grid line 45 at E.	grade	12 in	AG-4	130.3	7.6	30.0	132.0	125.4	5.2	96	90
3												
4												
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8												
9												
10												
11												
12												
13												

Test Method: ASTM D2922/D3017 (soil) ASTM D2950 (asphalt) Other:

Densometer: Troxler 3440 Troxler 3430 Troxler 3411-B CPN MC1-DR-P

Serial #: 29276 Density Standard Count.: 2552 Moisture Standard Count.: 624

*Lab Control: Standard Proctor Modified Proctor

Asphalt Marshall Density Asphalt Maximum Theoretical Density (Rice)

COMMENTS: Test locations and elevations are approximate. Testing provides data only for a specific test location and to a limited depth. Accompanying field report provides additional information. **Depth B.G. indicates depth below grade. Grade means the design finish grade of the current type of fill material being placed. Bolded results indicate compaction below specified value.

Completed By: John H. "Jack" Carlock

Reviewed By: Tony Martin

LABORATORY COMPACTION CHARACTERISTICS OF SOIL



HWA GEOSCIENCES INC.

CLIENT: Envirocon

PROJECT: Chevron Edmonds

SAMPLE ID: AG-4

PROJECT NO: 2007132-T100

Sampled By: JHC

Tested By: AAC

Date Sampled: 9/2/2008

Date Received: 9/2/2008

Date Tested: 9/3/2008

MATERIAL TYPE OR DESCRIPTION:

Gravel Borrow

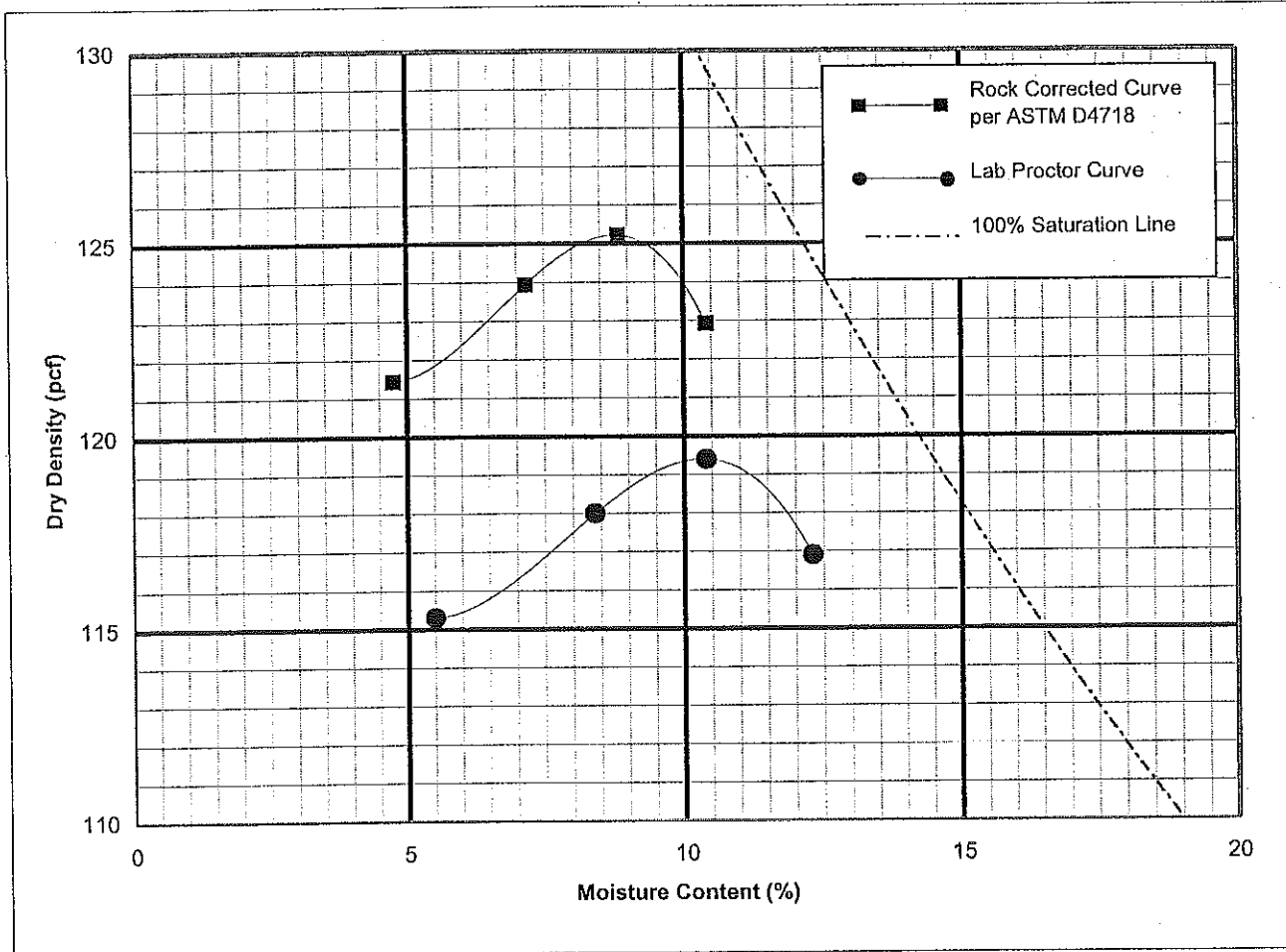
MATERIAL SOURCE, SAMPLE LOCATION AND DEPTH:

