**KOOTENAI NATIONAL FOREST**  
**SOIL DISTURBANCE DATA FORM**

<table>
<thead>
<tr>
<th>DATE</th>
<th>7-10-96</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBSERVER</td>
<td>Kaupener</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>Rexford</td>
</tr>
<tr>
<td>SALE</td>
<td>South Parsnip P.C.</td>
</tr>
<tr>
<td>Unit No.</td>
<td>117A</td>
</tr>
<tr>
<td></td>
<td>S. Parsnip Area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CUTTING METHOD</th>
<th>chippers</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIDDING METHOD</td>
<td>RS</td>
</tr>
<tr>
<td>HAZARD TREATMENT</td>
<td></td>
</tr>
<tr>
<td>SILVICULTURAL TREATMENT</td>
<td>wh seed tree SD</td>
</tr>
<tr>
<td>OPERATION PERIOD</td>
<td>winter 95-96</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPACTED (Heavy)</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPACTED (Light)</td>
<td>40</td>
</tr>
<tr>
<td>UNDISTURBED</td>
<td>160</td>
</tr>
<tr>
<td>DISPLACED</td>
<td>235</td>
</tr>
</tbody>
</table>

| EXCAVATED SKID TRAIL | 20 |

**COMMENTS**:  
Soil was saturated during logging.  
Skid trails were made as machinery passed through.  
Some places where machine turned itself.  
Machinery still had to go around skid trails to get down to skid trails.  
Five to six days were spent clearing every place and trying to get down to skid trail.  
Dug out skidder and tugged it.  
Upper starting at clean site.  
Middle across center part of unit.  
Lower approximately across first blend.  

**SHAPE OF UNIT AND PATTERN OF TRANSECT**:  
Poor control of operations.  
Small draw on northernd; shidded and puddled; tried to carding/cover mea.  
Culvert too far apart.  
Culvert inlet at main landing smashed.

---

**COMPACTED (Heavy)** - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

**COMPACTED (Light)** - any other area not included in heavy COMPACTED or UNDISTURBED.

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**DISPLACED** - any place soil has been mounded by machinery, also include in heavy or light compaction.

**SMZ** - include within transect if within harvest unit.
**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE DATA FORM**

**DATE**: 7/16/96

**OBSERVER**: Knorrin

**DISTRICT**: Rexford

**SALE**: Inch Mt. 123-04-104

**Unit No.**: 38A

**SKIDDING METHOD**: Tractor

**HAZARD TREATMENT**: 

**SILVICULTURAL TREATMENT**: SD W/ seed trees

**OPERATION PERIOD**: Winter? Late spring/summer

**Unit not burned.**

**COMPACTION (Heavy)**:

```
[[[Heavy Compaction]]]
```

**COMPACTION (Light)**:

```
[[[Light Compaction]]]
```

**UNDISTURBED**:

```
[[[Undisturbed]]]
```

**DISPLACED**:

```
[[[Displaced]]]
```

**EXCAVATED SKID TRAIL**

```
[[[Excavated Skid Trail]]]
```

**SMZ**

```
[[[SMZ]]]
```

**COMMENTS**: 

```
Acidity/Bedrock. Soil very rocky. Soil very wet.
Two operational periods? 
Some logging returning on fireline
Soil saturated. Wetspots scattered throughout unit. More in southern
fingers.
Ash 4-10”, matted in places!
```

