



BARRICK
Managing Split Mineral and Surface Interests in Flexicadastre
 Presented By
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 February 16, 2009



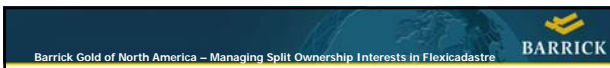
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INTRODUCTION

- Who am I and why am I here?



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Today's Presentation

- What is "fee property"?
- What does split interest mean?
- What are the issues related to managing fee property in Flexicadastre?
- How we (finally!) resolved the issues.
 We **burned** a LOT of brain cells!
- What the data and map look like now.
- Things remaining to do.
- Conclusion.
- Questions.

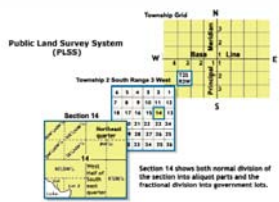
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What is "fee" property?

- For our purposes, it is owned or leased interests except patented and patented claims. Can include platted lots or tracts. Does not include easements, ROWs, Confidentiality Agreements.
- The Public Land Survey System (PLSS) is a way of subdividing and describing land in the United States. All lands in the public domain are subject to subdivision by this rectangular system of surveys, which is regulated by the U.S. Department of the Interior, Bureau of Land Management (BLM).



Section 14 shows both normal division of the sections into aliquot parts and the fractional division into government lots.

One section = 640 Acres / 259 Hectares
 One section = 1 square mile / 2.6 square kilometers

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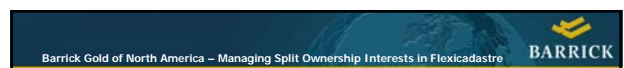


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What does split interest mean?

- The surface and mineral ownership are treated as separate ownerships.
- Let's look at some examples.

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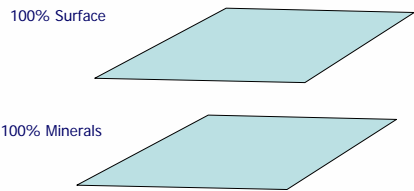


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100% Ownership

Deed into Barrick

100% Surface



100% Minerals

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Sold a portion of the Surface

Deed out to buyer

50% Surface Sold

50% Surface Remains

100% Minerals Remain

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100% Ownership With Surface Only Leased Out

Surface lease for cattle grazing

Still own the surface but have an agreement with a third party.

100% Surface

100% Minerals

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Problems

- Legacy system
 - Did not have clear distinction between mineral and surface descriptions.
 - Indicated mineral and surface in parties rather than on the license.
- Property description originally imported into License comments.
- Unable to show attributes on map because mineral and surface was in parties and there is only one shape per license.
- Let's take a quick look at some of these problems.

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Percentage of ownership carried in Parties

If shape is the same for minerals and surface this model might work. If shape is different for minerals and surface this does not work. In this example there is no acreage in the shape so no net acreage is calculated here. Unable to separately map and attribute surface & minerals.

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License > Details

License Code: FP2254	License Type: Free Property-Surface	Project: MCL
License Name: C&S SKLAR, H. A.	Status: Active	Claim Group:
License Ownership: Homestake Mining Company (100%)	Expiry Date:	Affidavit Group:

General | Parties | Agreements | Conditions | Reference Codes | Shape | Map References | Commitments | Actions Open | Actions Closed | Doc Resources | Related Licenses | Roles

License Code: FP2254 License Name: C&S SKLAR, H. A.
 Jurisdiction: United States Application Number:
 License Type: Free Property-Surface Old License Code:
 Status: Active Accounting Code:
 Interest: Owned Region: North America
 Date Applied: License Term:
 Date Pegged: License Year:
 Date Granted: Renewal Period:
 Date Expires: Responsible Office:
 Date Renewed: On Hold:
 Archive:

Comment: **Property descriptions were imported as a license comment. Property descriptions do not belong in comments.**

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Map Reference Qualifier

- Map Reference Qualifier was added to the license location information.
- Property description that was originally imported into License comments was re-imported into the qualifier.
- This allows the property description to be displayed with the location information - Country, State, County, Township, Range, Section.
- Let's take a look at an example.

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Example of Map Reference Qualifier

Full Map Reference	Category	Map Reference	Abbreviation	Is	Qualifier
United States, California, Lake	County	Lake	California		
United States, Mount Diablo, 13N 05W, E1	Section	E1	13N 05W	E(2NE/4)	NE/4SE/4

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Only a Partial Solution

- Map Reference Qualifier was only a partial solution to the problem.
- Surface owner not showing in license search grid.
- Still unable to attribute minerals and surface on the map.
- After many months of discussions and arguments....