Rinker, Everett

Designation: ASTM D 698 ASTM D 1557 Natural Moisture Content: 4.8 %
 Method: A B C Oversize: 16.7 % retained on: 3/4 in.
 Preparation: Dry Moist Rammer: Auto Manual Assumed S.G.: 2.65

Test Data

Dry Density (pcf)	115.3	118.0	119.4	116.9
Moisture Content (%)	5.5	8.4	10.4	12.3



Data Summary*	
Percent Oversize	16.7%
Max. Dry Density (pcf)*	125.2
Optimum Moisture (%)*	8.8

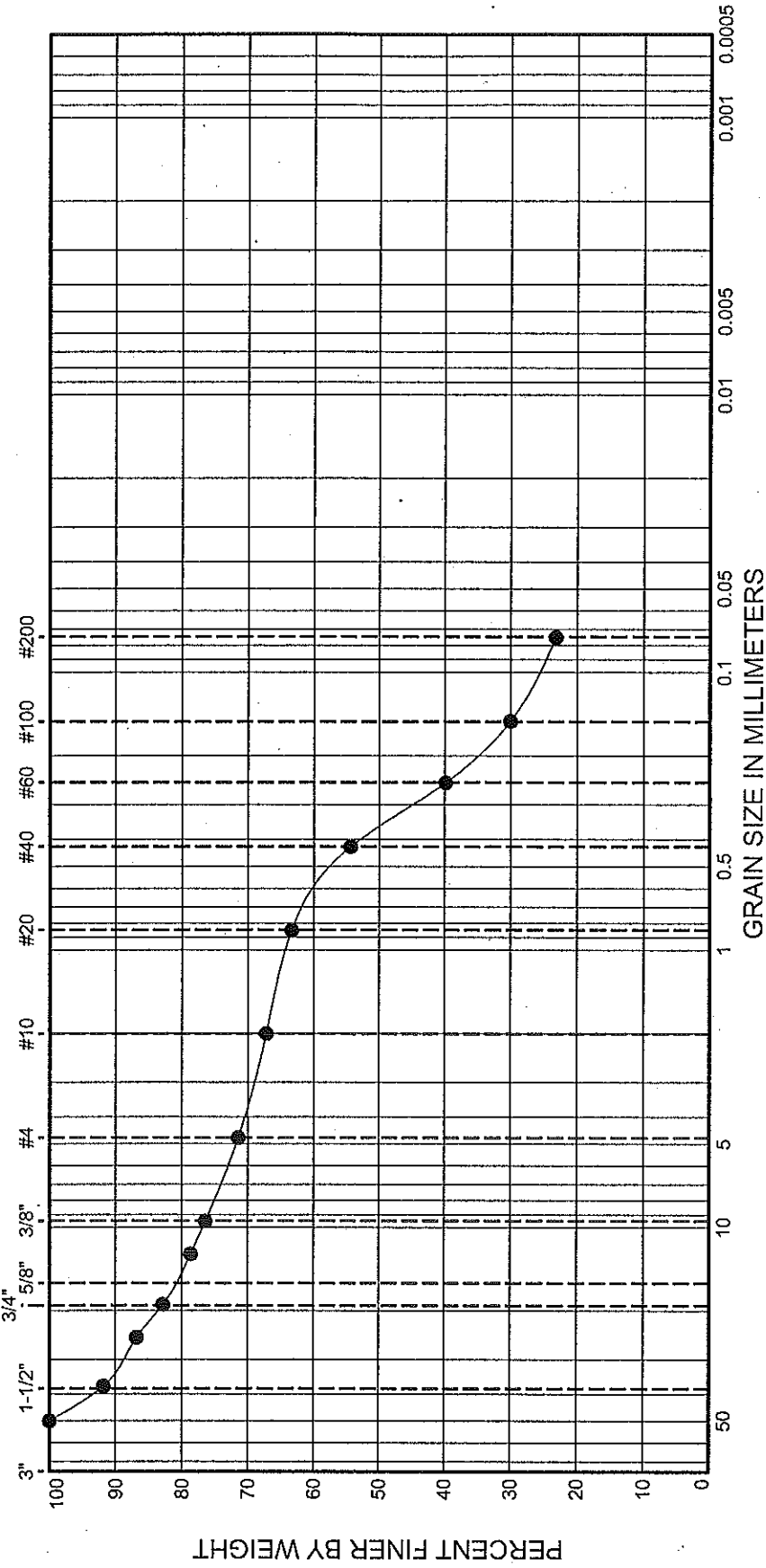
Test Values At Other Oversize Percentages						
0.0%	5.0%	10.0%	15.0%	20.0%	25.0%	30.0%
119.4	121.1	122.8	124.6	126.4	128.3	130.3
10.4	9.9	9.5	9.0	8.5	8.1	7.6