**SHAPE OF UNIT AND PATTERN OF TRANSECT**

```
<table>
<thead>
<tr>
<th>Upper</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

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**SMZ** - include within transect if within harvest unit.
<table>
<thead>
<tr>
<th>Disturbance</th>
<th>Points</th>
<th>%</th>
<th>Points</th>
<th>%</th>
<th>Points</th>
<th>%</th>
<th>Points</th>
<th>%</th>
<th>Total</th>
</tr>
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<tbody>
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<td>Heavy</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Light</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Undist</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
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<table>
<thead>
<tr>
<th>SMW</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>5</th>
<th>5</th>
<th>100</th>
<th>100</th>
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<tbody>
<tr>
<td></td>
<td>161</td>
<td>161</td>
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<td>160</td>
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<td>355</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Points: % of total points
Points: % of total points
Points: % of total points
Points: % of total points

1 Upper
2 Lower
DATE: 7/16/96

OBSERVER: Kruzenen

DISTRICT: Reppley

SALE: Inch Mt. P.C.

Planted ES, WL, DF

CUTTING METHOD: Clipper

SKIDDING METHOD: Tractor

HAZARD TREATMENT: BB spring '96

SILVICULTURAL TREATMENT: SD FewL seedtree

OPERATION PERIOD: July - August 1995

UNIT was burned

COMPACATION(Heavy) □

COMPACATION(Light) □

UNDISTURBED □

DISPLACED □

EXCAVATED SKID TRAIL □

COMMENTS:

Over QUAntities of slash. LOTS of angafis roche soil (aver 65%)

Some pressure dug where possible. Some compaction 0-11.

Some pressure dug where possible. Center end of skid trails have some

- 6-10 Biological differences in unit - Upper part of unit much

- Steeper than upper part, except for SW corner.

- Units looked very good.

MIDDLE - across middle. Lower part gone.

LOWER - across middle. Skid part gone.

SHAPE OF UNIT AND PATTERN OF TRANSECT: 799.3D

COMPACATION(Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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SMZ - include within transect if within harvest unit.

5/93
<table>
<thead>
<tr>
<th>Disturbance</th>
<th>Lower</th>
<th>Middle</th>
<th>Upper</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Light</td>
<td>62</td>
<td>25</td>
<td>160</td>
<td>262</td>
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<tr>
<td>Undist.</td>
<td>180</td>
<td>72</td>
<td>332</td>
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<tr>
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<td>250</td>
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<td>495</td>
<td>875</td>
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<table>
<thead>
<tr>
<th>Disturbed</th>
<th>Lower</th>
<th>Middle</th>
<th>Upper</th>
<th>Total</th>
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<tbody>
<tr>
<td>Wet</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Erosion</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 9.12.96

OBSERVER Kuenen-Sullivan

DISTRICT Redford

SALE Upper Face, PC

Unit No. 104-03-109 32A

CUTTING METHOD Clipper

SKIDDING METHOD Cat

HAZARD TREATMENT 7

SILVICULTURAL TREATMENT SpDes - CTM

OPERATION PERIOD August 1996

<table>
<thead>
<tr>
<th>COMPACtion (Heavy)</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPACtion (Light)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDISTURBED</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPLACED</td>
<td></td>
</tr>
</tbody>
</table>

COMMENTS

