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*The development of criteria for evaluation of technological schemes of mining was considered. Economic criteria for evaluation the technological solutions in the aspect of land-saving were proposed and theoretically grounded. These criteria envisage the assessment of efficiency the technological schemes of mining in the aspect of saving the land value and payback of remediation works costs.*

*Key words: criterion, evaluation, land-saving, open mining.*

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(66 %)

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80 %

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,

20...100

[1]

2,5...182,5

<sup>3</sup>,

– 7...225 2,1...150 . – 0,8...135 <sup>3</sup>,

[2],

[3]

[4]

80

10 .

[5].

[6].

( / )

$$= \sum_1^n \frac{S_i(1-K)}{Q}; \tag{1}$$

$$K_p = \sum_1^n \frac{S_{pi}}{S}, \tag{2}$$

$S_i$   $S_{pi}$  - , ( ) ( , ;  $S$  - , ;  $Q$  -

163...228 ( . 1),  
 - 3,5...4,5 %; - 8,6...8,4 %,  
 - 57,0...56,1 %, - 31,0 %.

1.

50	5,6/3,4*	14,1/8,6	93,0/57,0	73	253	50,6/31,0	163,3
60	7,8/4,0	16,6/8,5	110,5/56,4	88	304	61,0/31,0	195,9
70	10,3/4,5	19,1/8,4	127,9/56,1	101,7	352	70,5/30,9	227,8

: \* - , ; - %

$2,2 \times 8,0$  ,

(1) (2) :

- 32,1 / , - 0,89. ,

$$K, \quad ( / )$$

$$( / ) ,$$

$$= (1 - K) ; \quad (3)$$

$$= (1 - K) / , \quad (4)$$

, - ( )  
, %.

$$(1) \quad (2) \quad S_{is}, S_{pi}, S_{s}$$

$$= ( , L, , , , , , ), \quad (5)$$

, L, - , ; -  
; - ; -  
; - ; -

(5),

K. [7]

581,5  
2,7

1,83 1 3 , 32 %.

(5)

$$\left( \frac{S}{S} \right).$$

$$= 26,4 + 0,0008 S - 33,8 K_p + 0,21 \cdot \dots \quad (6)$$

$$t = 2,78$$

(6)

$$S, K_p \quad (R^2 = 0,98), \\ (F = 61,1).$$

$$= 28,9 + 0,0007 S - 0,0012 S - 28,6 K_p. \quad (7)$$

 $K_p$ ,

:

;

;

;

(

).

1) ( ) : ,  

$$= 100 (1 - ) / , \% , \quad (8)$$

2) / ; - , = (1 - K) / , .  
 (%)

:  

$$= 100 ( ) K / , \quad (9)$$

( ) - ,  
 / .

, (8) (9), -

S ,  
 ( ) ,  
 ,  

$$= ( ) S ,$$

( ) - , / .

S , ( / )

= ( ) S ,

( ) - , / ( · ).  
 ( )

( / )  

$$= S \cdot ( ) , \quad (10)$$

S ( ) - , / ,  
 , / .

[8].

( / )

$$= S ( / ) , \tag{11}$$

$S$  – , / ; – , / ; – , %; – , %; – ( , ).

$$= (1 - K_p) ( ) \cdot S , \tag{12}$$

( ) – , / ;  $S$  – (8) (9) – , .

[9].

47,7 ( 39,2 ).  
 14 20°  
 10,7 .  
 49,9 .  
 0,73 0,88, 6,07 2,77 /1 ( 54,4 %).  
 – 10,08 50,7 61,7 % ( 21,7 %),  
 – 12,06 % ( 19,6 %);  
 – 5,1 2,4 ( 53,9 %).

1.

2.

3.

4.

$(R^2 = 0,98).$

1. /
2. 872758 ( ) /
3. , 1981. – 38.
4. : 05.15.03 / , 1988. – 115 .
5. ; [ ] – ( , 2003. – 88 . – 0103U001276.
6. 1962 1982 / . . //
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12.10.2011 .

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