* values corrected for oversize material per ASTM D4718, using assumed Specific Gravity shown and oversize moisture content of 1%

Reviewed By: George Minassian **FIGURE 1**

GRAVEL		SAND			SILT		CLAY
Coarse	Fine	Coarse	Medium	Fine			

U.S. STANDARD SIEVE SIZES



SYMBOL	SAMPLE	DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	AW S-1		(SM) Grayish brown, silty SAND with gravel	5				28.6	48.2	23.2

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D422

Chevron Edmonds
Edmonds, Washington



HWA GEOSCIENCES INC.

LABORATORY COMPACTION CHARACTERISTICS OF SOIL



HWA GEOSCIENCES INC.

CLIENT: Envirocon

PROJECT: Chevron Edmonds

SAMPLE ID: AW S-1

PROJECT NO: 2007132-T100

Sampled By: JH

Tested By: AAC

Date Sampled: 9/15/2008

Date Received: 9/15/2008

Date Tested: 9/15/2008

MATERIAL TYPE OR DESCRIPTION:

Grayish brown, silty SAND with gravel (SM)

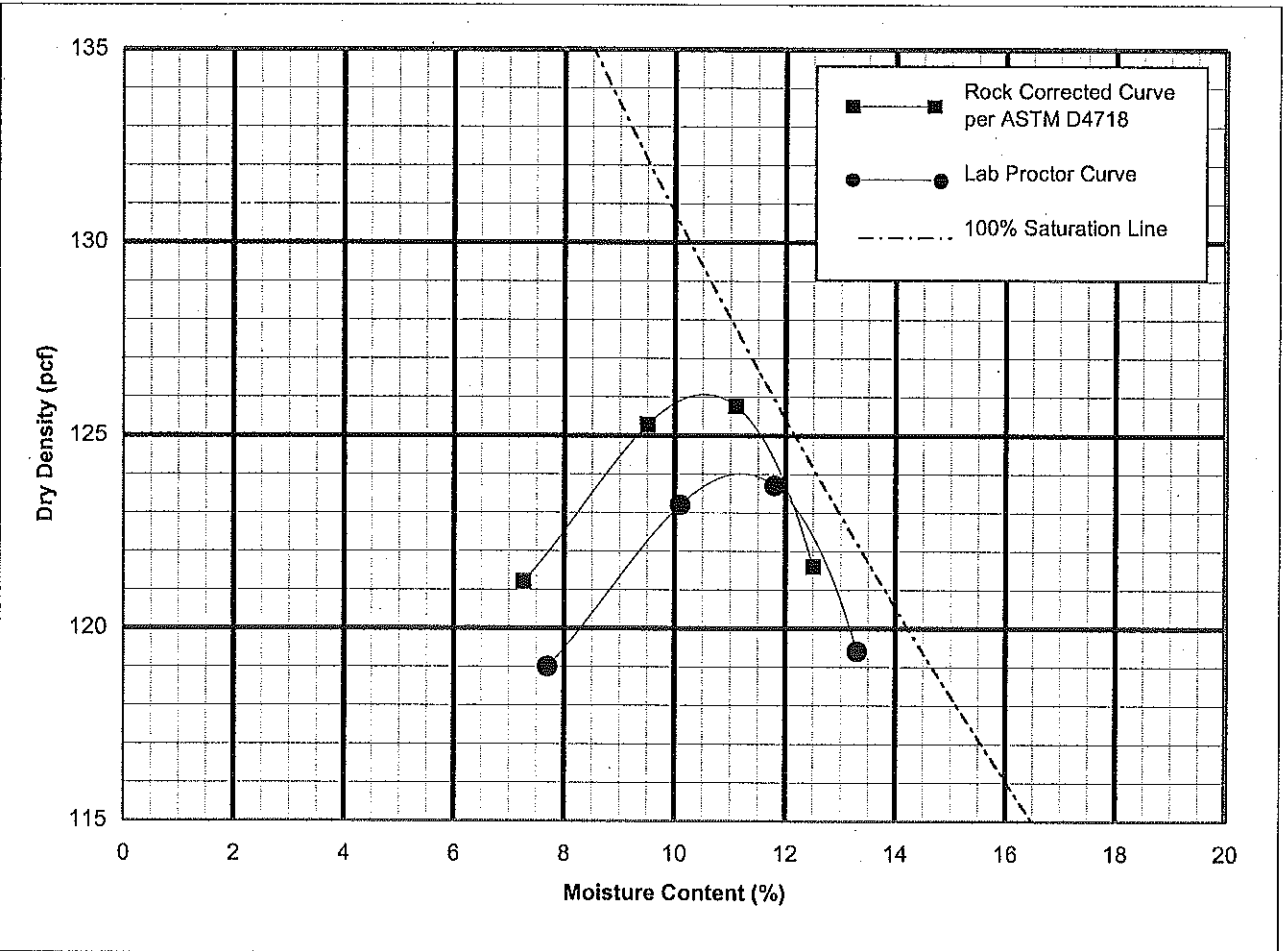
MATERIAL SOURCE, SAMPLE LOCATION AND DEPTH:

Site Soils from Asphalt Warehouse Excavation Sample Point: On Site Stockpile

Designation: ASTM D 698 ASTM D 1557 Natural Moisture Content: 5.3 %
 Method: A B C Oversize: 6.5 % retained on: 3/4 in.
 Preparation: Dry Moist Rammer: Auto Manual Assumed S.G.: 2.65

Test Data

Dry Density (pcf)	119.0	123.2	123.7	119.4
Moisture Content (%)	7.7	10.1	11.8	13.3



Data Summary*	
Percent Oversize	6.5%
Max. Dry Density (pcf)*	126.1
Optimum Moisture (%)*	10.5

Test Values At Other Oversize Percentages						
0.0%	5.0%	10.0%	15.0%	20.0%	25.0%	30.0%
124.0	125.6	127.2	128.8	130.5	132.3	134.1
11.2	10.7	10.2	9.7	9.2	8.7	8.1

* values corrected for oversize material per ASTM D4718, using assumed Specific Gravity shown and oversize moisture content of 1%

Reviewed By: George Minassian **FIGURE 2**