Unit was skidded w/ horses. Looks like they backed
regency 4x and tried to drive on every piece of ground.
Soil compaction was well below 18%.
Typical - there are a lot same distance open around the
north, the center has the major skid trails are composed
mostly for broken wood. These should work. Construction of
some of the roads is not the best.
Very few problems of skid due to being trampled by cat. Probably
Shall not cut alone to provide some set downs.

SHAPE OF UNIT AND PATTERN OF TRANSECT

1. upper
2. middle
3. lower

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impacted, i.e., skid trails (both heavily and lightly used depending on amount of
compaction related to soil moisture), landings, and other impacted areas.
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DISPLACED - any place soil has been mounded by machinery, also include in heavy or
light compaction.
SMZ - include within transect if within harvest unit.
<table>
<thead>
<tr>
<th>Disturbance</th>
<th>Upper</th>
<th>%</th>
<th>Middle</th>
<th>%</th>
<th>Lower</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heavy</strong></td>
<td>17</td>
<td>10</td>
<td>10</td>
<td>3</td>
<td>13</td>
<td>6</td>
<td>40</td>
<td>6</td>
</tr>
<tr>
<td><strong>Light</strong></td>
<td>130</td>
<td>74</td>
<td>230</td>
<td>76</td>
<td>165</td>
<td>76</td>
<td>531</td>
<td>75</td>
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<tr>
<td><strong>Undist.</strong></td>
<td>30</td>
<td>16</td>
<td>63</td>
<td>21</td>
<td>40</td>
<td>18</td>
<td>133</td>
<td>19</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>183</td>
<td>100</td>
<td>303</td>
<td>100</td>
<td>218</td>
<td>100</td>
<td>704</td>
<td>100</td>
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<tr>
<td><strong>Rock</strong></td>
<td>5</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>13</td>
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<tr>
<td><strong>Displaced</strong></td>
<td>10</td>
<td>5</td>
<td>58</td>
<td>19</td>
<td>40</td>
<td>18</td>
<td>108</td>
<td>15</td>
</tr>
</tbody>
</table>

Unit 8
**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE DATA FORM**

**DATE** 09/12/96

**OBSERVER** Kennean-Sullivan

**DISTRICT** Rexford

**SALE** Upper Face PC

**Unit No.** 10

**104-03-112** SHA

**CUTTING METHOD** Chipper

**SKIDDING METHOD** RT5 (south), during (north)

**HAZARD TREATMENT**

**SILVICULTURAL TREATMENT** SPDea-CIM

**OPERATION PERIOD** Aug-Sept 1996

**COMPAC'TION (Heavy)**

**COMPAC'TION (Light)**

**UNDISTURBED**

**DISPLACED**

**EXCAVATED SKID TRAIL**

**SMZ**

**SHAPE OF UNIT AND PATTERN OF TRANSECT**

**COMPACTION (Heavy)** - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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**SMZ** - include within transect if within harvest unit.

09/12/1996
Rexford - Upper Face Pest Control
Unit 10 10403112

10/20 19/2/96
10/20 11/20 1 1/14/1996
23/40 25/48
23/40 25/48
33/80 38/42
33/80 38/42
50/50 50/20
50/50 50/20
<table>
<thead>
<tr>
<th>Disturbance</th>
<th>RTS</th>
<th>Dozer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Light</td>
<td>110</td>
<td>203</td>
</tr>
<tr>
<td>Undist.</td>
<td>23</td>
<td>40</td>
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<tr>
<td>TOTAL</td>
<td>143</td>
<td>263</td>
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<table>
<thead>
<tr>
<th>remarks</th>
<th>RTS</th>
<th>Dozer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levystrip</td>
<td>50</td>
<td>50</td>
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<tr>
<td>Displaced</td>
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<td>80</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

** RTS **