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The Solution!

- Two new license types:
 - Fee Mineral
 - Fee Surface
- Each license type has own attributes:
 - Acreage, shape, ownership, description.
- A license code generator was set up - FPxxxx.
- Fee property groups were added.
- Let's look at some examples of how this works.

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Example of Surface and Mineral Ownership

All Map Gpl Code	Name	Parties	Type	Interest	Status	Expires	Area	Map Reference	Project	Claim Group
EE0315	H003 EUREKA COUNTY DEED	Barrick	Fee Surface	Owned	Active		80.11 NV, Eureka; 360 49E, 24 AC/N/20W/4 (Parcel 1)			
EE10128	H003 EUREKA COUNTY DEED	Barrick	Fee Mineral	Owned	Active		NV, Eureka; 360 49E, 24 N/20W/4 (Parcel 1)			

Now let's take a look at these licenses on the map.

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Split Interest on the Flexi Development Map

Solid orange areas indicate confidential data masked from view.

License name removed

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Split interest on the Flexi Development Map

Solid orange areas indicate confidential data has been masked from view.

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Fee Property Groups

- Needed for acreage (area) reporting.
- Created to hold fee property licenses.
- Can have multiple groups associated with one agreement.
- The group outline can be mapped.
- Management tool.
- Let's take a look at an example.

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Example of Fee Property Groups

Fee Property Group > Search

Name: Group Type: Fee Property Group Status: Advanced MARK

Code: Region: Saved Searches: Square Valley Ranch ADD REM

Party: Jurisdiction: MYE

There are 3 Groups in the list. Extract: Tools

Div. Name	Code	Interest	Status	Jurisdiction	Licenses	Agreements	Map Reference
✖ Clovers Ranch (Square Valley Ranch)	FPG112	Owned	Active	United States	65	1	NV, Elko, Humboldt
✖ Square Valley (Square Valley Ranch)	FPG113	Owned	Active	United States	222	1	NV, Elko
✖ White House Ranch (Square Valley)	FPG100	Owned	Active	United States	82	1	NV, Humboldt

These three groups are part of one deed covering 101,000 acres or 40,873 hectares.

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Example of Fee Property Groups

Group Name: Clovers Ranch (Square Valley Ranch)

General Parties Licenses Shape Map Reference Agreements Documents Actions Open Actions Closed Resources Related Groups Notes

There are 65 Licenses associated with this Group. (0.66 AC) Report View Extract Tools

Map Code	Name	Parties	Type	Interest	Status	Granted	Expires	Project Area	Map Reference	Project	Fee Property Group
EE12488	DEED TO		Fee Surface	Owned	Active			NV, Elko: 37N 4E, 2 LOT 4	SQUARE VALLEY RANCH	Clovers Ranch (Square Valley Ranch)	
EE12489			Fee Surface	Owned	Active			NV, Elko: 37N 4E, 3 ALL	SQUARE VALLEY RANCH	Clovers Ranch (Square Valley Ranch)	
EE12490			Fee Surface	Owned	Active			NV, Elko, Humboldt: 37N 4E, # ALL; Excepting Deeded HWY & RR ROW	SQUARE VALLEY RANCH	Clovers Ranch (Square Valley Ranch)	

Let's look at all 65 licenses on the map.

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Licenses in Clover Valley Ranch Group on the map.

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Maintaining the Data

- Lease Analyst, Landman and GIS Specialist work together to review data.
- Use of mass upload spreadsheet for the licenses.
- Once uploaded, GIS specialist links tabular data to the spatial data.
- Scanned copy of title insurance policy and deed stored with the agreement record for reference.
- Calculated area (from map) is official area unless there is a reason for a more exact area figure.
 - In Admin Tools there is a batch update function to update official area from the calculated area.


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The To Do List

- Assign all fee licenses to a fee property group.
- Work closely with GIS Specialist to clean up the existing data.
- Populate the official area for all fee licenses.
 - Official area is used for acreage reports and search grids.
- Create the group shapes.

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Conclusion

- A simple solution to a complex problem.
- Data entry and mapping must be carefully managed to ensure data integrity.
- This model will
 - Allow for fee mineral and fee surface layers on the map.
 - Allow separate attributes for each ownership type.
 - Better support multiple agreements related to split ownership interests.
 - Allow for managing the various property taxes on the surface and mineral ownerships.
- Questions?

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FAMOUS LAST WORDS

from our GIS Specialist

I don't know how it works...
I think it's magic!



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