

**ROCKY FLATS PLANT
 EMD OPERATING
 PROCEDURES MANUAL**

**Manual No.: 5-21000-OPS-GT
 Procedure No.: Table of Contents, Rev 37
 Page: 1 of 3
 Effective Date: 02/23/93
 Organization: Environmental Management**

**THIS IS ONE VOLUME OF A SIX VOLUME SET
 WHICH INCLUDES:**

- VOLUME I: FIELD OPERATIONS (FO)**
- VOLUME II: GROUNDWATER (GW)**
- VOLUME III: GEOTECHNICAL (GT)**
- VOLUME IV: SURFACE WATER (SW)**
- VOLUME V: ECOLOGY (EE)**
- VOLUME VI: AIR (AP)**

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 FOR VOLUME III: GEOTECHNICAL**

Procedure No.	Title	Rev. No.	Effective Date
GT.01	Logging Alluvial and Bedrock Material	2	05/12/92
DCN 92.01	Specialized Logging Form	2	11/13/92
DCN 93.01	Logging	2	01/15/93
DCN 93.02	Logging Deliverables Standard Practices	2	01/25/93
GT.02	Drilling and Sampling Using Hollow Stem Auger Techniques	2	05/12/92
DCN 92.01	Superseded by DCN 92.03	2	07/27/92
DCN 92.02	Superseded by DCN 92.03	2	07/27/92
DCN 92.03	Addition of the Drum Characterization	2	07/27/92
DCN 92.04	Prevention of Down Hole Contamination	2	08/26/92
DCN 92.05	Field Modification	2	12/04/92
DCN 93.01	Analytical Samples	2	01/25/93
GT.03	Isolating Bedrock from Alluvium with Grouted Surface Casing	2	05/12/92
DCN 92.03	Expired	2	Expired
DCN 93.01	Data Quality Objectives for PLF Investigations	2	02/10/93

ADMIN RECORD

A-SW-000563

**DOCUMENT CLASSIFICATION REVIEW WAIVER
 PER R.B. HOFFMAN, CLASSIFICATION OFFICE
 JUNE 11, 1991**

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GT.04	Rotary Drilling and Rock Coring	2	05/12/92
GT.05	Plugging and Abandonment of Boreholes	2	05/12/92
DCN 92.01	Field Modification	2	12/09/92
DCN 93.01	5.2 Revision	2	02/04/93
GT.06	Monitoring Wells and Piezometer Installation	2	05/12/92
DCN 92.05	Schematic Diagram Land Fill Methane Wells	2	06/04/92
DCN 92.06	EXPIRED (replaced with DCN 93.01)	2	Expired
DCN 92.07	Provide Consistency	2	12/17/92
DCN 93.01	Borehole Advancement	2	01/04/93
DCN 93.02	Well Point Installation	2	01/28/93
DCN 93.03	Piezometer Logging Modification	2	02/04/93
DCN 93.04	Wells - 5.3.2.2 Revised	2	02/10/93
DCN 93.05	Temperatures - 5.3.2.3 Revised	2	02/10/93
*DCN 93.06	Provide Numbers to Reference Corresponding Items	2	02/23/93
GT.07	Logging and Sampling of Test Pits and Trenches	2	05/12/92
GT.08	Surface Soil Sampling	2	05/12/92
DCN 92.01	Clarification of Soil Sampling	2	09/03/92
DCN 92.02	Consistency Change	2	10/12/92
DCN 93.01	Work Plan Consistency	2	01/05/93
DCN 93.02	New Section-Surficial Profiling	2	01/15/93
DCN 93.03	CDH Compliance	2	01/25/93
GT.09	Soil Gas Sampling and Field Analysis	2	05/12/92
GT.10	Borehole Clearing	2	05/12/92
GT.11	Plugging and Abandonment of Wells	2	05/12/92
GT.15	Geophysical Borehole Logging	2	05/12/92

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GT.17	Land Surveying	2	05/12/92
GT.18	Surface Geophysical Surveys	2	05/12/92
DCN 92.01	Surface Magnetic Surveys Procedure	2	09/30/92
DCN 92.02	Modification to Stacking Requirements	2	10/15/92
DCN 92.03	Modification to Method of Taking Readings	2	10/15/92
DCN 93.01	5.4 Field Procedure Revisions	2	01/25/93
GT.19	Field Gas Chromatographs	2	05/12/92
GT.20	Procedures for Soil Interstitial Water Sampling and Sampler Installation	2	05/12/92
GT.21	Cone Penetrometer Testing	1	05/12/92
DCN 93.01	CPT Rods	1	01/15/93
GT.24	Approval Process for Construction Activities on or Near Individual Hazardous Substance Sites (IHSSs)	0	05/12/92

This is a 22
CONTROLLED DOCUMENT ENVIRONMENTAL MANAGEMENT
 EG&G - ROCKY FLATS PLANT **DOCUMENT CHANGE NOTICE (DCN)**
 ENVIRONMENTAL MANAGEMENT
 This is a RED Stamp

Procedure Number 5-21000-OPS-GT.6 Rev 2

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Title Monitoring Wells and Piezometer Installation	Date 2-18-93 2-19-93	DCN Number 5-21000-OPS-93.06
Expires <u>2-19-94</u> <i>SLD</i>	Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<i>SLD</i>
Scope Limitation <u>OU7 Present Landfill & OU5 -ALP 2/18/93</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	9 of 18	5.3.1.5 2nd para.	Insert at the end of this paragraph: "When excessive grout loss into the landfilled materials occurs, grouting will be stopped and bentonite chips or pellets will be added to the annular space to seal off the area losing grout. A minimum of two feet of pellets or chips will be added, then grouting will resume as above. If grout loss continues or if grout is again lost further uphole, grouting will again be stopped and additional bentonite pellets or chips will be added until grout loss is stopped."

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Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

Due to the nature of landfilled materials, voids and pathways can be present which cannot be effectively sealed by grouting. Bentonite pellets or chips will effectively seal these areas and allow continued grouting. Because these areas are separated from the well filter pack by the minimum 2 foot bentonite seal specified in 5.3.1.4 and by grout, bentonite chips may be used in addition or instead of the bentonite pellets to seal of areas of grout loss. Without using a pellet or chip seal, grout to the surface may never be achieved and there is a substantial risk of infiltrating and possibly impacting the well filter pack.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	2/19/93	<i>AL Pomeroy</i>	User	X	2/18/93
<i>M.C. [Signature]</i>	EOM	X	2/19/93	<i>E. [Signature]</i>	User	X	2/18/93
				<i>M.C. [Signature]</i>	EQS	X	2-19-93
Approval of Responsible Manager <i>[Signature]</i>	Date 14-Feb-93	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date? UPON Incorporation/Receipt	Date Posted			