```
29 9
257 77
48 14
334 100
71 21
```

** Dozer **

```
41 7
422 74
108 19
571 100
122 21
```
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<table>
<thead>
<tr>
<th>Disturbance</th>
<th>Lower Points</th>
<th>Lower %</th>
<th>Upper Points</th>
<th>Upper %</th>
<th>Total Points</th>
<th>Total %</th>
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</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>47</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>54</td>
<td>4</td>
</tr>
<tr>
<td>Light</td>
<td>299</td>
<td>47</td>
<td>325</td>
<td>47</td>
<td>622</td>
<td>47</td>
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<tr>
<td>Undist.</td>
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<td>360</td>
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<td><strong>631</strong></td>
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<td><strong>692</strong></td>
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<td>Erosion</td>
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<td>3</td>
<td>13</td>
<td>2</td>
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<td>2</td>
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<tr>
<td>Displaced</td>
<td>20</td>
<td>3</td>
<td>17</td>
<td>2</td>
<td>37</td>
<td>3</td>
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<tr>
<td>Pushed</td>
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<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>
Unit No. 6

OPERATION PERIOD Summer '95

CUTTING METHOD Clipper
SKIDDING METHOD Tractor
HAZARD TREATMENT Smaller diameter piles
SILVICULTURAL TREATMENT Seed tree (WL) WWP DF

COMPACTION (Heavy)

COMPACTION (Light)

UNDISTURBED

DISPLACED

BLM Burn piles - 81

COMMENTS

Coord. 8-16'
Fireline to deep along northern boundary - erosion occurring
Unit is planted w/ WL + WWP. Lots of puff top, cats < 25" of 73".

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMPACTION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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5/93
<table>
<thead>
<tr>
<th></th>
<th>1 Lower</th>
<th>2 Upper</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Heavy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td>316</td>
<td>52</td>
<td>320</td>
</tr>
<tr>
<td>Undist.</td>
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<td>47</td>
<td>280</td>
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<td>606</td>
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<td>Burn Piles</td>
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<td>15</td>
</tr>
<tr>
<td>Displaced</td>
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<td>15</td>
</tr>
<tr>
<td>Erosion</td>
<td>4</td>
<td>.6</td>
<td>3</td>
</tr>
</tbody>
</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA-FORM

DATE 9.23.96

CUTTING METHOD Clipped

RESERVO

SKIDDING METHOD RIS

DISTRICT  Three Rivers

HAZARD TREATMENT

SAFETY

SILVICULTURAL TREATMENT CC w/reserve

OPERATION PERIOD Jan-Jul: 1996

COMPACTION (Heavy) 

COMPACTION (Light) 

UNDISTURBED 

DISPLACED 

EXCAVATED SKID TRAIL 

SMZ

LEXC UNDSTURBED - no signs of any machinery or skidding activity.

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.

Comments: 1) 15% rock on surface, 40-70% rock in soil, skid trail was waterbarred but due to the rock content, probably didn’t need to put waterbars in.

2) Rock is angular, probably Raveli lime.

3) Debris not found on skid trails.

4) Excavated trail along top of unit was not necessary.

5) Upper part of unit is 35-45% slope, lower portion of unit 40-50% slope.

This was winter logged so impact to soils was minimal.

SHAPE OF UNIT AND PATTERN OF TRANSECT

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<table>
<thead>
<tr>
<th>Turbance</th>
<th>North Transect</th>
<th>South Transect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Points</td>
<td>%</td>
<td>Points</td>
</tr>
<tr>
<td>Heavy</td>
<td>11</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Light</td>
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COMPACTION(Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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SMZ - include within transect if within harvest unit.
<table>
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<th>Disturbance</th>
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KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 7/1/96

CUTTING METHOD Clipper

SKIDDING METHOD Drag

HAZARD TREATMENT

SALE Thompson View Salvage
Unit No. 4 & 7

SILVICULTURAL TREATMENT SD

OPERATION PERIOD Summer 1995

LAND EXCHANGE

COMPACTION (Heavy)  X

COMPACTION (Light) X

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS

Bowers of unit except of all units.

-0-10"

Some waterbars along west side of leave island ineffective.

Lot of W/ D rain has:

bold of transect in west few lines

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMPACTION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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<table>
