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Title Chain Token

**Long Introduction**

Oil and Gas mineral title (ownership) is quite complicated. The United States is the only country in the world where private citizens own subsurface minerals. These mineral rights are much like real estate title with regards to how they are legally conveyed. However, unlike real estate, there is no ‘zillow’ that shows you who owns which parcel. To figure out who own’s mineral rights for a certain section of land, one must research the title documents dating all the way back to the original patents. Because these patents were usually granted around 1890 in Colorado the recording system that was used is far from today’s modern databases. All mineral title is stored at the County Clerk’s office and is often handwritten.

Around 1970 Colorado counties all started to create databases that contain indexes for these mineral rights documents. While this make’s it easier to run title, it does not make it easier to determine who owns the mineral rights. More often than not, people inherit their mineral rights and have no clue what they actually own. It takes teams of landmen and lawyers flipping through title to determine ownership. The deeds that are recorded never contain actual ownership amounts. The whole Oil and Gas industry in the U.S. takes advantage of this. Those who can figure out ownership can make ludicrous amounts of money, often at the expense of the person selling them because they simply do not know what they own.

Every E&P company must either own or lease all the minerals underneath the unit of land that they plan to drill. But first they must figure out who the proper owners are before they can lease or purchase/lease the land. This creates a scenario where you have a bunch of different companies doing the exact same research, but none of them compile their data together because it would mean losing their competitive edge. This work is often outsourced to independent landmen who must front the cost of doing title research.

From the mineral owner’s perspective, you have a bunch of Oil and Gas Landmen reaching out to you trying to purchase or buy your minerals. Which can be great, but there is no easy way for someone who is not in the industry to just look up what they own. Sure, you can see the deed’s quickly in these county databases, but it does not actually tell you the “Amount” (NMA) that they own.

Enter in Title Chain Token, for lack of a better name. My proposal is to create a blockchain token / smart contract that Landmen can sell to Mineral Owner’s for a small monetary amount that would state what your actual ownership is.

Every time a landman tries to purchase or lease minerals on a section of land he or she incurs costs running title. More time than not they will spend about $2000 just to figure out who owns the minerals. And this all before they call the mineral owner, and again more times than not the Mineral Owner will reject their proposition. This leaves the landman spending a lot of money just to get leads. But what if there was a token that the landman could sell to the mineral owner that verified their ownership with actual amounts.

Because of the legal nature of running title there are often disputes over the actual ownership amounts. Say a landman A, who has only been in the industry for 1 year, misread a conveyance he could think that you own 5 NMA when you own 10, or vice versa. On the other hand, you have Landman B who has been running title his whole life. He has run title on tons of different tracts of land. He has a greater reputation because his work is often validated by other landmen confirming that he has run the title correctly.

This is where Title Chain Token comes into effect. Not only would a landman be able to sell his title research, but the token would then be able to relay how strong the title is. To better explain, if I run title and issue a token saying you own 10 NMA, and then 10 other Landman come through and run the same title and find that you also own 10 NMA, you are more likely to own that actual 10 NMA. The token would enable you to rank how good the landman running the title is while also giving you a better understanding of what you own.

This token could be sold for $5 to Mineral Owner to enable the landman to recoup his cost of running title. For the mineral owner, it would enable them to know what they own for a smaller amount of money. The more title is run and stored on these tokens the closer you can get to seeing a full picture of who owns what like Zillow. The financial incentives are there for both parties, but most importantly it modernizes oil and gas mineral ownership title.

**Actual Project Descriptions**

To begin this project, I have decided to start small and build out. The diagram in the appendix will serve as the backbone for a much larger project. The tables best fit into the third normal form. Below describes the relationships between contacts, owner accounts, properties, sections and contracts. Later there will be Landmen, Township Range, Leases and some sort of smart contract or token tables added. These have currently been left out due to complexity and time constraints.

**Table Description**

Contacts: Theses are individual people. The table consists mostly of contact information, name, number address. The contacts are related to owner account. There can only be one owner account per contact, but there can be multiple contacts per owner account.

Owner Account: The Owner Account table serves as a legal entity that owns mineral rights. These can be businesses or individuals. The table helps keep a tally of the total number of NMA that the account owns and the number of properties. An Owner Account can have multiple properties, multiple contacts and contracts.

Property: The property table stories information about mineral right’s “properties”. This is where details related to the ownership of minerals is stored such as NMA, percent interests ext. Every property is related to one section and one Account Owner. There can be multiple contracts per property.

Section: The section table helps locate properties. There can be multiple properties per section.

Contract: For an owner account to have a property there must exist a contract. While a contract is not necessary to create an owner account or a property, the two are necessary to create a contract in the database. A contract can have only have one owner account and one property.

These tables set up the backbone for storing information regarding mineral ownership and properties.