<thead>
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**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE DATA FORM**

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<td>District</td>
<td>Libby</td>
</tr>
<tr>
<td>Sale</td>
<td>Thompson View Salvage</td>
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<td>SAF/Yete</td>
<td>SW</td>
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<td>Operation Period</td>
<td>Summer 1995</td>
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<table>
<thead>
<tr>
<th>Excavated Skid Trail</th>
<th>7</th>
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</thead>
</table>

**Comments**

- Low vegetation, thin (2-3"), Rock content high (50-75%), angular
- Waterbars too far apart, erosion between them
- Erosion occurring in some of skid trails.
- Lower transect contain more burning
- Middle: just below lower landing
- Upper: just above west leave (land in western finge

**Shape of Unit and Pattern of Transect**

**Compaction (Heavy)** - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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**SMZ** - include within transect if within harvest unit.

5/93
<table>
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<th>Disturbance</th>
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<td></td>
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<td>%</td>
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</table>
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<td>3</td>
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<td>56</td>
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<table>
<thead>
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<th>Disturbance</th>
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</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE Oct-17, 1996

OBSERVED

DISTRICT

SALES

SILVICULTURAL TREATMENT LTM

OPERATION PERIOD September 1996

CUTTING METHOD Hand & Chipper

SKIDDING METHOD Tractor

HAZARD TREATMENT

COMPACTION (Heavy) 

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMPACTION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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5/93
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![Map Image](image-url)
**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE DATA FORM**

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<td>Stevens - Blacktail</td>
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**Operation Period:** Sept-Oct 1996

<table>
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<tr>
<th>Cutting Method</th>
<th>Hand</th>
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<tr>
<td>Skidding Method</td>
<td>RTS w/ grapple</td>
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<tr>
<td>Hazard Treatment</td>
<td>LTM</td>
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<td>Silvicultural Treatment</td>
<td>Seed tree</td>
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<tr>
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<tbody>
<tr>
<td>10/07/1996</td>
<td>Skidding</td>
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**Compaction (Heavy):**
- UML
- L

<table>
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<tr>
<th>Date</th>
<th>Method</th>
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</thead>
<tbody>
<tr>
<td>10/07/1996</td>
<td>Skidding</td>
</tr>
</tbody>
</table>

**Compaction (Light):**
- UML
- L

**Undisturbed:**
- UML

**Displaced:**
- UML

**Excavated Skid Trail:**
- Rock

**Comments:**
- Pressed skidding. One skidder was backing long, the other was backing short. Both skid trails are included in the unit.

**Shape of Unit and Pattern of Transect:**
- Above rd.
- Below rd.

**Compaction (Heavy):**
- Any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

**Compaction (Light):**
- Any other area not included in heavy compaction or undisturbed.

**Undisturbed:**
- No signs of any machinery or skidding activity.

**Displaced:**
- Any place soil has been mounded by machinery, also include in heavy or light compaction.

**SMZ:**
- Include within transect if within harvest unit.

5/93
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE Oct 7, 1996

CUTTING METHOD Hand

SKIDDING METHOD RTS w/ grapple

HAZARD TREATMENT BB Oct 1996

SILVICULTURAL TREATMENT Seed/Plac DF

OPERATION PERIOD Sept 1996

COMPACITION (Heavy) 25

COMPACITION (Light) 180

UNDISTURBED 75

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMPACITION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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<td></td>
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</tr>
</tbody>
</table>
SOIL DISTURBANCE DATA FORM

DATE: Jan. 17, 1996

CUTTING METHOD: Hand

SKIDDING METHOD: RTS

HAZARD TREATMENT: Slashings 4, Felled & Burn

SILVICULTURAL TREATMENT: LTM 3 - April

OPERATION PERIOD: Winter '95-'96

HT: 312
ELE: 2600

LOCATION: Lemon

COMMENTS: Winter operation - Nearly flat. Looks very good!

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMPACTION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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5/93
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 3/29/96

CUTTING METHOD clipper/hand

SKIDDING METHOD RTS

HAZARD ABATEMENT Jackpot '99

DISTRICT Rexford

SILVICULTURAL ST cut

SALE North Fork West Fire Salvage

Unit No. 45

H1-533 E2-4200 A5-SE slope 25-30

OPERATION PERIOD Jan-Feb '96

COMPACTION (Heavy)

[Handwritten: Walk through]

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS

Operations occurring on snow roads. Operations look very good. Proceeding at the speed limit. Temp. went into the 30's to be put to bed.

Shape of Unit and Pattern of Transect
same maps different from current stand layer, which agrees w/ bottom. We 7/11/03
DATE: 3/5/96

CUTTING METHOD: clipper

SKIDDING METHOD: RTS

HAZARD ABATEMENT: jack pat '99

SILVICULTURAL: ST cut

OPERATION PERIOD: Jan-Feb '96

COMPACTION (Heavy)

WALK THROUGH

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS: Operation looks good! Let it snow - snow rocks pocketing at the landing.
SOIL DISTURBANCE DATA FORM

DATE: Oct. 10, 1996

CUTTING METHOD: Clipper

SKIDDING METHOD: RT5 w/ grapple

HAZARD TREATMENT:

SILVICULTURAL TREATMENT: 43 LTM, 4 Spider

OPERATION PERIOD: Jan.- Feb. 1996, June '96

COMPACTION (Heavy):
   1. CC w/ reserve
   2. CC w/ reserve

COMPACTION (Light):
   3. CC w/ reserve
   4. ST/Seed out

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS:

Review of these units was part of a Sale Administration certification study. Units 1, 2, 3 were winter logged. The only way to detail where skid trails were was by the accumulation of stumps, etc. The smudge string was used to indicate where skid trails existed. No removal occurred in the SMZ and machinery entered the STA. No disturbance occurred in Units 1, 2, 3 except at the landings. Unit 4 was summer logged. Some compaction occurred in the main trail. Generally everything looked good especially with the lack of organic mat & slash.

NO哈哈哈 at the present time. Areas very susceptible to overland flow!

SHAPE OF UNIT AND PATTERN OF TRANSECT:

Winter logging in Units 1, 2, 3 was excellent.

Summer logging in Unit 4 was good. I would estimate less than 5% heavy compaction!

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---
TWIN MEADOWS FIRE SALVAGE
PURCHASER SLASH TREATMENT

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
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<td>28</td>
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</tbody>
</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 11/23/96

CUTTING METHOD clipper/hand

SKIDDING METHOD RTS

HAZARD ABATEMENT

DISTRICT Three Rivers

SILVICULTURAL_regeneration Cat  CC w/reserve

SALE Fowler Fire Salvage

Unit No. 10 & 17

OPERATION PERIOD Jan '96

COMPACTION (Heavy) slope 25-35

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS Operation occurring on snow roads. Snow very deep. No impact to soil. Need to be sunk to create opening in burned slope edge of roads.

Shape of Unit and Pattern of Transect
KOOTENAI NATIONAL FOREST
SOIL IMPACT DATA FORM

DATE: 7/18/96

OBSERVER: Kucmen

DISTRICT: Three Rivers

SALE: Mud Little UNIT #14 422-02-16E 25A

WH/Clen Planted to WL, DF, WWP

1994 Grapple pile, 1995 burn

CC w/ Reserves

Hand sawn

RTS

422-02-16E 31A

422-02-16D

also 10+16

EXCAVATED SKID TRAIL

SMZ

COMPACTION HEAVY

COMPACTION LIGHT

UNDISTURBED

DISPLACED

COMMENTS: No transects were made. Looks like 2 tractors

Trail for skidding. Traces are seen on part of the trail.

- Feel that the trail coming directly down slope to landing

needs study placement. Skidding was exact that there

is a heavy right side. Thins the same detail that has

accumulated on the low trail.

- Sanding should be stipped.

SHAPE OF UNIT AND PATTERN OF WALK THROUGH.

Have some problem w/unit layout on units 10, 14, 16.
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 9-17-96

CUTTING METHOD hand
SKIDDING METHOD cable
HAZARD ABATEMENT
SILVICULTURAL ST seed cut
OPERATION PERIOD Jan. '96

DISTRICT Three Rivers

SALE Studebaker, F. E.
Unit No. 16 SA

COMPACTION (Heavy)

COMPACTION (Light) Walk Through

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS Small soil debris failure in drainage. No impact to soil.

Shape of Unit and Pattern of Transect WALK THROUGH

3/88
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 9-17-96

CUTTING METHOD hand

SKIDDING METHOD cable

HAZARD ABATEMENT

DISTRICT Three Rivers

SALE Studebaker Fire Salvage

SILVICULTURAL sw seed

Unit No. 17

OPERATION PERIOD Aug '97

HT. 624 El. 5500 As-s 7A slope 35

COMPETITION(Heavy)

COMPETITION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS

Old debris failure in corner of unit. Recommend no work on and removed around debris failure. No compact to soil

Shape of Unit and Pattern of Transect Walk-Through
<table>
<thead>
<tr>
<th>Date</th>
<th>9/23/96</th>
<th>Cutting Method</th>
<th>Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observer</td>
<td>Brennen/Mueller/Bogedahl</td>
<td>Skidding Method</td>
<td>RTS</td>
</tr>
<tr>
<td>District</td>
<td>Three Rivers</td>
<td>Hazard Treatment</td>
<td>Excavator  Pile</td>
</tr>
<tr>
<td>Sale</td>
<td>Fowl Ball Ref. Unit 17 9A</td>
<td>Silvicultural Treatment</td>
<td>Species Den. LPP</td>
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<tr>
<td>SAF</td>
<td>Walk Through</td>
<td>Operation Period</td>
<td>Jan-Feb. 1996</td>
</tr>
</tbody>
</table>

**Compaction (Heavy)**

**Compaction (Light)**

**Undisturbed**

**Displaced**

**Excavated Skid Trail**

**SMZ**

**Comments**

No transects walked through. The unit is long, flat, and wet. It is on an old logged, soil embankment in fine sand. Vegetation was a scattered forest, mostly pines. Three major trails were used to skid from far end of road to landing. Soil compaction is evident on top of trails. About 5 percent of the unit is in trails. A small range of percent area almost 80 percent of the unit - very little disturbed. More than 60 percent of the unit had mounding on it. Ashen soil layer is present, over all the unit of the soil surface.

SHAPE OF UNIT AND PATTERN OF TRANSECT

**Compaction (Heavy)** - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

**Compaction (Light)** - any other area not included in heavy compaction or undisturbed.

**Undisturbed** - no signs of any machinery or skidding activity.

**Displaced** - any place soil has been mounded by machinery, also include in heavy or light compaction.

**SMZ** - include within transect if within harvest unit.
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 11/29/96
CUTTING METHOD Clipper

OBSERVER Keweenaw Land
SKIDDING METHOD RT5

DISTRICT Libby
HAZARD ABATEMENT

SALE Sheldon Interface
SILVICULTURAL Improvements
Unit No. 777A
OPERATION PERIOD Dec 95-Jan 96

COMPACTION (Heavy)

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS This project is associated with an overall urban
interface file, reducing north of Kootenai River. Low soil impact
and jacketed in skid trails.

Shape of Unit and Pattern of Transect: Walk Thru
CUTTING METHOD: clipped/hand
SKIDDING METHOD: cable
HAZARD ABATEMENT: dừng trong năm 1997
SILVICULTURAL: sw seed/reserve
OPERATION PERIOD: July/Aug '96

COMPACTION (Heavy)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS

Shape of Unit and Pattern of Transect
SOIL DISTURBANCE DATA FORM

DATE Oct. 4, 1996

CUTTING METHOD Hand

SKIDDING METHOD Horse

HAZARD TREATMENT

SILVICULTURAL TREATMENT ITM

UNITS Genos Vex SSTS

Unit No. 1 & 2 53 Acres

23 Acres

OPERATION PERIOD Summer 1996

COMPACTION(Heavy)

COMPACTION(Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS This was one of the sales reviewed as part of the KNF salvage sale monitoring. Hand skidder harvest front. Skidded

A small treatment of trails was heavily used where it could

on skid trails that had been created by previous logging. Some gouging was occurring depicting trails where the log

Little or no logging occurred on the skid trails.

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMPACTION(Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

COMPACTION(Light) - any other area not included in heavy COMPACTION or UNDISTURBED.

UNDISTURBED - no signs of any machinery or skidding activity.

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.
SALE AREA BOUNDARY, BT1.1
EXISTING TRANSPORTATION SYSTEM ROAD, BT5.12
EXISTING ROAD, HAULING RESTRICTED, CT5.12#
EXISTING TRAIL
KEEP ROAD OPEN, BT6.22
SPECIFIED ROAD RECONSTRUCTION, BT5.2, AT9
UNSUITABLE FOR HAULING PRIOR TO AGREED RECONSTRUCTION, CT5.12#
EXISTING UNIT
INDIVIDUAL TREE MARKING, BT2.35, CT2.351#
EXISTING CLOSURE, TO BE CLOSED, CT5.51#
PROTECT KNOWN SURVEY MONUMENT, CT6.23
PROTECT IMPROVEMENT, (powerline) BT6.22, CT6.41#
PROTECT IMPROVEMENT, (fence) BT6.22, CT6.41#
OTHER THAN NATIONAL FOREST OWNERSHIP
TRACTOR SKIDDING SPECIFIED, BT6.42, CT6.4#

HAZARD REDUCTION REQUIREMENTS
HAND PILE, CT6.7#
MACHINE PILE AND SCARIFY, CT6.7#
LANDING CLEANUP, CT6.7#
YARD TOPS, CT6.7#

PAYMENT UNIT NUMBERS ARE THE SAME AS UNIT NUMBER.
SOIL DISTURBANCE DATA FORM

DATE: Oct 4, 1996

CUTTING METHOD: Hand

SKIDDING METHOD: Horse (Howard Page)

HAZARD TREATMENT:

SILVICULTURAL TREATMENT:

OPERATION PERIOD: Summer 1996

SALE: Pilik Horse

Unit No.: 1

198 Acres

DISTRICT: Cabinet

WALK THROUGH!!

COMPACTION (Heavy)

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS: This was one of the units reviewed as part of the KNF salvage self-monitoring. Hand flagged skid sites flagged. Very little damage observed. In several of the trails where lots of skidding occupied, the bulk load of the log was gaping the soil. Also occurred in trails that had been created in two previous entries. The current logging had little or no compacted off the skid trails, and minimal amount on the old trails.

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMPACTION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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